
Visible Advantage® Reference Manual

Version 7

**The Integrated, Full Life-Cycle
Information Engineering Modeling
Tool for Microsoft® Windows®**

Visible Advantage Reference Manual
Version 7
October 1997

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Reference Manual Overview

Background The *Reference Manual* provides:

- A command reference that contains a description of and procedure for using each command available in Visible Advantage 7, the Visible Admin Utility 7 (for system administrators), the Visible Utility, and the stand-alone edition which can run on a single workstation (as well as a client/server edition).
- An appendix that contains reference information about functions and expressions, IDEF1X data map notation, and VSC file formats.

This introduction provides information about using the *Reference Manual*. If you are looking for overview information about each working area/window of Visible Advantage, see the *User's Guide*.

In This Chapter This chapter contains the following topic.

Topic
Using This Manual

Using This Manual

- Overview** This section provides a brief overview of how to use the *Reference Manual*, which contains the Command Reference and Appendices.
- Command Reference Purpose** The purpose of the *Reference Manual* is to provide users with information on each command available within Visible Advantage and Visible Advantage Admin Utility. Each command entry in the Command Reference section contains the following information about the command:
- A description of the command
 - Usage tips, if applicable
 - Step-by-step procedure(s)
 - Illustration(s) of key dialog box(es) related to the command
 - A description of each field in the illustrated dialog boxes
- Command Reference Organization** The command reference is alphabetized by command name. If you do not find the command you are looking for within this section, use the index in the back of the manual, which cross-references each command.

ADD ACCESS MECHANISM

Adding Access Mechanisms

Description The Add Access Mechanism command, available from the Design Map and Design Dictionary windows, allows you to add an access mechanism to the encyclopedia for use within a database design. An access mechanism specifies the pattern(s) of access for a data structure.

Visible Advantage uses two categories of data access mechanism: standard access mechanisms and storage access mechanisms.

Usage Tips If you want to add a *storage* access mechanism, use the Add Storage command on the Access menu.

Access mechanisms and storage access mechanisms are defined for each data structure manager through the Visible Access Admin Utility Table/Data Structure managers command.

When you add an access mechanism, you specify the data items accessed by the data structure and the order of access (ascending, descending, first in/first out, last in/first out, etc.). Each data structure may have many access mechanisms, but only one storage access mechanism.

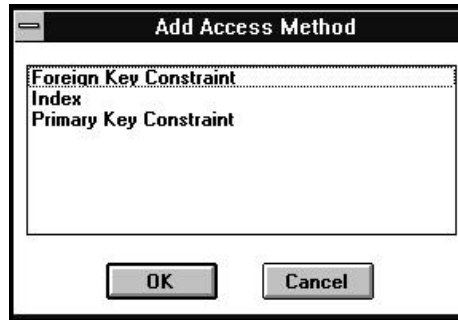
You may add several types of access mechanisms through this command. The types you can add depend on those defined for the current data structure manager through the Visible Advantage Admin Utility Table/Data Structure Managers command.

The Visible Advantage Admin Utility contains two new data access methods not previous seen in Visible Advantage: Primary Key Constraint and Foreign Key Constraint. These two access mechanisms can generate SQL constraint clauses. (See Data Structure Managers.)

Procedure à **To add an access mechanism in the Design Map and Design Dictionary windows:**

- 1 Choose **Add...** from the Access menu.

Result: If more than one access mechanism has been defined for the current database design's data structure manager, the Add Access Mechanism dialog box appears.



Add Access Mechanism Dialog Box

If only one access mechanism has been defined for the current database design's data structure manager, the dialog box for adding that access mechanism appears.

2 Note Only mechanism types defined as access mechanisms will appear in the Add Access Mechanism dialog box.

- 2 Select the type of access mechanism you want to add,, then click on **OK**.

The dialog box includes the access mechanism types defined for the current data structure manager. Access mechanism types can include hashing, index, set, primary key constraint, foreign key constraint, etc.

Result: The dialog box appears for the type of access mechanism you selected.

- 3 Complete the dialog box, then click on **OK**.

Add Primary Key Constraint Access Mechanism Dialog Box

Dialog Box Illustration

The screenshot shows a dialog box titled "Add Primary Key Constraint". It has three main input areas: "Name:" with a text box containing "ADDRESS_PK"; "Data Items:" with a list box containing "Zip Code #"; and "Purpose:" with a large text area. At the bottom, there is an "Add to" section with two radio buttons: "Current View Only" (unselected) and "All Design Object Views" (selected). Below the radio buttons are "OK" and "Cancel" buttons.

Add Primary Key Constraint Access Mechanism Dialog Box

Dialog Box Components

Use the information below to complete the Add Primary Key Constraint Mechanism dialog box.

Component	Description
Name	Type the name of the primary key constraint access mechanism into this field. You may type up to 51 alpha-numeric characters. The @ symbol and quotation marks (") are not allowed.
Data Items	When using Design Dictionary, the data items for the design object you selected before you chose the Add Access Mechanism command appear in this list.
Purpose	Type a purpose for the primary key constraint access mechanism in this text box.

Current View Only Use this button to add the primary key constraint to the current view only.

All Design Object Views Use this button to add the primary key constraint to all design object views.

Add Foreign Key Constraint Access Mechanism Dialog Box

Dialog Box Illustration

The dialog box is titled "Add Foreign Key Constraint". It features a "Name" field containing "ADDRESS_FK0", a "Relationship" drop-down menu, an empty "Data Items" list, and a "Purpose" text area with a drop-down arrow. The "Add to" section at the bottom has two radio buttons: "Current View Only" and "All Design Object Views", with "All Design Object Views" selected. "OK" and "Cancel" buttons are at the bottom center.

Add Foreign Key Constraint Access Mechanism Dialog Box

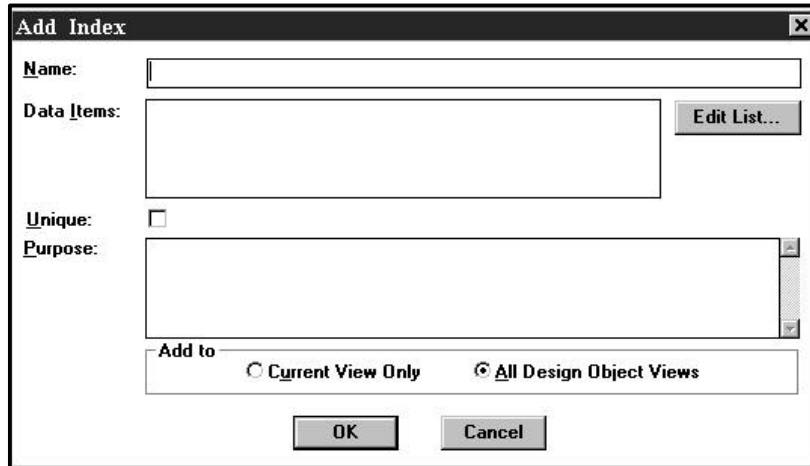
Dialog Box Components Use the information below to complete the Add Foreign Key Constraint Access Mechanism dialog box.

<u>Component</u>	<u>Description</u>
Name	Type the name of the foreign key constraint access mechanism into this field. You may type up to 51 alpha-numeric characters. The @ symbol and quotation marks (") are not allowed.
Relationship	Click on the drop-down arrow to select a relationship. The related data structure must have a primary key constraint with the same data items in the same order.
Data Items	The data items for the relationship you selected appear in this list.

Purpose	Type a purpose for the foreign key constraint access mechanism in this text box.
Current View Only	Use this button to add the foreign key constraint to the current view only.
All Design Object Views	Use this button to add the foreign key constraint to all design object views.

Add Index Access Mechanism Dialog Box

Dialog Box Illustration



Add Index Access Mechanism Dialog Box

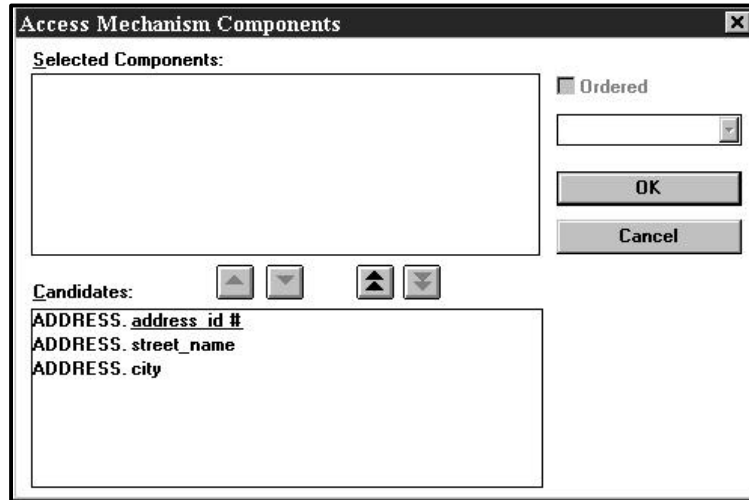
Dialog Box Components Use the information below to complete the Add Index Access Mechanism dialog box.

Component	Description
Name	Type the name of the index access mechanism in this field. You may type up to 51 alpha-numeric characters. The @ symbol and quotation marks (") are not allowed.
Data Items	The data items for the relationship you selected appear in this list. You may add or delete data items by clicking on the Edit List button to display the Access Mechanism Components dialog box.
Edit List Button	Click here to display the Access Mechanism Components dialog box to edit the data items list.
Unique	Click here to make the index unique.

Purpose	Type a purpose for the index access mechanism in this text box.
Current View Only	Use this button to add the index to the current view only.
All Design Object Views	Use this button to add the index to all design object to all design object views.



Access Mechanism Components Dialog Box

Dialog Box Illustration



Access Mechanism Components Dialog Box

Dialog Box Components Use the information below to complete the Access Mechanism Components dialog box.

Component	Description
Selected Components	The names of the selected components are listed in this box. You add components from the Candidates List box.
	Use this button to select components. Highlight the components you wish to select and click this button. The selected components will appear in the Selected Components list box.
	Use this arrow to deselect components. Highlight the components in the Selected Components list box, then click this button. The selected components will then return to the Candidates list box.



Use this button to select all components. When you click on this button, all components in the **Candidates** list box will be moved to the **Selected Components** list box.



Use this button to deselect all components. When you click on this button, all components in the **Selected Components** list box will be returned to the **Candidates** list box.

Ordered

Click here to order the components. Select the order method from the drop down list. The order method appears in parentheses after the component name in the **Selected Components** list box.

ADD ASSOCIATION

Adding Associations

Description The Add Association command, available from both the Data Map and Data Dictionary windows, allows you to add an association between two entities in the current model view.

Usage Tips When you add an association, you define the following details:

- The entities in the association
- The nature and degree at each end of the association
- The purpose of the association

You may define an association only between entities in the same model view. When you want to add an association between the current entity and an entity in another model view, you must first change to a model view that contains both entities to be associated.

This command is available for multiple selected entities in both the Data Map and Data Dictionary windows. See the *User's Guide* for information on selecting multiple entities in those windows.

Procedure à **To add an association for each selected entity in the Data Map or Data Dictionary window:**

1 Choose **Add...** from the Association menu.

Result: The Add Association dialog box appears for the first selected entity.

2 Complete the Add Association dialog box, then click on **OK**.

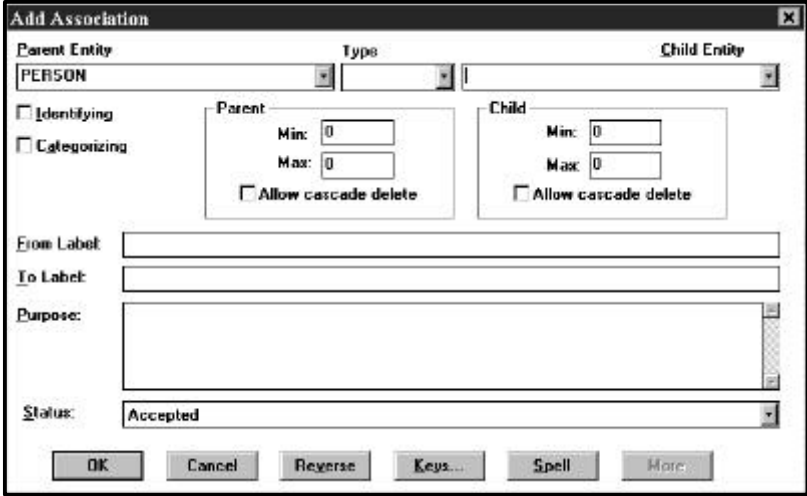
Result: The active window redisplay with the new association.

or

If you selected more than one entity, the Add Association dialog box reappears for the next selected entity.

Add Association Dialog Box

Dialog Box Illustration



Add Association Dialog Box

Dialog Box Components

Use the information below to complete the Add Association dialog box.

Components	Description
Parent Entity	The currently selected entity is displayed in this box. If you want to define a different entity for the parent side of the association, clear the Parent Entity box and select one from this drop down list.
Child Entity	Select an entity for the child end of the association from this drop-down list. The list includes all entities in the current model view. 2 Note You should select a parent and a child entity before you select a type for the association.
Type	Select an association type from this drop-down list if the association you wish is different than the type shown. The association type defines the degree

and nature combination at each entity end of the association.

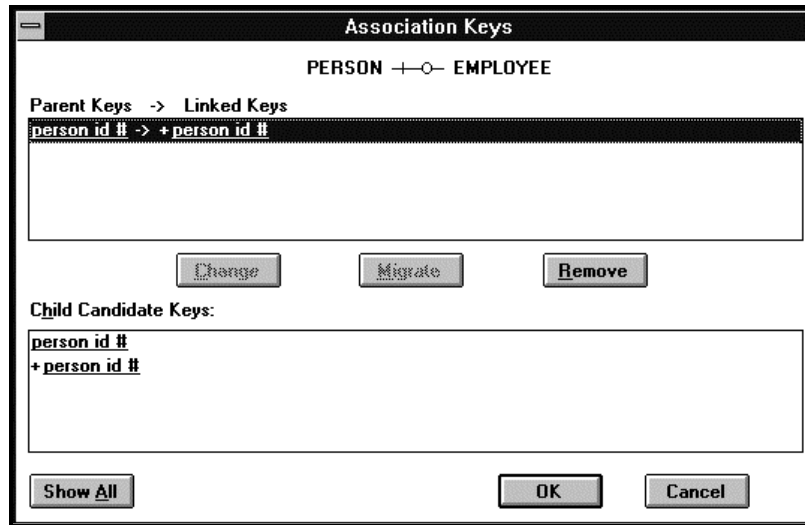
See the Data Modeling section in the *User's Guide* for a description of each nature and degree combination.

Identifying	Select this checkbox to have the primary keys cascade from parent to child as primary keys. If unchecked, keys will cascade as foreign keys.
Categorizing	Select this checkbox to indicate the entity on the optional side of the association is the child in a supertype (parent) to subtype (secondary) association. This distinguishes which entity is the supertype for the secondary.
Min	Type the minimum number of occurrences with which the opposite entity is related. You define this for the parent entity in the Parent area and for the child entity in the Child area.
Max	Type the maximum number of occurrences with which the opposite entity is related. You define this for the parent entity in the Parent area and for the child entity in the Child area.
Allow Cascade Delete	Select this checkbox if the entity should be deleted when the last occurrence of the entity on which it depends is deleted. You define this for the parent entity in the Parent area and for the child entity in the Child area.
From Label	Type the label assigned to the association from Parent to Child.
To Label	Type the label assigned to the association, Child to Parent.

Purpose	Type a purpose for the association in this scrolled text box. The purpose of the association explains its business significance to the data model and the planning statements that direct the project.
Status	Select a status from the drop-down list. You may select Accepted, Proposed, or Presentation. Only one Accepted status is allowed for an association between two given entities.
Reverse	<p>If you want to reverse the association, click on this button. This reverses the parent and child entities in the association, but retains the combination of degree and nature at each entity end of the association.</p> <p>Use the Reverse button if you want to place the child entity in the parent box and the parent entity in the child box.</p>
Keys	Click on this button to display the Association Keys dialog box. Complete the dialog box and click on OK .
Spell	Click on this button to spell check the dialog box.
More	This button is available when custom fields have been defined using Table/Custom Fields in the Admin Utility.

Association Keys Dialog Box

Dialog Box Illustration



Association Keys Dialog Box

Dialog Box Components

Use the information below to complete the Association Keys dialog box.

Component	Description
Parent Keys/ Linked Keys	This box displays a list of the parent and linked keys.
Child Candidate Keys	This box displayed a list of the child candidate keys.
Change	Click on this command button to change the highlighted child candidate key to a linked key.
Migrate	Click on this command button to migrate the highlighted key to the linked key.

Remove

Click on this command button to remove the linked key from the highlighted parent key.

Show All

Click on this command button to show all candidate keys.

ADD ATTRIBUTE

Overview

Description The Add Attribute command, available from both the Data Map and Data Dictionary windows, allows you to add primary key, foreign key, and non-key attributes and attribute groups to selected entities in the Data Map or Data Dictionary window.

Usage Tips When you choose the Add Attribute command, you can add successive attributes to selected entities through the Add Attribute dialog box. When you add attributes to an entity, the attributes and their details are added to all other occurrences of the entity in the encyclopedia.

This command is available for multiple selected entities in both the Data Map and Data Dictionary windows. See the *User's Guide* for information on selecting multiple entities in those windows.

In This Chapter This chapter covers the following topics:

Topic

- Adding Primary Keys
- Adding Foreign Keys
- Adding Non-Keys
- Adding Primary Key Groups
- Adding Foreign Key Groups
- Adding Non-Key Groups
- Add Attribute Dialog Box
- Add Primary Key Attribute Dialog Box
- Add Foreign Key Attribute Dialog Box
- Add Non-Key Attribute Dialog Box
- Add Primary Key Group Attribute Dialog Box
- Add Foreign Key Group Attribute Dialog Box
- Add Non-Key Group Attribute Dialog Box
- Assemble Attribute Group Dialog Box

Adding Primary Keys

Procedure à **To add a primary key to selected entities in the Data Map or Data Dictionary window:**

- 1 Choose **Add...** from the Attribute menu, then click on the **Primary Key** button in the Add Attribute dialog box.

 Result: The Add Primary Key Attribute dialog box appears.
- 2 Complete the Add Primary Key Attribute dialog box , then click on **OK**.
- 3 If you selected multiple entities, the Add Attribute dialog box appears for the next entity. Click on the **Primary Key** button and redo step 2 until you are finished adding attributes to all selected entities.

Adding Foreign Keys

Procedure **à** To add a foreign key to selected entities in the Data Map or Data Dictionary window:

- 1 Choose **Add...** from the Attribute menu, then click on the **Foreign Key** button in the Add Attribute dialog box.

Result: The Add Foreign Key Attribute dialog box appears for the first selected entity.

- 2 Complete the Add Foreign Key Attribute dialog box, then click on **OK**.
- 3 If you selected more than one entity, the Add Attribute dialog box appears. Click on the Foreign Key button and repeat step 2.

2 Note Only one foreign key is allowed per selected entity.

Adding Non-Keys

Procedure à **To add a Non-Key Attribute to selected entities in the Data Map or Data Dictionary window:**

- 1 Choose **Add...** from the Attribute menu, then click on the **Non-Key** button in the Add Attribute dialog box.

Result: The Add Non-Key Attribute dialog box appears.

- 2 Complete the Add Non-Key Attribute dialog box, then click on **OK**.
- 3 If you selected multiple entities, the Add Attribute dialog box appears for the next selected entity. *(Repeat the above steps until you are finished adding attributes to all selected entities.)*

Adding Primary Key Groups

Procedure **à** To add a Primary Key Group attribute to selected entities in the Data Map or Data Dictionary window:

- 1 Choose **Add...** from the Attribute menu.

 Result: The Add Attribute dialog box appears.
- 2 Select the **Group** checkbox, then click on the **Primary Key** button.

 Result: The Add Primary Key Group Attribute dialog box appears.
- 3 Complete the Add Primary Key Group dialog box, then click on **Group Members**.

 Result: The Assemble Attribute Group dialog box appears.
- 4 Complete the Assemble Attribute Group dialog box, then click on **OK**.

 Result: The Add Attribute dialog box reappears.
- 5 Click on **OK**.
- 6 If you selected multiple entities, the Add Attribute dialog box appears for the next selected entity. *(Repeat the above steps until you are finished adding attributes to all selected entities.)*

Adding Foreign Key Groups

- Procedure** à **To add a Foreign Key Group attribute to selected entities in the Data Map or Data Dictionary window:**
- 1 Choose **Add...** from the Attribute menu.

Result: The Add Attribute dialog box appears.
 - 2 Select the **Group** checkbox, then click on the **Foreign Key** button.

Result: The Add Foreign Key Group Attribute dialog box appears.
 - 3 Complete the Add Foreign Key Group dialog box, then click on **Group Members**.

Result: The Assemble Attribute Group dialog box appears.
 - 4 Complete the Assemble Attribute Group dialog box, then click on **OK**.

Result: The Add Attribute dialog box reappears.
 - 5 If you selected multiple entities the Add Attribute dialog box appears for the next selected entity. *(Repeat the above steps until you are finished adding attributes to all selected entities.)*

Adding Non-Key Group

- Procedure** à **To add a non-key group attribute to selected entities in the Data Map or Data Dictionary window:**
- 1 Choose **Add...** from the Attribute menu.

Result: The Add Attribute dialog box appears.
 - 2 Select the **Group** checkbox, then click on the **Non-Key** button.

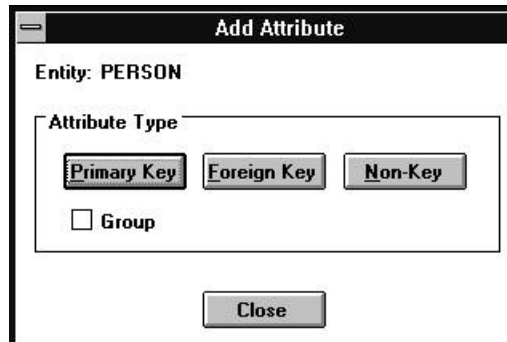
Result: The Add Non-Key Group Attribute dialog box appears.
 - 3 Complete the Add Non-Key Group dialog box then click on **Group Members**.

Result: The Assemble Attribute Group dialog box appears.
 - 4 Complete the Assemble Attribute Group dialog box, then click on **OK**.

Result: The Add Attribute dialog box reappears after the last associated entity.
 - 5 If multiple entities are selected, the Add Attribute dialog box appears for the next selected entity. (*Repeat the above steps until you are finished adding attributes to all selected entities.*)

Add Attribute Dialog Box

Dialog Box Illustration



Add Attribute Dialog Box

Dialog Box Components

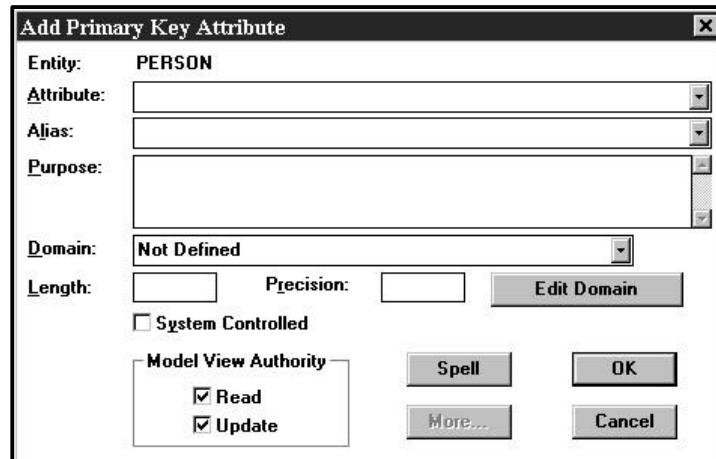
Use the information below to complete the Add Attribute dialog box.

Component	Description
Entity	The name of a selected entity in the Data Map window or the current entity in the Data Dictionary window. When you select multiple entities in the Data Map window, the entity name in this box changes to the next selected entity after you finish adding an attribute to the currently selected attribute.
Primary Key	Click on this button to add a primary key to the entity whose name appears in the Entity box.
Foreign Key	Click on this button to add a foreign key to the entity whose name appears in the Entity box.
Non-Key	Click on this button to add a non-key attribute to the entity whose name appears in the Entity box.

-
- | | |
|-------|---|
| Group | Select this checkbox before clicking on one of the Add Attribute buttons (Primary Key , Foreign Key , or Non-Key) to define the new attribute as an attribute group. |
| Close | Click on this button when you are finished adding attributes and want to return to the active Data Map or Data Dictionary window. |

Add Primary Key Attribute Dialog Box

Dialog Box Illustration



Add Primary Key Attribute Dialog Box

Dialog Box Components

Use the information below to complete the Add Primary Key Attribute dialog box.

<u>Component</u>	<u>Description</u>
Entity	The name of the current entity is displayed.
Attribute	Type the name of the new attribute in this box. An attribute name can be from 2 to 51 alphanumeric characters long, and may include spaces. This is a required field.
Alias	Type an alternate name for the attribute in this box, if necessary. An alias is used to identify multiple occurrences of the same attribute or an occurrence of a foreign key in a specific entity.

If the attribute has already been added to another entity in the current model view, you may type a new alias or select one from the **Alias** drop-down list.

	This list includes all aliases defined for the attribute name displayed in the Attribute box.
Purpose	Type a purpose that explains the attribute's significance to the data model and to the planning statements that direct the data model. 2 Note If you change this field for an attribute, the change will appear in all other uses of the attribute.
Domain	Select a domain set from this drop-down list. A domain set determines the length, precision, range, and accepted values the attribute's field will have in the implemented information system. This list includes predefined domain sets, as well as any defined through the Domain Set command on the Attribute menu. 2 Note If you change this field for an attribute, the change will appear in all other uses of the attribute.
Length	Type a length for the attribute value.
Precision	Type a precision for the attribute value.
Edit Domain	Click this button to edit the domain set. The Add Domain Set dialog box is displayed.
System Controlled	Select this checkbox if the value for the attribute in the implemented system will be system controlled, rather than user defined.
Model View Authority	Select each model view authority checkbox (Read or Update) that applies to the new attribute. An attribute's model view authority indicates the access level given to the model view to which the attribute is being added This area will be dimmed if you are adding the attribute to the entire encyclopedia.

Spell

Click this button to spell check the dialog box.

More

This command button is available when custom fields have been defined using Table/Custom Fields in the Admin Utility.

Add Foreign Key Attribute Dialog Box

Dialog Box Illustration

The dialog box is titled "Add Foreign Key Attribute". It features a title bar with a close button. The main area contains the following elements:

- Entity:** A text box containing "PERSON".
- Attribute:** An empty text box.
- Alias:** An empty text box.
- Purpose:** A large empty text box.
- Edit Rule:** A dropdown menu showing "not defined".
- Domain:** A dropdown menu showing "Not Defined".
- Optional:** An unchecked checkbox.
- Unique:** An unchecked checkbox.
- Length:** An empty text box.
- Precision:** An empty text box.
- Model View Authority:** A group box containing two checked checkboxes: "Read" and "Update".
- Repeating:** An unchecked checkbox.
- Min:** An empty text box.
- Max:** An empty text box.
- Buttons:** "Edit Domain", "Spell", "More...", "OK", and "Cancel".

Add Foreign Key Attribute Dialog Box

Dialog Box Components Use the information below to complete the Add Foreign Key Attribute dialog box.

Component	Description
Entity	The name of the current entity is displayed.
Attribute	Type the name of the key, but the key name you type must be used as a primary key in the current model view.
Alias	Type an alternate name for the attribute in this box, if applicable. An alias is used to identify multiple occurrences of the same attribute or an occurrence of a foreign key in a single entity.
Purpose	Type the purpose of the attribute. The purpose of the attribute explains its significance to the encyclopedia and to the planning statements that direct the encyclopedia.

2 Note If you add a purpose, the new purpose will appear in all other uses of the key.

Edit Rule

Select an edit rule from this drop-down list. Edit rules describe how the attribute relates to the entity.

<u>Select this option...</u>	<u>If you want to...</u>
Add Now, Modify Later	enter a value for the attribute when an occurrence of the entity is added, and you want to be able to change the value after it has been entered.
Add Now, Cannot Modify	enter a value for the attribute when an occurrence of the entity is added, and you do not want to be able to change the value after it has been entered.
Add Later, Modify Later	enter a value for the attribute after an occurrence of the entity has been added, and you want to be able to change the value after it has been entered.
Add Later, Cannot Modify	enter a value for the attribute after an occurrence of the entity has been added, and you do not want to be able to change the value after it has been entered.

Domain

Select a domain set from this drop-down list. A domain set determines the length, precision, range, and accepted values the attribute's field will have in the implemented information system.

This list includes predefined domain sets, as well as any defined through the Domain Set command on the Attribute menu.

2 Note If you change this field for an attribute, the change will appear in all other uses of the attribute.

Length	Type a length for the attribute value.
Precision	Type a precision for the attribute value.
Optional	Select this checkbox if the attribute is optional for the entity.
Unique	Select this checkbox if each value for the attribute is used in one and only one occurrence within the entity.
Edit Domain	Click this button to edit the domain. The Add Domain Set dialog box is displayed.
Repeating	Select this checkbox if the attribute occurs more than once within the entity.
Min	If the attribute is repeating, type a minimum number of times it can occur within the entity in this box.
Max	If the attribute is repeating, type a maximum number of times it can occur within the entity in this box.
Model View Authority	Select each model view authority checkbox (Read or Update) that applies to the attribute. An attribute's model view authority indicates the modification or viewing authority given to the model view to which the attribute is being added. This area will be dimmed if you are adding the attribute to the entire encyclopedia.
Spell	Click this button to spell check the dialog box.

More

This command button is available when custom fields have been defined using Table/Custom Fields in the Admin Utility.

Add Non-Key Attribute Dialog Box

Dialog Box Illustration

The screenshot shows a dialog box titled "Add Non-Key Attribute". The "Entity" field is set to "PERSON". The "Attribute" field is empty. The "Purpose" field is empty. The "Derived" section has a "Formula" checkbox and an empty text area. The "Edit Rule" dropdown is set to "not defined". The "System Controlled" checkbox is unchecked. The "Domain" dropdown is set to "Not Defined". The "Unique" and "Optional" checkboxes are unchecked. The "Length" and "Precision" fields are empty. The "Model View Authority" section has "Read" and "Update" checkboxes checked. The "Repeating" checkbox is unchecked. The "Min" and "Max" fields are empty. The "Edit Domain", "Spell", "OK", "More...", and "Cancel" buttons are visible.

Add Non-Key Attribute Dialog Box

Dialog Box Components

Use the information below to complete the Add Non-Key Attribute dialog box.

Component	Description
Entity	The name of the current selected entity is displayed.
Attribute	Type the name of the attribute in this box. The name of the attribute can be from 2 to 51 alphanumeric characters long and may include spaces. This is a required field.
Purpose	Type a purpose for the attribute in this text box. The purpose of the attribute should explain its significance to the data model and to the planning statements that direct the project.

Derived If the value for the attribute depends on one or more other attribute value(s) within the encyclopedia, select this checkbox.

+ **Example** The attribute “total quantity on hand” is a derived attribute because its value depends on the quantities on hand of a specific item at all locations. The attribute “gender” is *not* a derived attribute because its value does not depend on any other attribute.

Formula If you selected the **Derived** checkbox, type a derivation formula in the **Formula** text box. See the Appendix of this manual for information on valid syntax for expressions.

The derivation formula you type can include any functions or operators defined for the encyclopedia. You define functions and operators through the Functions command on the Attribute menu.

Edit Rule Select an edit rule from this drop-down list. Edit rules describe how the attribute relates to the entity. The table below describes each edit rule option.

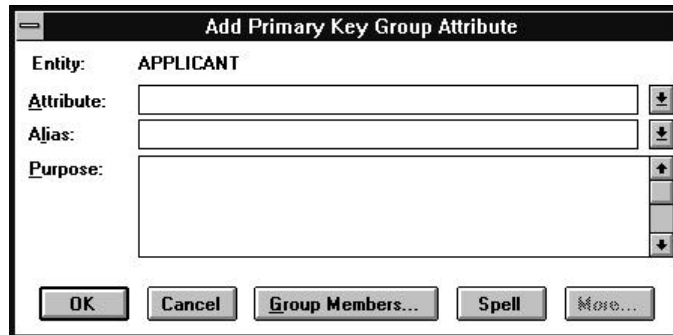
<u>Select this option...</u>	<u>If you want to...</u>
Add Now, Modify Later	enter a value for the attribute when an occurrence of the entity is added, and you want to be able to change the value after it has been entered.
Add Now, Cannot Modify	enter a value for the attribute when an occurrence of the entity is added, and you do not want to be able to change the value after it has been entered.
Add Later, Modify Later	enter a value for the attribute after an

		occurrence of the entity has been added.
	Add Later, Cannot Modify	enter a value for the attribute after an occurrence of the entity has been added.
Domain	<p>Select a domain set from this drop-down list. A domain set determines the length, precision, range, and accepted values the attribute's field will have in the implemented information system.</p> <p>This list includes predefined domain sets, as well as any defined through the Domain Sets command on the Attribute menu.</p>	
Length	Type a length for the attribute value in this field.	
Precision	Type a precision for the attribute value in this field.	
System Controlled	Select this checkbox if the value for the attribute in the implemented system will be system controlled, rather than user defined.	
Unique	Select this checkbox if each value for the attribute is used in one and only one occurrence within the entity.	
Optional	Select this checkbox if the attribute is optional for the entity.	
Edit Domain	Click this button to edit the domain. The Add Domain Set dialog box is displayed.	
Model View Authority	<p>Select each authority checkbox (Read or Update) that applies to the attribute. An attribute's model view authority indicates the modification or viewing authority given to the model view to which the attribute is being added.</p> <p>This area will be dimmed if you are adding the attribute to the entire encyclopedia.</p>	

Repeating	Select this checkbox if the attribute can assume more than one set of values for a single occurrence of the entity.
Min	If you selected the Repeating checkbox, type a minimum number of times the attribute can occur within the entity in this box.
Max	If you selected the Repeating checkbox, type a maximum number of times the attribute can occur within the entity in this box.
Spell	Click this button to spell check the dialog box.
More	This command button is available when custom fields have been defined using Table/Custom Fields in the Admin Utility.

Add Primary Key Group Attribute Dialog Box

Dialog Box Illustration



Add Primary Key Group Attribute Dialog Box

Dialog Box Components

Use the information below to complete the Add Primary Key Group Attribute dialog box.

Component	Description
Entity	The name of the current entity is displayed.
Attribute	Type the name of the new group attribute. An attribute name can be from 2 to 51 alphanumeric characters long, and may include spaces. This is a required field.
Alias	Type an alternate name for the attribute in this box, if applicable. An alias is used to identify multiple occurrences of the same attribute or an occurrence of a foreign key in a single entity.

You may either type a new alias or select one from the **Alias** drop-down list. This list includes all aliases defined for the attribute name displayed in the **Attribute** box.

Purpose	Type a purpose for the key. The purpose of the attribute explains its significance to the encyclopedia and to the planning statements that direct the encyclopedia.
Group Members	Use this button to define the attributes within the primary attribute group. When you click on this button, the Assemble Attribute Group dialog box appears.
Spell	Click this button to spell check the dialog box.
More	This command button is available if custom fields have been defined using Table/Custom Fields in the Admin Utility.

Add Foreign Key Group Attribute Dialog Box

Dialog Box Illustration

The dialog box is titled "Add Foreign Key Group Attribute". It contains the following elements:

- Entity:** A text box containing "PERSON".
- Attribute:** An empty text box with a downward arrow icon to its right.
- Alias:** An empty text box with a downward arrow icon to its right.
- Purpose:** A larger empty text box with upward and downward arrow icons to its right.
- Unique:** A checkbox.
- Optional:** A checkbox.
- Repeating:** A checkbox.
- Min:** A small empty text box.
- Max:** A small empty text box.
- Group Members...:** A button.
- OK, Cancel, Spell, More...:** A row of four buttons at the bottom.

Add Foreign Key Group Attribute Dialog Box

Dialog Box Components

Use the information below to complete the Add Foreign Key Group Attribute dialog box.

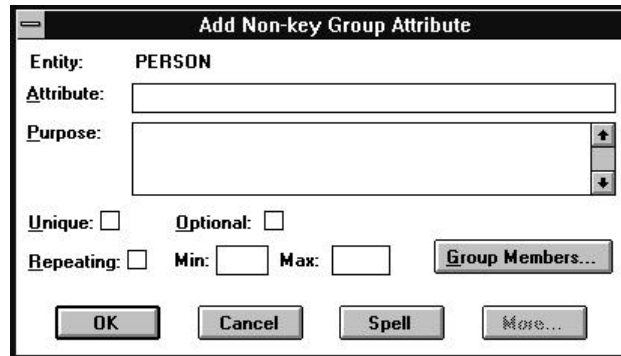
Component	Description
Entity	The name of the current entity is displayed.
Attribute	Type the name of the new group attribute in this box. An attribute name can be from 2 to 51 alphanumeric characters long, and may include spaces. This is a required field.
Alias	Type an alternate name for the attribute in this box, if applicable. An alias is used to identify multiple occurrences of the same attribute or an occurrence of a foreign key in a single entity.
Purpose	Type a purpose for the attribute. The purpose of the attribute explains its significance to the encyclopedia

and to the planning statements that direct the encyclopedia.

Unique	Select this checkbox if each value for the attribute is used in one and only one occurrence within the entity.
Optional	Select this checkbox if the attribute is optional for the entity.
Repeating	Select this checkbox if the attribute occurs more than once within the entity.
Min	If the attribute is repeating, type a minimum number of times it can occur within the entity in this box.
Max	If the attribute is repeating, type a maximum number of times it can occur within the entity in this box.
Group Members	Use this button to define the attributes in the foreign key group. When you click on this button, the Assemble Attribute Group dialog box appears.
Spell	Click this button to spell check the dialog box.
More	This command button is available when custom fields have been defined using Table/Custom Fields in the Admin Utility.

Add Non-Key Group Attribute Dialog Box

Dialog Box Illustration



Add Non-Key Group Attribute Dialog Box

Dialog Box Components

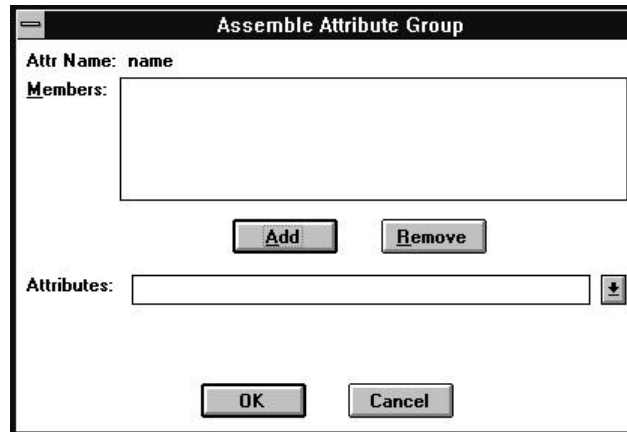
Use the information below to complete the Add Non-Key Group Attribute dialog box.

Component	Description
Entity	The name of the current entity is displayed.
Attribute	Type the name of the new group attribute in this box. An attribute name can be from 2 to 51 alphanumeric characters long, and may include spaces. This is a required field.
Purpose	Type a purpose for the attribute. The purpose of the attribute explains its significance to the encyclopedia and to the planning statements that direct the encyclopedia.
Unique	Select this checkbox if each value for the attribute is used in one and only one occurrence within the entity.

Optional	Select this checkbox if the attribute is optional for the entity.
Repeating	Select this checkbox if the attribute occurs more than once within the entity, select this checkbox.
Min	If the attribute is repeating, type a minimum number of times it can occur within the entity in this box.
Max	If the attribute is repeating, type a maximum number of times it can occur within the entity in this box.
Group Members	Use this button to define the attributes in the non-key group. When you click on this button, the Assemble Attribute Group dialog box appears.
Spell	Click this button to spell check the dialog box.
More	This command button is available when custom fields have been defined using Table/Custom fields in the Admin Utility.

Assemble Attribute Group Dialog Box

Dialog Box Illustration



Assemble Attribute Group Dialog Box

Dialog Box Components

Use the information below to complete the Assemble Attribute Group dialog box.

Component	Description
Attr Name	The name of the group attribute specified in the applicable add attribute dialog box (primary, foreign, or non-key) is displayed.
Members	The attributes that comprise the group attribute. You add attributes to and remove them from this box.
Attributes	Select an attribute from this drop-down list to add to the Members box. This list includes all attributes (primary, foreign, and non-key) in the current model view.
Add	Click on this button to add the selected attribute to the attribute group. The selected attribute will appear in the Members box. Do this for each attribute you want to add to the group.

Remove

To remove an attribute from the **Members** box, highlight the name of the attribute you want to remove, then click on the **Remove** button.

ADD BUSINESS EVENT

Adding Business Events

Description The Add Business Event command allows you to add a business event to the process model. Business events initiate business processes.

Usage Tips When you add a business event, you provide its title and purpose, as well as the business process that the business event initiates. Business events appear in the Process Hierarchy window.

Any planning statement added to the Planning Outline or Planning Dictionary window and assigned the “business event” statement type is also treated like a business event and will appear in the Process Hierarchy window. When you add a business event as a planning statement in a planning window, you must then use the Process Hierarchy window to define the business process it initiates.

Procedure à **To add a business event to the process model:**

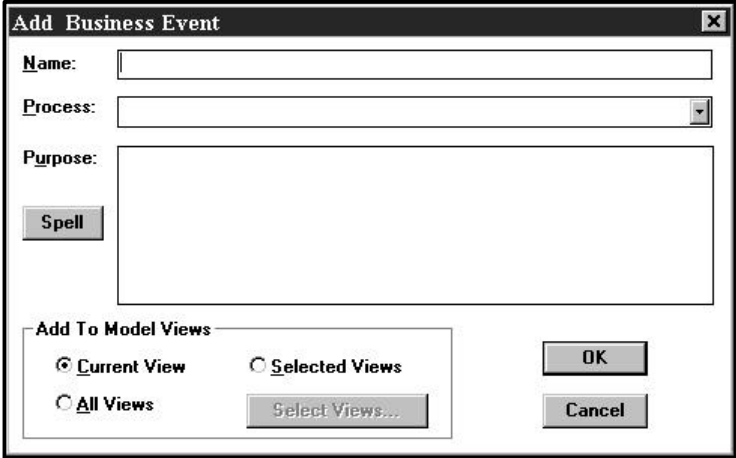
1 Choose **Add...** from the Event menu.

Result: The Add Business Event dialog box will appear.

2 Complete the Add Business Event dialog box, then click on **OK**.

Add Business Event Dialog Box

Dialog Box Illustration



Add Business Event Dialog Box

Dialog Box Components

Use the information below to complete the Add Business Event dialog box.

<u>Component</u>	<u>Description</u>
Name	Type a name for the business event you are adding into this box.
Process	Choose from this drop-down list the business process that the business event will invoke. The list includes all business events added to the encyclopedia.
Purpose	Type a purpose for this business event into this text box. You may type up to 32,000 characters.
Spell	Click this button to spell check the dialog box.
Current	Click this button to add the business event to the current view.

All Views

Click this button to add the business event to all views.

Selected Views

Click this button to add the business event to selected views. The Select Views button becomes available. Click the Select Views button to display the Select Views dialog box.

ADD CONDITION END

Adding Condition Ends

Description The Add Condition End command allows you to add a condition end to a process. A condition end shows where two or more logic paths converge after they have diverged from a condition.

A condition end is symbolized by a filled diamond.

Procedure **à To add a condition end:**

1 Select one of the process steps whose logic paths you want to converge.

2 Choose **Add Condition End** from the Control menu.

Result: A control flow leading from the selected process step to a filled diamond appears. The filled diamond represents the condition end.

3 You can now converge the logic paths of the other process steps subject to conditions.

To do this, hold down the left mouse button and drag the mouse cursor from one of the steps you want to converge into the condition end (filled diamond) you just added. Repeat this for each step you want to converge into the condition end.

ADD CONTROL FLOW

Adding Control Flows

Description The Add Control Flow command lets you add a control flow from one process step or control mechanism to another process step or control mechanism (conditional, parallel, or stop). Control flows connect and sequence all process steps within a process.

A control flow is displayed as a single-headed arrow originating from one process step/control mechanism and arriving at another process step/control mechanism. The head of the arrow points to the target step/control mechanism.

Usage Tips You do not access the Add Control Flow from any Process Map menu; instead, you use the mouse to add a control flow from one process step or control mechanism to another.

Whenever a new step is added to the current process, Visible Advantage will automatically depict the control flow originating from the selected step or control mechanism to the new one. Add a control flow manually when a specific direction of the flow is desired (looping, for example) or a new connection between process steps or control mechanisms is sought.

Procedure à **To add a control flow:**

- 1 Select the process step or control mechanism from which you want the control flow to originate.
- 2 Hold down the left mouse button and drag the mouse cursor from the selected process step or control mechanism to the destination process step or control mechanism.

Result: The Add Control Flow dialog box appears.

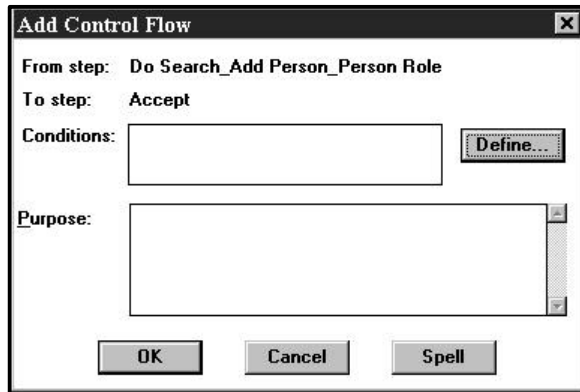
- 3 Complete the Add Control Flow dialog box.

To define a condition for the control flow, click on the **Define** button. The Control Flow Condition States dialog box appears. Complete the dialog box, then click on **OK** to return to the Add Control Flow dialog box.

4 Click on **OK** in the Add Control Flow dialog box.

Add Control Flow Dialog Box

Dialog Box Illustration



Add Control Flow Dialog Box

Dialog Box Components

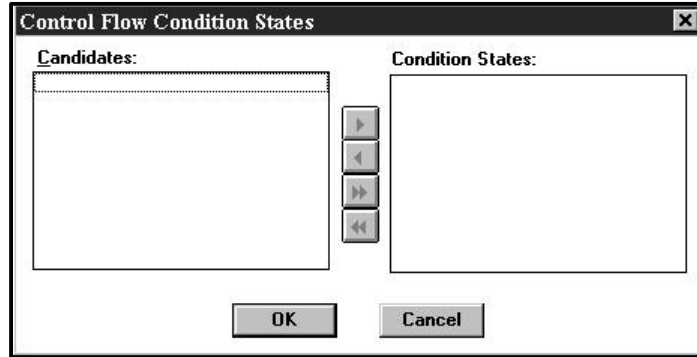
Use the information below to complete the Add Control Flow dialog box.

Component	Description
From Step	The type of the step from which the flow is originating is listed in this field.
To Step	The type of the step the flow is targeting is listed in this field.
Conditions	The conditions set for the execution of the new flow are listed here. Conditions determine under which circumstances the target process step is executed. You add conditions to this list through the Define button.
Define	Use this button to define the conditions that apply to the control flow. The Control Flow Condition States dialog box appears when you click on this button.

Purpose	Type a purpose that explains the control flow's significance to the process model into this box. You may type up to 32,000 alphanumeric characters.
Spell	Click this button to spell check the dialog box.

Control Flow Condition States Dialog Box




Dialog Box Illustration



Control Flow Condition States Dialog Box

Dialog Box Components

Use the information below to complete the Control Flow Condition States dialog box.

Component	Description
Candidates	The names of the condition states that are possible for this control flow are listed in this box.
	Use this button to select condition state candidates. Highlight condition states in the Candidates list box, then click on this button. The selected candidates will then appear in the Condition States list box.
	Use this button to deselect condition states. Highlight condition states in Condition States list box, then click on this button. The selected condition states will then return to the Candidates list box.
	Use this button to select all condition states candidates. When you click on this button, all condition states in the Candidates list box will be moved to the Condition States list box.



Use this button to deselect all condition states. When you click on this button, all condition states in the Condition States list box will be returned to the Candidates list box.

ADD DATA ITEM

Adding Data Items

Description The Add Data Item command, available from the Design Map and Design Dictionary windows, allows you to add a data item to the currently displayed data structure.

Usage Tips As an alternative to adding data items with this command, you may also add a data item to a data structure through the Copy From Data Model command on the item menu.

When you add a data item, you define the following details:

- Name
- Meta ID
- Alias
- Role
- Purpose
- Type
- Data type
- Length and precision
- Uniqueness
- Optionality
- Repeatability

Procedure à **To add a data item to the current database design:**

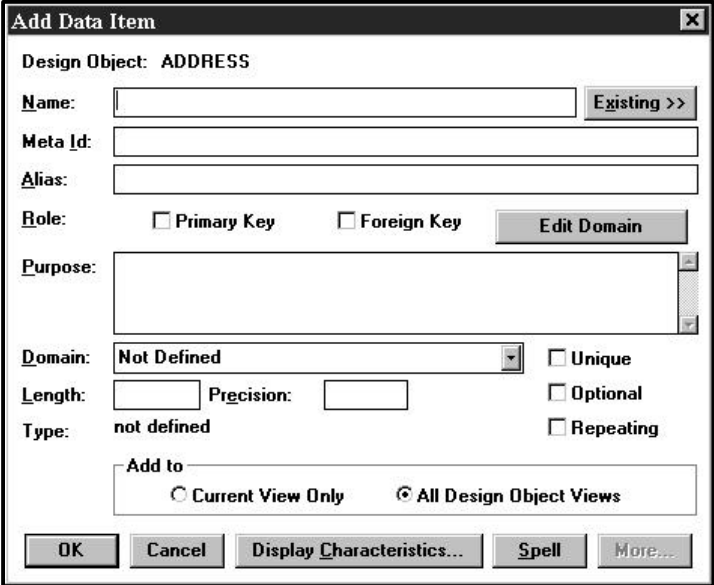
1 Choose **Add Data Item** from the Property menu.

Result: The Add Data Item dialog box appears.

2 Complete the Add Data Item dialog box, then click on **OK**.

Add Data Item Dialog Box

Dialog Box Illustration



Add Data Item Dialog Box

Dialog Box Component

Use the information below to complete the Add Data Item dialog box.

<u>Component</u>	<u>Description</u>
Name	Type a name for the data item in this field, or select one using the Existing button. The name must begin with an alphabetic character and can only include letters, numbers, underscores, and spaces.
Existing	Click this button to display the Locate Design Object Property dialog box, then select the design object and property.

Meta Id	Type the meta id into this field. Meta ids are used as additional identifiers.
Alias	If desired, type an alias into this field. Data item aliases are used as shorthand handles for quick identification.
Primary Key	Click on this checkbox to add the data item as a primary key.
Foreign Key	Click on this checkbox to add the data item as a foreign key.
Edit Domain	Click this button to edit the domain. The Add Domain Set dialog box is displayed.
Purpose	Type a purpose for the data item into this text box.
Type	Select a type for the data item from this drop-down list box. The types available for a data item depend on the data item types defined through the Visible Advantage Admin Utility Table/Data Item Types command.
Domain	Select a domain for the data item from this drop-down list box.
Length	Type a length for the data item value in this field.
Precision	Type a precision for the data item value in this field.
Unique	Select this checkbox if each value for the data item is used in only one occurrence within the data structure.
Repeating	Select this checkbox if the data item occurs more than once within the data structure.
Current View Only	Select this checkbox to display the data item in the current view only.

All Design Object Views	Select this checkbox to display the data item in all design object views.
Display Characteristics	Click on this button to display the Display Characteristics dialog box. Complete the Display Characteristics dialog box and click on OK .
More	Click this button to display the Optional Fields dialog box. This command button is available when custom fields have been defined using Table/Custom Fields in the Admin Utility.
Spell	Click this button to spell check the dialog box.

Display Characteristics Dialog Box

Dialog Box Illustration

The dialog box is titled "Data Item Display Characteristics". It contains the following elements:

- Design Object: ADDRESS
- Data Item:
- Data Item Defaults**
 - Heading: [text box]
 - Label: [text box]
 - Display Mask: [text box]
- This Data Item Use**
 - Heading: [text box]
 - Label: [text box]
 - Display Mask: [text box]
 - Default: [text box]
- Buttons: OK, Cancel

Data Item Display Characteristics Dialog Box

Dialog Box Components

Use the information below to complete the Data Item Display Characteristics dialog box.

Component	Description
<i>Data Item Defaults</i>	
Heading	Type the default heading for the data item.
Label	Type the default label for the data item.
Display Mask	Type the default automatic formatting.
<i>This Data Item Use</i>	
Heading	Type the data item heading for this use.
Label	Type the data item label for this use.

Display Mask Type the automatic formatting for this use.

Default Type the default for this use.

ADD DATA STRUCTURE

Adding Data Structures

Description The Add Data Structure command, available from the Design Map and Design Dictionary windows, allows you to add a data structure to the current design object.

Usage Tips As an alternative to adding data structures with this command, you may also add a data structure through the Copy From Data Model command on the Design Object menu.

When you add a data structure, you define the following details:

- Name
- Meta Id
- Purpose
- Code
- Type
- Nature
- Volume

If you want to add a data structure to the current design object that has already been added to another design object, use the Copy From Database Design command on the Design Object menu.

Procedure à **To add a data structure to the current design object:**

1 Choose **Add...** from the Design Object menu.

Result: The Select Design Object Type dialog box appears.

2 Select data structure and click on **OK**.

3 Complete the Add Data Structure dialog box, then click on **OK**.

Add Data Structure Dialog Box

Dialog Box Illustration

The screenshot shows a dialog box titled "Add Data Structure". It contains the following fields and controls:

- Name:** A text input field.
- Meta Id:** A text input field.
- Purpose:** A text area with vertical scroll bars.
- Code:** A text input field.
- Type:** A dropdown menu currently showing "Not Defined".
- Nature:** A section with two radio buttons: "Dynamic" (which is selected) and "Static".
- Volume:** A text input field containing the number "0".
- Buttons:** "OK", "Cancel", "Spell", and "Help..." (represented by a question mark icon).

Add Data Structure Dialog Box

Dialog Box Components

Use the information below to complete the Add Data Structure dialog box.

Component	Description
Name	Type a name for the data structure into this field. The name must begin with an alphabetic character and can only include letters, numbers, underscores, and spaces.
Meta Id	Type a meta id for the data structure into this text box. The meta id is used to differentiate when two or more data structures have the same name.
Purpose	Type a purpose for the data structure into this text box.
Code	Type a code (also known as an alias) into this field. You can use a code for a data structure as a short

	name for ease of use for developers, operators, and users.
Type	<p>Select a type for the data structure from this drop-down list. The types available for a data structure depend on the data structure manager for the current design object.</p> <p>You can edit the data structure types for each data structure manager through the Visible Advantage Table/Data Structure Manager command.</p>
Dynamic	Select this data structure nature if the data structure's data item values will be user defined. This is the default nature value.
Static	<p>Select this data structure nature if the user will select the data structure's data item values from a predefined set of values.</p> <p>Use the Populate Table command on the Structure menu to enter the predefined values for a static data structure's data items.</p>
Volume	Type into this field the expected maximum number of times the data structure will appear in the implemented system.
Spell	Click this button to spell check the dialog box.
More	This command button is available when custom fields have been defined using Table/Custom Fields in the Admin Utility.

ADD DATA STRUCTURE MANAGER

Adding a Data Structure Manager

- Description** This command, available through the Visible Advantage Admin Utility, allows the system administrator to add a data structure manager to the implemented system.
- Usage Tips** Your Visible Advantage comes with predefined data structure managers: DB2, Microsoft SQL, Oracle v.7, SUPRA, SYBASE v.10, Velocis SQL, WATCOM SQL.
- Procedure** à **To add a data structure manager:**
- 1 Choose **Table** from the Visible Advantage Admin Utility.
 - 2 Choose **Data Structure Managers** from the cascading Table menu.

Result: The Data Structure Managers box appears.

Predefined Data Structure Managers are listed.
 - 3 Click on the option **Add**.

Result: The Add Data Structure Managers dialog box appears.
 - 4 Complete the dialog box, then click on **OK**.

(See Data Structure Managers for information on the dialog box fields.)

ADD DATA STRUCTURE RELATIONSHIPS

Adding Data Structure Relationships

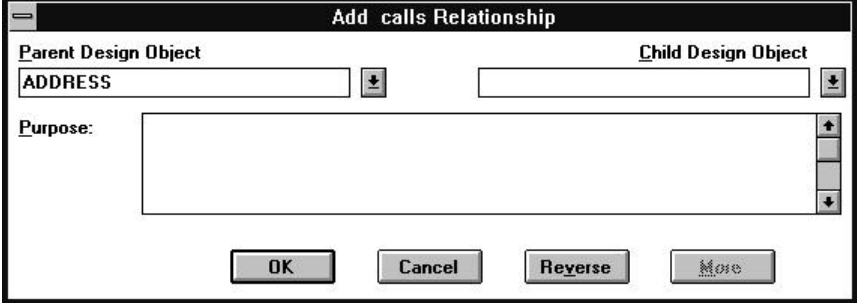
Description The Add Data Structure Relationship command allows you to add a relationship between two data structures in the current database design from the Design Dictionary and Design Map windows.

Procedure à **To add a relationship for the currently displayed data structure:**

- 1 Choose **Add...** from the Relationship menu.
Result: The Relationship Reason dialog box is displayed.
- 2 Select the relationship reason and click on **OK**.
Result: The Add dialog box is displayed.
- 3 Complete the dialog box and click on **OK**.

Add Calls Relationship Dialog Box

Dialog Box Illustration



Add Calls Relationship Dialog Box

Dialog Box Components Use the information below to complete the Add Calls Relationship dialog box.

<u>Component</u>	<u>Description</u>
Parent Design Object	Select a parent design object from the drop-down list.
Child Design Object	Select a child design object from the drop-down list.
Purpose	Type a purpose in the text box.
Reverse	Click on this command button to reverse the relationship.
More	This command button is available when custom fields have been defined using Table/Custom Fields in the Admin Utility.

Add Contains Relationship Dialog Box

Dialog Box Illustration

Add Contains Relationship Dialog Box

Dialog Box Components Use the information below to complete the Add Contains Relationship dialog box.

Component	Description
Parent Design Object	Select a parent design object from the drop-down list.
Child Design Object	Select a child design object from the drop-down list.
Type	Select a type from the drop-down list.
Identifying	Select this check box to have the primary keys cascade from parent to child as primary keys. If unchecked, keys will cascade as foreign keys.

Categorizing	Select this check box to indicate the entity on the optional side of the association is the child in a supertype (parent) to subtype (secondary) association. This distinguishes which entity is the supertype for the secondary.
Min	Type a minimum number of occurrences of the entity for each single occurrence of the associated entity.
Max	Type a maximum number of occurrences of the entity for each single occurrence of the associated entity.
Purpose	Type a purpose in this text box.
Reverse	Click on this command button to reverse the relationship.
More	This command button is available when custom fields have been defined using Table/Custom Fields in the Admin Utility.

Add Data Dependency Dialog Box

Dialog Box Illustration

The dialog box is titled "Add data dependency Relationship". It features three drop-down menus at the top for "Parent Design Object" (with "ADDRESS" selected), "Type", and "Child Design Object". Below these are two checkboxes: "Identifying" and "Categorizing". The "Parent" section includes "Min: 0" and "Max: 0" text boxes and an "Allow cascade delete" checkbox. The "Child" section also includes "Min: 0" and "Max: 0" text boxes and an "Allow cascade delete" checkbox. Below these are three text input fields: "From Label:", "To Label:", and "Purpose:". At the bottom, there are five buttons: "OK", "Cancel", "Reverse", "Keys...", and "More".

Add Data Dependency Relationship Dialog Box

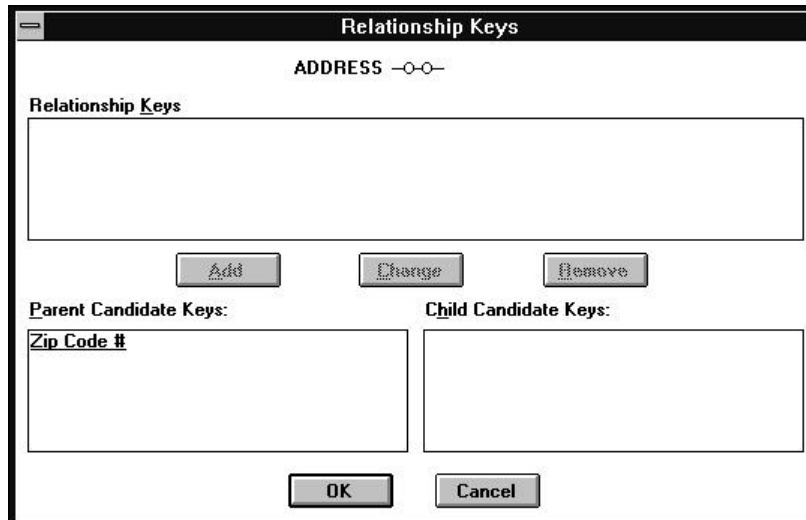
Dialog Box Components Use the information below to complete the Add Data Dependency Relationship dialog box.

Component	Description
Parent Design Object	Select a parent design object from the drop-down list.
Child Design Object	Select a child design object from the drop-down list.
Type	Select a type from the drop-down list.
Identifying	Select this checkbox to have the primary keys cascade from parent to child as primary keys. If unchecked, keys will cascade as foreign keys.

Categorizing	Select this checkbox to indicate the entity on the optional side of the association is the child in a supertype (parent) to subtype (secondary) association. This distinguishes which entity is the supertype for the secondary.
Min	Type a minimum number of occurrences of the entity for each single occurrence of the associated entity.
Max	Type a maximum number of occurrences of the entity for each single occurrence of the associated entity.
Allow Cascade Delete	Select this checkbox if the design object should be deleted when the last occurrence of a design object on which it depends is deleted. You define this for the parent design object in the Parent area and for the child design object in the Child area.
From Label	Type the name of the owning design object.
To Label	Type the name of the owned design object.
Purpose	Type a purpose in this text box.
Reverse	Click on this command button to reverse the relationship.
Keys	Click on this command button to display the Relationship Keys dialog box. Complete the Relationship Keys dialog box and click on OK .
More	This command button is available when custom fields have been defined using Table/Custom Fields in the Admin Utility.

Relationship Keys Dialog Box

Dialog Box Illustration



Relationship Keys Dialog Box

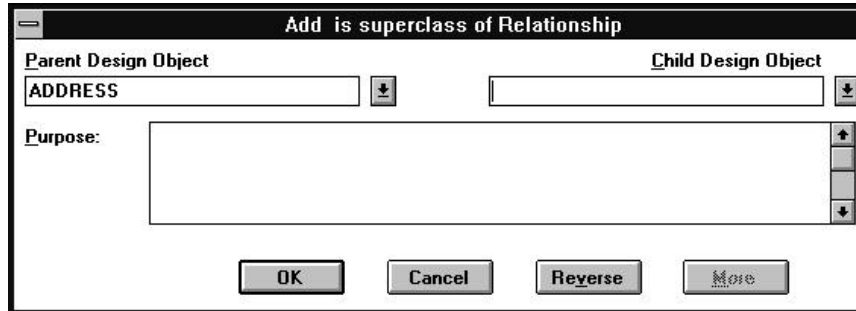
Dialog Box Components Use the information below to complete the Relationship Keys dialog box.

Components	Description
Relationship Keys	Existing relationship keys are displayed in this box.
Add	Highlight a parent candidate key and then a child candidate key. Click on the this command button to add the relationship to the relationship keys box.
Change	Highlight a relationship in the relationship keys box and click on the this command button to change the relationship

Remove	Highlight a relationship in the relationship keys box and click on the this command button to remove the relationship.
Parent Candidate Keys	Select a parent key from the candidate list.
Child Candidate Keys	Select a child key from the candidate list.

Add Is Superclass of Dialog Box

Dialog Box Illustration



Add Is Superclass of Relationship Dialog Box

Dialog Box Components Use the information below to complete the Add Is Superclass of Relationship dialog box.

Component	Description
Parent Design Object	Select a parent design object from the drop-down list.
Child Design Object	Select a child design object from the drop-down list.
Purpose	Type a purpose in this text box.
Reverse	Click on this command button to reverse the relationship.
More	This command button is available when custom fields have been defined using Table/Custom fields in the Admin Utility.

ADD DESIGN OBJECT

Adding Design Objects

Description The Add Design Object command, available from the Design Map and Design Dictionary windows, allows you to add a design object to the encyclopedia.

Procedure à **To add a design object to the encyclopedia:**

1 Choose **Add...** from the Design Object menu.

Result: The Select Design Object Type dialog box appears.

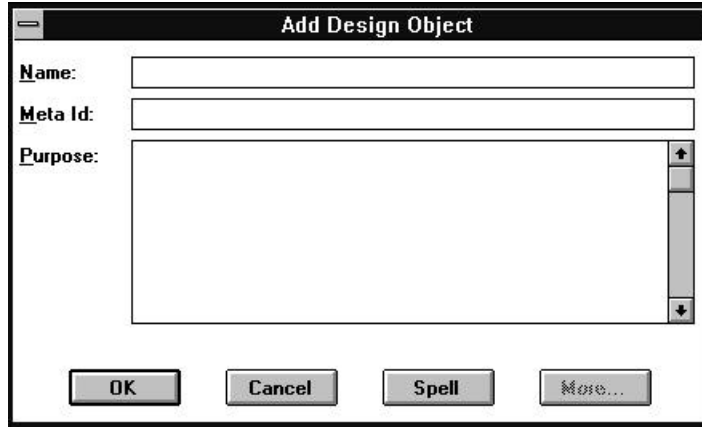
2 Select any type except Data Structure and click on **OK**.

Result: The Add Design Object dialog box appears.

3 Complete the dialog box, then click on **OK**.

Add Design Object Dialog Box

Dialog Box Illustration



Add Design Object Dialog Box

Dialog Box Components

Use the information below to complete the Add Design Object dialog box.

Component	Description
Name	Type a name for the design object into this field. You may type up to 51 alphanumeric characters. The @ symbol and quotation marks (") are not allowed.
Meta Id	Type an alternate name for the design object.
Purpose	Type a purpose for the design object into this text box.
More	This command button is available when custom fields have been defined using Table/Custom Fields in the Admin Utility.

ADD ENTITY

Adding Entities

Description The Add Entity command, available from both the Data Map and Data Dictionary windows, allows you to add a new entity to the encyclopedia.

Usage Tips You may define an entity's details when you add the entity, or you may define them at a later time. Entity details include:

- Purpose
- Nature
- Category
- Model view authority

When you add an entity, you specify in which model views it should be visible: current view only, all views, child views, or selected views.

If you want to add an entity to the current model view that has already been added to another model view, use the Copy From Model View command on the Entity menu.

Procedure à **To add an entity to the current model view:**

1 Choose **Add...** from the Entity menu.

 Result: The Add Entity dialog box appears.

2 Complete the Add Entity dialog box, then click on **OK**.

Add Entity Dialog Box

Dialog Box Illustration

Add Entity

Name:

Purpose:

Spell

Entity Category

Principal Type Intersecting

Secondary Structure Role

Entity View Authority

Create Update

Read Delete

Entity Nature

Dynamic

Static

Add To Model Views

Current View Selected Views

All Views Select Views...

OK

Cancel

More...

Add Entity Dialog Box

Dialog Box Components

Use the information below to complete the Add Entity dialog box.

Component	Description
Name	Type the name of the entity into this box. An entity name can be from 2 to 31 alphanumeric characters long, and may include spaces.
Purpose	Type the purpose of the entity in this text box. The purpose of the entity explains its significance to the data model and to the planning statements upon which the data model is based.
Spell	Click this button to spell check the dialog box.


Principal	Select this entity category if the entity does not require one of the special use categories described below. Principal entities will frequently appear in several functional areas. This is the default value for entity category.
Secondary	Select this entity category if the entity contains data unique to a specific subset of occurrences of an entity.
Type	Select this entity category if the entity contains data that describe the valid subsets of a principal or secondary entity. Each of these subsets may refer directly to a secondary entity.
Structure	Select this entity category if the entity contains data that describe the relationship between different occurrences of another entity.
Intersecting	Select this entity category if the entity records specific combinations of related occurrences of two or more other entities. An intersecting entity usually results from resolving a many-to-many association between two other entities.
Role	Select this entity category if the entity will allow for an occurrence of a principal or secondary entity to be of multiple categories. A role entity is a special use of an intersecting entity.
Entity View Authority	Select each model view authority checkbox (Create, Read, Update, or Delete) that applies to the entity.
Dynamic	Select this entity nature if the entity's attribute values will be user-defined. This is the default entity nature value.
Static	Select this entity nature if the user will select the entity's attribute values from a predefined set of values. Use the Populate Static Table command on the Entity menu to enter the predefined values for a static entity's attributes.

Current View	Select this button to add the entity to the current model view only.
All Views	Select this button to add the entity to all views.
Selected Views	Use this button to select the model views in which the entity should be visible. When you click on this button, the Select Model Views dialog box appears. You select model views through this dialog box in the same way that you select entities in the Data Dictionary window. See Select Entities in this manual for information on this type of dialog box.
More	This command button is available if custom fields have been defined using Table/Custom fields in the Admin Utility.

Adding Notes

Description The Add Note command allows you to attach notes to specific objects in the encyclopedia.

Usage Tips The Notes command is available from all windows from the Main/Encyclopedia Management menu. It is also available in most windows from the menu for the window's principal object.

 **Example** If you are using the Data Dictionary or Data Map window, the Notes command is located on the Entity menu; if you are using the Planning Outline or Planning Dictionary, the Notes command is located on the Statement menu.

Procedure à **To add a note:**

1 Choose **Notes** from the Encyclopedia menu.

Result: The Notes dialog box appears.

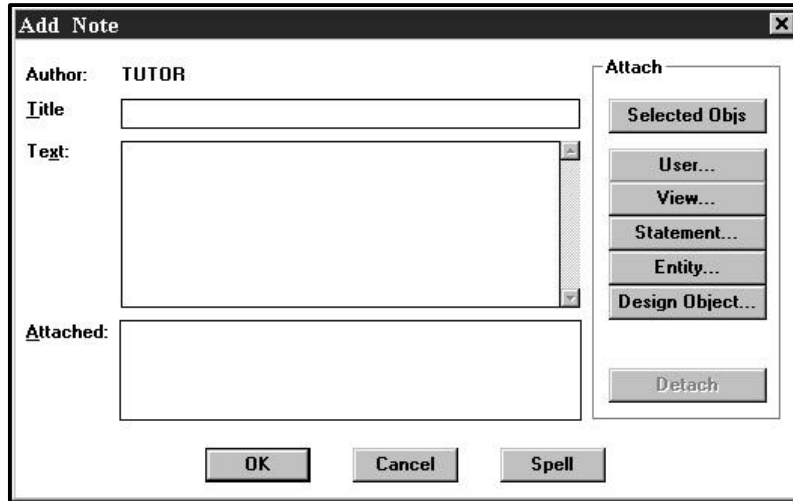
2 Click on the **Compose** button.

Result: The Add Note dialog box appears.

3 Complete the Add Note dialog box and click on **OK**.

Add Note Dialog Box

Dialog Box Illustration



Add Note Dialog Box

Dialog Box Components

Use the information below to complete the Add Note dialog box.

Component	Description
Title	Type the title of the note. The title defaults to the capitalization standards defined through the Admin Utility Preferences/Naming command. You may type up to 51 alphanumeric characters. The @ symbol and quotation marks (") are not allowed.
Text	Type the text in the large text box. The text can be up to 32,000 alphanumeric characters long.
Selected Objects	Use this button to attach objects. When you click on this button, the objects already attached appear in the Attached text box.

User	<p>Use this button to attach a user to the note. When you click on this button, the Select User dialog box appears.</p> <p>Select the user you wish to attach and click on OK. The user you selected appears in the Attached text box on the Add Note dialog box.</p>
View	<p>Use this button to attach a view to the note. When you click on this button, the Select View dialog box appears.</p> <p>You may select View or Entire Model. If you select View, select the view you wish to attach. Select Structured or Alphabetical. Click on OK.</p>
Statement	<p>Use this button to attach a planning statement to the note. When you click on this button, the Locate Planning Statement dialog box appears.</p> <p>Select a title from the drop-down list, or type a title. Click on OK.</p>
Entity	<p>Use this button to attach an entity to the note. When you click on this button, the Locate Entity dialog box appears.</p> <p>Select an entity from the drop down box, or type an entity name. Click on OK.</p>
Design Object	<p>Click on this button to attach a design object to the note. When you click on this button, the Locate Design Object dialog box appears.</p> <p>Select a design object from the drop down list or type a design object name. Click on OK.</p>
Detach	<p>Click on this button to detach an attached object. Highlight the object you wish to detach and click on Detach.</p>
Spell	<p>Click this button to spell check the dialog box.</p>

ADD PARALLEL CONTROL

Adding Parallel Controls

Description The Add Parallel Control command allows you to add a parallel control to a process. A parallel control shows where unconditional branching in the logic path of a process diverges, converges, or both. The parallel control is the tool that allows concurrent activity within a process.

A parallel control is represented by a filled circle.

Procedure **à To add a parallel control:**

1 Select the step or control mechanism from which the parallel control originates.

2 Choose **Add Parallel** from the Control menu.

Result: A control flow leading from the selected step or control mechanism to a filled circle appears.

3 You can now add the steps that occur concurrently.

To do this, select the parallel control you just added, then add the first concurrent step. Then, select the parallel control again and add the next concurrent step. Repeat this until you have added all concurrent steps.

To converge the logic path of the concurrent steps, select one of the concurrent steps, then choose **Add Parallel Control** from the Control menu. You must then add a control flow from each other concurrent step into the parallel control you just added.

ADD PROCESS

Overview

Description The Add Process command allows you to add a business or data access process to the process model portion of the encyclopedia.

Usage Tips When you are working in the Process Hierarchy, you may only add business processes to the process model—data access processes may not be added.

When you are working in the Process Map window, the dialog box for adding the type of process currently displayed in the window appears when you choose the Add command on the Process menu. If you want to add a different process type from the one displayed, you must first change to a process of the type you want to add, and then use the Add Process command.

+ **Example** A data access process is displayed in the Process Map window and you want to add a business process. You change to a business process through the Process/Change To command, then choose Process/Add.

In This Chapter This chapter contains the following topics.

Topic

Adding Business Processes

Adding Data Access Processes

Add Data Access Process Dialog Box

Adding Business Processes

Description You use the Process/Add command to add business processes. A business process is the type of process that responds—either directly or indirectly—to a business event.

Usage Tips After you define a business processes as being invoked by a business event, the business process will appear underneath the invoking event in the Process Hierarchy window. You may also view a graphic picture of each business process through the Process Map window.

Procedure **à To add a business process to the current model view from the Process Map window:**

- 1 Choose **Add...** from the Process menu.

Result: If a business process is displayed in the active Process Map window, the Add Business Process dialog box appears.

If a data access process is displayed, the Add Data Access Process dialog box appears. In this case, you must return to the Process Map window and use the Change To command on the Process menu to display a business process in the window.

- 2 Type a name and purpose for the new business process, then click on **OK**.

à To add a business process to the current model view from the Process Hierarchy window:

- 1 Choose **Add...** from the Process menu.

Result: The Add Business Process dialog box appears.

- 2 Type a name and purpose for the new business process, then click on **OK**.

Adding Data Access Processes

Description You add data access processes through the Process/Add command in the Process Map window. A data access process directly accesses an entity in the data model.

Usage Tips You may add data access processes only through the Process Map window. When you add a data access process, you define the type of access operation it performs on the object entity (create, read, update, or delete), as well as the entity it accesses. The accessed entity must be visible in the current model view.

The name of each data access process is the concatenation of the type of access and the name of the entity that is the object of the data access process (Create EMPLOYEE, Delete ORDER, etc.).

In addition to adding data access processes with the Process/Add command in the Process Map window, they can also be automatically generated as they are needed when you add process steps to a business or data access process. When the software detects that a data access process should be generated while you add process steps, a message will appear asking if you want the data access process to be generated.

After a data access process is added or generated, it will appear in the Process Hierarchy window beneath the business process that invokes it. You may also view a graphic picture of each data access process through the Process Map window.

Procedure à **To add a data access process from the Process Map window:**

- 1 Choose **Add...** from the Process menu.

Result: If a data access process is displayed in the active Process Map window, the Add Data Access Process dialog box appears.

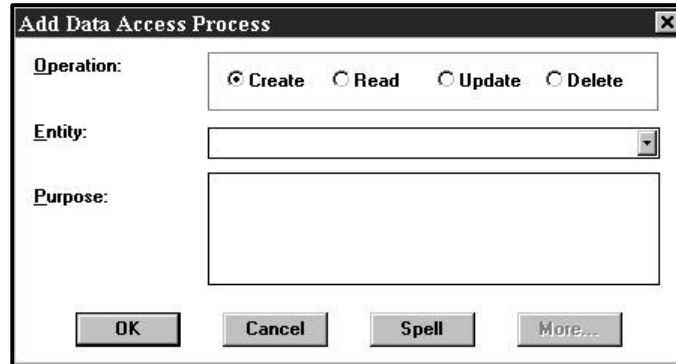
If a business process is displayed, the Add Business Process dialog box appears. In this case, you must return to the Process Map window and use the Change To command on the Process menu to display a data access process in the window.

The Add Data Access Process dialog box appears.

-
- 2 Complete the Add Data Access Process dialog box, then click on **OK**

Add Data Access Process Dialog Box

Dialog Box Illustration



Add Data Access Process Dialog Box

Dialog Box Components

Use the information below to complete the Add Data Access Process dialog box.

<u>Component</u>	<u>Description</u>
Operation	Select the operation (create, read, update, or delete) the data access process will perform on the entity.
Entity	Select the entity the data access process will access from this drop-down list. The list contains all entities in the current model view. To change the model view, use the View/Change To command.
Purpose	Type a purpose for the data access process into this text box. The purpose may contain up to 32,000 characters.
Spell	Click this button to spell check the dialog box.

More

This button is available when custom fields have been defined using Table/Custom Fields in the Admin Utility.

ADD PROCESS STEP

Overview

Description The Add Process Step command allows you to add one of the 15 step types to the current process. A process step is responsible for a single activity within the process as a contributor to its entirety. A process step is depicted as a round-cornered box.

Usage Tips When another object in the process is selected (a step, parallel control, or condition end, or the start mechanism), the step you add will automatically be inserted beneath it and a control flow will be drawn from the selected object to the new step. When no object is selected, the new process will be placed beneath the start mechanism at the top of the process.

When you add a process step, the list of step types you may add depends on the type of process to which you are adding the step.

- + **Example** Accept steps are used only in business processes, Evaluate steps are used only in data access processes, and Examine steps are used in both business processes and data access processes.

The table below indicates whether a step may be used by business processes (BP), data access processes (DAP) or both.

<u>Step Type</u>	<u>Used by</u>
Accept	BP
Choose	BP
Create	DAP
Delete	DAP
Do	BP
Do Create	Both
Do Delete	Both
Do Read	Both
Do Update	Both
Evaluate	BP
Examine	Both
Next	Both
Present	BP
Read	DAP
Update	DAP

**In This
Chapter**

This chapter contains the following topics.

Topic

Adding Accept Steps
Adding Choose Steps
Adding Create Steps
Adding Delete Steps
Adding Do Steps
Adding Do Create Steps
Adding Do Delete Steps
Adding Do Read Steps
Adding Do Update Steps
Adding Evaluate Steps
Adding Examine Steps
Adding Next Steps
Adding Present Steps
Adding Read Steps
Adding Update Steps
Add Process Step Dialog Box
Add Accept Step Dialog Box
Add Choose Step Dialog Box
Add Create Step Dialog Box
Add Delete Step Dialog Box
Add Do Step Dialog Box
Add Do Create Step Dialog Box
Add Do Delete Step Dialog Box
Add Do Read Step Dialog Box
Add Do Update Step Dialog Box
Add Evaluate Step Dialog Box
Add Examine Step Dialog Box
Add Next Step Dialog Box
Add Present Step Dialog Box
Add Read Step Dialog Box
Add Update Step Dialog Box
Accept List Dialog Box
Initiation List Dialog Box
Present List Dialog Boxes
Return List Dialog Box
Modified Attribute Dialog Box

Adding Accept Steps

- Description** The Accept step gathers data from outside the process for use inside the process.
- Usage Tips** Accept steps are used only in business process. The Accept step requires an Accept list, which specifies the attributes or aliases that are being used by the step. These attributes or aliases may come from different entities in the data model.
- Procedure** à **To add an Accept step to a business process:**
- 1 Select the step or control mechanism from which you want the Accept step to originate.
 - 2 Choose **Add...** from the Step menu.

Result: The Add Process Step dialog box appears.
 - 3 From the **Step Type** list box, select Accept. If Accept is not listed, a data access process is displayed in the Process Map Window. Accept steps are used only in business process.
 - 4 Click on **OK**.

Result: The Add Accept Step dialog box appears.
 - 5 In the Add Accept Step dialog box , define the attributes to include on the step's Accept list. To do this, click on the **Define** button.

Result: The Accept List dialog box appears.
 - 6 Complete the Accept List dialog box, then click on **OK** to return to the Add Accept step dialog box.
 - 7 Click on **OK** in the Add Accept step dialog box.

Adding Choose Steps

Description The Choose step selects a subset of occurrences from a set identified in a Do Read step accomplished upline in a business process.

Usage Tips Accept steps are used only in business processes.

The Present list for a Choose step may contain attributes or variables from more than one entity in the data model. The Accept list is always a subset of the Present list.

Procedure à **To add a Choose step to a business process:**

1 Select the step or control mechanism from which you want the Choose step to originate.

2 Choose **Add...** from the Step menu.

Result: The Add Process Step dialog box appears.

3 From the **Step Type** list box, select Choose. If Choose is not listed, a data access process is displayed in the Process Map Window. Choose steps are used only in business process.

4 Click on **OK**.

Result: The Add Choose Step dialog box appears.

5 In the Add Choose Step dialog box, define the attributes to include on the step's Present list. To do this, click on the **Define** button next to the Present List box.

Result: The Present List dialog box appears.

6 Complete the Present List dialog box, then click on **OK** to return to the Add Choose Step dialog box.

7 In the Add Choose Step dialog box, define the attributes to include on the step's Accept list. To do this, click on the **Define** button next to the Accept list box.

Result: The Accept List dialog box appears.

- 8 Complete the Accept List dialog box, then click on **OK** to return to the Add Choose Step dialog box.
- 9 Click on **OK** in the Add Choose Step dialog box.

Adding Create Steps

- Description** The Create step adds one or more new occurrences of an entity.
- Usage Tips** Create steps are used only by data access processes.
The Create and Return lists for a Create step are inherited from the Do Create step that initiates the Create step.
- Procedure** à **To add a Create step to a data access process:**
- 1 Select the step or control mechanism from which you want the Create step to originate.
 - 2 Choose **Add...** from the Step Menu.

Result: The Add Process Step dialog box appears.
 - 3 From the **Step Type** list, select Create. If Create is not listed, a business process is displayed in the Process Map window. Create steps are used only in data access processes.
 - 4 Click on **OK**.

Result: The Add Create Step dialog box appears.
 - 5 In the Add Create Step dialog box, define the attributes to include on the step's Create list. To do this, click on the **Define** button next to the Create List box.

Result: The Create List dialog box appears.
 - 6 Complete the Create List dialog box, then click on **OK** to return to the Add Create Step dialog box.
 - 7 In the Add Create Step dialog box, define the attributes to include on the step's Return list. To do this, click on the **Define** button next to the Return list box.

Result: The Return List dialog box appears.
 - 8 Complete the Return List dialog box, then click on **OK** to return to the Add Create Step dialog box.

9 Click on **OK** in the Add Create Step dialog box.

Adding Delete Steps

Description The Delete step removes one or more occurrences of an entity.

Usage Tips Delete steps are used only in data access processes.

Procedure à **To add a Delete step to a data access process:**

- 1 Select the step or control mechanism from which you want the Delete step to originate.
- 2 Choose **Add...** from the Step menu.

Result: The Add Process Step dialog box appears.
- 3 From the **Step Type** list, select Delete. If Delete is not listed, a business process is displayed in the Process Map Window.

Delete steps are used only in data access processes.
- 4 Click on **OK**.

Result: The Add Delete Step dialog box appears.
- 5 In the Add Delete Step dialog box, define the attributes to include on the step's Delete list. To do this, click on the **Define** button next to the Delete List box.

Result: The Delete List dialog box appears.
- 6 Complete the Delete List dialog box, then click on **OK** to return to the Add Delete Step dialog box.
- 7 Click on **OK** in the Add Delete Step dialog box.

Adding Do Steps

Description The Do step initiates another business process, providing the link that allows reusability of business logic.

Usage Tips Do steps are used only in business processes.

The Initiate list contains none, some, or all of the attributes on the Invocation list of the business process being invoked by the Do step.

The Return list contains none, some, or all of the attributes on the Return list for the business process being invoked by the Do step.

Procedure à **To add a Do step to a business process:**

- 1 Select the step or control mechanism from which you want the Do step to originate.
- 2 Choose **Add...** from the Step menu.

Result: The Add Process Step dialog box appears.
- 3 From the **Step Type** list, select Do. If Do is not listed, a data access process is displayed in the Process Map window. Do steps are used only in business processes.
- 4 Click on **OK**.

Result: The Add Do Step dialog box appears.
- 5 In the Add Do Step dialog box, define the attributes to include on the step's Initiation list. To do this, click on the **Define** button next to the Initiation List box.

Result: The Initiation List dialog box appears.
- 6 Complete the Initiation List dialog box, then click on **OK** to return to the Add Do Step dialog box.
- 7 In the Add Do Step dialog box, define the attributes to include on the step's Return list. To do this, click on the **Define** button next to the Return List box.

Result: The Return List dialog box appears.

- 8 Complete the Return List dialog box, then click on **OK** to return to the Add Do Step dialog box.
- 9 Click on **OK** in the Add Do Step dialog box.

Adding Do Create Steps

- Description** The Do Create step initiates a Create data access process, providing the link that allows reusability of the creation logic for an entity.
- Usage Tips** Do Create steps are used in both business and data access processes. A Do Create step may have an Initiation list that contains some of all of the attributes on the Create list for the Create data access process that is invoked by the Do Create step.
- A Do Create step may also have a Return list, which contains some or all of the attributes on the Return list of the Create data access process invoked by the Do Create step.
- Procedure** à **To add a Do Create step to either a business process or a data access process:**
- 1 Select the step or control mechanism from which you want the Do Create step to originate.
 - 2 Choose **Add...** from the Step menu.
Result: The Add Step dialog box appears.
 - 3 From the **Step Type** list, select Do Create, then click on **OK**.
Result: The Do Create dialog box appears.
 - 4 In the Add Do Create Step dialog box, define the attributes to include on the step's Initiation list. To do this, click on the **Define** button next to the Initiation List box.
Result: The Initiation List dialog box appears.
 - 5 Complete the Initiation List dialog box, then click on **OK** to return to the Add Do Create Step dialog box.
 - 6 In the Add Do Create Step dialog box, define the attributes to include on the step's Return list. To do this, click on the **Define** button next to the Return List box.

Result: The Return List dialog box appears.

- 7 Complete the Return List dialog box, then click on **OK** to return to the Add Do Create Step dialog box.
- 8 Click on **OK** in the Add Do Create Step dialog box.

Adding Do Delete Steps

Description The Do Delete step initiates a Delete data access process, providing the link that allows reusability of the deletion integrity logic for a specific entity.

Usage Tips Do Delete steps are used in both business processes and data access processes.

The Initiation list for a Do Delete step controls which entity occurrences to delete. It contains some, one, or all attributes from the object entity.

Procedure à **To add a Do Delete step to either a business process or a data access process:**

- 1 Select the step or control mechanism from which you want the Do Delete step to originate.
- 2 Choose **Add...** from the Step menu.
Result: The Add Step dialog box appears.
- 3 From the **Step Type** list, select Do Delete, then click on **OK**.
Result: The Do Delete dialog box appears.
- 4 In the Add Do Delete step dialog box, define the attributes to include on the step's Initiation list. To do this, click on the **Define** button next to the Initiation List box.
Result: The Initiation List dialog box appears.
- 5 Complete the Initiation List dialog box, then click on **OK** to return to the Add Do Read Step dialog box.
- 6 Click on **OK** in the Add Do Create Step dialog box.

Adding Do Read Steps

- Description** The Do Read step initiates a Read data access process.
- Usage Tips** The Do Read steps are used in both business and data access processes. The Qualifying list for a Do Read step controls which entity occurrence to use for the Return list. You use an expression to specify a Qualifying list, which identifies the occurrences from which you want to read data. Specified attributes on the Qualifying list must be from the object entity only.
- The Return list contains attributes from the object entity that are required for downline process steps.
- Procedure** à **To add a Do Read step to either a business process or a data access process:**
- 1 Select the step or control mechanism from which you the Do Read step to originate.
 - 2 Choose **Add...** from the step menu.

 Result: The Add Process step dialog box appears.
 - 3 From the **Step Type** list, select Do Read, then click on **OK**.

 Result: The Add Do Read step dialog box appears.
 - 4 In the Add Do Read step dialog box, define the attributes in the Return list. To do this, click on the **Define** button.

 Result: The Return List dialog box appears.
 - 5 Complete the Return List dialog box, then click on **OK** to return to the Add Do Read Step dialog box.
 - 6 Click on **OK** in the Add Do Read Step dialog box.

Adding Do Update Steps

- Description** The Do Update step initiates an Update access process, allowing the reusability of the update integrity logic for a specific entity.
- Usage Tips** Do Update steps are used for both business and data access processes. You may provide a Qualifying list for a Do Update Step, which identifies the entity occurrences to which the updates apply. You use an expression to specify a qualifying list. Specified attributes must be from the object entity only.
- The Initiation list for a Do Update step contains some or all of the attributes on the Initiation list for the Update data access process initiated by the Do Update step.
- The Return list for a Do Update step contains some or all of the attributes on the Return list for the Update data access process initiated by the Do Update step.
- Procedure** à **To add a Do Update step to either a business process or a data access process:**
- 1 Select the step or control mechanism from which you want the Do Update step to originate.
 - 2 Choose **Add....** from the Step menu.
Result: The Add Process Step dialog box appears.
 - 3 From the **Step Type** list, select Do Update, then click on **OK**.
Result: The Add Do Update Step dialog box appears.
 - 4 Complete the Add Do Update Step dialog box.
To define the attributes on the Initiation list, click on the **Define** button next to the Initiation List box.
Result: The Initiation List dialog box appears. Complete the dialog box, then click on **OK** to return to the Add Do Update Step dialog box.

To define the attributes on the Return list, click on the **Define** button next to the Return List box.

Result: The Return List dialog box appears. Complete the dialog box, then click on **OK** to return to the Add Do Update Step dialog box.

- 5 Click on **OK** in the Add Do Update Step dialog box.

Adding Evaluate Steps

- Description** The Evaluate step uses an expression as the basis for selecting from alternative actions.
- Usage Tips** Evaluate steps are used only for business processes. The object of an Evaluate step is a logical expression. All components of the expression must have read model view authority for the operational area you are modeling.
- Procedure** à **To add an Evaluate step to business process:**
- 1 Select the step or control mechanism from which you want the Evaluate step to originate.
 - 2 Choose **Add....** from the Step menu.

Result: The Add Process Step dialog box appears.
 - 3 From the **Step Type** list, select Evaluate, then click on **OK**. If Evaluate is not listed, a data access process is displayed in the Process Map window. Evaluate steps are used only for business process.

Result: The Add Evaluate Step dialog box appears.
 - 4 Complete the Add Evaluate Step dialog box then click on **OK**.

Adding Examine Steps

Description The Examine step uses the value of an attribute as the basis for selecting from alternative actions.

Usage Tips Examine steps are used only for business processes.

Procedure à **To add an Examine step to a business process:**

1 Select the step or control mechanism from which you want the Examine step to originate.

2 Choose **Add....** from the Step menu.

Result: The Add Process Step dialog box appears.

3 From the **Step Type** list box, select Examine, then click on **OK**. If Examine is not listed, a data access process is displayed in the Process Map window. Only business processes use Examine steps.

Result: The Add Examine Step dialog box appears.

4 Complete the Add Examine Step dialog box, then click on **OK**.

Adding Next Steps

- Description** The Next step designates instance-at-a-time logic.
- Usage Tips** Next Steps are used by both business and data access processes.
- Procedure** **à To add a Next step to either a business process or a data access process.**
- 1 Select the step or control mechanism from which you want the Next step to originate.
 - 2 Choose **Add....** from the Step menu.

 Result: The Add Process Step dialog box appears.
 - 3 From the **Step Type** list, select **Next**, then click on **OK**.

 Result: The Add Next Step dialog box appears.
 - 4 Complete the Add Next Step dialog box, then click on **OK**.

Adding Present Steps

- Description** The Present step provides data from within the process for use outside of the process.
- Usage Tips** Present steps are only used for business processes.
- The Present list may contain attributes or variables of more than one entity in the data model.
- Procedure** à **To add a Present step to a business process:**
- 1 Select the step or control mechanism from which you want the Present step to originate.
 - 2 Choose **Add....** from the Step menu.

 Result: The Add Process Step dialog box appears.
 - 3 From the **Step Type** list, select Present, then click on **OK**. If Present is not listed, a data access process is displayed in the Process Map window. Only business processes use Present steps.

 Result: The Add Present Step dialog box appears.
 - 4 Complete the Add Present Step dialog box.

 To define the attributes in the Present list, click on the **Define** button.

 Result: The Present List dialog box appears. Complete the dialog box, then click on **OK** to return to the Add Present list dialog box.
 - 5 Click on **OK** in the Add Present list dialog box.

Adding Read Steps

- Description** The Read step retrieves data from one or more occurrences of an entity.
- Usage Tips** The Return list for a Read step contains all Attributes for the entity being read. Read steps are used only by data access processes.
- Procedure** à **To add a Read step to a data access process:**
- 1 Select the step or control mechanism from which you want the Read step to originate.
 - 2 Choose **Add....** from the Step menu.
Result: The Add Process Step dialog box appears.
 - 3 From the **Step Type** list, select Read, then click on **OK**.
If Read is not listed, a business process is displayed in the Process Map window. Only data access processes use Read steps.
Result: The Add Read Step dialog box appears.
 - 4 In the Add Read Step dialog box, define the attributes for the Return list. To do this, click on the **Define** button.
Result: The Return List dialog box appears.
 - 5 Complete the Return List dialog box, then click on **OK** to return to the Add Read Step dialog box.
 - 6 Click on **OK** in the Add Read Step dialog box.

Adding Update Steps

Description The Update step modifies the values of one or more existing occurrence of an entity.

Usage Tips Update steps are used only in data access processes.

The attributes on the Update list are inherited from the Do Update step that initiated the Update step.

Procedure à **To add an Update step to a data access process:**

1 Select the step or control mechanism from which you want the Update step to originate.

2 Choose **Add....** from the Step menu.

Result: The Add Process Step dialog box appears.

3 From the **Step Type** drop-down list, select Update, then click on **OK**. If Update is not listed, a business process is displayed in the Process Map window. Update steps are used only in data access steps.

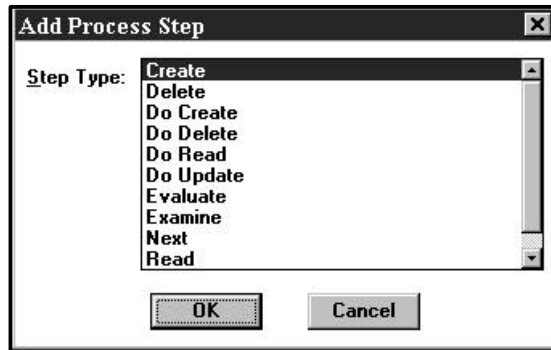
Result: The Add Update Step dialog box appears.

4 Select from the **Entity** drop-down list the entity whose occurrences you want to update. Type a purpose in the Purpose text box.

5 Click on **OK**.

Add Process Step Dialog Box

Dialog Box Illustration



3

Add Process Step Dialog Box

Dialog Box Components

Use the information below to complete the Add Process Step dialog box.

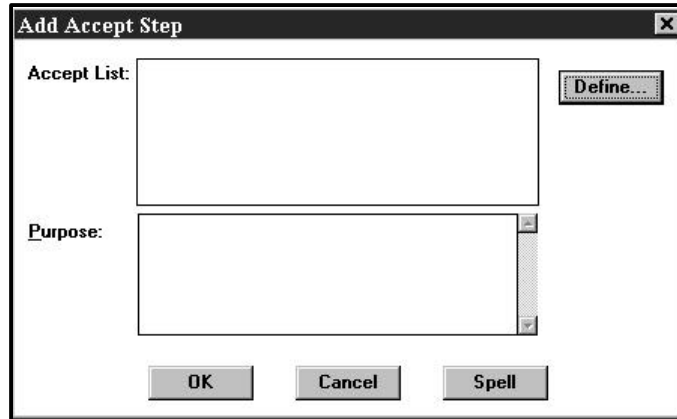
<u>Component</u>	<u>Description</u>
Step Type	Select a step type from this list box. Depending on the kind of process you are building (business process or data access process), only certain types of process steps are listed in this list box.

Refer to the beginning of the Add Process Step section for more information.

When you select a step type and click on **OK**, the dialog box for the step type you selected will appear.

Add Accept Step Dialog Box

Dialog Box Illustration



Add Accept Step Dialog Box

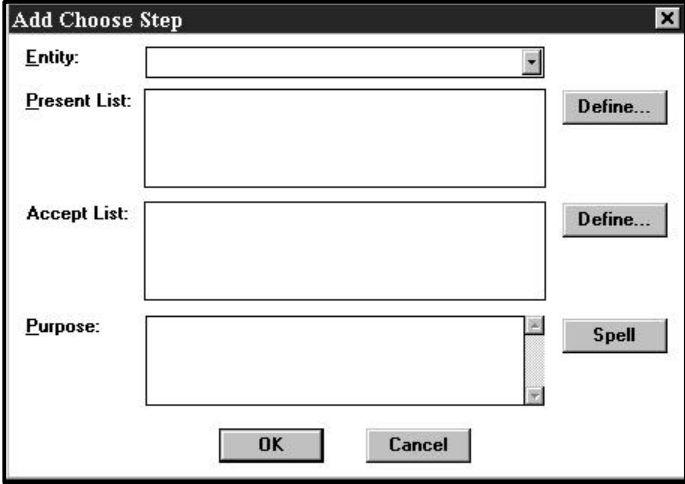
Dialog Box Components

Use the information below to complete the Add Accept Step dialog box.

<u>Component</u>	<u>Description</u>
Accept List	This list box contains attributes that are gathered from outside of the process for its internal use. You define this list by clicking on the Define button.
Define	Use this button to define the list of attributes for the Accept list. The Accept List dialog box appears when you click on this button.
Purpose	Type a purpose for this step in this list box. You may type up to 32,000 characters.
Spell	Click this button to spell check the dialog box.

Add Choose Step Dialog Box

Dialog Box Illustration



Add Choose Step Dialog Box

Dialog Box Components

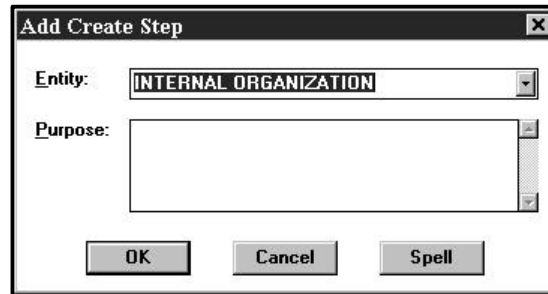
Use the information below to complete the Add Choose Step dialog box.

Component	Description
Entity	Select from this drop-down list the entity whose occurrence(s) you want to choose. This list includes all entities within the current model view. To change the model view, use the Change To command on the View menu.
Present List	This list box contains the attributes to be included on the Present list for the step. You define this list by clicking on the Define button to the right of this list box.
Define (next to Present list)	Use this button to define the attributes to include on the Present list. When you click on this button, the Present List dialog box appears.

Accept List	This list box contains the attributes to be included on the Accept list. This list is always a subset of the Present list. You define this list by clicking on the Define button to the right of this list box.
Define (next to Accept list)	Use this button to define the attributes to include on the Accept list. When you click on this button, the Accept List dialog box appears.
Purpose	Type a purpose for the step in this list box. You may type up to 32,000 characters.
Spell	Check this button to spell check the dialog box.

Add Create Step Dialog Box

Dialog Box Illustration



Add Create Step Dialog Box

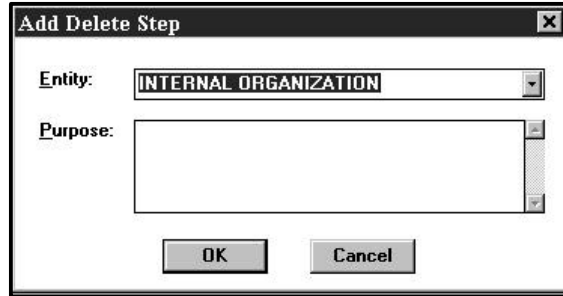
Dialog Box Components

Use the information below to complete the Add Create Step dialog box.

Component	Description
Entity	Select from this drop-down list the entity whose occurrence(s) you want to add. This list includes entities in the current model view. To change the model view, use the Change To command on the View menu.
Purpose	Type a purpose for the step in this list box. You may type up to 32,000 characters.
Spell	Click this button to spell check the dialog box.

Add Delete Step Dialog Box

Dialog Box Illustration



Add Delete Step Dialog Box

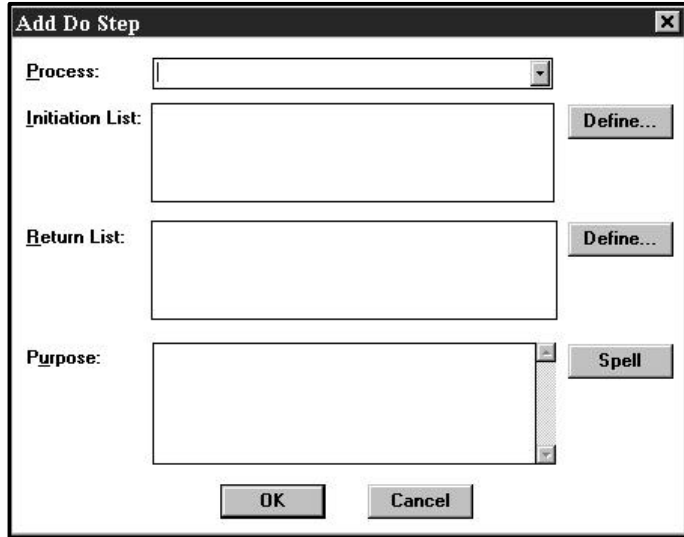
Dialog Box Components

Use the information below to complete the Add Delete Step dialog box.

Component	Description
Entity	Select from this drop-down list the entity whose occurrence(s) you want to delete. This list includes entities in the current model view. To change the model view, use the Change To command on the View menu.
Purpose	Type a purpose for the step in this list box. You may type up to 32,000 characters.

Add Do Step Dialog Box

Dialog Box Illustration



Add Do Step Dialog Box

Dialog Box Components

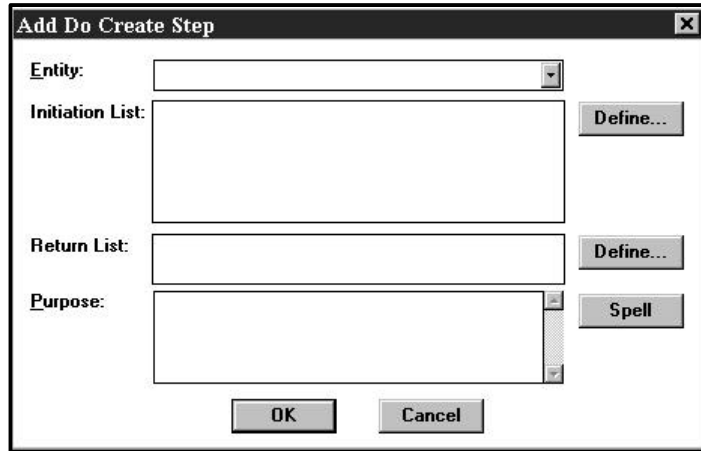
Use the information below to complete the Add Do Step dialog box.

<u>Component</u>	<u>Description</u>
Process	Select from this drop-down list the business process that you want the current process to invoke. The drop-down list will only let you choose from the business processes that are available in the current model view. The Do step will only invoke other business processes.
Initiation List	This list box contains the attributes to be included on the Initiation list for the Do business process invoked by this Add Do step. You define this by clicking on the Define button.

Define (next to Initiation list)	Use this button to define the attributes to include on the Initiation list. When you click on this button, The Initiation List dialog box appears.
Return List	This list includes all or some of the attributes that are on the Return list of the Do business process that this Add Do step invokes. Include only those attributes that are needed in subsequent steps of the current process. You define these attributes through the Define button.
Define (next to Return list)	Use this button to define the attributes to include on the Return list. When you click on this button, the Return List dialog box appears.
Purpose	Type a purpose for this step in this text box. You may type up to 32,000 characters.
Spell	Click this button to spell check the dialog box.

Add Do Create Step Dialog Box

Dialog Box Illustration



Add Do Create Step Dialog Box

Dialog Box Components

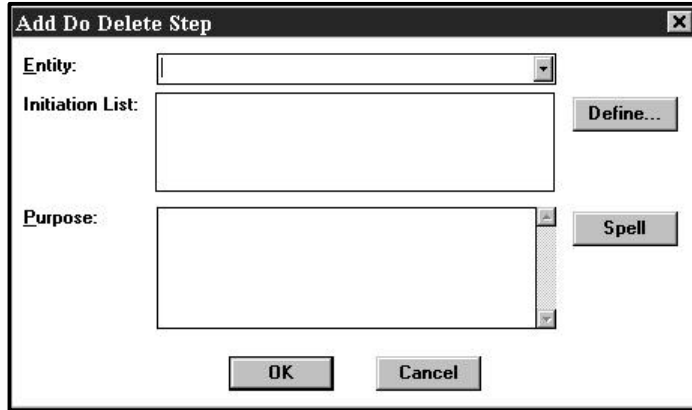
Use the information below to complete the Add Do Create Step dialog box.

Component	Description
Entity	Select from this drop-down list the entity for which the current process invokes a Create data access process. This list includes all entities within the current model view. To change the model view, use the Change To command on the View menu.
Initiation List	This list box contains the attributes to be included on the Initiation list for the Create data access process invoked by this Do Create step. You define this list by clicking on the Define button.
Define (next to Initiation list)	Use this button to define the attributes to include on the Initiation list. When you click on this button, the Initiation List dialog box appears.

Return List	<p>This list includes all or some of the attributes that are on the Return list of the Create data access process that this Do Create step invokes.</p> <p>Include only those attributes that are needed in subsequent steps of the current process. You define these attributes through the Define button.</p>
Define (next to Return list)	<p>Use this button to define the attributes to include on the Return list. When you click on this button, the Return List dialog box appears.</p>
Purpose	<p>Type a purpose for this step in this list box. You may type up to 32,000 characters.</p>
Spell	<p>Click this button to spell check the dialog box.</p>

Add Do Delete Step Dialog Box

Dialog Box Illustration



Add Do Delete Step Dialog Box

Dialog Box Components

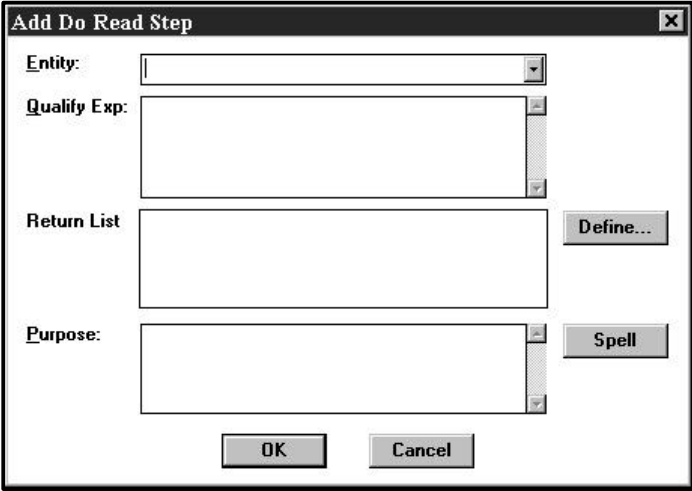
Use the information below to complete the Add Do Delete Step dialog box.

Component	Description
Entity	Select from this drop-down list the entity whose occurrence(s) you wish to delete by invoking a Delete data access process. This list includes all entities within the current model view. To change the model view, use the Change To command on the View menu.
Initiation List	This list box contains the attributes to be included on the Initiation list for the Delete data access process invoked by this Do Delete step. You define this list by clicking on the Define button.
Define	Use this button to define the attributes to include on the Initiation list. When you click on this button, the Initiation List dialog box appears.

Purpose	Type a purpose for this step in this list box. You may type up to 32,000 characters.
Spell	Click this button to spell check the dialog box.

Add Do Read Step Dialog Box

Dialog Box Illustration



Add Do Read Step Dialog Box

Dialog Box Components

Use the information below to complete the Add Do Read Step dialog box.

<u>Component</u>	<u>Description</u>
Entity	Select from this drop-down list the entity you want the Read data access process invoked by this Do Read step to read. This list includes all entities within the current model view. To change the model view, use the Change To command on the Process Map's View menu.
Qualify Exp	Type into this box a qualifying expression that will determine the contents of the Qualifying list. The Qualifying list will determine which occurrences of the entity to read and include on the return list and will therefore always contain some or all of the primary keys of the entity.

The qualifying expression is the algorithm that qualifies certain attribute occurrences for reading. This field is not required. Specifying no qualifying expression will result in all attribute occurrences to be read.

Return List

This list box lists all attributes to be included on the Return list. The Return list will contain those attributes that will be used by the current process in subsequent steps.

If the Return list is empty, the attributes that are read by the Read data access process will simply be checked for the attributes' existence.

You define attributes for the Return list through the **Define** button.

Define

Click on this button to define the attributes to include on the Return list. When you click on this button, the Return List dialog box appears.

Purpose

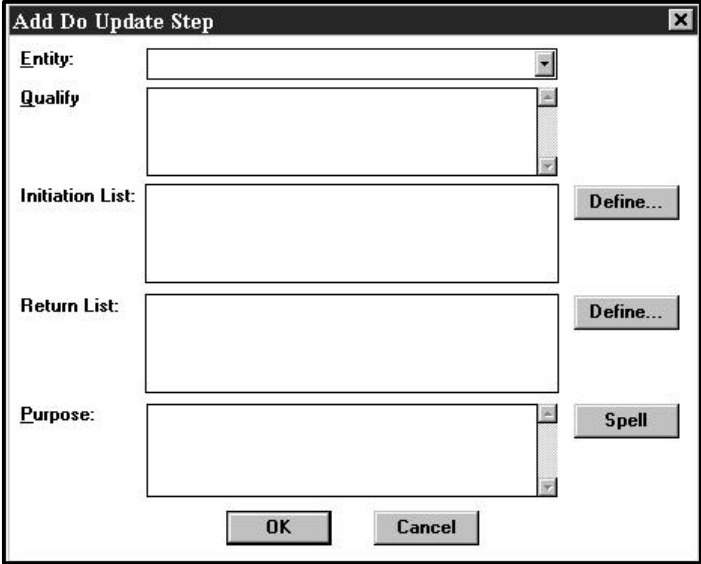
Type a purpose for this in this text box. You may type up to 32,000 characters.

Spell

Click this button to spell check the dialog box.

Add Do Update Step Dialog Box

Dialog Box Illustration



Add Do Update Step Dialog Box

Dialog Box Components Use the information below to complete the Add Do Update Step dialog box.

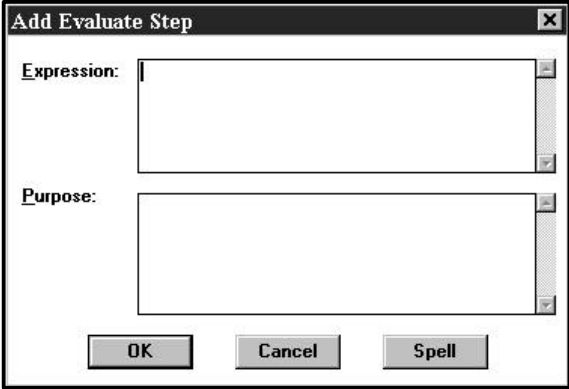
<u>Component</u>	<u>Description</u>
Entity	Select from this drop-down list the entity for which you want to invoke an Update data access process through this Do Update step. This drop-down list will include all entities within the model view accessed by the current process. To change the model view, use the Change To command on the Process Map's View menu.
Qualify	Type in this box a qualifying expression that will determine the contents of the Qualifying list.

The qualifying list will determine which occurrences of the entity to update and include on the update list. The qualifying expression is the algorithm that qualifies certain attribute occurrences for updates.

- Initiation List This list box contains all attributes that are included on the Initiation list. You add attributes to the Initiation list through the **Define** button next to this list box.
- Define
(next to
Initiation list) Use this button to add attributes to the Initiation list. When you click on this button, the Initiation List dialog box appears.
- Return List This list box contains all attributes that are included on the Return list. You add attributes to the Return list through the **Define** button next to this list box.
- Define
(next to
Return list) Use this button to add attributes to the Return list. When you click on this button, the Return List dialog box appears.
- Purpose Type a purpose for this step in this text box. You may type up to 32,000 characters.
- Spell Click this button to spell check the dialog box.

Add Evaluate Step Dialog Box

Dialog Box Illustration



Add Evaluate Step Dialog Box

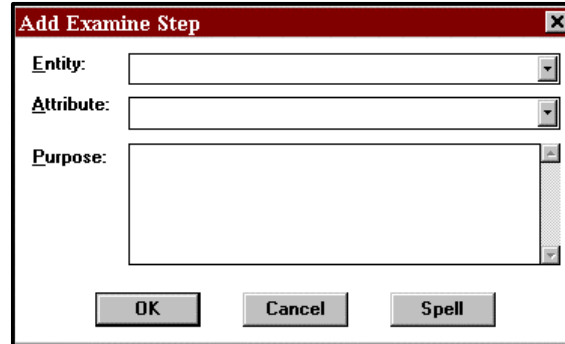
Dialog Box Components

Use the information below to complete the Add Evaluate Step dialog box.

<u>Component</u>	<u>Description</u>
Expression	Type a valid expression in this dialog box. The expression will be used to decide among several possible actions at this point in the process. The Evaluate step is the decision point between two sets of logic and the expression is the algorithm by which that decision is made.
Purpose	Type a purpose for this step in this list box. You may type up to 32,000 characters.
Spell	Click this button to spell check the dialog box.

Add Examine Step Dialog Box

Dialog Box Illustration



Add Examine Step Dialog Box

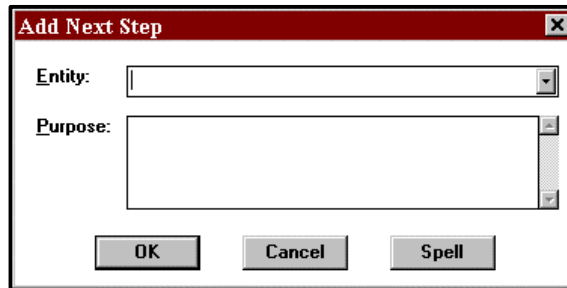
Dialog Box Components

Use the information below to complete the Add Examine Step dialog box.

Component	Description
Entity	<p>Select from this drop-down list the entity that contains the attribute whose value will be the basis for selection among several different actions at this point in the process.</p> <p>This list includes all entities within the current model view. To change the model view, use the Change To command on the View menu.</p>
Attribute	<p>Select from this drop-down list the attribute whose value will function as a decision point between two sets of logic in the process.</p> <p>The list contains all attributes that are part of the entity you selected from the Entity drop-down list.</p>
Purpose	<p>Type a purpose for this step in this list box. You may type up to 32,000 characters.</p>
Spell	<p>Click this button to spell check the dialog box.</p>

Add Next Step Dialog Box

Dialog Box Illustration



Add Next Step Dialog Box

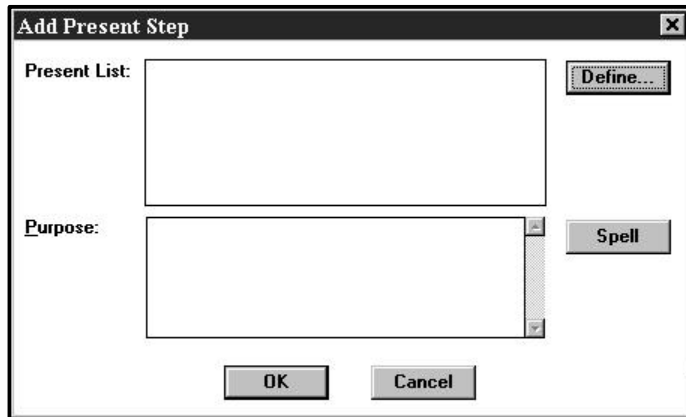
Dialog Box Components

Use the information below to complete the Add Next Step dialog box.

<u>Component</u>	<u>Description</u>
Entity	Select from this drop-down list the entity whose occurrence you want to specify in the Next step. This list includes all entities within the current model view. To change the model view, use the Change To command on the View menu.
Purpose	Type a purpose for this step in this text box. You may type up to 32,000 characters.
Spell	Click this button to spell check the dialog box.

Add Present Step Dialog Box

Dialog Box Illustration



Add Present Step Dialog Box

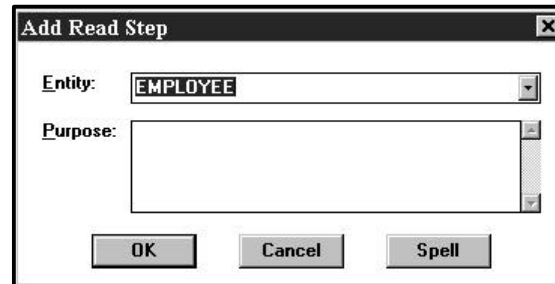
Dialog Box Components

Use the information below to complete the Add Present Step dialog box.

<u>Component</u>	<u>Description</u>
Present List	This list box lists those attributes that are provided by the process to outside the process. The list may contain attributes from more than one entity. You define the attributes by clicking the Define button.
Define	Use this button to define the attributes in the Present list. When you click on this button, the Present List dialog box appears.
Purpose	Type a purpose for this step in this list box. You may type up to 32,000 characters.
Spell	Click this button to spell check the dialog box.

Add Read Step Dialog Box

Dialog Box Illustration



Add Read Step Dialog Box

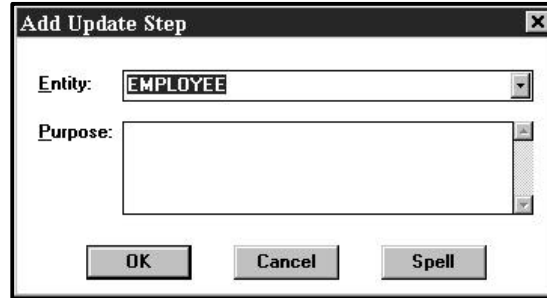
Dialog Box Components

Use the information below to complete the Add Read Step dialog box.

Component	Description
Entity	Select from this drop-down list the entity whose occurrences you want to read. This list includes all entities within the current model view. To change the model view, use the Change To command on the View menu. There may only be one read step for each entity in the process model.
Purpose	Type a purpose for this step in this list box. You may type up to 32,000 characters.
Spell	Click this button to spell check the dialog box.

Add Update Step Dialog Box

Dialog Box Illustration



Add Update Step Dialog Box

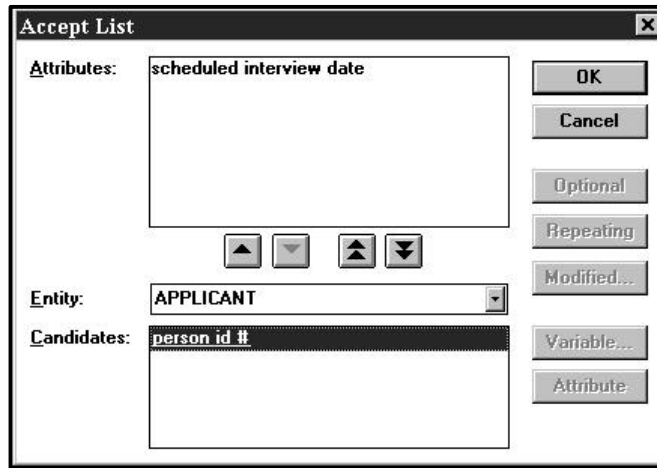
Dialog Box Components

Use the information below to complete the Add Update Step dialog box.

Component	Description
Entity	Select from this drop-down list the entity whose occurrences you want to update. This list includes all entities within the current model view. To change the model view, use the Change To command on the View menu. There may only be one update step for each entity in the process model.
Purpose	Type a purpose for this step in this list box. You may type up to 32,000 characters.
Spell	Click this button to spell check the dialog box.

Accept List Dialog Box



Dialog Box Illustration



Accept List Dialog Box

Dialog Box Components

Use the information below to complete the Accept List dialog box.

Component	Description
Attributes	The attributes selected for inclusion in various attribute lists appear in this list box. You add attributes from the Candidates list box to this list box through the arrow buttons.
	Use this button to move attributes from the Candidates list box to the Attributes list box. To do this, highlight this, highlight the attributes in the Candidates list box, then click on this button. The selected attributes will appear in the Attributes list box.
	Use this button to remove attributes from the Attributes list box and return them to the Candidates list box. To do this, highlight the attributes in the Attribute list box, then click on this button. The selected attributes will return to the Candidates list box.



Use this button to move all attributes in the Candidates list box to the Attributes list box. To do this, simply click on this button. All attributes in the Candidates list box will then appear in the Attributes list box.



Use this button to return all attributes in the Attributes list box to the Candidates list box. To do this, simply click on this button. All attributes in the Attributes list box will return to the Candidates list box.

Entity

Select an entity from this drop-down list whose attributes you want to be displayed in the Candidates list box.

This drop-down list will include all entities within the model view accessed by the current process. To change the model view, use the Change To command on the Process Map window's View menu.

Candidates

This list box contains all attributes of the selected entity. Choose the attributes from this list that you want to include in the Attributes list box.

Optional

Use this button to define an attribute in the Attributes list as optional for the process step. To do this, highlight the attribute in the Attributes list, then click on this button. Square brackets ([]) are then placed around the attribute name in the list.

Repeating

Use this button to define an attribute in the Attributes list as repeating for the process step. To do this, highlight the attribute in the Attributes list, then click on this button. Braces ({}) are then placed around the attribute name in the list.

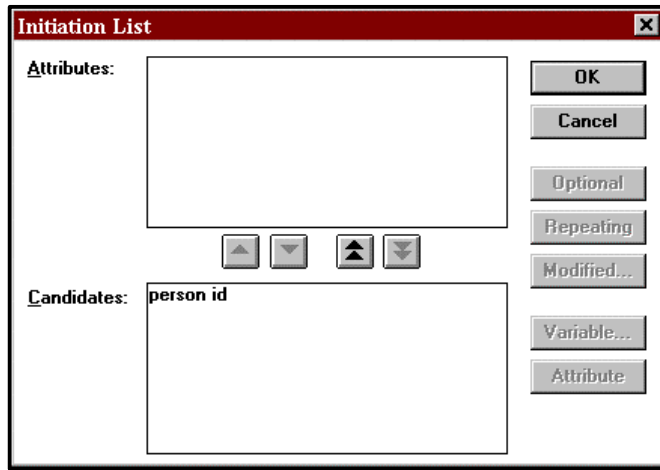
Modified

Use this button to modify the attribute through an expression. When you click on this button, the Modified Attribute dialog box appears.

Variable	Use this button to define a variable for an attribute. To do this, highlight the attribute in the attributes list, then click on this button. When you click on this button, the Attribute Variable dialog box appears. Parentheses are placed around the variable in the attribute list.
Attribute	Use this button to return a variable on the Attribute list to its original attribute state. To do this, highlight the variable on the Attributes list, then click on this button. The name of the attribute for which the variable was created appears in the Attributes list.

Initiation List Dialog Box



Dialog Box Illustration



Initiation List Dialog Box

Dialog Box Components

Use the information below to complete the Initiation List dialog box.

Component	Description
Attributes	The attributes selected for inclusion in various attribute lists appear in this list box. You add attributes from the Candidates list box to this list box through the arrow buttons.
	Use this button to move attributes from the Candidates list box to the Attributes list box. To do this, highlight the attributes in the Candidates list box, then click on this button. They will then appear in the Attributes list box.
	Use this button to remove attributes from the Attributes list box and return them to the Candidates list box. To do this, highlight the attributes in the Attribute list box, then click on this button. They will then return to the Candidates list box.



Use this button to move all attributes in the Candidates list box to the Attributes list box. To do this, simply click on this button. All attributes in the Candidates list box will then appear in the Attributes list box.



Use this button to return all attributes in the Attributes list box to the Candidates list box. To do this, simply click on this button. All attributes in the Attributes list box will return to the Candidates list box.

Candidates This list box contains all attributes of the object entity. Choose the attributes from this list that you want to include in the Attributes list box.

Optional Use this button to define an attribute in the Attributes list as optional for the process step. To do this, highlight the attribute in the Attributes list, then click on this button. Square brackets ([]) are then placed around the attribute name in the list.

Repeating Use this button to define an attribute in the Attributes list as repeating for the process step. To do this, highlight the attribute in the Attributes list, then click on this button. Braces ({}) are then placed around the attribute name in the list.

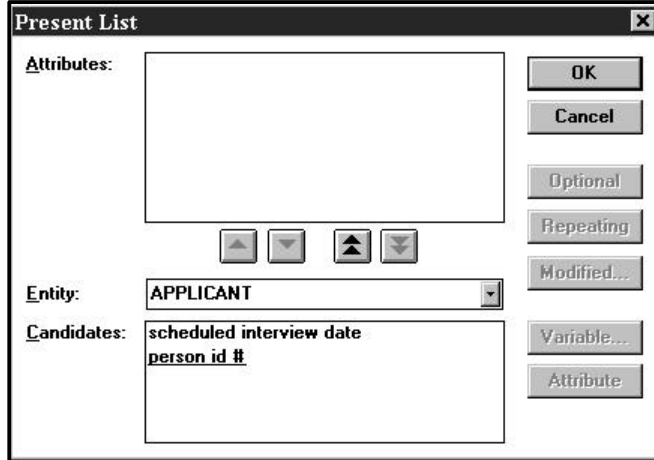
Modified Use this button to modify the attribute through an expression. When you click on this button, the Modified Attribute dialog box appears.

Variable Use this button to define a variable for the attribute. To do this, highlight the attribute in the Attributes list, then click on this button. When you click on this button, the Attribute Variable dialog box appears. Parentheses are placed around the variable in the attribute list.

Attribute Use this button to return a variable on the Attribute list to its original attribute state. To do this, highlight the variable on the Attribute list, then click on this button. The name of the attribute for which the variable was created appears in the Attributes list.

Present List Dialog Boxes

**Dialog Box
Illustration
(Choose Steps)**

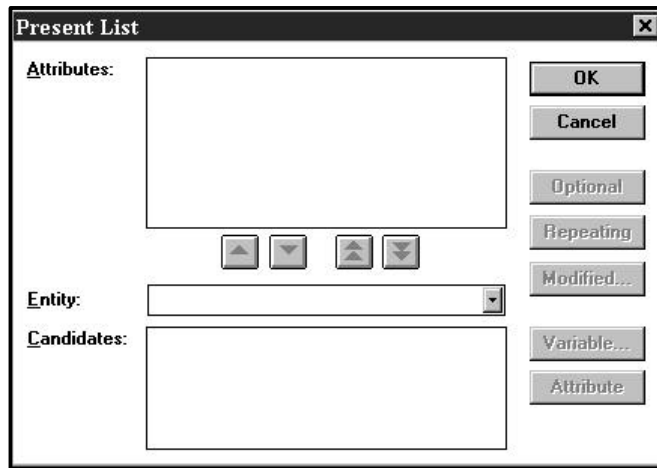


Present List Dialog Box (Choose Steps)

**Dialog Box
Components**

This dialog box is identical to the Accept List dialog box.

**Dialog Box
Illustration
(Present Steps)**



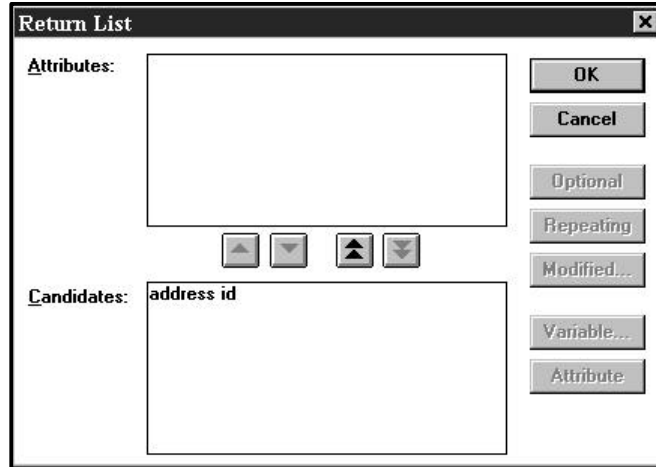
Present List Dialog Box (Present Steps)

**Dialog Box
Components**

This dialog box is identical to the Accept List dialog box.

Return List Dialog Box

Dialog Box Illustration



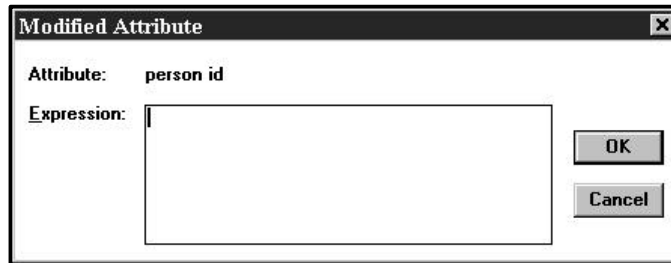
Return List Dialog Box

Dialog Box Components

This dialog box is identical to the Initiation List dialog box.

Modified Attribute Dialog Box

Dialog Box Illustration



Modified Attribute Dialog Box

Dialog Box Components

Use the information below to complete the Modified Attribute dialog box.

Component	Description
Attribute	The name of the attribute you highlighted in the previous dialog box appears in this box.
Expression	Type a valid expression into this box. The expression will be used to modify the attribute's value for the process step.

ADD SESSION

Adding Sessions

Description The Add Session command allows you to add a session to the model. The Add Session command is available from all windows.

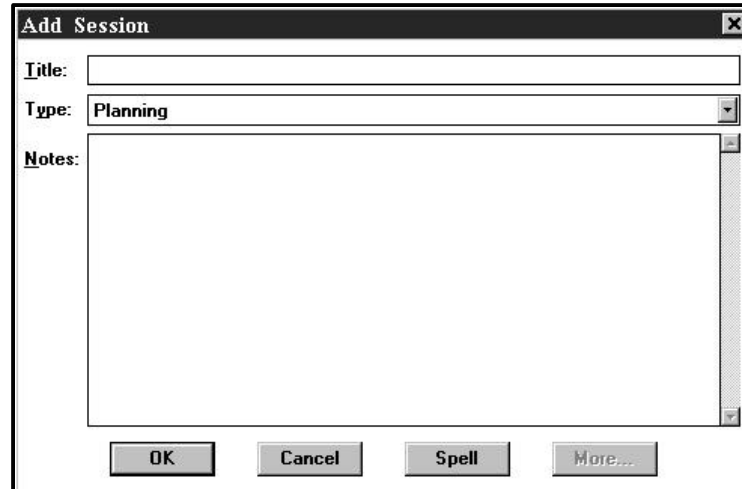
Usage Tips When you add a session, you specify its title and type. In addition, you can add notes about the session.

Procedure à **To add a session:**

- 1 Choose **New** from the Sessions menu.
Result: The Add Session dialog box appears.
- 2 Complete the Add Session dialog box and click on **OK**.
Result: The session is added to the model.

Add Session Dialog Box

Dialog Box Illustration



Add Session Dialog Box

Dialog Box Components

Use the information below to complete the Add Session dialog box.

Component	Description
Title	Type the title of the session. The title defaults to the capitalization standards defined through the Admin Utility Preferences/Naming command. You may type up to 51 alphanumeric characters. The @ symbol and quotation marks (“”) are not allowed.
Type	Select a session type from the drop-down list.
Notes	Type the notes of the session in the large text box. The text can be up to 32,000 alphanumeric characters long.

More	This command button is available if custom fields have been defined using Table/Custom Fields in the Admin Utility.
Spell	Click this button to spell check the dialog box.

ADD STATEMENT

Adding Planning Statements

- Description** The Add Statement command allows you to add a planning statement to the current model view. It is available from the Planning Outline, Planning Dictionary, Planning Dictionary, Statement-View Matrix, Statement-Statement Matrix, and Statement-Data Matrix windows.
- Usage Tips** When you add a statement, you specify its title, type, and text. For more extensive editing capabilities, such as search and replace and character formatting, use the Statement Editor window to add and edit statements. You access the Statement Editor window through the Statement Editor command on the Statement menu.

Statement types are for classification purposes only and have no processing effect on the encyclopedia. Visible Advantage is shipped with several predefined statement types. You may define additional statement types through the Table command on the main Visible Advantage Admin Utility window.

If you want a statement to add the statement to the entire model, use the Copy To Model View command on the Statement menu.

If you want to add a statement to the current model view that has already been added to another model view, use the Copy From Model View command on the Statement menu.

Procedure **à To add a planning statement to the current model view in the Planning Outline or Planning Dictionary window:**

- 1 Choose **Add...** from the Statement menu.

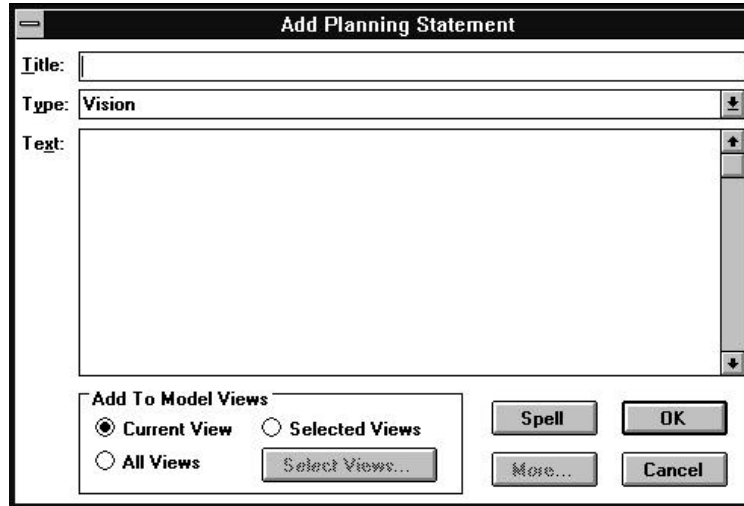
Result: The Add Planning Statement dialog box appears.

- 2 Complete the Add Planning Statement dialog box and click on **OK**.

Result: The statement is added appears in the active window.

Add Planning Statement Dialog Box

Dialog Box Illustration



Add Planning Statement Dialog Box

Dialog Box Components

Use the information below to complete the Add Planning Statement dialog box.

Component	Description
Title	Type a title for the planning statement into this box. The title defaults to the capitalization standards defined through the Visible Advantage Admin Utility Preferences/Naming command. You may type up to 51 alphanumeric characters. The @ symbol and quotation marks (") are not allowed.
Type	Select a type for the statement from the drop-down list. The list includes the standard statement types, as well as any that have been defined through the Visible Advantage Admin Utility Table command.

Text	Type the text of the planning statement in the large text box. The text can be up to 32,000 alphanumeric characters long. See your Windows documentation for more information on editing extended text in Windows applications.
Current View	Select this button to add the statement to the current view only.
All Views	Select this button to add the statement to all views.
Selected Views	Use this button to select the views in which the statement should be visible. When you click on this button, the Select Model Views dialog box appears. You select views through this dialog box in the same way that you select statements in the Planning Dictionary window. See Select Statements in this manual for information on this type of dialog box.

ADD STOP CONTROL

Adding Stop Controls

Description The Add Stop command adds a stop control to a process. A stop control shows where a branch of the logic in a process ends. It also shows the completion state for that branch.

A stop control assigned a successful completion state is displayed as double horizontal bars. A failed completion state is displayed as a single horizontal bar.

Usage Tips Since processes may consist of several logical paths, several stop controls within one process are possible. Stop controls are always at the end of a control flow.

Use this command to end a logical path of a process, assign a completion state to it, and declare it a success or failure. Each process has at least one stop control.

Procedure à **To add a stop control:**

1 Select the step before which you want to place the stop control.

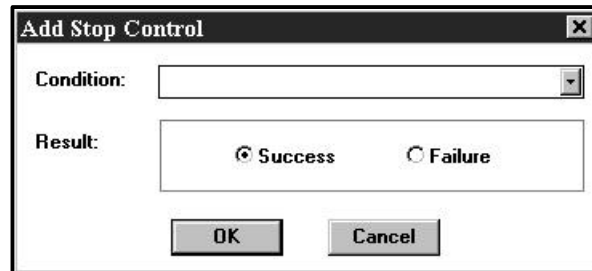
2 Choose **Add Stop...** from the Control menu.

Result: The Add Stop Control dialog box appears.

3 Complete the Add Stop Control dialog box, then click on **OK**.

Add Stop Control Dialog Box

Dialog Box Illustration



Add Stop Control Dialog Box

Dialog Box Components

Use the information below to complete the Add Stop Control dialog box.

<u>Component</u>	<u>Description</u>
Condition	<p>Choose a condition for the stop control from this drop-down list.</p> <p>This list includes all completion values defined for the encyclopedia. You may define a new completion value for the stop control by typing a new name in this field. A message will then ask if you want to add the new completion value.</p> <p>If you click on Yes, the Completion Values dialog box appears, allowing you to add the completion value to the completion table. See Completion Table in this manual for dialog box component descriptions.</p>
Success	<p>Select this button if you want to define the completion value as a success. This completion value will then default to success when it is used in other logical paths in this process. However, you may use the value differently in other processes within the process model.</p>

Failure

Select this button if you want to define the completion value as a failure. The value will then default to failure when it is used in other logical paths in this process. However, you may use the value differently in other processes.

ADD STORAGE

Adding Storage Access Mechanisms

Description The Add Storage Access Mechanism command, available from the Design Map and Design Dictionary windows, allows you to add a storage access mechanism to the encyclopedia for use within a database design.

Usage Tips This command adds storage access mechanisms only. If you want to add a standard access mechanism (hashing, index, or storage) for the current data structure, use the Add command on the Access menu.

You may add several types of storage access mechanisms through this command. The types you can add depend on those defined for the current data structure manager through the Visible Admin Table Data Structure Managers command.

Procedure à **To add a storage access mechanism for a data item to the current design object:**

1 In the Design Dictionary's **Data Items** field, highlight the data item for which you want to add a storage access mechanism.

2 Choose **Add Storage...** from the Access menu.

Result: The Add Storage Access Mechanism dialog box appears.

3 Select the type of storage access mechanism you want to add, then click on **OK**.

The dialog box includes the storage access mechanism types defined for the current data structure manager. Storage access mechanism types can include cluster, view, direct, indexed random, indexed sequential, inverted access, sequential, and system controlled.

Result: The dialog box appears for the type of access mechanism you selected.

4 Complete the dialog box, then click on **OK**.

Add Cluster Access Mechanism Dialog Box

Dialog Box Illustration

The screenshot shows a dialog box titled "Add Cluster". It contains the following fields and controls:

- Name:** A text input field.
- Design Objects:** A list box containing the text "EMPLOYEE". To the right of the list box is an "Edit List..." button.
- Data Items:** A list box containing the text "annual_wage". To the right of the list box is an "Edit List..." button.
- Purpose:** A text area with vertical scroll bars.
- Add to:** A section with two radio buttons: "Current View Only" (unselected) and "All Design Object Views" (selected).
- Buttons:** "OK" and "Cancel" buttons at the bottom center.

Add Cluster Access Mechanism Dialog Box

Dialog Box Components Use the information below to complete the Add Cluster Access Mechanism dialog box.

Component	Description
Name	Type the name of the cluster access mechanism into this field. You may type up to 51 alphanumeric characters. The @ symbol and quotation marks (“”) are not allowed.
Design Objects	The name of the current design object appears in this field. You can add other design objects to the cluster through the Edit List button next to this list box (see below).
Edit List (design objects)	Use this button to edit the list of design objects in the Design Objects list box above. When you click on this button, the Select Design Objects dialog

box appears. See Select Design Objects in this manual for information on this dialog box.

Data Items The data item you selected before you chose the Add Storage Access command appears in this list. You may add more data items to the list by using the **Edit List** command button (see below).

Edit List
(data items) Use this button to edit the data items on the **Data Items** list above. When you click on this button, the Select Data Items dialog box appears. The Select Data Items dialog box allows you to select the data items that belong to the current data structure.

You select data items through this dialog box in the same way that you select data structures in the Select Data Structures dialog box. See Select Data Structures in this manual for more information on using this type of dialog box.

Purpose Type a purpose for the cluster access mechanism in this text box.

Current View Select this button to add the cluster access mechanism to the current view only.

All Design
Object Views Select this button to add the cluster access mechanism to all design object views.

Add Database View Access Mechanism Dialog Box

Dialog Box Illustration

The dialog box titled "Add Data Base View" contains the following elements:

- Name:** A text input field.
- Design Objects:** A list box containing "EMPLOYEE" and an "Edit List..." button.
- Data Items:** A list box containing "annual_wage" and an "Edit List..." button.
- Expression:** A text input field with a vertical scroll bar.
- Purpose:** A text input field with a vertical scroll bar.
- Add to:** A group box containing two radio buttons: "Current View Only" (unselected) and "All Design Object Views" (selected).
- Buttons:** "OK" and "Cancel" buttons at the bottom.

Add Database View Access Mechanism Dialog Box

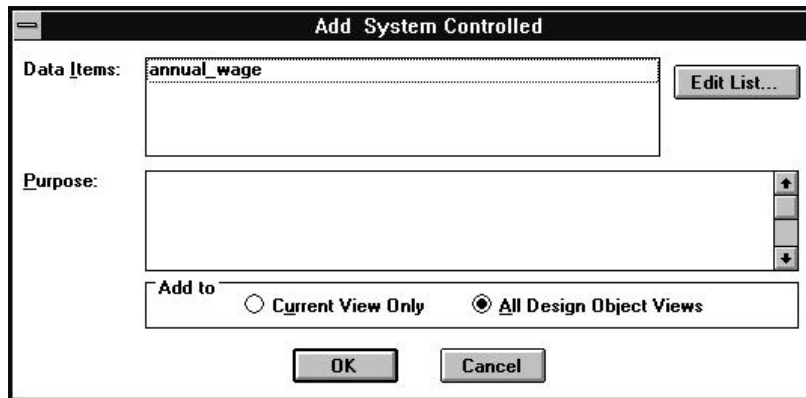
Dialog Box Components Use the information below to complete the Add Database View Access Mechanism dialog box.

Component	Description
Name	Type the name of the view access mechanism into this field. You may type up to 51 alphanumeric characters. The @ symbol and quotation marks (") are not allowed.

Design Objects	The name of the current design object appears in this field. You can add other design objects to this list through the Edit List button next to this list box (see below).
Edit List (design objects)	Use this button to edit the list of design objects in the Design Objects list box above. When you click on this button, the Select Design Objects dialog box appears. See Select Design Objects in this manual for information on this dialog box.
Data Items	The data item you selected before you chose the Add Storage Access command appears in this list. You may add more data items to the list by using the Edit List command button (see below).
Edit List (data items)	Use this button to edit the data items on the Data Items list above. When you click on this button, the Select Data Items dialog box appears. The Select Data Items dialog box allows you to select the data items that belong to the current data structure.
	You select data items through this dialog box in the same way that you select data structures in the Select Design Objects dialog box. See Select Design Objects in this manual for more information on using this type of dialog box.
Expression	Type an expression that qualifies the data items to be included in the view access mechanism into this text box. See the Appendices section of this manual for information on using expressions.
Purpose	Type a purpose for the view access mechanism in this text box.
Current View Only	Select this button to add the database access mechanism to the current view only.
All Design Object Views	Select this button to add the database access mechanism to all design object views.

Add System Controlled Access Mechanism Dialog Box

Dialog Box Illustration



Add System Controlled Access Mechanism Dialog Box

Dialog Box Components

Use the information below to complete the Add System Controlled Access Mechanism dialog box.

<u>Component</u>	<u>Description</u>
Data Items	The data item you selected before you chose the Add Storage Access command appears in this list. You may add more data items to the list by using the Edit List command button (see below).
Edit List	Use this button to edit the data items on the Data Items list above. When you click on this button, the Access Mechanism Components dialog box appears. The Access Mechanisms Components dialog box allows you to select the data items that belong to the current data structure.

You select data items through this dialog box in the same way that you select data structures in the Select Data Structures dialog box. See Select Data Structures in this manual for more information on using this type of dialog box.

Purpose	Type a purpose for the system controlled access mechanism in this text box.
Current View Only	Select this button to add the system controlled access mechanism to the current view only.
All Design Object Views	Select this button to add the system controlled access mechanism to all design object views.

ADD USER

Adding Users

Description The Add User command, available through the Visible Advantage Admin Utility, allows a system administrator to add an authorized user to the current encyclopedia.

Procedure à **To add an authorized user to the encyclopedia:**

- 1 Choose **Add...** from the User command menu.

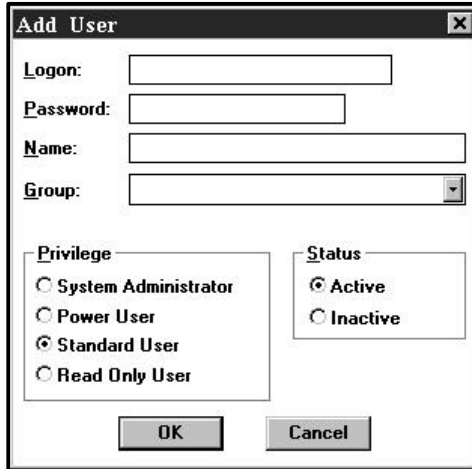
Result: The Add User dialog box appears.

- 2 Complete the Add User dialog box, then click on **OK**.

Repeat the above procedure for each new user you want to add to the encyclopedia.

Add User Dialog Box

Dialog Box Illustration



Add User Dialog Box

Dialog Box Components

Use the information below to complete the Add User dialog box.

<u>Component</u>	<u>Description</u>
Logon	Type a Logon for the new user in this box. The Logon can be from 1 to 15 alphanumeric characters long and may include spaces. This is a required field. As a security measure, each user is required to type a valid logon each time the user opens the encyclopedia.
Password	Type a password for the user in this box. The password can be from 1 to 11 alphanumeric characters long and may include spaces. A password provides an additional level of security in tracking, since it helps prevent different users from accessing the encyclopedia with the same logon.

The password is optional at this stage, but one may be added or changed later with the Change Password command on the Project menu.

If a password is defined here for user, the user must supply it with a logon when the user opens the encyclopedia. If a password is not defined here for a user, it is not needed when the user opens the encyclopedia.

Name	Type the name of the user in this box. The name can be up to 30 alphabetic characters long and may include spaces.
Group	Select the name of the user group to which you want to assign the user. <i>This is a required field.</i> You define user groups through the Group/Add command on the Visible Advantage Admin Utility main menu.
System Administrator	If you want the new user to have system administrator privileges, select this box. System administrators may perform commands on the Visible Advantage Admin Utility menu.
Power User	If you want the new user to have standard user privileges plus the ability to add domains, functions, and diagram filters.
Standard User	If you do not want the new user to have system administrator privileges, select this button. Standard users may access and modify the encyclopedia, but may not perform system administration commands.
Read Only	If you want the new user to have read only privileges, select this button. Read only users may view, but not change, edit dialog boxes.
Active	Select this button to activate the new user in the encyclopedia.

Active status allows a user to access the encyclopedia according to the users designated privileges (system administrator or standard user).

Inactive

When you want to remove a user from the encyclopedia, any system administrator can enter this dialog box and select this button.

Inactive status prevents a user from accessing the encyclopedia, but does not remove the user from encyclopedia documentation (user, session, and history log reports).

ADD USER GROUP

Adding User Groups

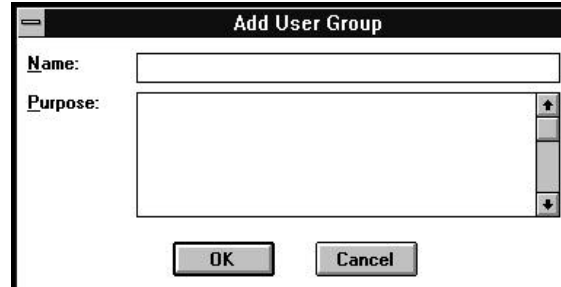
Description The Add User Group command, available from the Visible Advantage Admin Utility, allows a system administrator to add a user group to the encyclopedia. User groups allow the system administrator to assign specific privileges to groups of users and track these groups to the sessions in which they participated.

Procedure à **To add a user group to the encyclopedia:**

- 1 Choose **Add...** from the Group command menu.
Result: The Add User Group dialog box appears.
- 2 Complete the Add User Group dialog box and click on **OK**.

Add User Group Dialog Box

Dialog Box Illustration



Add User Group Dialog Box

Dialog Box Components

Use the information below to complete the Add User Group dialog box.

<u>Component</u>	<u>Description</u>
Name	Type the name of the user group.
Purpose	Type the purpose for the user group.

ADD VALID WORD

Adding Valid Words

Description The Valid Words command allows you to add words to the standard words dictionary.

Usage Tips The Valid Words command is available from all windows except Generate SQL Schema.

Procedure à **To add valid words to the standard words dictionary:**

1 Choose **Standard Words Dictionary** from the Encyclopedia menu.

Result: The Valid Words Dictionary dialog box appears.

2 Click on the **Add** button.

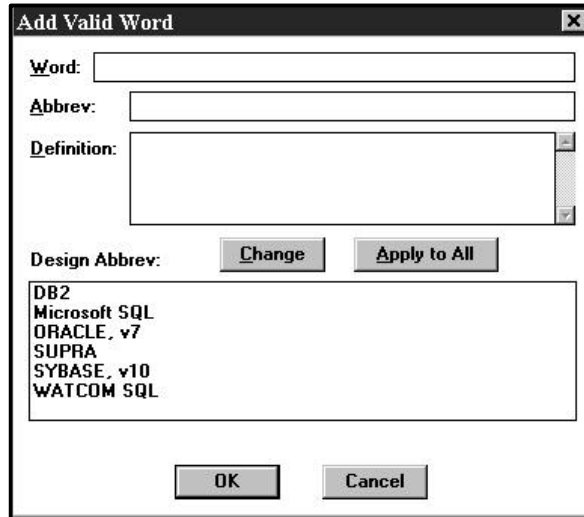
Result: The Add Valid Word dialog box appears.

3 Complete the Add Valid Word dialog box and click on **OK**.

Result: The Valid Words Dictionary dialog box reappears with the word you added displayed in the large text box.

Add Valid Words Dictionary Dialog Box

Dialog Box Illustration



Add Valid Word Dialog Box

Dialog Box Components

Use the information below to complete the Add Valid Word dialog box.

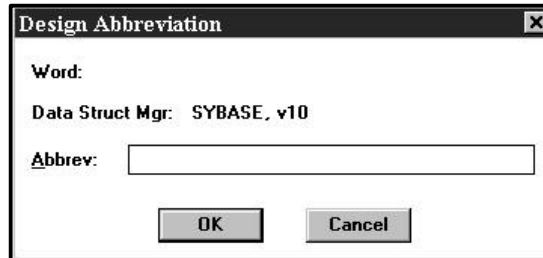
Component	Description
Word	Type the word you wish to add to the standard words dictionary.
Abbreviation	Type an abbreviation that may be used for the word. This field is optional; you may leave it blank.
Definition	Type a definition for the word. This field is optional; you may leave it blank.
Change	Select this button to change the abbreviation for the data structure manager highlighted.

When you select this button, the Design Abbreviation dialog box appears. Complete the dialog box and click on **OK**.

Apply to All Select this button to apply the abbreviation to all data structure managers.

Design Abbreviation Dialog Box

Dialog Box Illustration



Design Abbreviation Dialog Box

Dialog Box Components

Use the information below to complete the Design Abbreviation dialog box.

<u>Component</u>	<u>Description</u>
Abbreviation	Type the abbreviation to be used for the data structure manager shown in the Data Struct Mgr field.

ADD VIEW

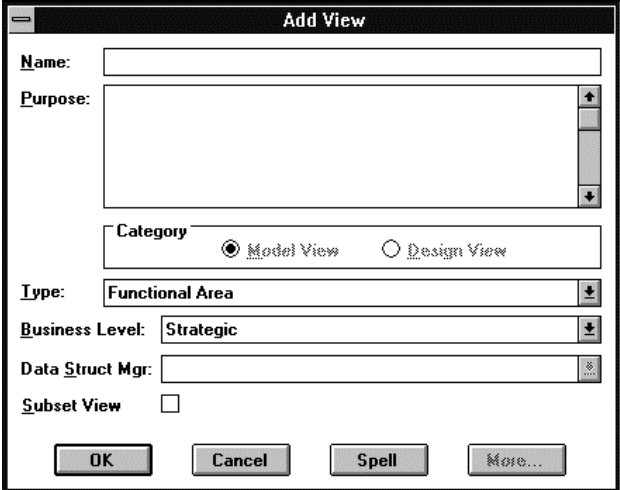
Adding Views

- Description** The Add View command allows you to add a new view to the encyclopedia.
- Usage Tips** This command is available from all windows *except* the main Visible Advantage window, the Session and Statement Editor windows, and the Database Design windows.
- When you add a view, you specify its type, purpose, and business level (strategic, tactical, or operational). The default view type is Functional Area.
- A new view is added to the structured view hierarchy below the current view. You may move a view to a new location in the view hierarchy through the Move command on the View Hierarchy window's View menu.
- Procedure** à **To add a view:**
- 1 Choose **Add...** from the View menu.

 Result: The Add View dialog box appears.
 - 2 Complete the Add View dialog box, then click on **OK**.

Add View Dialog Box

Dialog Box Illustration



Add View Dialog Box

Dialog Box Components

Use the information below to complete the Add View dialog box.

Component	Description
Name	Type the name of the new model view in this box. The name of the model view can be from 2 to 51 alphanumeric characters long.
Purpose	Type the purpose of the model view in this scrolled text box. The purpose of the model view explains its business significance to the encyclopedia. You may type up to 32,000 alphanumeric characters.
Model View	Select this button to add as a model view.
Design View	Select this button to add as a design view.

Type	Select a model view type from this drop-down list. This list includes the default model view types, along with any model view types added through the Visible Advantage Utility Table View Types command.
Business Level	Select a business level from this drop-down list. Business level refers to the scope represented by the model view (strategic, tactical, or operational).
Data Struct Mgr	Select a data structure manager from this drop-down list.
Subset View	Select this check box to create a subset view.
More	This command button is available when custom fields have been defined using Table/Custom Fields in the Admin Utility.

ARRANGE ICONS

Arranging Icons on the Workspace

Description The Arrange Icons command places all icons (minimized Visible Advantage windows) at the bottom of the workspace. The command is useful when icons have become obscured by open windows or other icons.

Usage Tips This command is available on all windows *except* the main Visible Advantage window.

Procedure à **To arrange the icons on your workspace:**

Choose Arrange Icons from the Window menu.

Result: Any icons will appear in a row at the bottom of the workspace.

ATTRIBUTE MODE

Design Reference in Attribute Mode

- Description** The Attribute Mode command displays the Design Reference window by attribute, rather than by data structure, data item, or entity.
- Usage Tips** The four modes available in the Design Reference window—design object, data item, entity, and attribute—allow you to reference the information in a design based on that object. Each mode displays the mode object at the top of the window and all of its referenced objects or details underneath it.
- Procedure**
- â To run the Design Reference window in Attribute mode:
 - â Choose **Attribute** from the **Mode** menu.
- Result: A checkmark appears beside the command name and the Design Reference window redisplayed in Attribute mode.
- 2 Note** If you are in either Design Object or Data Item mode, the Select Model View dialog box appears. Select the model view, then continue as above.

ATTRIBUTE-VIEW MATRIX

About the Attribute-View Matrix Window

Description The Attribute-View Matrix window allows you to view the model views in which each attribute is visible. You can also add attributes to and remove them from model views through this window. This command is available from all windows.

Procedure à **To open an Attribute-View Matrix window:**

- 1 Choose **Attribute-View Matrix...** from the Data menu on the main Visible Advantage window.

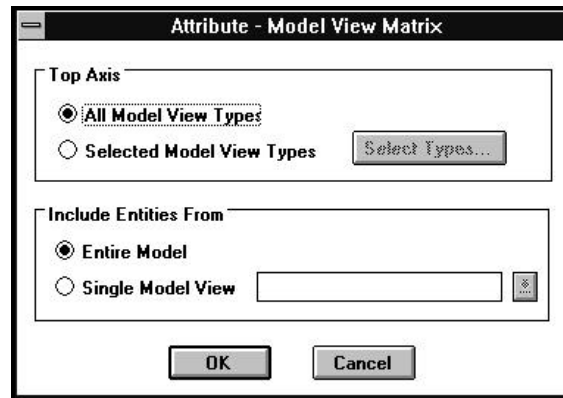
From any other window, choose Data Modeling from the main menu, then choose **Attribute-View Matrix...** from the cascading menu.

Result: The Attribute-Model View Matrix dialog box appears.

- 2 Complete the Attribute-Model View Matrix dialog box and click on **OK**.

Attribute-Model View Matrix Dialog Box

Dialog Box Illustration



Attribute-Model View Matrix Dialog Box

Dialog Box Components

Use the information below to complete the Attribute-Model View Matrix dialog box.

Components	Description
All Model View Types	Select this button to display model views of all types on the top axis.
Selected Model View Types	Select this button to display selected model view types, then click on Select Types. The Model View Types dialog box appears. Select the model view types you want to display, then click on OK .
Entire Model	Select this button to display attributes in the entire model.
Single Model View	Select this button to display attributes in one model view, then select the model from the drop-down list.

Making Text Bold in a Text Editor Window

Description The Bold command applies bold formatting to selected statement or session text in the Statement Editor window.

Procedure à **To make statement or session text bold:**

- 1 In the active Text Editor window, select the text you want to make bold.
- 2 Choose **Style** from the Format menu.
- 3 Choose **Bold** from the cascading menu for the Style command.

Result: The selected text appears bold in the Text Editor window.

à **To remove bold formatting from selected text:**

- 1 In the active Text Editor window, select the text from which you want to remove bold formatting.
- 2 Choose **Style** from the Format menu.
- 3 Choose **Normal** from the cascading menu for the Style command.

Result: The selected text appears normal in the active Text Editor window.

CASCADE

Cascading Open Windows

Description The Cascade command arranges all open Visible Advantage windows on the workspace so that their title bars are visible. See your Windows documentation for more information on arranging windows on the workspace. This command is available from all windows *except* the main Visible Advantage window.

Procedure à **To cascade all open Visible Advantage windows:**

Choose **Cascade** from the Window menu.

Result: The open windows are rearranged in a cascaded formation on the workspace.

CHANGE ATTRIBUTE

Changing Attributes

Description The Change Attribute command, available from both the Data Map and Data Dictionary windows, allows you to change the type of the current use of an attribute. Attribute types include primary key, foreign key, or non-key attribute.

Usage Tips You may use this command to change:

- A primary key to a non-key attribute, if the primary key is used in only one entity
- A primary key to a foreign key, if there is at least one other use of the key as a primary key
- A foreign key to a primary key
- A non-key attribute to a primary key

All other attribute type changes violate data modeling rules and therefore will generate an error message.

This command is available for multiple selected entities in the Data Map window. See the *User's Guide* for instructions on selecting multiple entities in the Data Map window.

In the Data Dictionary window, you may use this command to change attributes for the currently displayed entity only.

Procedure à **To change the type of an attribute from the Data Map window:**

1 Select the entity or entities that contain the attribute you want to change.

Result: The selected entities will be highlighted in the Data Map window.

2 Choose **Change...** from the Attribute menu.

Result: The Select Attribute dialog box appears.

3 Select the attribute you want to change from the list box.

Result: The Change Attribute dialog box appears.

-
- 4 Select the attribute type to which you want to change the attribute. This selection defaults to the attribute's current type.

If an attribute type is not available for the current attribute type, the type will be dimmed (see Usage Tips, above).

- 5 Click on **OK**.

Result: If you selected multiple entities, the Select Attribute dialog box reappears. (*Repeat steps 3-4 for each selected entity.*)

Otherwise, the Data Map window reappears.

â To change the type of one of the attributes displayed in the Data Dictionary window:

- 1 Highlight the name of the attribute you want to change.

- 2 Choose **Change...** from the Attribute menu.

Result: The Change Attribute dialog box appears.

- 3 Select the attribute type to which you want to change the attribute. This selection defaults to the attribute's current type.

If an attribute type is not available for the current attribute type, the type will be dimmed (see Usage Tips, above).

- 4 Click on **OK**.

CHANGE PASSWORD

Changing Passwords

Description The Change Password command, available from the main Visible Advantage window, allows you to change the password or name of the user currently logged onto the encyclopedia.

Usage Tips Passwords are case-sensitive ('abc' is different from 'ABC'). Be sure to note the case of your password when you type it into the Change Password dialog box.

Procedure à **To change your password:**

- 1 Log onto the encyclopedia for which you want to change your password.
- 2 Choose **Change Password...** from the Encyclopedia menu from the main Visible Advantage window.

 Result: The Change Password dialog box appears.
- 3 Type your *new* password into the **Password** box. Be sure to note the case of your password, since it is case-sensitive.
- 4 If you want to change the name under which your logon and password are listed, type a new name into the Name box.

CHANGE TO DESIGN VIEW

Changing to Another Design View

Description The Change To Design View command, available from both the Design Dictionary, Design Map, and Design Reference windows, allows you to change the design view currently displayed in the Design Dictionary or Design Reference window.

Usage Tips Use this command when you want to display in the active window the design objects contained in a different database design.

Procedure à **To change the design view displayed in the active window:**

1 Choose **Change To...** from the View menu.

Result: The Select Design View dialog box appears.

2 Complete the dialog box, then click on **OK**.

Result: The view you selected displays in the active window.

CHANGE TO MODEL VIEW

Changing to Another Model View

Description The Change To Model View command allows you to change the model view displayed in the active window. A model view is a subset view of the entire encyclopedia.

Usage Tips Use this command to change to the entire model, which contains all objects in the encyclopedia, or to change to a model view added to the encyclopedia through the Add command on any View menu.

Procedure à **To change to another model view:**

1 Choose **Change To...** from the View menu.

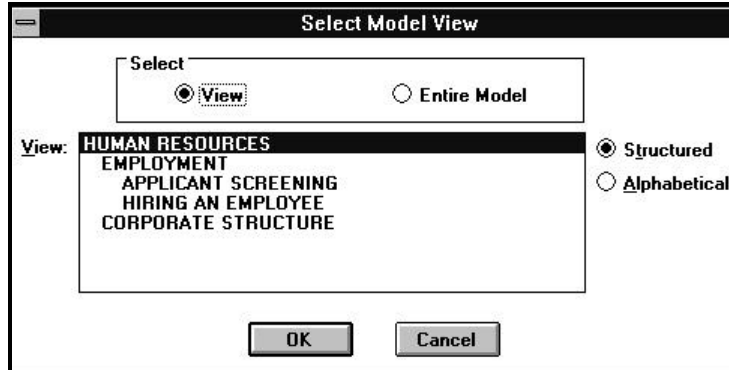
Result: The Select Model View dialog box appears.

2 Complete the dialog box, then click on **OK**.

Result: The objects in the model view you selected will display in the active window.

Select Model View Dialog Box

Dialog Box Illustration



Select Model View Dialog Box

Dialog Box Components

Use the information below to complete the Select Model View dialog box.

Component	Description
View	Click on this button if you want to display a model view that has been created for the encyclopedia.
Entire Model	Click on this button if you want to display the entire encyclopedia in the active window.
View	Select the model view you want to open by highlighting its name in this list box. This list includes all model views that have been created for the encyclopedia. If you selected Entire Model in the Select area, the view list will be dimmed.
Structured	Click on this button if you want the list of model views in the model view list box to be displayed in hierarchical order.

Alphabetical

Click on this button if you want the list of model views in the model view list box to be displayed in alphabetical order.

CHANGE TO PROCESS

Changing to Another Process

Description The Change To Process command, available from the Process Map window, allows you to change the process displayed in the Process Map window. You may also add a new data access or business process through this command.

Procedure à **To display a different process in the Process Map window:**

- 1 Choose **Change To...** from the Process menu.

Result: The Select Process dialog box appears.

- 2 If you want to change to a business process, select the **Business Process** button. The **Process** list box will display all business processes in the process model.

If you want to change to a data access process, select the **Data Access Process** button. The **Process** list box will display all data access processes in the process model.

- 3 Highlight the business or data access process you want to display, then click on **OK**.

à To add a new business or data access process through the Change To Process command:

- 1 Choose **Change To...** from the Process menu.

Result: The Select Process dialog box appears.

- 2 If you want to add a business process, select the **Business Process** button. The **Process** list box will display all business processes within the current model view.

If you want to add a data access process, select the **Data Access Process** button. The **Process** list box will display all data access processes within the current model view.

-
- 3 Click on the **New** button.

Result: If business processes were displayed in the Select Process dialog box, the Add Business Process dialog box appears.

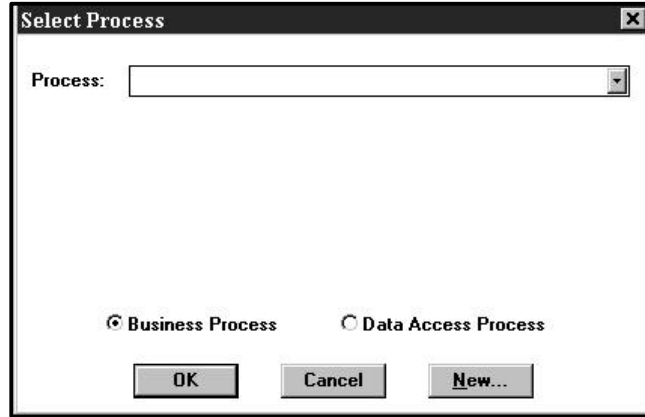
If data access processes were displayed in the Select Process dialog box, the Add Data Access Process dialog box appears.

- 4 Complete the Add Business Process or Add Data Access Process dialog box, then click on **OK**.

For information on the dialog boxes, see Add Process in this manual.

Select Process Dialog Box

Dialog Box Illustration



Select Process Dialog Box

Dialog Box Components

Use the information below to complete the Select Process dialog box.

Component	Description
Process	All business or data access processes in the process model are displayed in this list box.
Business Process	Select this button to display business processes in the Processes list. You may then select a business process from the list or add a business process with the New button.
Data Access Process	Select this button to display data access processes in the Processes list. You may then select a data access process from the list or add a data access process with the New button.

New

Use this button to add a new business or data access process to the current model view.

If business processes are displayed in the Select Process dialog box, the Add Business Process dialog box appears when you click on this button.

If data access processes are displayed in the Select Process dialog box, the Add Data Access Process dialog box appears when you click on this button.

CHECK-IN/MERGE ENCYCLOPEDIA

Checking-in/Merging Copied Encyclopedias

- Description** The Check-in/Merge command, a part of the Visible Utilities program, allows you to:
- Merge two separately developed encyclopedias, including reverse engineered encyclopedias.
 - q Check-in (merge) a checked-out portion of an encyclopedia back into the original encyclopedia.

Visible Advantage will automatically determine which of these two functions to perform based on the Encyclopedias selected for Check-in/merge.

- Usage Tips** The Check-in/Merge command is part of the **Visible Advantage Utility** program that comes with Visible Advantage. To use Check-in/Merge, click on the Visible Advantage Utility icon inside the Visible Advantage program group. The Check-in/Merge command is under the Copy/Merge menu.

When you use the Check-in/Merge command to check-in a previously checked-out encyclopedia, the checked-out objects are automatically unfrozen in the encyclopedia from which they came.

Check-in/Merge uses two encyclopedias, referred to as the Primary and the Secondary encyclopedias. It is important to note that the Secondary Encyclopedia will be merged into the Primary Encyclopedia, permanently altering the Primary Encyclopedia. See the warning below about backups.

The Check-in/Merge command generates the Merge Encyclopedia report, which describes the merged objects in detail.

- Warning!** Always back up both encyclopedias before performing a merge. An encyclopedia merge is a large and complex process, and it may produce results that you were not expecting. Therefore it is always wise to have backup copies so you can return to the two unmerged encyclopedias if necessary.

Procedure

á **To merge two encyclopedias:**

- 1 Choose **Check-in/Merge** from the Copy/Merge menu on the Utilities program.

Result: The Merge Encyclopedias dialog box appears.

- 2 Select a primary encyclopedia by clicking on the **Select>>** button by the Primary field. The Select Primary Encyclopedia dialog box appears.

Select the encyclopedia you want to merge from the **Encyclopedias** list box This is the primary encyclopedia. If the encyclopedia is not listed, navigate through the directories in the **Path** list box until it appears.

- 3 Click on **OK**.

Result: The Visible Advantage Logon dialog box appears.

- 4 Type your logon for the encyclopedia and, if necessary, a password, then click on **OK**.

If you typed a valid logon and password, the Merge Encyclopedias dialog box reappears with the name of the primary encyclopedia displayed.

Otherwise, an error message appears and you must return to the logon dialog box to type a different logon (and password, if necessary).

- 5 Select a secondary encyclopedia by clicking on the **Select>>** button. The Select Secondary Encyclopedia dialog box appears.

From the **Encyclopedias** list box, select the encyclopedia you want to merge with the primary encyclopedia. This is the secondary encyclopedia.

If the encyclopedia is not listed, navigate through the directories in the **Path** list box until it appears.

-
- 6 Type your logon for the encyclopedia and, if necessary, a password, then click on **OK**.

Result: If you typed a valid logon and password, the Merge Encyclopedias dialog box reappears with the name of the secondary encyclopedia displayed.

Otherwise, an error message appears and you must return to the logon dialog box to type a different logon (and password, if necessary).

- 7 Complete the remaining portion of the Merge Encyclopedias dialog box and click on **OK**.

Result: The Copy/Check-out dialog box appears.

- 8 Complete the Copy/Check-out dialog box and click on **OK**.

Result: The Report Destination dialog box appears.

- 9 Complete the Report Destination dialog box and click on **OK**.

If there are domain conflicts, you will be prompted to select whether to use the primary or secondary encyclopedia.

Result: The encyclopedias are merged and a report generated.

If you selected **Printer**, the report is sent to the printer.

If you selected **Screen**, the report is displayed on the screen.

If you selected **File**, the report is printed to the file name you specified.

Notes on Check-in/Merge Types

Check-In Secondary

Only objects that were checked-out to the secondary will be updated or deleted in the primary encyclopedia.

- Objects deleted in Secondary will be deleted from primary.
- All details about checked out objects will be replaced with the information in the secondary encyclopedia.
- Objects added to secondary are added to Primary. If an object with the same name is added to both encyclopedias, the details about the object in the Primary encyclopedia will take precedence. In this case, relationships, associations and links to this “twice-added” object will only be added to the primary in instances where they do not conflict with existing relationships, associations and links in the primary.

Merge Separate Secondary

Objects in the secondary that do not have a matching name in the Primary will be added to the Primary. Objects that have the same name will be combined based on the options you select. If Design views are merged, design objects are combined or kept separate, based on user selection.

- q** Combine. This is useful if two parts of a whole model are in different encyclopedias and need to be integrated. An example of this would be when the work of different individuals on different parts of a systems design were done in separate encyclopedias. The resulting encyclopedia would represent the combined work of the different individuals.
- q** Keep Separate. This is useful if a system that is different from those systems that are already in the model is being merged in. If you do not wish the new system (represented by the design view(s) being merged in) to share any objects (Data Structures, Data Items, Access Mechanisms, Relationships, etc.) with the Design Objects in the existing primary encyclopedia, this is the correct options to choose.

For example, this would be used if a legacy system were reverse engineered to be merged in the enterprise encyclopedia; and although there were object names in common with the new systems already in the enterprise encyclopedia, they represent different objects that happen to have the same name. The Keep Separate option will ensure that they remain as separate objects that share the same name, but different descriptions, data types, lengths, etc.

If Keep Separate is selected, the user must enter a **meta id** to differentiate it from the other object(s) that share the same name. For a detailed description of the function of meta ids, see the *Reference Manual*.

In addition, you must select one of the following options:

- Use meta id for all objects
- Only use meta id for conflicting object names
- Auto-rename
- Use Prefix [5 character prefix]
- Use Suffix [5 character suffix]

Merge Replace This feature is primarily intended to handle systems that have been forward engineered in Visible Advantage and that have since been turned over to a systems development groups that changed the design. Because the changes made by the development team are not reflected in Visible Advantage, the database is reverse engineered and is now about to be merged in.

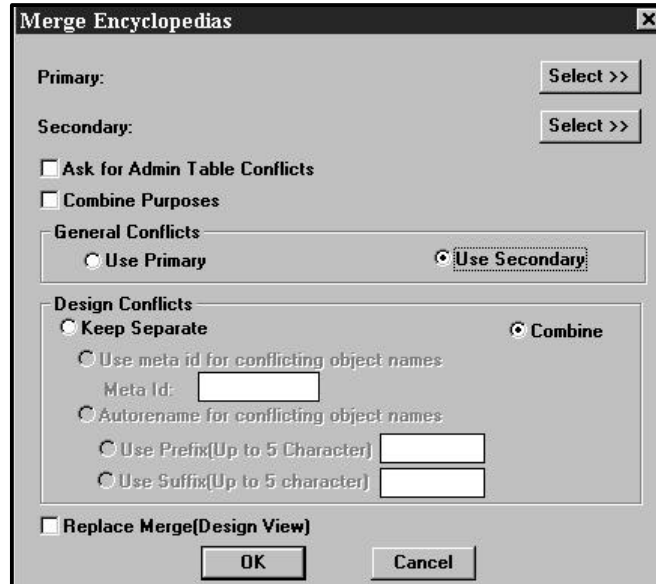
If the design is just merged and combined, any items that were deleted or moved in the actual database will still be in their original locations. If the design is deleted in the primary prior to merge with the intent that the information be replaced by the reverse engineered design, the links to the logical model will be lost.

Merge Replace addresses this problem by making the resulting design represent the actual database and preserving all of the logical links for the objects that have not changed in the design. The primary distinction of Merge Replace is that it applies only to design views with matching names and data structure managers and will delete objects that are in the primary design view that are not in the secondary design view.

When Merge encounters an object whose name has been changed in the secondary encyclopedia, it reports both the old and new names

Merge Encyclopedias Dialog Box

Dialog Box Illustration



Merge Encyclopedias Dialog Box

Dialog Box Components

Use the information below to complete the Merge Encyclopedia dialog box.

Component	Description
Primary Select	Click this button to select the primary encyclopedia.
Secondary Select	Click this button to select the secondary encyclopedia.
Ask for Admin Table Conflicts	Select this button to be prompted which Admin table data to use to resolve conflicts.

Combine	Select this button to combine purposes.
Use Primary	Select this button if you want to use the data from the primary (original) encyclopedia to resolve general conflicts. An example of such a conflict is if an object with the same name exists in both the primary and secondary encyclopedias.
Use Secondary	Select this button if you want to use the data from the secondary encyclopedia to resolve conflicts.
Keep Separate	Select this button to keep design objects separate. When you select this button, the meta id and autorename options become available.
Combine	Select this button to combine design objects,
Use Meta Id for Conflicting Object Names	Select this button to use the meta id for conflicting object names. When you select this button, the meta id field becomes available.
Meta Id	Type the meta id.
Autorename for Conflicting Object Names	Select this button to automatically rename conflicting object names. When you select this button, the prefix and suffix fields become available.
Use Prefix	Select this button to use a prefix of up to five characters. Type the prefix in the field.
Use Suffix	Select this button to use a suffix of up to five characters. Type the suffix in the field.
Replace Merge (Design View)	Click this button to preserve the logical links for objects that have not changed in the design. Objects that are in the primary design view but not in the secondary will be deleted.

CHECK-OUT/COPY

Checking-out and Copying Encyclopedias

Description The Check-out/Copy command, a part of the Visible Advantage Utility program, copies all or part of an encyclopedia to another drive or directory. This allows you to transport the encyclopedia to another computer where other users may view, report, export, or make off-line changes to it.

Check-out/Copy allows you to see, but not modify, objects in the new subset encyclopedia (also known as Copy). It also allows you to modify objects in the subset encyclopedia if they are checked out to that subset encyclopedia, enabling change controls on those objects (also known as Check-out).

Usage Tips The Check-out/Copy command is part of the Visible Advantage Utility program that comes with Visible Advantage. To use the Check-out/Copy function, click on the Visible Advantage Utility icon inside the Visible Advantage program group. The Check-out/Copy command is under Copy/Merge menu.

When you use this command to check out all or part of an encyclopedia, the checked out objects are automatically frozen in the encyclopedia from which they came. Objects that are copied out in the subset encyclopedia but not checked-out are frozen in the subset encyclopedia. Freezing objects prevents users from modifying them while other users are accessing them on another computer. The general rule is that at any time, only one copy of any object is unfrozen and available for update.

The Check-out/Copy command generates the Copy Encyclopedia report, which describes the copied objects in detail.

Warning! The Check-out/Copy command is in no way similar to a DOS copy command; it will not produce an exact duplicate of a file. Rather, the Check-out command creates a separate subset of an encyclopedia so that multiple users can work simultaneously on the different objects from the same encyclopedia.

The checked out subset encyclopedia must always be merged back into the original encyclopedia. Therefore, do not use the Check-out command with a checked out encyclopedia.

If you want to make an exact duplicate of the entire encyclopedia, make copies of all the files in the encyclopedia directory using File Manager, Windows Explorer, or DOS.

Procedure à **To check out all or part of an encyclopedia to another drive or directory:**

- 1 Choose **Check-out /Copy** from the Copy/Merge menu of the Utilities program.

Result: The Select Primary Encyclopedia dialog box appears.

- 2 Select from the **Encyclopedias** list box the encyclopedia you want to copy. If the encyclopedia is not listed, navigate through the directories in the Path list box until it appears.

- 3 Click on **OK**.

Result: The Visible Advantage Logon dialog box appears.

- 4 Type your logon for the encyclopedia and, if necessary, a password. Click on **OK**.

Result: If you typed a valid logon and password, the Copy/Check-out Encyclopedia dialog box appears. Otherwise, an error message appears and you must return to the logon dialog box to type a different logon.

- 5 Complete the Copy/Check-out Encyclopedia dialog box, then click on **OK**.

Result: The New Encyclopedia dialog box appears.

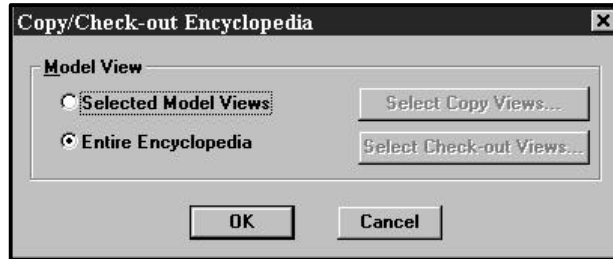
- 6 Complete the New Encyclopedia dialog box, then click on **OK**.

Result: The Report Destination dialog box appears.

- 7 Complete the Report Destination dialog box and click on **OK** to check-out/copy the encyclopedia.

Copy/Check-out Encyclopedia Dialog Box

Dialog Box Illustration



Copy/Check-out Encyclopedia Dialog Box

Dialog Box Components

Use the information below to complete the Copy/Check-out Encyclopedia dialog box.

<u>Component</u>	<u>Description</u>
Selected Model Views	Select this button if you want to copy only views. This button will be dimmed if there are no views defined for the encyclopedia. If you select this button, you must select views through the Select Views button (see below).

Select Views Use this button to select model views to copy to the target encyclopedia. This button is available only if you selected the Selected Views button (see above).

When you click on this button, the Select Views dialog box appears. The Select Views dialog box allows you to select model views from a list of candidates.

Objects in Copy views will be copied to the new view in read only (frozen) model unless those objects are also in the Check-out views. Objects in the copy view(s) are intended to be used for reference/viewing purposes in the new subset encyclopedia and will not be changed in the new subset encyclopedia.

Select
Check-out
Views

Use this button to select model views to Check-out objects to the target encyclopedia.

When you click on this button, the Select Views dialog box appears. The Select Views dialog box allows you to select model views from a list of candidates.

Objects in Check-out views will be copied to the new view in write-capable (unfrozen) mode. Objects in the Check-out view(s) are intended to be modified and updated in the new subset encyclopedia. Objects in these views will be frozen in the primary encyclopedia (the one the objects are being checked-out from). The object will remain frozen in the primary encyclopedia until the checked-out encyclopedia is checked-in using the Check-in/Merge command.

Entire
Encyclopedia

Select this button to copy the entire encyclopedia to the target encyclopedia, including all views defined for it.

COMPLETION TABLE

Creating a Completion Table

Description The Completion Table command, available from the Process Map window, allows you to add completion values to the process model. A completion value is assigned to each stop mechanism within a process.

Usage Tips If, when adding a stop mechanism, you specify a completion value that is not included in the completion table, Visible Advantage will ask if you want to add the value to your table of values. In this way, the completion table can also be built while you build your processes.

The completion values you add through this command will be available for all processes in the encyclopedia. However, the result for each completion value (success or failure) may be different for each process in which it is used.

Procedure à **To add, change, and delete values in the completion table:**

1 Choose **Completion Table...** from the Process menu.

Result: The Completion Values dialog box appears.

2 To add a value to the list, type the value into the Value box, then click on Add. The new value will then appear in the list box below.

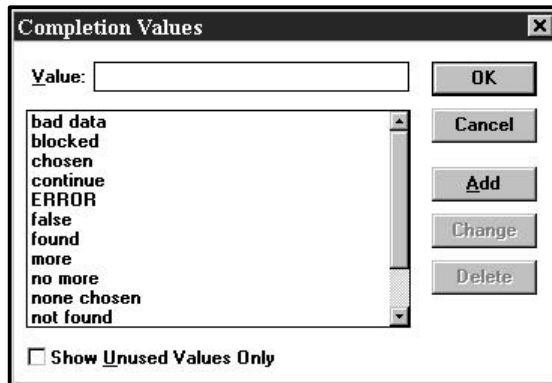
To edit a value, click on the value you want to edit so that it appears in the **Value** box. Edit the value in the **Value** box, then click on **Change**.

To delete a value, click on the value you want to edit so that it appears in the **Value** box, then click on **Delete**.

3 When you are finished adding, editing, and deleting values, click on **OK**.

Completion Values Dialog Box

Dialog Box Illustration



Completion Values Dialog Box

Dialog Box Components

Use the information below to complete the Completion Values dialog box.

<u>Component</u>	<u>Description</u>
Value	The name of the completion value you are adding, changing, or deleting. You make a value appear in this box by clicking on it in the list box below it or by typing in a new value.
Add	Click on this button to add a value to the completion table. To do this, type a value into the Value box, then click on this button.
Change	Click on this button to change a value in the completion table. To do this, click on the value you want to change so that it appears in the Value box. You may then edit the value and click on this button.

When you change a value used in any process, every occurrence of it will be updated.

Delete

Click on this button to delete a value in the completion table.

To do this, click on the value you want to delete so that it appears in the **Value** box, then click on this button. This button is not available when a variable used in a process is highlighted.

Show Unused
Variables Only

Select this checkbox if you want to display only unused variables in the list box. Used variables may not be deleted.

CLOSE ALL

Closing All Windows

Description The Close All Windows command closes all open Visible Advantage windows and displays the main Visible Advantage window. This command is available on all windows except the main Visible Advantage window.

Procedure à **To close all open Visible Advantage windows:**

Choose **Close All** from the Window menu.

Result: All open windows close and the main Visible Advantage window displays.

CLOSE SESSION

Closing Sessions

- Description** The Close Session command, available from the main Visible Advantage window, allows you to deactivate the current session.
- Usage Tips** A closed session may not be selected for association with encyclopedia modifications through the Select Session command. Any closed session may be reopened through the Reopen Session command.
- Procedure** **à To close the current session:**
- 1 Choose **Sessions** from the Encyclopedia menu on the main Visible Advantage window.
or
Choose **Encyclopedia Management** from the main menu on any other window.
 - 2 Choose **Close...** from the cascading menu that appears.

Result: The Close Session dialog box appears. The name of the current session appears in the dialog box.
 - 3 Click on **OK**.

The session is closed and the Select Session dialog box appears.
 - 4 If you want to select an existing open session for subsequent encyclopedia modifications, select a session from the **Session** list box, then click on **OK**.

Result: The main Visible Advantage window redisplay.

If you want to create a new session for subsequent encyclopedia modifications, click on **New** in the Select Session dialog box.

Result: The Add Session dialog box appears.

-
- 5 Complete the Add Session dialog box (see New Session for descriptions of dialog box components), then click on **OK**.

CLOSE WINDOW

Closing the Active Window

Description The Close Window command closes the active window. This command is available on all windows except the main Visible Advantage window.

Procedure à **To close the active window:**

Choose **Close Window** from the main menu.

Result: The active window closes.

COMBINE DESIGN OBJECT

Combining Two Design Objects

Description The Combine design object command, available from the Design Dictionary and Design Map windows, allows you to combine the data items from another design object with the current design object.

Usage Tips When you use this command, the data items of the design object you choose to combine with the current design object are moved to the current design object.

Procedure à **To combine another design object's data items with the current design object:**

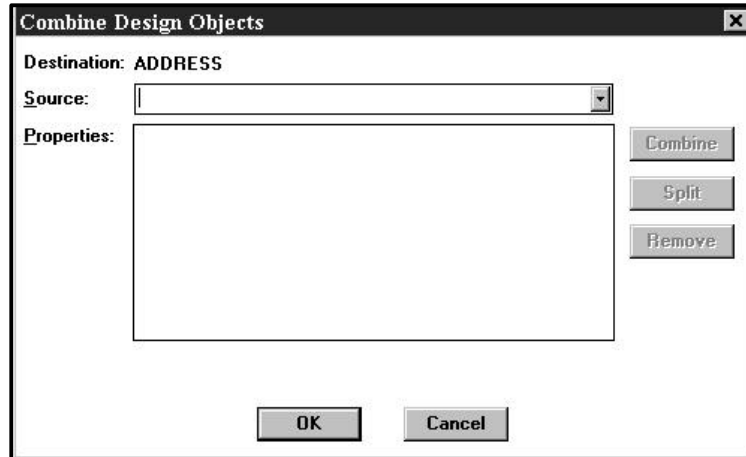
- 1 From a Design Dictionary window, display the design object with which you want to combine another design object.

From a Design Map window, select the design object with which you want to combine another design object.
- 2 Choose **Combine...** from the Design Object menu.

Result: The Combine Design Objects dialog box appears.
- 3 Complete the Combine Design Objects dialog box, then click on **OK**.

Combine Design Objects Dialog Box

Dialog Box Illustration



Combine Design Objects Dialog Box

Dialog Box Components

Use the information below to complete the Combine Design Objects dialog box.

<u>Component</u>	<u>Description</u>
Destination	The name of the current or selected design object displayed. You cannot change the entry in this field.
Source	Select from this drop-down list the name of the data structure whose data items you want to combine with the destination design object. The list includes all design objects in the current database design.

Properties	<p>The properties for the source design object appear in this list box. These properties will be combined with the properties for the source design object after this command is completed.</p> <p>You may edit the properties to be combined by using the Combine, Split, and Remove buttons (see below).</p>
Combine	<p>Use this button to combine properties from the Properties list.</p>
Remove	<p>Use this button to remove properties from the Properties list (see above).</p>
Split	<p>Use this button to split properties from the Properties list.</p>

COMPARE ENCYCLOPEDIA

Comparing Encyclopedias

Description The Compare command, a part of the Visible Advantage Utility program, allows you to compare the data in two encyclopedias. You should use this command before you merge two encyclopedias with the Copy/Merge command.

Usage Tips The Compare command is part of the Visible Advantage Utility program that comes with Visible Advantage. To use the Compare function, click on the Visible Advantage Utility icon inside the Visible Advantage program group. The Compare command is under the Copy/Merge menu.

The Compare command generates a Compare Encyclopedia report, detailing the differences between the two encyclopedias.

Procedure à **To compare two encyclopedias:**

1 Choose **Compare** from the Copy/Merge menu.

Result: The Select Primary Encyclopedia dialog box appears.

2 Select the first encyclopedia you want to compare from the **Encyclopedias** list box. This will be the primary encyclopedia.

If the encyclopedia is not listed, navigate through the directories in the **Path** list box until it appears.

3 Click on **OK**.

Result: The Visible Advantage Logon dialog box appears.

4 Type your logon for the encyclopedia and, if necessary, a password, then click on **OK**.

If you entered a valid logon and password, the Compare Encyclopedia dialog box appears.

Otherwise, an error message appears and you must return to the logon dialog box to type a different logon.

- 5 Click on **Select** at the secondary field.

Result: The Select Secondary Encyclopedia dialog box appears.

- 6 Select the second encyclopedia you want to compare from the **Encyclopedias** list box, then click on **OK**. This will be the secondary encyclopedia.

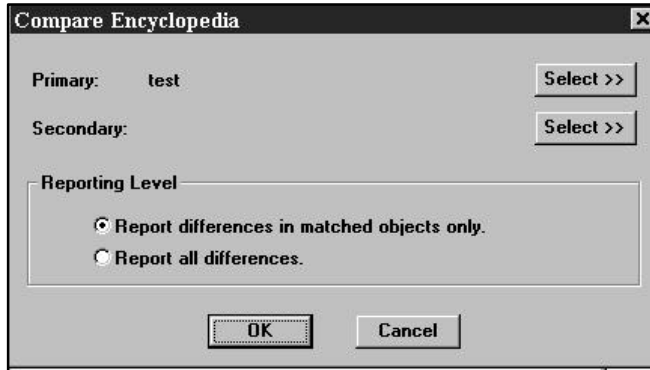
If the encyclopedia is not listed, navigate through the directories in the Path list box until it appears.

Result: The Save As dialog box appears.

- 7 Complete the dialog box and click on **OK**.

Compare Encyclopedias Dialog Box

Dialog Box Illustration



Compare Encyclopedias Dialog Box

Dialog Box Components

Use the Information below to complete the Compare Encyclopedias dialog box.

Component	Description
Primary Select	Click this button to select the primary encyclopedia. The default primary encyclopedia is the encyclopedia you selected at the Select Primary Encyclopedia dialog box.
Secondary Select	Click this button to select the secondary encyclopedia.
Report Differences in Matched Objects Only	Select this button to report differences in matched objects only.
Report All Differences	Select this button to report all differences.

COMPLETION TABLE

Creating a Completion Table

- Description** The Completion Table command, available from the Process Map window, allows you to add completion values to the process model. A completion value is assigned to each stop mechanism within a process.
- Usage Tips** If, when adding a stop mechanism, you specify a completion value that is not included in the completion table, Visible Advantage will ask if you want to add the value to your table of values. In this way, the completion table can also be built while you build your processes.
- The completion values you add through this command will be available for all processes in the encyclopedia. However, the result for each completion value (success or failure) may be different for each process in which it is used.
- Procedure** à **To add, change, and delete values in the completion table:**
- 1 Choose **Completion Table...** from the Process menu.

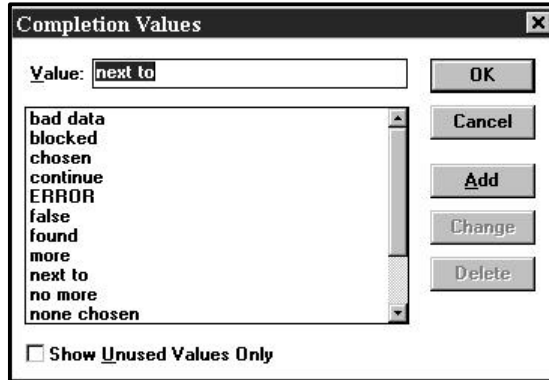
Result: The Completion Values dialog box appears.
 - 2 To add a value to the list, type the value into the **Value** field, then click on **Add**. The new value will then appear in the list box below.

To edit a value, click on the value you want to edit so that it appears in the **Value** field. Edit the value in the **Value** field, then click on **Change**.

To delete a value, click on the value you want to edit so that it appears in the **Value** field, then click on **Delete**.
 - 3 When you are finished adding, editing, and deleting values, click on **OK**.

Completion Values Dialog Box

Dialog Box Illustration



Completion Values Dialog Box

Dialog Box Components

Use the information below to complete the Completion Values dialog box.

<u>Component</u>	<u>Description</u>
Value	The name of the completion value you are adding, changing, or deleting. You make a value appear in this box by clicking on it in the list box below it or by typing in a new value.
Add	Click on this button to add a value to the completion table. To do this, type a value into the Value field, then click on this button.
Change	Click on this button to change a value in the completion table. To do this, click on the value you want to change so that it appears in the Value field. You may then edit the value and click on this button.
Delete	Click on this button to delete a value in the completion table. To do this, click on the value you want to delete so that it appears in the Value field, then click on this button. This button is not available when a variable used in a process is highlighted.

Show Unused Variables Only Select this checkbox if you want to display only unused variables in the list box. Used variables may not be deleted.

CONTROL ENTITY

Defining Entity Control Links

Description The Control Entity command, available from both the Data Map and Data Dictionary windows, allows you to define a controlled entity for an entity.

Use this command to specify the secondary entities that are controlled by a type entity. You may also use this command to show which entities a rule entity controls.

Usage Tips You may display entity control links in the Data Map and Data Dictionary windows through the Display/Options command. In the Data Map window, the links appear as dotted arrows pointing from the controlling entity to the controlled entity. In the Data Dictionary window, the links appear in the **Controls** and **Controlled by** fields.

To remove a controlling link, use the Uncontrol command on the Entity menu.

This command is available for multiple selected entities in both the Data Map and Data Dictionary windows. See the *User's Guide* for information on selecting multiple entities in these windows.

Procedure à **To define a controlled entity for each selected entity in the Data Map or Data Dictionary window:**

1 Choose **Control...** from the Entity menu.

Result: The Control Entity dialog box appears for the first selected entity.

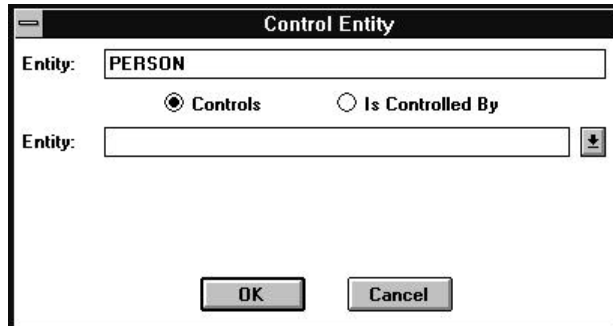
2 Complete the Control Entity dialog box, then click on **OK**.

Result: If more than one entity is selected, the Control Entity dialog box for the next selected entity appears. (*Repeat the previous step until you have defined control links for each selected entity.*)

If only one entity is selected, then the active window reappears.

Control Entity Dialog Box

Dialog Box Illustration



Control Entity Dialog Box

Dialog Box Components

Use the information below to complete the Control Entity dialog box.

Component	Description
Entity (upper box)	The name of the currently selected entity appears in this box.
Controls	If you are defining a <i>controlled</i> entity for the entity in the upper Entity box, select this button.
Is Controlled By	If you are defining a <i>controlling</i> entity for the entity in the upper Entity box, select this button.
Entity (lower box)	Select a controlled or controlling entity from this drop-down list. This list includes all entities in the current model view.

CONVERT

Converting IE: Advantage 6.1 Encyclopedias

Description Encyclopedias created using IE: Advantage 6.1 can be converted to Version 7 format by using the Convert program.

The Convert program is executed by clicking on the Convert icon in the Visible Advantage program group. To properly perform a convert, you must know the complete directory path/location of the IE: Advantage 6.1 encyclopedia you want to convert.

2 Note If you have IE: Advantage 6.0 encyclopedias, they must first be converted to 6.1.

The Convert program will run two utilities on the 6.1 encyclopedia before converting: Keybuild and Scrub. These will ensure the internal consistency of your encyclopedia information prior to converting. You must provide a new directory name (up to 8 characters) for the Version 7 encyclopedia in addition to the complete directory path/location of the IE: Advantage 6.1 encyclopedia.

2 Note Visible Advantage 7.x should be installed before converting any encyclopedias. If you have the client-server version of IE: Advantage 6.1, you should unmount and back up your 6.1 format encyclopedias as described in the client-server installation instructions.

Procedure à **To use the Convert program to convert an encyclopedia created in IE: Advantage 6.1 into an encyclopedia that can be used by Version 7:**

- 1 Verify that all Visible Advantage programs are not running.
- 2 Click on the Convert icon in the Visible Advantage program group.
- 3 When prompted, enter the complete directory path for the IE: Advantage 6.1 encyclopedia (for example, C:\iea614\xyz).
- 4 When prompted, accept the default directory where you installed Visible Advantage (C:\iea70), or change to the directory you used.

-
- 5 When prompted, enter the new directory name for the Version 7 encyclopedia (for example, new7xyz).

2 Note This must be a new directory that does not currently exist.

Result: When the program finishes executing, the new directory will contain an encyclopedia in Version 7 format with the information from the IE: Advantage 6.1 encyclopedia. The encyclopedia in the 6.1 directory has not been harmed and may still be used with IE: Advantage 6.1x. Using the example above, the information in the 6.1 encyclopedia in C:\iea614\xyz is converted to a new Version 7 encyclopedia in the directory C:\iea70/new7xyz.

- 6 If you are using the client-server version of Visible Advantage, mount the encyclopedia by choosing **Encyclopedia** from the Visible Admin Utility menu, then select **Mount** from the menu.

COPY ACCESS MECHANISM FROM DESIGN VIEW

Copying Access Mechanisms From Design Views

Description The Copy Access Mechanism from Design View command, available from the Design Map and Design Dictionary windows, allows you to copy an access mechanism from the design view.

Procedure à **To copy an access mechanism from a design view:**

- 1 In the Design Map window, highlight the design object from which you wish to copy an access mechanism.

From the Design Dictionary window, display the design object.

- 2 Choose **Copy Access Mechanism from Design View** from the Access menu.

Result: The Copy Access Mechanism from View dialog box appears.

- 3 Select the access mechanism you wish to copy, then click on **OK**.

COPY ACCESS MECHANISM TO DESIGN VIEW

Copying Access Mechanisms to Design Views

Description The Copy Access Mechanism to Design View command, available from the Design Map and Design Dictionary windows, allows you to copy the selected access mechanism to a design view.

Procedure à **To copy an access mechanism to a design view:**

1 In the Design Map window, highlight the access mechanism you wish to copy to a design view.

In the Design Dictionary window, display the design object that contains the access mechanism you wish to copy.

2 Choose **Copy to Design View** from the Access menu.

Result: The Copy Access Mechanism to Design View dialog box appears.

3 Select the design view you wish to copy the access Mechanism to, then click on **OK**.

COPY ATTRIBUTE FROM DESIGN

Copying Attributes from Design

Description The Copy Attribute From Design command, available from both the Data Map and Data Dictionary windows, allows you to copy a data item in a design object as an attribute for the currently selected entity when using a reverse engineering approach to Information Engineering.

Usage Tips From the Data Map window, you should only have one entity selected when you choose this command, since it is not available for multiple selected entities.

Procedure à **To copy a data item as an attribute for the currently selected entity:**

1 Choose **Copy From Design...** from the Attribute menu.

Result: The Copy Attribute From dialog box appears.

2 Complete the dialog box and click on **OK**.

Copy Attribute From Database Design Dialog Box

Dialog Box Illustration

The dialog box is titled "Copy Attribute From Database Design". It contains the following elements:

- Destination Entity: PERSON
- Design View: [Text Box] [Down Arrow]
- Design Object: [Text Box] [Down Arrow]
- Data Items: [Large Empty List Box]
- Expand Abbreviated Names
- OK button
- Cancel button

Copy Attribute From Design Dialog Box

Dialog Box Components

Use the information below to complete the Copy Attribute From Design dialog box.

<u>Component</u>	<u>Description</u>
Design View	Select the name of the design view in which the design object is located from this list. This list includes all design views defined for the encyclopedia.
Design Object	Select the name of the design object that contains the data item you want to copy into the data model from this drop-down list. This list includes all design objects within the design view you selected above.
Data Items	All data items for the selected design object appear in this list box. Highlight the name of the data item you want to transfer as an attribute for the current entity.

To select multiple data items, hold down the CTRL key and click on each data item you want to transfer.

Expand
Abbreviated
Names

Click on this checkbox to expand abbreviated names.

COPY ATTRIBUTE FROM MODEL VIEW

Copying Attributes from Model Views

Description The Copy Attribute from Model View command, available from the Data Dictionary window, allows you to copy attributes available in the entire model for the selected entity but not available in this model view.

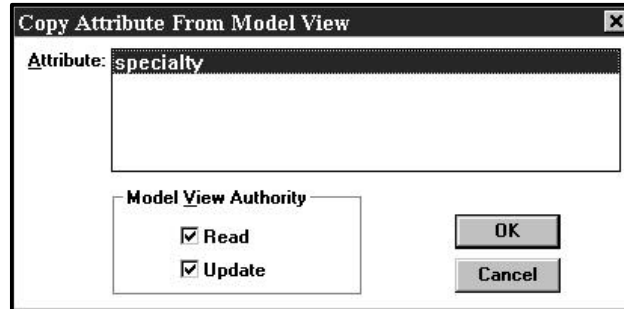
Procedure à **To copy attributes from model view:**

- 1 Display the entity that contains the attribute you wish to copy.
- 2 Choose **Copy From Model View** from the Attribute menu.

Result: The Copy Attribute from Model View dialog box appears.
- 3 Complete the dialog box, then click on **OK**.

Copy Attribute From Model View Dialog Box

Dialog Box Illustration



Copy Attribute from Model View Dialog Box

Dialog Box Components

Use the information below to complete the Copy Attribute from Model View dialog box.

<u>Component</u>	<u>Description</u>
Attribute	Select the attribute you wish to copy.
Model View Authority	Click the checkboxes for the view authorities you wish to select.

COPY ATTRIBUTE TO DESIGN

Copying Attributes to Design

Description The Copy Attribute To Design command, available from both the Data Map and Data Dictionary windows, allows you to copy an Attribute into a design object as a data item.

Usage Tips This command is available for multiple selected entities in the Data Map window. See the *User's Guide* for information on selecting multiple entities in these windows. In the Data Dictionary window, this command is available for the current entity only.

Procedure à **To copy an attribute to a database design as a data item:**

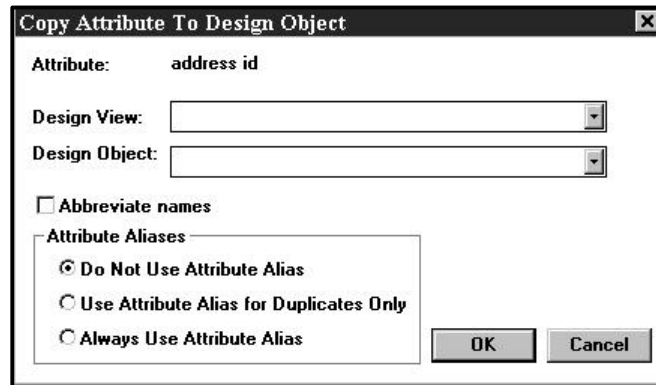
- 1 Choose **Copy To Design...** from the Attribute menu.

Result: The Copy Attribute To Design Object dialog box appears.

- 2 Complete the Copy Attribute to Design Object dialog box and click **OK**.

Copy Attribute To Design Object Dialog Box

Dialog Box Illustration



Copy Attribute to Design Object Dialog Box

Dialog Box Components

Use the information below to complete the Copy Attribute to Design Object dialog box.

Component	Description
Design View	Select the design view in which the destination design object is located from the Design View drop-down list.
Design Object	Select the destination design object from the drop-down list . The list includes all design objects within the selected design view.
Abbreviate Names	Click on this checkbox to abbreviate names.
Attribute Aliases	Click on the radio button for the attribute alias use you wish to select.

COPY DESIGN OBJECT FROM DATA MODEL

Copying Design Objects from Entities

Description The Copy Design Object From Data Model command, available from the Design Dictionary and Design Map windows, allows you to copy an entity from the data model into the current database design as a design object.

Procedure à **To copy an entity from the data model into the current design view:**

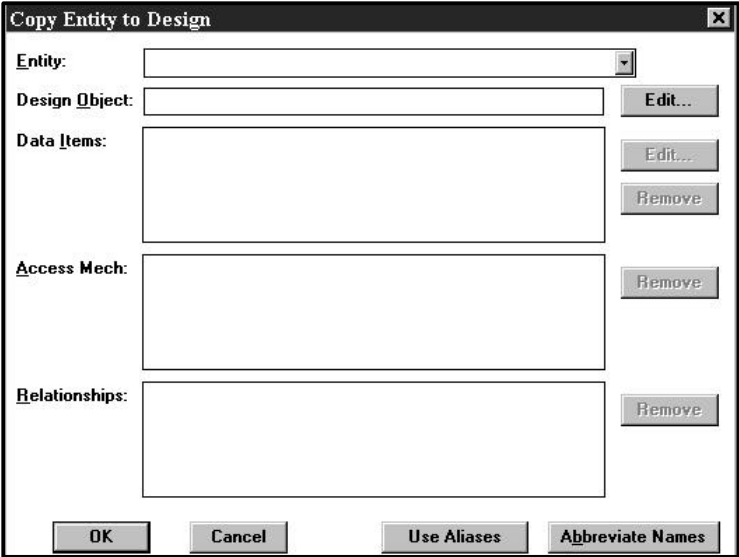
- 1 Choose **Copy From Data Model...** from the Design Object menu.

Result: The Copy Entity to Design dialog box appears.

- 2 Complete the Copy Entity to Design dialog box, then click on **OK**.

Copy Entity to Design Dialog Box

Dialog Box Illustration



Copy Entity to Design Dialog Box

Dialog Box Components

Use the information below to complete the Copy Entity to Design dialog box.

Component	Description
Entity	Select from this drop-down list the entity you want to copy into the current database design as a data structure. The list includes all entities in the data model.

Design Object	After you select an entity, its name appears in this field. This will be the name of the design object. You may edit the name, if necessary.
Edit	Use this button to edit the details for the new design object. When you click on this button, the Edit Data Structure dialog box appears. See Add Data Structure for information on this dialog box.
Data Items	When you select an entity from the Entity list, its attributes appear in this list as the new design object's data items.
Edit	Use this button to edit the details for one of the data items on the list. To do this, select the data item you want to edit, then click on this button. When you click on this button, the Edit Data Item dialog box appears. See Add Data Item in this manual for information on these dialog box fields.
Remove	Use this button to remove a data item from the list so it will not be added to the new design object. To do this, select the data item you want to remove, then click on this button.
Access Mech	When you select an entity, its access mechanisms appear in this list as the new design object's access mechanisms.
Remove	Use this button to remove an access mechanism from the list so it will not be added to the new design object. To do this, select the access mechanism you want to remove, then click on this button.
Relationships	When you select an entity, its associations appear in this list as the new design object's relationships.
Remove	Use this button to remove a relationship from the list so it will not be added to the new design object. To do this, select the relationship you want to remove, then click on this button.

Use Aliases

Click this button to allow the use of aliases.

Abbreviate
Names

Click this button to abbreviate names.

COPY DESIGN OBJECT FROM DESIGN VIEW

Copying Design Objects

Description The Copy Design Object From Design view command, available from the Design Dictionary and Design Map windows, allows you to copy a design object from another defined design view into the current design view.

Procedure à **To copy a design object from another design view:**

- 1 Choose **Copy From Design View...** from the Design Object menu.

Result: The Copy Design Object From Design view dialog box appears.

- 2 Select from the **Design View** list the design view from which you want to copy the design object.

Result: The design objects in the selected design view appear in the **Design Objects** list box.

- 3 Select the design object you want to copy, then click on **OK**.

COPY DESIGN OBJECT TO DATA MODEL

Copying Design Objects to the Data Model

Description The Copy Design Object to Data Model command, available from the Design Dictionary and Design Map windows, allows you to copy the current or selected design objects to a model view in the data model as entities.

Usage Tips This command is available for multiple selected design objects in the Design Dictionary window. Use the Select Design Objects command to select multiple design objects.

If an entity with the same name as a design object to be copied exists in the destination model view, you will be prompted to rename the entity when it is copied.

Procedure à **To copy the current or selected design objects to a model view as entities:**

1 Choose **Copy To Data Model...** from the Design Object menu.

Result: The Copy Design Objects to Data Model dialog box appears.

2 Select the **Model View** from the drop down list.

3 If you want to copy the design objects in batch mode, select the **Batch Mode** button. If you want to show each entity, select the **Show Each Entity** button.

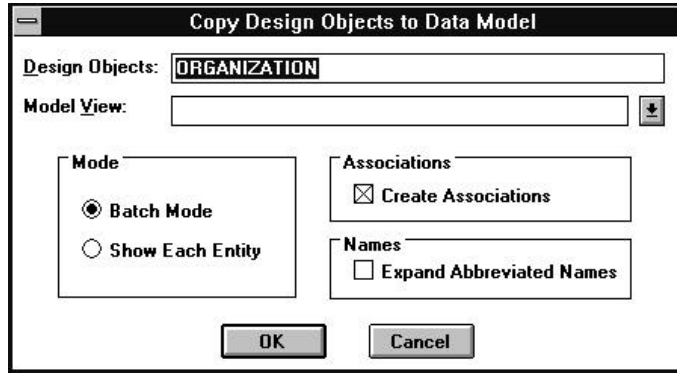
4 Select **Create Associations** to create associations.

5 Select **Expand Abbreviated Names** to display full names.

6 Click on **OK**.

Copy Design Objects to Data Model

Dialog Box Illustration



Copy Design Objects to Data Model Dialog Box

Dialog Box Components

Use the information below to complete the Copy Design Objects to Data Model dialog box.

Component	Description
Design Objects	The name of the current or selected design object is displayed here.
Model View	Select a model view from the drop down list.
Batch Mode	Select this button to copy in batch mode.
Show Each Entity	Select this button to show each entity.
Create Associations	Select this checkbox to create associations.
Expand Abbreviated Names	Select this checkbox to expand abbreviated names.

COPY DESIGN OBJECT TO DESIGN VIEW

Copying Design Object to Design View

Description The Copy Design Object To Design View command, available from the Design Dictionary and Design map windows, allows you to copy the current or selected design objects to another design view.

Usage Tips This command is available for multiple selected design objects in the Design Dictionary window. See Select Design objects in this manual for information on selecting multiple design objects.

Procedure à **To copy the current or selected design objects to another design view:**

- 1 Choose **Copy To Design View...** from the Design Object menu.

Result: The Copy Design Object To View dialog box appears.

- 2 The names of the design objects to be copied appear in the **Design Objects** field, and the names of the design views added to the encyclopedia appear in the **Design View** list box.

Select the design view to which you want to copy the design objects, then click on **OK**.

COPY ENTITY FROM DESIGN

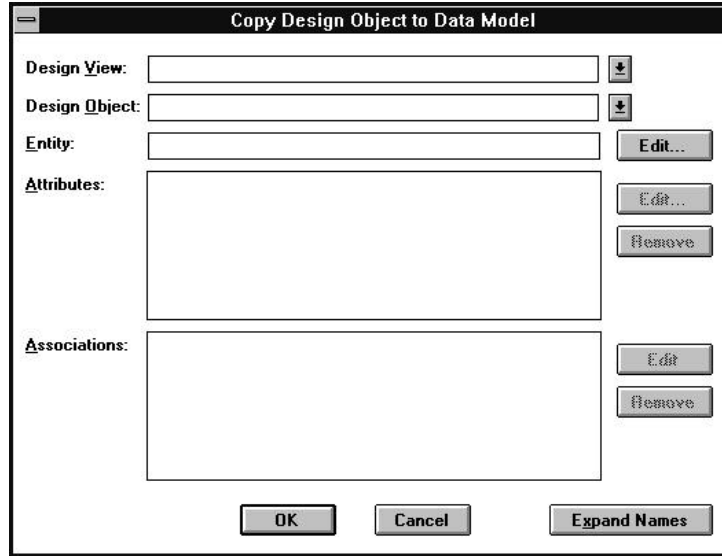
Copying Entities From Design

- Description** The Copy Entity From Design command, available from the Data Map and Data Dictionary windows, allows you to copy a design object in a database design into the current model view as an entity when using a reverse engineering approach to Information Engineering.
- Usage Tips** When copying multiple data structures into a model view, it is easier to open the Design Dictionary window, select all data structures you want to copy to the data model, and then use the Copy To Data Model command. Through the Data Map and Data Dictionary windows, you can only copy one data structure at a time into the data model.
- Procedure** à **To copy a design object into the current model view as an entity:**
- 1 **Choose Copy From Design...** from the Entity menu.

Result: The Copy Design Object to Data Model dialog box appears.
 - 2 Complete the dialog box and click on **OK**.

Copy Design Object to Data Model Dialog Box

Dialog Box Illustration



Copy Design Object to Data Model Dialog Box

Dialog Box Components

Use the information below to complete the Copy Design Object to Data Model dialog box.

<u>Component</u>	<u>Description</u>
Design View	Select the name of the design view in which the design object is located from this list. This list includes all design views defined for the encyclopedia.
Design Object	Select the name of the design object you want to copy into the data model from this drop-down list. This list includes all design objects within the design view you selected above.

Entity	<p>The name of the design object you selected appears in this box. This will be the name of the new entity copied from the design object.</p> <p>If you want to change the name of the new entity, type a new name over the existing entry.</p>
Edit	<p>Click on this button if you want to edit the details for the new entity. The Edit Entity dialog box appears (see Edit Entity in this manual for information on dialog box fields).</p>
Attributes	<p>All data items for the selected design object appear in this list. Unless you remove them from this list (see Remove, below), they will be transferred into the data model as attributes for the new entity.</p>
Edit	<p>Use this button to edit the details for an attribute that will be transferred to the data model. To do this, highlight the name of the attribute, then click on this button. The Edit Attribute dialog box for the attribute appears (see Edit Attribute in this manual for information on dialog box fields).</p>
Remove	<p>Use this button to prevent one of the items on the list from being transferred into the data model. To do this, highlight the attribute name, then click on this button.</p>
Associations	<p>All the associations for the selected design object appear in this list. Unless you remove them from this list (see below), they will be transferred into the data model as associations for the new entity.</p>
Edit	<p>Click on this button if you want to edit the details for the new association. The Edit Association dialog box appears (see Edit Association in this manual for information on dialog box fields).</p>
Remove	<p>Use this button to prevent one of the items on the list from being transferred into the data model. To do this, highlight the association name, then click on this button.</p>

COPY ENTITY FROM MODEL VIEW

Copying Entities From Another Model View

Description The Copy From Model View command, available from the Data Map and Data Dictionary windows, allows you to copy an entity from another model view to the current model view.

Usage Tips Use this command when you want an entity in another model view to be included in the current model view. Since the entire encyclopedia contains all entities in the encyclopedia, the Copy From Model View command is not available when the entire encyclopedia is displayed.

You have added an entity to a model view, and now you want that entity to appear in the current model view. You use the Copy From Model View command to copy the entity to the current model view.

You may also add entities to and remove them from model views through the Entity-View Matrix window. See the *User's Guide* for more information on using this window.

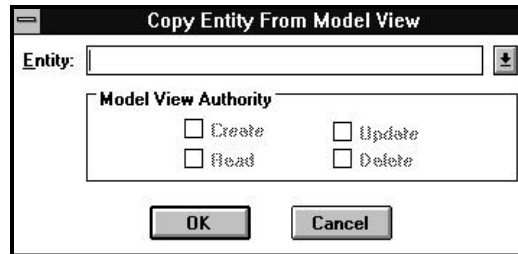
Procedure à **To copy an entity to the current model view from another model view:**

- 1 Choose **Copy From Model View...** from the Entity menu.

Result: The Copy Entity From Model View dialog box appears.
- 2 Complete the Copy Entity From Model View dialog box, then click on **OK**.

Copy Entity From Model View Dialog Box

Dialog Box Illustration



Copy Entity From Model View Dialog Box

Dialog Box Components

Use the information below to complete the Copy Entity From Model View dialog box.

Component	Description
Entity	Select an entity from this drop-down list. This list includes all entities <i>not</i> visible in the current model view.
Model View Authority	Select the checkbox for each model view authority (Create, Read, Update, and/or Delete) the copied entity should have in the current model view. An entity's model view authority indicates the modification or viewing authority given to a model view in which an entity is visible.

COPY ENTITY TO DESIGN

Copying Entities to Design

Description The Copy Entity To Design command, available from the Data Map and Data Dictionary windows, allows you to copy an entity into a design as a design object.

Usage Tips This command is available for multiple selected entities in both the Data Map and Data Dictionary windows. See the *User's Guide* for information on selecting multiple entities in these windows.

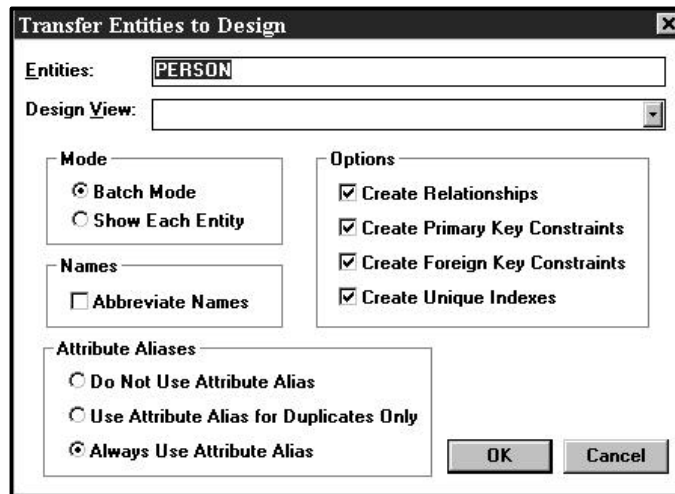
Procedure à **To copy selected entities to a design view:**

- 1 Choose **Copy To Design...** from the Entity menu.

 Result: The Transfer Entities to Design dialog box appears.
- 2 Complete the Transfer Entities to Design dialog box and click on **OK**.

Transfer Entities to Design Dialog Box

Dialog Box Illustration



Transfer Entities to Design Dialog Box

Dialog Box Components

Use the information below to complete the Transfer Entities to Design dialog box.

Components	Description
Entities	Name of the entity you wish to transfer appears here.
Design View	Select the design view from the drop-down list.
Batch Mode	Select this button to transfer in batch mode.
Show Each Entity	Select this button to show each entity.
Abbreviate Names	Select this checkbox to abbreviate names.
Create Relationships	Select this checkbox to create relationships.

Create
Primary Key
Constraints

Select this checkbox to create primary key constraints.

Create
Foreign Key
Constraints

Select this checkbox to create foreign key constraints.

Create Unique
Indexes

Select this checkbox to create unique indexes.

Do Not Use
Attribute
Alias

Select this checkbox to never use an attribute's alias.

Use Attribute
Alias for
Duplicates
Only

Select this checkbox to use an attribute alias only for duplicates.

Always Use
Attribute
Alias

Select this checkbox to always use an attribute alias.

COPY ENTITY TO MODEL VIEW

Copying Entities To Another Model View

Description The Copy To Model View command, available from the Data Map and Data Dictionary windows, allows you to copy selected entities from the current model view to another model view.

Usage Tips Use this command when you want an entity or entities in the current model view to be included in one or more other model views.

This command is available for multiple selected entities in both the Data Map and Data Dictionary windows. See the *User's Guide* for instructions on selecting multiple entities in these windows.

You may also add entities to and remove them from model views through the Entity-View Matrix window. See the *User's Guide* for more information on using this window.

+ **Example** You have added several entities to the entire encyclopedia, and now you want them to be visible in a subset model view, as well. To do this, you select the entities, then use the Copy To Model View command on the Entity menu.

2 Note An association between two entities is visible in a model view only if *both* entities in the association are visible in the model view; therefore, if you want an association to be copied to a model view with an entity, the entity at the opposite end of the association must already be visible in the target model view.

Procedure à **To copy selected entities to another model view from the Data Map or Data Dictionary window:**

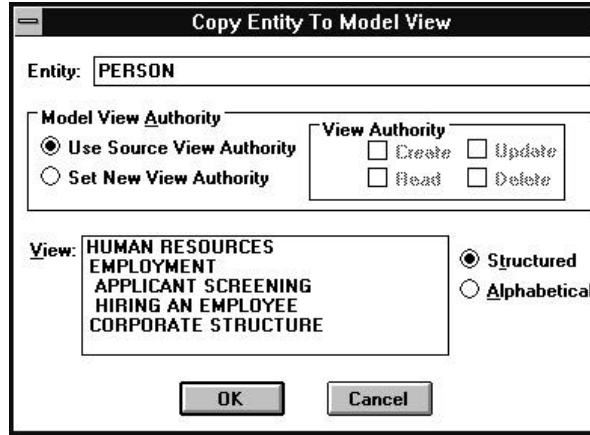
1 Choose **Copy To Model View...** from the Entity menu.

Result: The Copy Entity To Model View dialog box appears.

2 Complete the Copy Entity To Model View dialog box, then click on **OK**.

Copy Entity To Model View Dialog Box

Dialog Box Illustration



Copy Entity to Model View Dialog Box

Dialog Box Components

Use the information below to complete the Copy Entity To Model View dialog box.

<u>Component</u>	<u>Description</u>
Entity	The name of the current entity or of the entities that have been selected is displayed.
Use Source View Authority	Select this button if you want the entity to have the same model view authority in the destination model view as it has for the current model view.
Set New View Authority	Select this button if you want to define a different model view authority, then select the checkbox for each model view authority the copied entity or entities should have in the model view to which they are being copied.

View	This box contains a list of all model views defined for the encyclopedia. Highlight the name of the model view to which you want to copy the entity or entities.
Structured	Select this button if you want the View box to display the model view list in hierarchical order.
Alphabetical	Select this button if you want the View box to display the model view list in alphabetical order.
View Authority	Select the checkbox for each model view authority (Create, Read, Update, and/or Delete) the copied entity should have in the target model view. This is only available if the Set New View Authority option is selected (see above).

COPY PROPERTY FROM DATA MODEL

Copying Property from the Data Model

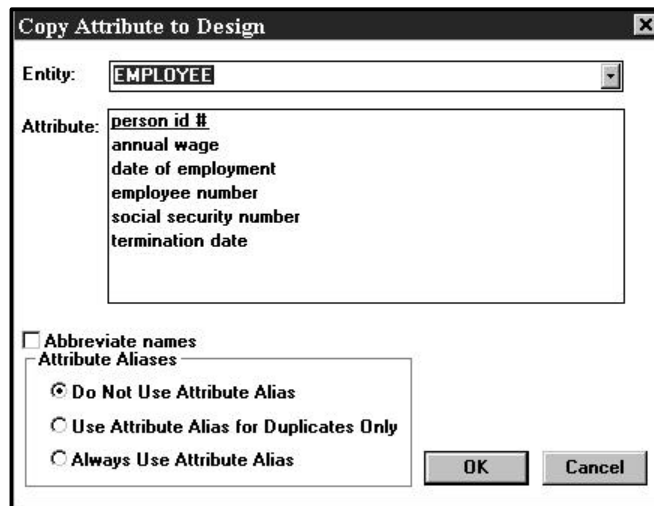
Description The Copy Property From Data Model command, available from the Design Dictionary and Design Map windows, allows you to copy one or more attributes from the data model into the current data structure as properties.

Procedure à **To copy one or more data items from the data model to the current data structure:**

- 1 Display the data structure to which you want to copy the attribute(s) as data item(s).
- 2 Choose **Copy From Data Model...** from the Property menu.
Result: The Copy Attribute to Design dialog box appears.
- 3 Complete the dialog box, then click on **OK**.

Copy Attribute to Design Dialog Box

Dialog Box Illustration



Copy Attribute to Design Dialog Box

Dialog Box Components

Use the information below to complete the Copy Attribute to Design dialog box.

<u>Component</u>	<u>Description</u>
Entity	Select from the Entity drop-down list the entity that Contains the attribute you want to copy.
Attribute	Select the attribute(s) you want to copy into the Current data structure, then click OK .

2 Note To select multiple *consecutive* attributes in the list, hold down the SHIFT key and click on the first attribute you want to copy, and then click on the last attribute you want to copy. To select multiple *non-consecutive* attributes, hold down the CTRL key and click on each attribute you want to copy.

Abbreviate
Names

Click this checkbox to abbreviate names.

Do Not Use
Attribute
Alias

Select this button to never use an attribute alias.

Use Attribute
Alias for

Select this button to use an attribute alias for
duplicates only.

Always Use
Attribute
Alias

Select this button to always use an attribute alias.

COPY PROPERTY TO DATA MODEL

Copying Properties to Data Models

Description The Copy Property to Data Model command, available from the Design Dictionary and Design Map windows, allows you to copy properties from the current design view to a model view.

Procedure à **To copy properties to a data model:**

1 In the Design Dictionary window, display the design object you wish to copy the property from.

In the Design Map window, highlight the design object.

2 Choose **Copy to Data Model** from the Property menu.

Result: The Select Design Object Property dialog box appears.

3 Select a property to copy and click on **OK**.

Result: The Copy Data Item to Entity dialog box appears.

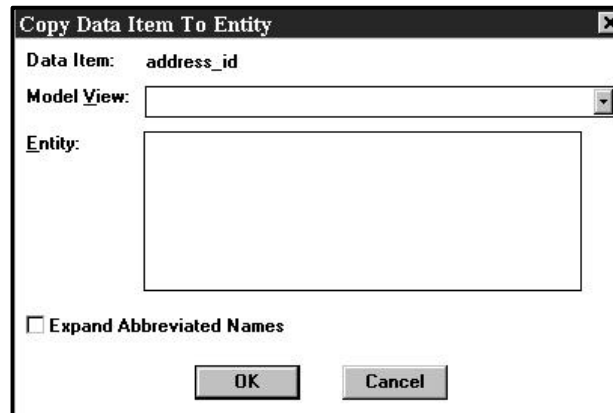
4 Complete the Copy Data Item to Entity dialog box, then click on **OK**.

Result: The Add Attribute dialog box appears for the attribute type you selected.

5 Complete the Add Attribute dialog box, then click on **OK**.

Copy Data Item to Entity Dialog Box

Dialog Box Illustration



Copy Data Item to Entity Dialog Box

Dialog Box Components

Use the information below to complete the Copy Data Item to Entity dialog box.

Component	Description
Model View	Select a model view from the drop down list.
Entity	Select an entity from the list.
Expand Abbreviated Names	Click on this checkbox to expand abbreviated names.

COPY PROPERTY FROM DESIGN OBJECT

Copying a Property from a Design Object

Description The Copy Property From Design Object command, available from the Design Dictionary and Design Map windows, allows you to copy one or more properties from another design object within the current design view into the currently displayed design object.

Procedure à **To copy one or more properties from another design object the current design object:**

1 Display the design object to which you want to copy the properties.

2 Choose **Copy From Design Object...** from the Property menu.

Result: The Copy Property From Design Object dialog box appears.

3 Select from the **Design Object** drop-down list the data structure that contains the property you want to copy. The list includes all design objects in the current design view.

Result: The properties contained in the selected design object appear in the **Properties** list box.

4 Select the property(s) you want to copy into the current design object, then click on **OK**.

2 Note To select multiple *consecutive* properties in the list, hold down the SHIFT key and click on the first property you want to copy, and then click on the last property you want to copy. To select multiple *non-consecutive* properties, hold down the CTRL key and click on each property you want to copy.

COPY PROPERTY FROM DESIGN VIEW

Copying a Property from a Design View

Description The Copy Property from Design View command, available from the Design Dictionary and Design Map windows, allows you to copy one or more properties available in the entire model for the current design object but not included in the current design view.

Procedure à **To copy properties from the current design view:**

- 1 In the Design Dictionary window, display the design object you wish to copy the property to.

 In the Design Map window, highlight the design object.
- 2 Choose **Copy Property from Design View** from the Property menu.

 Result: The Copy Property from Design View dialog box appears.
- 3 Highlight the property you wish to copy, then click on **OK**.

COPY PROPERTY TO DESIGN OBJECT

Copying a Property to a Design Object

Description The Copy Property To Design Object command, available from the Design Dictionary window, allows you to copy a property from the currently displayed design object to another design object in the current design view.

Procedure à **To copy a property from the current design object to another design object:**

- 1 Display the design object from which you want to copy the property.
- 2 Choose **Copy To Design Object...** from the Property menu.

Result: The Copy Property To Design Object dialog box appears.

- 3 Select the design view in which the design object is located from the **Design View** drop-down list. The list includes all design views defined for the encyclopedia.

Result: The design objects located in the selected design view are listed in the **Design Object** list box.

- 4 From the **Design Object** list, select the design object to which you want to copy the property, then click on **OK**.

COPY PROPERTY TO DESIGN VIEW

Copying a Property to a Design View

Description The Copy Property to Design View command, available from the Design Map and Design Dictionary windows, allows you to copy one or more properties from the current design view to another design view.

Procedure à **To copy properties to another design view from the Design Map window:**

1 Highlight the design object that contains the property you wish to copy.

2 Choose **Copy to Design View** from the Property menu.

 Result: The Select Design Object dialog box appears.

3 Select the property you wish to copy, then click on **OK**.

 Result: The Copy Property to Design View dialog box appears.

4 Select the design view you wish to copy the property to, then click on **OK**.

 à **To copy properties to another design view from the Design Dictionary window:**

1 Display the design object that contains the property you wish to copy.

2 Choose **Copy to Design View** from the Property menu.

 Result: The Copy Property to Design View dialog box appears.

-
- 3 Select the design view you wish to copy the property to, then click on **OK**.

COPY STATEMENT FROM MODEL VIEW

Copying Statements From Model Views

Description The Copy Statement From Model View command, available from both the Planning Outline and Planning Dictionary windows, allows you to copy a statement from another model view to the current model view.

Usage Tips Use the Copy Statement From Model View command when you want a statement in another model view to be included in the current model view.

Since all statements in the encyclopedia are included in the entire encyclopedia, the Copy Statement From Model View command is not available when the entire encyclopedia is displayed.

+ **Example** You have added a statement to a model view, and now you want to include that statement in the current model view. To do this, you use the Copy From Model View command.

Procedure à **To copy a statement from another model view:**

1 Choose **Copy From Model View...** from the Statement menu.

Result: The Copy Statement From Model View dialog box appears.

2 Select the statement you want to copy from the **Statement** drop-down list.

The list includes all planning statements in the encyclopedia that are not visible in the current model view.

3 If you also want to copy all entities, attributes, or associations linked to the statement into the current model view, select the **Copy linked data dictionary objects** checkbox.

If the statement is linked to an attribute, the entity or entities containing the attribute are also copied into the model view. If the

statement is linked to an association, both entities in the association are copied into the model view.

- 4 Click on **OK**.

COPY STATEMENT TO MODEL VIEW

Copying Statements To Another Model View

Description The Copy Statement To Model View command, available from both the Planning Outline and Planning Dictionary windows, allows you to copy the current statement or selected statements to another model view.

Usage Tips Use this command when you want one or more statements in the current model view to be included in another model view.

This command is available for multiple selected statements in both the Planning Outline and Planning Dictionary windows. See the *User's Guide* for instructions on selecting multiple statements in these windows.

+ **Example** You have added a statement to the entire encyclopedia, and now you want that statement to be included in other model views. To do this, you use the Copy To Model View command to copy the statement to each model view in which you want it to be visible.

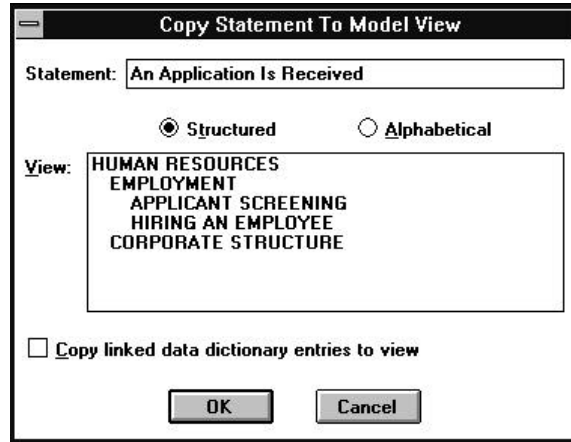
Procedure à **To copy selected statements to another model view from the Planning Outline or Planning Dictionary window:**

- 1 Choose **Copy To Model View...** from the Statement menu.

 Result: The Copy Statement To Model View dialog box appears.
- 2 Complete the Copy Statement To Model View dialog box, then click on **OK**.

Copy Statement To Model View Dialog Box

Dialog Box Illustration



Copy Statement to Model View Dialog Box

Dialog Box Components

Use the information below to complete the Copy Statement To Model View dialog box.

Component	Description
Statement	The name of the selected statement(s) is displayed in this box.
Structured	Select this button if you want to display the model view list in hierarchical order.
Alphabetical	Select this button if you want to display the list in alphabetical order.
View	Highlight the model view in this list to which you want to copy the statement or statements. All model views defined for the encyclopedia are listed in this box.
Copy Linked Data Dictionary Entries to View	Select this checkbox if you also want to copy all entities, attributes, and associations linked to the statement to the target model view.

If the statement is linked to an attribute, the entity or entities containing the attribute are also copied into the model view. If the statement is linked to an association, both entities in the association are copied into the model view.

COPY TEXT

Copying Text in a Text Editor Window

Description The Copy Text command copies selected text from the Statement Editor window to the Windows clipboard. The Statement Editor window appears when you use the Statement Editor command.

You can paste the clipboard text to a new location; the new location may be in the Statement or Session Editor window, in any Visible Advantage dialog box, or in any other Windows application.

Procedure à **To copy selected text to the clipboard:**

Choose **Copy** from the Edit menu.

Result: The text is placed on the clipboard.

à **To paste the clipboard text to a new location:**

- 1 Click the location you want the pasted text to appear (the insertion point).
- 2 Choose **Paste** from the Edit menu.

Result: The text appears in the new location.

COPY VIEW

Copying Model Views

- Description** The Copy command, available from the Model View Hierarchy window, allows you to copy the contents of one or more selected model views to another model view.
- Usage Tips** Use this command when you want all of the objects and details contained in the selected model view(s) to be visible in another model view.
- This command is available for multiple selected model views. See the *User's Guide* for instructions on selecting multiple model views in the Model View Hierarchy window.
- Note** This command *does not* delete objects from the current model view. If the target model view already contains objects visible in the selected model view(s), those objects will be unaffected in the target model view.

Procedure **à To copy the contents of selected model views to another model view.**

- 1 Choose **Copy...** from the View menu.

 Result: The Copy View dialog box appears.
- 2 Select the view to which you want to copy the selected model view(s) from the **Copy To** list box.

 If you want to display the list in hierarchical order, select the **Structured** button. If you want to display the list in alphabetical order, select the **Alphabetical** button.
- 3 Click on **OK**.

CUSTOM FIELDS

Defining Custom Fields

Description The Custom Fields command, available from the Visible Advantage Admin Utility, allows you to define custom fields for object types.

Procedure à **To add a custom field:**

- 1 Choose **Custom Fields** from the Table menu.

Result: The Custom Field Maintenance dialog box appears.

- 2 Select the object type to which you want to add a custom field, then click on **Add**.

Result: The Custom Field dialog box appears.

- 3 Complete the dialog box, then click on **OK**.

Result: The Custom Field Maintenance dialog box reappears with the custom field you added displayed in the Custom Fields text box.

- 4 Repeat steps 2 and 3 to continue to add custom fields.

- 5 Click on **Close** when you are finished adding custom fields.

à **To modify a custom field:**

- 1 Choose **Custom Fields** from the Table menu.

Result: The Custom Field Maintenance dialog box appears.

- 2 Select the object type for which you want to change a custom field.

Result: The custom fields defined for that object type appear in the Custom Fields text box.

3 Select the custom field you want to change, then click on **OK**.

Result: The Custom Field dialog box appears.

4 Make the changes, then click on **OK**.

Result: The Custom Field Maintenance dialog box reappears.

5 Repeat steps 2, 3 and 4 to continue to change custom fields.

6 Click on **Close** when you are finished changing custom fields.

à **To delete a custom field:**

1 Choose **Custom Fields** from the Table menu.

Result: The Custom Field Maintenance dialog box appears.

2 Select the object type for which you want to delete a custom field.

Result: The custom fields defined for that object type appear in the Custom Fields text box.

3 Select the custom field you want to delete, then click on **Delete**.

Result: The custom field is deleted.

4 Repeat steps 2 and 3 to continue to delete custom fields.

5 Click on **Close** when you are finished deleting custom fields.

Custom Field Dialog Box

Dialog Box Illustration

The image shows a 'Custom Field' dialog box. At the top, the title bar reads 'Custom Field' with a close button. Below the title bar, the 'Object Type' is set to 'association'. There are several input fields: 'Name' (a drop-down menu), 'Label' (a text box), 'Type' (a drop-down menu showing 'Integer'), 'Length' (a text box), 'Precision' (a text box), and 'Lines' (a text box). Below these is a 'Choices' section containing a list box with one item and three buttons: 'Add', 'Change', and 'Delete'. At the bottom of the dialog are 'OK' and 'Cancel' buttons.

Custom Field Dialog Box

Dialog Box Components

Use the information below to complete the Custom Field dialog box.

<u>Component</u>	<u>Description</u>
Object Type	The name of the selected object type is displayed here.
Name	Type the name of the custom field, or select a custom field from the drop-down list.
Label	Type the label for the custom field. This field defaults to the name of the custom field.
Type	Select a field type from the drop-down list.
Length	Type the length of the custom field.

Precision	Type the number of digits to the right of the decimal point. Available only if the custom field is of type “real.”
Lines	Type the number of lines for the custom field. Default is “1.” Available only if the custom field is of type “character.”
Choices	<p>This text box is available when the “Type” is “Pick List.” Type a choice in the first text line, then click on Add. The name is entered in the large text box.</p> <p>To change the choice, highlight the choice in the large text box. The choice is entered in the first text line. Type the changes, then click on Change. The change is made in the large text box.</p> <p>To delete a choice, highlight the choice in the large text box, then click on Delete.</p>

CUT TEXT

Cutting Text in a Text Editor Window

Description The Cut Text command deletes selected text from the Statement or Session Editor window and places it on the Windows clipboard. The Statement Editor window appears when you use the Statement Editor command; the Session Editor window appears when you use the Session Editor command.

If necessary, you can then paste the text into a new location; the new location may be in the Statement or Session Text Editor window, in any Visible Advantage dialog box, or in any other Windows application.

Procedure à **To cut selected text and place it on the clipboard:**

Choose **Cut** from the Edit menu.

à To paste the clipboard text to a new location:

- 1 Click the location you want the pasted text to appear (the insertion point).
- 2 Choose **Paste** from the Edit menu.

DATA ACCESS METHODS

Defining Data Access Methods

- Description** The Data Access Methods command, available from the main Visible Advantage Admin Utility window, allows you to add, edit, and delete data access method types for use in the current or future encyclopedias.
- Usage Tips** The data access methods you define with this command are for the current encyclopedia only. If you want to define data access methods for all future encyclopedias, use the Encyclopedia Initializer command before you use the Data Access Methods command.
- Procedure**
- à **To add a data access method for the current encyclopedia or Encyclopedia Initializer:**
- 1 Choose **Data Access Methods...** from the Table menu.
Result: The Edit Data Access Method Table dialog box appears.
 - 2 Type the name of the new access method into the **Entry** field. If you highlighted an entry in the type list box, you will have to clear its entry from the field before typing the entry for the new access method. You may type 1-31 alphabetic characters.
 - 3 To add the new entry to the end of the access method list, click on **Append**.
 - 4 Repeat the procedure for each entry you want to add to the access method type table.
 - 5 Click on **OK**.
- à **To edit an existing data access method for the current encyclopedia or Encyclopedia Initializer.**
- 1 Choose **Data Access Methods...** from the Table menu.
Result: The Edit Data Access Method Table dialog box appears.

-
- 2 Highlight the entry in the list box that you want to edit.
Result: The data access method appears in the **Entry** field.
 - 3 Edit the information in this field, check the options and items, and then click on **Change**.

à To delete a data access method for the current encyclopedia or Encyclopedia Initializer:

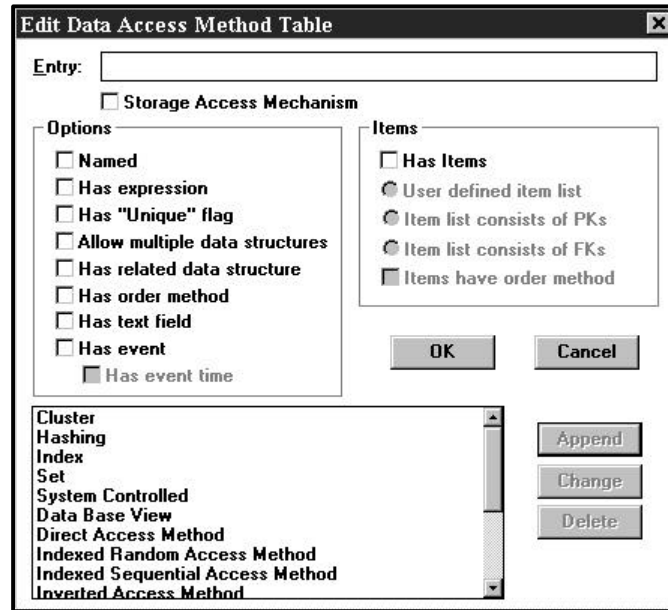
- 1 Choose **Data Access Methods...** from the Table menu.

Result: The Edit Data Access Method Type Table dialog box appears.
- 2 Highlight the entry in the large list box that you want to delete.

Result: The data access method appears in the **Entry** field.
- 3 Click on **Delete**.

Edit Data Access Method Table Dialog Box

Dialog Box Illustration



Edit Data Access Method Table Dialog Box

Dialog Box Components Use the information below to complete the Edit Data Access Method Table dialog box.

<u>Component</u>	<u>Description</u>
Entry	The name of the data access method that is highlighted in the data access method list box, or that you enter when you are adding a new type.
Storage Access Mechanism	Select this checkbox to select storage access mechanism.
Options	Select the options for the entry. You may select more than one option.

Items	Select the items for the entry. You may select more than one item.
Append	Use this button to add a new data access method to the end of the data access method list.
Change	Use this button to edit a data access method in the table. To do this, highlight the data access method in the list, edit the Entry field, check the options and items, then click on this button.
Delete	Use this button to delete a data access method from the table. To do this, highlight the data access method in the list, then click on this button.

DATA DICTIONARY

About the Data Dictionary Window

Description The Data Dictionary command allows you to open a Data Dictionary window. This window provides a textual view of the encyclopedia, listing in alphabetical order each entity in the current model view, as well as the details associated with each entity. This command is available from all windows.

You may use the Data Dictionary window to add entities, attributes, associations, and statement links to the encyclopedia.

Procedure à **To open a Data Dictionary window:**

- 1 Choose **Data Dictionary...** from the Data menu on the main Visible Advantage Window menu bar.
or
Choose **Data Modeling/Data Dictionary...** from the main menu on any other menu bar.
or
Click on the Data Dictionary window icon on the main Visible Advantage window.

Result: If model views have been defined for the encyclopedia, the Select Model View dialog box appears. Otherwise, a Data Dictionary window for the entire model displays.

- 2 Complete the Select Model View dialog box, then click on **OK**.

Result: A Data Dictionary window for the model view you selected displays.

Related Topics Use the table below to access related information about the Data Dictionary window.

For information on...	See...
how to use each command in the Data Dictionary window	individual command. For example, to learn how to use

the Add command on the Entity menu, see Add Entity.

how to use the Data Dictionary window's special features, such as the tool bar, mouse commands, and keyboard shortcuts

the Data Modeling section in the *User's Guide*.

DATA ITEM MODE

Design Reference in Data Item Mode

- Description** The Data Item Mode command, available from the Design Reference window, displays the Design Reference window by data item.
- Usage Tips** The four modes available in the Design Reference window—design object, data item, entity, and attribute—allow you to reference the information in a database design based on that object. Each mode displays the mode object at the top of the window and all of its referenced objects or details underneath it.
- Procedure** à **To run the Design Reference window in Data Item mode:**
- Choose **Data Item** from the Mode menu.
- Result: A checkmark appears beside the command name and the Design Reference window redisplay in Data Item mode.

DATA ITEM TYPES

Defining Data Item Types

- Description** The Data Item Types command, available from the Visible Advantage Admin Utility, allows you to add, edit, and delete types that you can assign to data items in the current or future encyclopedias.
- Usage Tips** The data item types you define with this command are for the current encyclopedia only. If you want to define data item types for all future encyclopedias, use the Encyclopedia Initializer command before you use the Data Item Types command.
- Procedure**
- à **To add a data item type for the current encyclopedia or Encyclopedia Initializer:**
- 1 Choose **Data Item Types...** from the Table menu.
Result: The Edit Data Item Type Table dialog box appears.
 - 2 Type the name of the new type into the **Entry** field. If you highlighted an entry in the type list box, you will have to clear its entry from the field before typing the entry for the new type. You may type 1-31 alphabetic characters.
 - 3 To add the new entry to the end of the type list, click on **Append**.
 - 4 Repeat this procedure for each entry you want to add to the type table.
 - 5 Click on **OK**.
- à **To edit an existing data item type for the current encyclopedia or Encyclopedia Initializer:**
- 1 Choose **Data Item Types...** from the Table menu.
Result: The Edit Data Item Type Table dialog box appears.
 - 2 Highlight the entry in the large list box that you want to edit.

Result: The data item type appears in the **Entry** field.

- 3 Edit the information in this field, then click on **Change**.

à **To delete a data item type for the current encyclopedia or Encyclopedia Initializer:**

- 1 Choose **Data Item Types...** from the Table menu.

Result: The Edit Data Item Type Table dialog box appears.

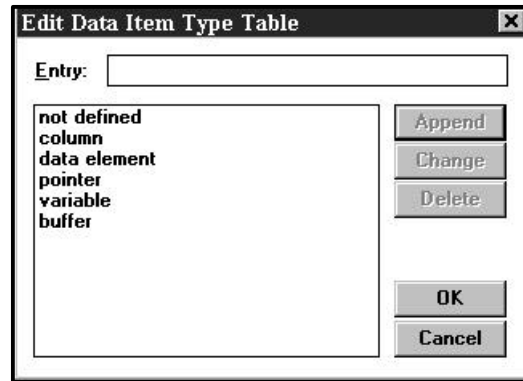
- 2 Highlight the entry in the large list box that you want to delete.

Result: The data item type appears in the **Entry** field.

- 3 Click on **Delete**.

Edit Data Item Type Table Dialog Box

Dialog Box Illustration



Edit Data Item Type Table Dialog Box

Dialog Box Components

Use the information below to complete the Edit Data Item Type Table dialog box.

Component	Description
Entry	The name of the data item type that is highlighted in the data item type list box, or that you enter when you are adding a new type.
Append	Use this button to add a new data item type to the end of the data item type list.
Change	Use this button to edit a data item type in the table. To do this, highlight the data item type in the list, edit the Entry field, then click on this button.
Delete	Use this button to delete a data item type from the table. To do this, highlight the data item type in the list, then click on this button.

About the Data Map Window

Description The Data Map command allows you to open a Data Map window. This window provides a graphical view of the entities and associations in the current model view. You may use the Data Map window to add entities, attributes, and associations to the encyclopedia. This command is available from all windows.

You may display and print data maps in either Information Engineering (IE) or IDEF1X format. See Options in this manual for more information.

Procedure à **To open a Data Map window:**

- 1 Choose **Data Map...** from the Data menu on the main Visible Advantage window.
or
 Choose **Data Modeling/Data Map...** from the main menu in any other window.
or
 Click on the Data Map window icon on the main Visible Advantage window.

Result: If model views have been defined for the encyclopedia, the Select Model View dialog box appears. Otherwise, a Data Map window for the entire encyclopedia displays.

- 2 Complete the Select Model View dialog box, then click on **OK**.

Result: A Data Map window for the model view you selected appears.

Related Topics Use the table below to access related information about the Data Map window.

<u>For more information on...</u>	<u>See...</u>
how to use each command in the Data Map window	the entry in this manual for the individual command. For example, to learn how to use the

how to use the Data Map window's special features, such as the tool bar, mouse commands, and keyboard shortcuts

Add command on the Entity menu, see Add Entity.

the Data Modeling section in the *User's Guide*.

DATA STRUCTURE MANAGERS

Defining Data Structure Managers

Description The Data Structure Managers command, available from the Visible Advantage Admin Utility, allows you to define data structure managers that you can assign to database designs in the current or future encyclopedias.

Usage Tips The data structure managers you define with this command are for the current encyclopedia only. If you want to define data access methods for all future encyclopedias, use the Encyclopedia Initializer command before you use the Data Access Methods command.

The following data structure managers are predefined in Visible Advantage: DB2, Microsoft SQL (Sybase), Oracle v.7, Supra, Sybase v.10, and Watcom SQL. You can edit the following details for predefined data structure managers or for any data structure managers you add through this command:

- Capacities
- Data types
- Data structure types
- Access mechanisms
- Domains
- Default item type
- SQL Schema Scripts

à To add a data structure manager for the current encyclopedia or Encyclopedia Initializer:

- 1 Choose **Data Structure Managers...** from Table menu.

Result: The Data Structure Managers dialog box appears. All data structure managers defined for the encyclopedia appear in alphabetical order in the large list box.

- 2 Click on **Add**.

Result: The Add Data Structure Manager dialog box appears.

-
- 3 Complete the Add Data Structure Manager dialog box, then click on **OK**.

Result: The Data Structure Managers dialog box reappears.

- 4 Repeat steps 2 and 3 for each data structure manager you want to add, then click on **Close** after you have added all necessary data structure managers.

à To edit an existing data structure manager for the current encyclopedia or Encyclopedia Initializer:

- 1 Choose **Data Structure Managers...** from the Table menu.

Result: The Data Structure Managers dialog box appears.

- 2 Highlight the entry in the large list box that you want to edit, then click on **Change**.

Result: The Edit Data Structure Manager dialog box appears. The components of this dialog box are the same as the Add Data Structure Manager dialog box. See the Add dialog box for detailed information on the components of this dialog box.

- 3 Edit the information in this dialog box, then click on **OK**.

Result: The Data Structure Managers dialog box reappears.

- 4 Repeat steps 2-3 for each data structure manager you want to edit, then click on **Close**.

à To delete a data structure manager for the current encyclopedia or Encyclopedia Initializer:

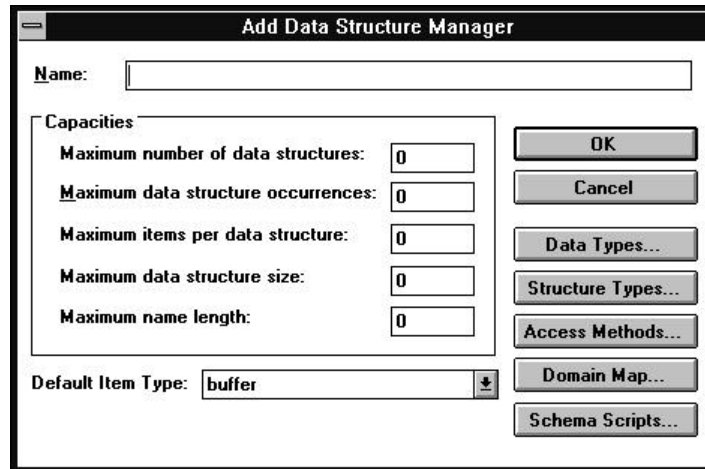
- 1 Choose **Data Structure Managers...** from the Table menu.

Result: The Data Structure Managers dialog box appears.

- 2 Highlight the entry in the large list box that you want to delete, then click on **Delete**.

Add Data Structure Manager Dialog Box

Dialog Box Illustration



Add Data Structure Manager Dialog Box

Dialog Box Components

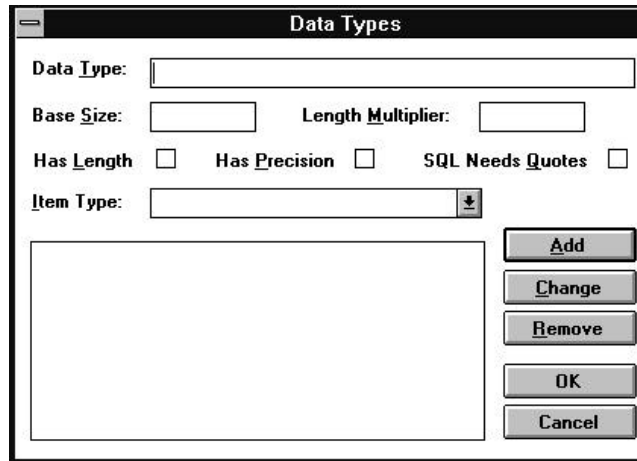
Use the information below to complete the Add Data Structure Manager dialog box.

Component	Description
Name	If you are adding a data structure manager, type its name into this field.
Capacities	Type the maximum capacity for each of the following details into the respective fields: data structures, data structure occurrences, data items per data structure, data structure size, and name length.

Default Item Type	Select from this list the data item type you want to be the default type in dialog boxes. The list includes all data item types added to the encyclopedia through Data Item Types command.
Data Types	Use this button to define the data types used by this data structure manager. When you click on this button, the Data Types dialog box appears.
Structure Types	Use this button to define data structure types for this data structure manager. When you click on this button, the Data Structure Types dialog box appears.
Access Methods	Use this button to define data access methods for this data structure manager. When you click on this button, the Access Methods dialog box appears.
Domain Map	Use this button to assign a data type for each domain in this data structure manager. When you click on this button, the Domain Map dialog box appears.
Schema Scripts	Use this button to define schema generation scripts. When you click on this button, the Schema Generation Scripts dialog box appears.

Data Types Dialog Box

Dialog Box Illustration



Data Types Dialog Box

Dialog Box Components

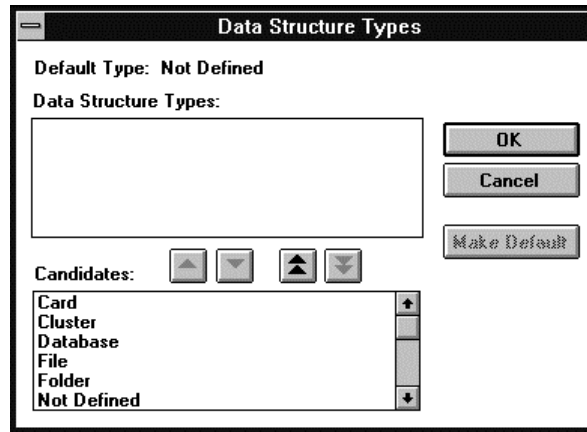
Use the information below to complete the Data Types dialog box.

<u>Component</u>	<u>Description</u>
Data Type	If you want to add a new data type, type its name into this field. If you want to change or delete a data type, select its name from the large list box so that it appears in this field, then use the Change or Remove button.
Base Size	The size of the data type in the applicable unit of measure (bytes, words, etc.).
Length Multiplier	Type in the length multiplier.
Has Length	Select this checkbox if the data type has a length.
Has Precision	Select this checkbox if the data type has a precision. This selection is not available unless the Has Length checkbox is selected.

SQL Needs Quotes	Select this checkbox if SQL needs quotes.
Item Type	Select from this drop-down list the data item type to which you want to assign the selected data type.
Add	Use this button to add the data type—data item type combination to the large list box. To do this, complete the Data Type and Item Type fields, then click on this button.
Change	Use this button to change a data type—item type combination. To do this, highlight the entry in the large list box, edit the information in the dialog box fields, then click on this button.
Remove	Use this button to remove a data type—item type entry from the data structure manager. To do this, highlight the entry in the large list box, then click on this button.

Data Structure Types Dialog Box

Dialog Box Illustration



Data Structure Types Dialog Box

Dialog Box Components

Use the information below to complete the Data Structure Types dialog box.

<u>Component</u>	<u>Description</u>
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Data Structure Types	The names of the selected data structure types are listed in this box. You add data structure types to this list from the Candidates list box.
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Use this button to select data structure type candidates. Highlight the data structure type in the Candidates list box, then click on this button. It will then appear in the Data Structure Types list box. To select more than one data structure type, hold down the SHIFT key, highlight the data structure types in the Candidates list box, then click on this button.



Use this button to deselect data structures. Highlight the data structure type in the Data Structure Types list box, then click on this button. It will then return to the Candidates list box. To deselect more than one data

structure type, hold down the SHIFT key, highlight the data structure types, then click on this button.



Use this button to select all data structure type candidates. When you click on this button, all data structure types in the Candidates list box will be moved to the Data Structure Types list box.



Use this button to deselect all selected data structure types. When you click on this button, all data structure types in the Data Structure Types list box will be returned to the Candidates list box.

Make Default

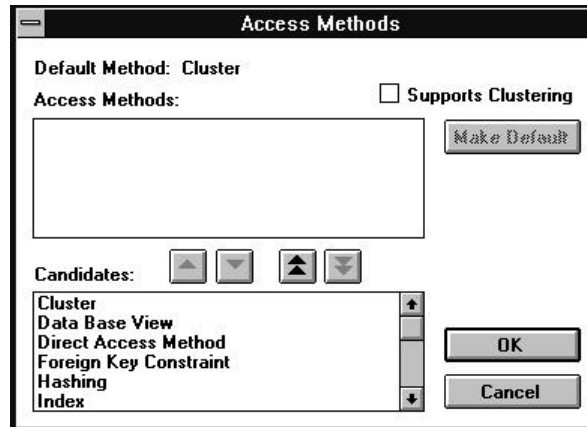
Use this button to make one of the data structure types the default entry in dialog box fields. To do this, highlight the data structure type in the Data Structure Types list box, then click on this button.

Candidates

This box contains all data structure types defined for the current encyclopedia. You define data structure types through the Data Structure Types command.

Access Methods Dialog Box

Dialog Box Illustration



Access Methods Dialog Box

Dialog Box Components

Use the information below to complete the Access Methods dialog box.

<u>Component</u>	<u>Description</u>
Access Methods	The names of the selected access methods are listed in this box. You add access methods to this list from the Candidates list box.



Use this button to select access method candidates. Highlight the access method in the Candidates list box, then click on this button. It will then appear in the Access Methods list box. To select more than one access method, hold down the SHIFT key, highlight the access methods, then click on this button.



Use this button to deselect access methods. Highlight the access method in the Access Methods list box, then click on this button. It will then return to the Candidates list box. To deselect more than one access method, hold

down the SHIFT key, highlight the access methods, then click on this button.



Use this button to select all access method candidates. When you click on this button, all access methods in the Candidates list box will be moved to the Access Methods list box.



Use this button to deselect all selected access methods. When you click on this button, all access methods in the Access Methods list box will be returned to the Candidates list box.

Make Default

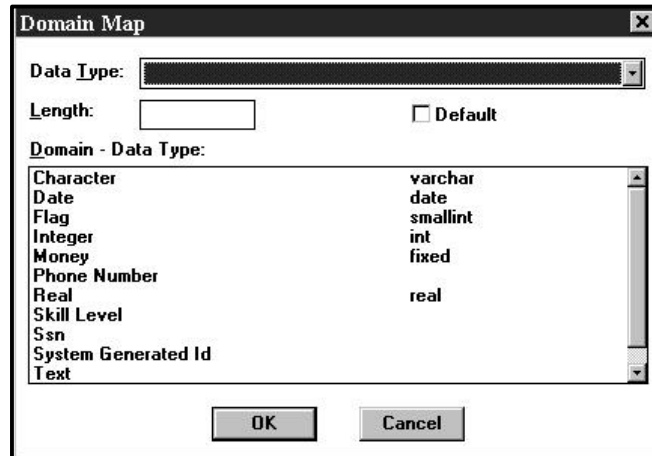
Use this button to make one of the Access Methods the default entry in dialog box fields. To do this, highlight the access method in the Access Methods list box, then click on this button.

Candidates

This box contains all access methods defined for the current encyclopedia. You define access methods through the Data Access Methods command.

Domain Map Dialog Box

Dialog Box Illustration



Domain Map Dialog Box

Dialog Box Components

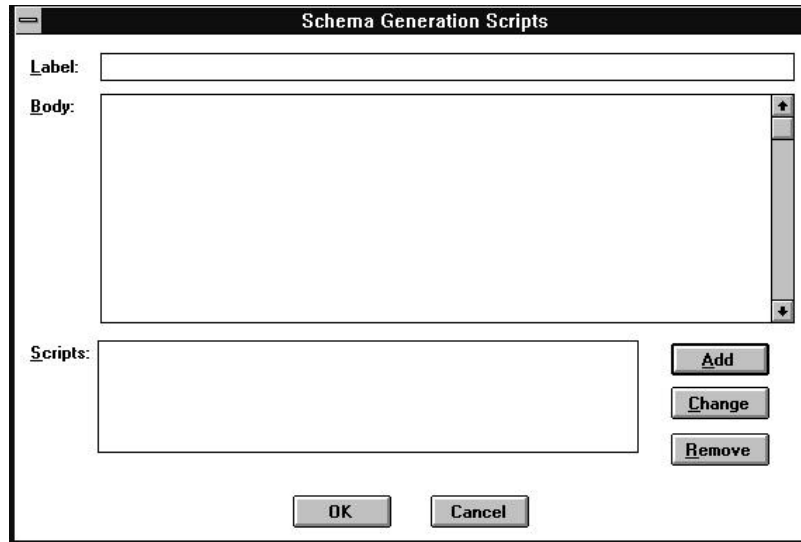
Use the information below to complete the Domain Map dialog box.

<u>Component</u>	<u>Description</u>
Data Type	<p>Use this drop-down list to select the data type you want to assign to a domain. All data types that have been added to the current data structure manager appear in this list.</p> <p>To assign a data type to a domain, click on the domain in the Domain—Data Type list box, select the data type from this list, then click on any other entry in the Domain—Data Type list.</p> <p>Data types are added to the data structure manager through the Data Types button on the Add Data Structure Manager dialog box.</p>

Length	Use this field to define a length for the domain, if the data type has a length. To do this, click on the domain in the Domain—Data Type list box, type a length into this field, then click on any other entry in the Domain—Data Type list.
Default	Select this checkbox to use as the default domain.
Domain - Data Type	This table displays the domains and the data types assigned to each of them.

Schema Generation Scripts Dialog Box

Dialog Box Illustration



Schema Generation Scripts Dialog Box

Dialog Box Components

Use the information below to complete the Schema Generation Scripts dialog box.

<u>Component</u>	<u>Description</u>
Label	Type a label for the script.
Body	When you click on a script in the Scripts box, the script text appears here.
Scripts	The list of scripts available is displayed here.
Add	Click Add to add the script to the script list.
Change	To change the script displayed in the Body text box, type the change and click on the Change command button to save the change.

Remove

To remove a script, highlight the script in the Script box and click on the Remove command button.

DATA STRUCTURE TYPES

Defining Data Structure Types

Description The Data Structure Types command, available from the Visible Advantage Admin Utility, allows you to add, edit, and delete types that you can assign to data structures in the current or future encyclopedias.

Usage Tips The data structure types you define with this command are for the current encyclopedia only. If you want to define data structure types for all future encyclopedias, use the Encyclopedia Initializer command before you use the Data Structure Types command.

Procedure à **To add a data structure type for the current encyclopedia or Encyclopedia Initializer:**

- 1 Choose **Data Structure Types...** from the Table menu.

Result: The Edit Data Structure Type Table dialog box appears.

- 2 Type the name of the new type into the **Entry** field. If you highlighted an entry in the type list box, you will have to clear its entry from the field before typing the entry for the new type. You may type 1-31 alphabetic characters.

- 3 To add the new entry to the end of the type list, click on **Append**.

- 4 Repeat this procedure for each entry you want to add to the type table.

- 5 Click on **OK**.

à **To edit an existing data structure type for the current encyclopedia or Encyclopedia Initializer:**

- 1 Choose **Data Structure Types...** from the Table menu.

Result: The Edit Data Structure Type Table dialog box appears.

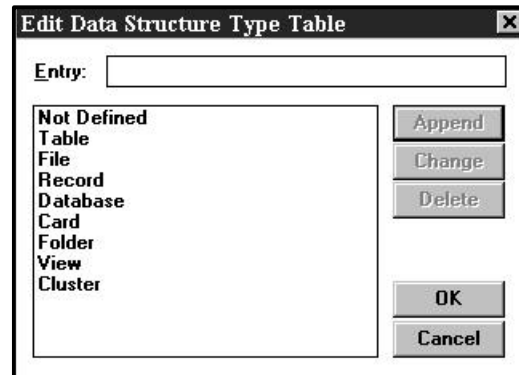
-
- 2 Highlight the entry in the large list box that you want to edit.
Result: The data structure type appears in the **Entry** field.
 - 3 Edit the information in this field, then click on **Change**.

à To delete a data structure type for the current encyclopedia or Encyclopedia Initializer:

- 1 Choose **Data Structure Types...** from the Table menu.
Result: The Edit Data Structure Type Table dialog box appears.
- 2 Highlight the entry in the large list box that you want to delete.
Result: The data structure type appears in the **Entry** field.
- 3 Click on **Delete**.

Edit Data Structure Type Table Dialog Box

Dialog Box Illustration



Edit Data Structure Type Table Dialog Box

Dialog Box Components

Use the information below to complete the Edit Data Structure Type Table dialog box.

Component	Description
Entry	The name of the data structure type that is highlighted in the data structure type list box, or that you enter when you are adding a new type.
Append	Use this button to add a new data structure type to the end of the data structure type list.
Change	Use this button to edit a data structure type in the table. To do this, highlight the data structure type in the list, edit the Entry field, then click on this button.
Delete	Use this button to delete a data structure type from the table. To do this, highlight the data structure type in the list, then click on this button.

DATA TYPES

Defining Data Types

- Description** The Data Types command, available from the Visible Advantage Admin Utility, allows you to add, edit, and delete data types that you can use in the current or future encyclopedias.
- Usage Tips** The data types you define with this command are for the current encyclopedia only. If you want to define data types for all future encyclopedias, use the Encyclopedia Initializer command before you use the Data Types command.
- Procedure** à **To add a data type for the current encyclopedia or Encyclopedia Initializer.**
- 1 Choose **Data Types...** from the Table menu.

Result: The Edit Data Type Table dialog box appears.
 - 2 Type the name of the new type into the **Entry** field. If you highlighted an entry in the type list box, you will have to clear its entry from the field before typing the entry for the new type. You may type 1-31 alphabetic characters.
 - 3 If you want users to define a length for attributes and data items assigned the new data type, select the **Has Length** checkbox. When you do this, the **Has Precision** checkbox becomes available. Select that checkbox, as well, if you want users to define a precision for attributes and data items assigned the new data type.
 - 4 To add the new entry to the end of the type list, click on **Append**.
 - 5 Repeat the procedure for each entry you want to add to the type table.
 - 6 Click on **OK**.

à **To edit an existing data type for the current encyclopedia or Encyclopedia Initializer:**

- 1 Choose **Data Types...** from the Table menu.

Result: The Edit Data Type Table dialog box appears.

- 2 Highlight the entry in the large list box that you want to edit.

Result: The data type appears in the **Entry** field.

- 3 Edit the information in the **Entry** field, adjust the **Has Length** and **Has Precision** fields, as necessary, then click on **Change**.

2 Note A message appears telling you that the value cannot be edited if the data type is a system-defined value protected from editing by Visible Advantage.

à **To delete a data type for the current encyclopedia or Encyclopedia Initializer:**

- 1 Choose **Data Types...** from the Table menu.

Result: The Edit Data Type Table dialog box appears.

- 2 Highlight the entry in the large list box that you want to delete.

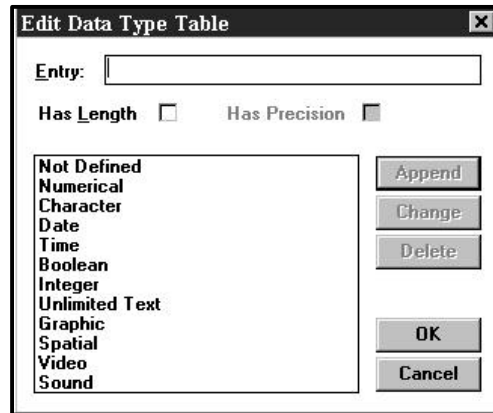
Result: The data type appears in the **Entry** field.

- 3 Click on **Delete**.

2 Note A message appears telling you that the value cannot be deleted if the data type is a system-defined value protected from deletion by Visible Advantage, or if it is referenced by any encyclopedia objects.

Edit Data Type Table Dialog Box

Dialog Box Illustration



Edit Data Type Table Dialog Box

Dialog Box Components

Use the information below to complete the Edit Data Type Table dialog box.

Component	Description
Entry	The name of the data type that is highlighted in the data type list box, or that you enter when you are adding a new type.
Has Length	Select this checkbox if you want users to define a length for the data type when using it for attributes and data items in the encyclopedia.
Has Precision	Select this checkbox if you want users to define a precision for the data type when using it for attributes and data items in the encyclopedia.
Append	Use this button to add a new data type to the end of the data type list.

Change

Use this button to edit a data type in the table. To do this, highlight the data type in the list, edit the **Entry** field and/or the **Has Length** and **Has Precision** checkboxes, then click on this button.

Delete

Use this button to delete a data type from the table. To do this, highlight the data type in the list, then click on this button.

DEFAULT PATH

Setting a Default Path

Description The Default Path command, available from the main **Visible Advantage** window, allows you to define the path that appears in the New Encyclopedia and Open Encyclopedia dialog boxes.

Usage Tips The default path you choose with this command will take effect the next time you create or open an encyclopedia through the File menu, and appears in the New Encyclopedia and Open Encyclopedia dialog boxes.

Procedure à **To set the default path for the New Encyclopedia and Open Encyclopedia dialog boxes:**

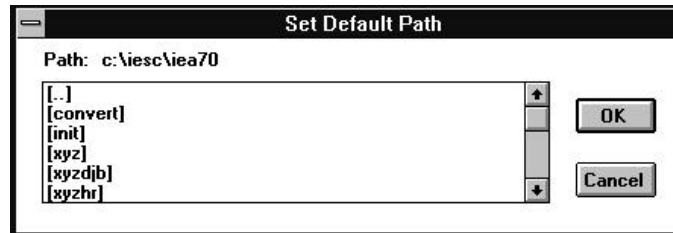
- 1 Choose **Default Path...** from the File menu on the Main Visible Advantage window.

Result: The Set Default Path dialog box appears.

- 2 Complete the Set Default Path dialog box , then click on **OK**.

Set Default Path Dialog Box

Dialog Box Illustration



Set Default Path Dialog Box

Dialog Box Components

Use the information below to complete the Set Default Path dialog box.

<u>Component</u>	<u>Description</u>
Path	<p>The directories and drives located on the your computer appear in the scrolled list box. In the list box, double-click on the letter of the drive you want to define as the default drive. The drive letter will appear in the Path field.</p> <p>Once the correct drive is displayed, double-click on the <i>directory</i> you want to define as the default directory. The directory name will appear in the Path field after the selected drive letter.</p>

DELETE ACCESS MECHANISM

Deleting Access Mechanisms

- Description** The Delete Access Mechanism command, available from the Design Dictionary and Design Map windows, allows you to delete an access mechanism defined for the current data structure.
- Usage Tips** Use this command to delete access mechanisms only—use the Delete Storage Access Mechanism command on the Access menu to delete a storage access mechanism.
- Procedure** **à To delete an access mechanism from the current data structure:**
- 1 In the Design Dictionary's **Access Mech** field, highlight the access mechanism identifier you want to delete.

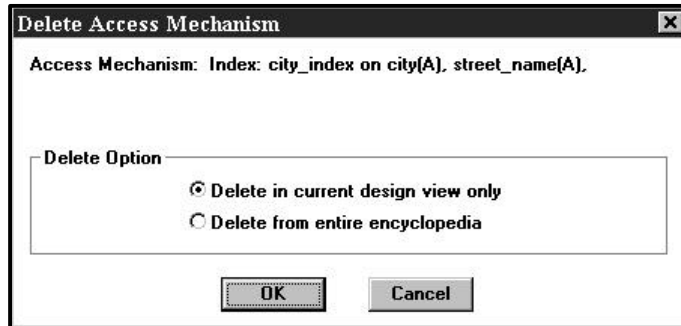
In the Design Map window, highlight the access mechanism you wish to delete.
 - 2 Choose **Delete...** from the Access menu.

Result: The Delete Access Mechanism dialog box appears.
 - 3 The type and name of the access mechanism to be deleted appear in the dialog box.
 - 4 Click on the delete option you wish to select.
 - 5 If you still want to delete the access mechanism, click on **OK**.

If you do not want to delete the access mechanism, click on **Cancel**.

Delete Access Mechanism Dialog Box

Dialog Box Illustration



Delete Access Mechanism Dialog Box

Dialog Box Components

Use the information below to complete the Delete Association dialog box.

<u>Component</u>	<u>Description</u>
Delete in Current Design View Only	Click on this button to delete the access mechanism from the current model view only.
Delete From Entire Encyclopedia	Click on this button to delete the access mechanism from the entire model.

DELETE ASSOCIATION

Deleting Associations

Description The Delete Association command, available from both the Data Map and Data Dictionary windows, allows you to delete an association from the current model view or the entire model. Deleting an association does not delete the entities in an association.

Usage Tips When you delete an association, you may choose to delete the keys that support the association in the association's owned entity.

This command is available for multiple selected entities in the Data Map window. See the *User's Guide* for instructions on selecting multiple entities in the Data Map window.

In the Data Dictionary window, the Delete Association command is available for the currently displayed entity only. Note also that in the Data Dictionary window, you may only delete an association if both its entities are visible in the current model view. This means that you may not delete an association that appears dimmed in the **Associations** field.

Procedure à **To delete an association for each selected entity in the Data Map window:**

1 Choose **Delete...** from the Association menu.

Result: The Select Association dialog box appears.

2 In the Select Association dialog box, highlight the association or associations you want to delete, then click on **OK**.

Result: The Delete Association dialog box appears.

3 Complete the Delete Association dialog box, then click on **OK**.

Result: The association will be deleted. If you selected multiple associations, the Delete Association dialog box for the next selected association appears. (*Repeat this step for each selected association.*)

If you selected multiple entities, the Select Association dialog box for the next selected entity appears. *(Repeat this step for each selected entity.)*

Otherwise, the Data Map window redisplay. *(End of procedure.)*

à To delete an association for the current entity in the Data Dictionary window:

1 In the Data Dictionary window's **Associations** field, highlight the association you want to delete.

2 Choose **Delete...** from the Association menu.

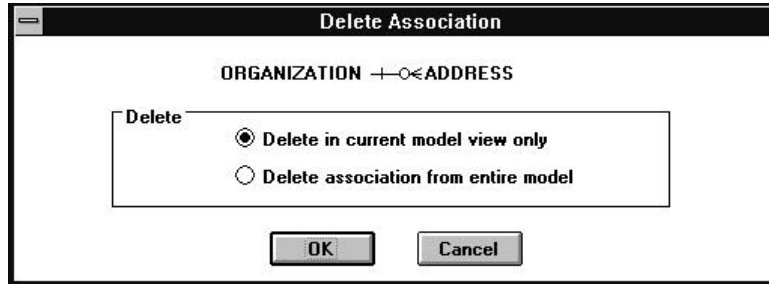
Result: The Delete Association dialog box appears.

3 Complete the Delete Association dialog box.

4 If you still want to delete the association, click on **OK**.
If you want to cancel the Delete command, click on **Cancel**.

Delete Association Dialog Box

Dialog Box Illustration



Delete Association Dialog Box

Dialog Box Components

Use the information below to complete the Delete Association dialog box.

Component	Description
Delete in current model view only	Click on this button to delete the association in the current model view only.
Delete association from entire model	Click on this button to delete the association from the entire model.

DELETE ATTRIBUTE

Deleting Attributes

- Description** The Delete Attribute command, available from both the Data Map and Data Dictionary windows, allows you to:
- Delete the current use or all uses of a primary key or foreign key attribute
 - Delete a non-key attribute from the entire model
- Usage Tips** When you use this command, you can delete a key attribute from the current model view or from the entire encyclopedia. Since non-key attributes have a single occurrence in the encyclopedia, they are deleted from the entire encyclopedia only.
- This command is available for multiple selected entities in the Data Map window. See the *User's Guide* for instructions on selecting multiple entities in the Data Map window.
- In the Data Dictionary window, this command is available for the currently displayed entity only.

- Procedure** **à To delete an attribute from selected entities in the Data Map window:**
- 1 Select the entity or entities from which you want to delete the attribute.
 - 2 Choose **Delete...** from the Attribute menu.

 Result: The Select Attribute dialog box appears.
 - 3 Select the attribute or attributes you want to delete, then click on **OK**.

 Result: Depending on the type of the attribute you selected, the Delete Key Attribute or Delete Non-Key Attribute dialog box appears for the first selected entity and attribute.
 - 4 Click on **OK**.

Result: If you selected multiple attributes, the dialog box for the next selected attribute appears. *(Repeat this step for each selected attribute.)*

If you selected multiple entities, the Select Attribute dialog box for the next selected entity appears. *(Repeat steps 3-4 for each selected entity.)*

Otherwise, the Data Map window redisplay. *(End of procedure.)*

à To delete an attribute from the current entity in the Data Dictionary window:

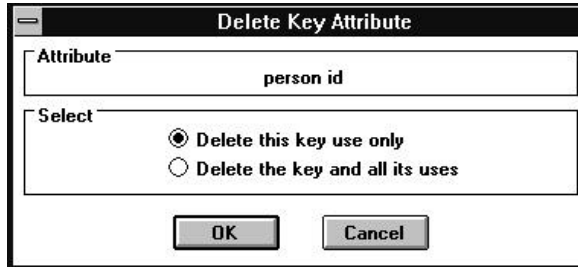
- 1 Highlight the name of the primary key, foreign key, or non-key attribute you want to delete.
- 2 Choose **Delete...** from the Attribute menu.

Result: Depending on the type of the attribute you selected, the Delete Key Attribute or Delete Non-Key Attribute dialog box appears.

- 3 Complete the dialog box, then click on **OK**.

Delete Key Attribute Dialog Box

Dialog Box Illustration



Delete Key Attribute Dialog Box

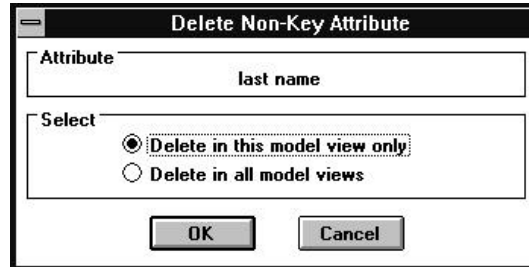
Dialog Box Components

Use the information below to complete the Delete Key Attribute dialog box.

Component	Description
Attribute	The name of the attribute to be deleted is displayed.
Delete This Key Use Only	Select this button if you want to delete the attribute from its use in the current entity only.
Delete the Key and All Its Uses	Select this button if you want to delete all uses of the attribute in the encyclopedia. Note that if you select this option, the key will be deleted from the encyclopedia.

Delete Non-Key Attribute Dialog Box

Dialog Box Illustration



Delete Non-Key Attribute Dialog Box

Dialog Box Components

Use the information below to complete the Delete Non-Key Attribute dialog box.

Component	Description
Attribute	The name of the attribute to be deleted is displayed.
Delete in This Model View Only	If you want to delete the attribute in the current Model view only, select this button. This selection is dimmed to indicate it is not available when you are in the entire encyclopedia, rather than in a model view.
Delete in All Model Views	If you want to delete the attribute in all model views, select this button. If you select this option, the key will be deleted from the entire encyclopedia.

DELETE BUSINESS EVENT

Deleting Business Events

Description The Delete Business Event command, available from the Process Hierarchy window, allows you to delete a business event from the current model view or from the entire encyclopedia.

Usage Tips Business events also appear in planning windows as planning statements assigned the Business Event type. If you delete a business event from the Process Hierarchy window, it will also be deleted from planning windows as a planning statement. Likewise, if you delete a planning statement defined as a business event from a planning window, it will also be deleted from the process hierarchy.

Procedure à **To delete a business event:**

1 Choose **Delete...** from the Event menu.

Result: The Delete Business Event dialog box appears.

2 If you want to delete the business event from the current model view only, click on **Delete in current model view only**.

If you want to delete the business event from the entire encyclopedia, click on **Delete from entire model**.

3 Click on **OK**.

DELETE CONTROL FLOW

Deleting a Control Flow

Description The Delete Control Flow command, available from the Process Map window, deletes one or more control flows from the current process in the Process Map window.

Usage Tips To select a single control flow, click on the control flow line so that a solid rectangle appears in the center of the line. To select multiple control flows, hold down the SHIFT key while you click on each control flow you want to delete.

You may also select one or more control flows by holding down the left mouse button and dragging the mouse cursor down and across the control flow(s) you want to select.

Procedure à **To delete selected control flows from the current process:**

1 Choose **Delete...** from the Flow menu.

Result: The Delete Control Flow dialog box appears.

2 The **Flow** box of the dialog box contains the flow(s) to be deleted.

If you still want to delete the flow(s) listed in the **Flow** box, click on **OK**.

If you do not want to delete the flow(s), click on **Cancel**.

DELETE DATA ITEM

Deleting a Data Item

Description The Delete Data Item command, available from the Design Dictionary and Design Map windows, allows you to delete the current occurrence or all occurrences of a data item.

Usage Tips You may choose to delete a data item from the current data structure only, or from the entire encyclopedia.

Procedure **à To delete a data item:**

1 In the Design Dictionary's **Property** field, highlight the data item you want to delete.

2 Choose **Delete...** from the Property menu.

Result: The Delete Property dialog box appears.

3 If you want to delete the data item from the current data structure only, select the **Delete in current design object only** button.

If you want to delete the data item from all data structures to which it belongs, click on the **Delete from all design objects** button.

4 If you want to delete the data item from the current view only, select **Delete in current view only**.

If you want to delete from all views, select **Delete from all views**.

5 Click on **OK**.

DELETE DESIGN OBJECT

Deleting Design Objects

Description The Delete Design Object command, available from the Design Dictionary and Design Map windows, allows you to delete the current or selected Design Objects.

Usage Tips This command is available for multiple selected Design Objects in the Design Dictionary and Design Map windows. See Select Design Objects in this manual for information on selecting design objects.

You may choose to delete the design object(s) from the current database design only, or from the entire encyclopedia.

Procedure à **To delete the current or selected design objects:**

1 Choose **Delete...** from the Design Object menu.

Result: The Delete Design Object dialog box appears.

2 If you want to delete the design object from the current database only, select the **Delete in current design view only** button.

If you want to delete the Design Object from all database designs in which it belongs, click on the **Delete from entire encyclopedia** button.

3 Click on **OK**.

DELETE DESIGN OBJECT RELATIONSHIP

Deleting Design Object Relationships

Description The Delete Design Object Relationship command, available from the Design Dictionary and Design Map windows, allows you to delete a relationship for the current design object. Deleting a relationship does not delete the design objects in the relationship.

Procedure à **To delete a relationship for the current design object:**

1 In the Design Dictionary's **Relationships** field, highlight the relationship you want to delete.

2 Choose **Delete...** from the Relationship menu.

Result: The Delete Relationship dialog box appears for the type of relationship.

3 Select the keys to retain or delete by highlighting and clicking on the arrow buttons. The single arrow button moves the highlighted key; the double arrow button moves all keys.

4 Click on **OK**.

DELETE DESIGN VIEW

Deleting Design Views

Description The Delete Design View command, available from the Design Dictionary and Design Map windows, allows you to delete a design view from the encyclopedia. When you delete a design view, you also delete the data structures and data items it contains.

Procedure à **To delete the design view currently displayed in the Design Dictionary window:**

- 1 Choose **Delete...** from the View menu.
Result: The Delete View dialog box appears.
- 2 The name of the current design view appears in the **View** field.
- 3 Select the Delete Selected Views Only button if you want to delete the selected view(s) only, but none of its subviews.
- 4 Select the Delete Selected Views and Their Subviews button if you want to delete the selected views and model view(s) *and all of the model views beneath it* in the model view hierarchy.

DELETE ENCYCLOPEDIA

Deleting Encyclopedias

Description The Delete Encyclopedia command, available from the Visible Advantage Admin Utility, allows you to delete all files associated with the current encyclopedia.

Procedure à **To delete all files for the current encyclopedia:**

1 Choose **Delete...** from the Encyclopedia menu.

Result: The following warning message appears:

! WARNING: This will permanently DELETE all data, files, and sub-directories of the current encyclopedia. Continue delete?

2 Do you still want to delete the encyclopedia?

If no, click on **Cancel**.

Result: The encyclopedia files will not be deleted. (*End of procedure.*)

If yes, click on **OK**.

Result: The following warning message appears:

Are you sure you want to delete the current encyclopedia?

3 If for any reason you are not sure about executing this command, click on **Cancel**.

If you are sure you want to delete the current encyclopedia, click on **OK**.

DELETE ENTITY

Deleting Entities

- Description** The Delete Entity command, available from both the Data Map and Data Dictionary windows, allows you to delete selected entities.
- Usage Tips** When you use this command, you may choose whether to delete the entity from the current model view only or from the entire encyclopedia.
- This command is available for multiple selected entities in both the Data Map window and the Data Dictionary window. See the *User's Guide* for instructions on selecting multiple entities in these windows.
- Procedure** à **To delete selected entities in the Data Map or Data Dictionary window:**
- 1 Choose **Delete...** from the Entity menu.
Result: The Delete Entity dialog box appears.
 - 2 If you want to delete the entity from the current model view only, select the **Delete in current model view only** button. If the entire encyclopedia is displayed in the active window, this option will be dimmed.

If you want to delete the entity from the entire encyclopedia, select the **Delete entity from entire model** button.
 - 3 Click on **OK**.

DELETE MODEL VIEW

Deleting Model Views

Description The Delete Model View command, available from both the Data Map and Data Dictionary windows, allows you to:

- Delete the current or selected model views from the encyclopedia.
- Delete the current or selected model views *and all of their subviews* from the encyclopedia. A subview of a model view is any model view that appears beneath it in the model view hierarchy.

This command is available in all windows *except* the main Visible Advantage window, the Statement Editor window, and the design phase windows.

Usage Tips When a model view is deleted, *views* of the objects contained in it (object views) are deleted, but the *objects themselves* remain in the encyclopedia. You may not use the Delete Model View command when the entire model is displayed, since it contains views of all encyclopedia objects.

If you delete the selected model view(s) only, its child views become children of the deleted model view's parent view.

This command is available for multiple selected model views in the View Hierarchy window. See the *User's Guide* for instructions on selecting multiple model views in this window.

Procedure à **To delete selected model views from the Model View Hierarchy window or the current model view from any other window:**

- 1 Choose **Delete...** from the View menu.

Result: The Delete View dialog box appears.

- 2 Complete the Delete View dialog box, then click on **OK**.

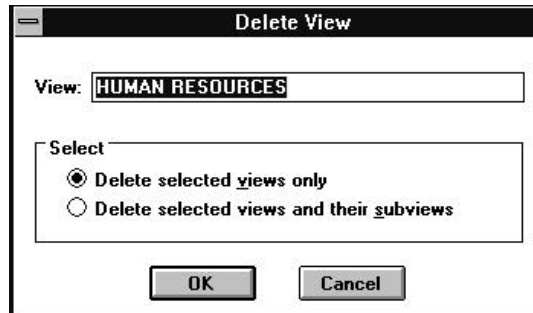
Result: If the model view contains objects, the following message appears:

Model view is not empty. OK to delete it?

-
- 3 If you still want to delete the model view, click on **OK**.
Otherwise, click on **Cancel**.

Delete View Dialog Box

Dialog Box Illustration



Delete View Dialog Box

Dialog Box Components

Use the information below to complete the Delete View dialog box.

<u>Component</u>	<u>Description</u>
View	The name of the current model view is displayed. If you are in the Model View Hierarchy window and have selected multiple model views, the names of all selected model views appear in the box.
Delete Selected Views Only	Select this button if you want to delete the selected view(s), but none of its subviews.
Delete Selected Views and Their Subviews	Select this button if you want to delete the selected model view(s) <i>and all of the model views beneath it</i> in the model view hierarchy.

DELETE PLANNING STATEMENT

Deleting Planning Statements

Description The Delete Planning Statement command, available from the Planning Outline and Planning Dictionary windows, allows you to delete planning statements.

Procedure à **To delete a planning statement from the Planning Outline window:**

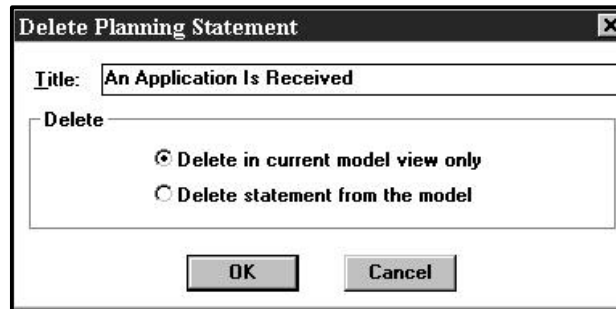
- 1 Highlight the statement to delete.
- 2 Choose **Delete** from the Statement menu.
Result: The Delete Planning Statement dialog box appears.
- 3 Complete the Delete Planning Statement dialog box, then click on **OK**.

à **To delete a planning statement from the Planning Dictionary window:**

- 1 Display the statement you want to delete.
- 2 Choose **Delete** from the Statement menu.
Result: The Delete Planning Statement dialog box appears.
- 3 Complete the Delete Planning Statement dialog box, then click on **OK**.

Delete Planning Statement Dialog Box

Dialog Box Illustration



Delete Planning Statement Dialog Box

Dialog Box Components

Use the information below to complete the Delete Planning Statement dialog box:

Component	Description
Title	The statement you selected is displayed here.
Delete in Current Model View Only	Click on this button to delete the statement from the current view only.
Delete Statement from the Model	Click on this button to delete the statement from the entire model.

DELETE PROCESS

Deleting a Process

Description The Delete Process command, available from both the Process Hierarchy and Process Map windows, allows you to delete selected processes in the Process Hierarchy window or the currently displayed process in the Process Map window.

Procedure à **To delete selected processes in the Process Hierarchy window or the current process in the Process Map window:**

- 1 Choose **Delete...** from the Process menu.

Result: The Delete Process dialog box appears.

- 2 The **Name** box of the dialog box contains the process to be deleted.

If you still want to delete the process listed in the Name box, click on OK.

If you do not want to delete the process, click on Cancel.

DELETE PROCESS CONTROL

Deleting Process Controls

Description The Delete Process Control command, available from the Process Map window, deletes selected parallel control(s), conditional control(s), or process stop(s) from the process map.

Procedure à **To delete one or more selected controls from the process map:**

- 1 Choose **Delete...** from the Control menu.

Result: The Delete Control dialog box appears.

- 2 The selected control(s) is identified in the dialog box.
If you still want to delete the control(s), click on **OK**.
If you do not want to delete the control(s), click on **Cancel**.

DELETE PROCESS STEP

Deleting a Process Step

Description The Delete Process Step command, available from the Process Map window, allows you to delete selected process steps in the Process Map window.

Procedure à **To delete process steps in the Process Map window:**

1 Choose **Delete...** from the Step menu.

Result: The Delete Step dialog box appears.

2 The **Step** box of the dialog box contains the name of the step to be deleted.

If you still want to delete the process step listed in the box, click on **OK**.

If you do not want to delete the process step, click on **Cancel**.

DELETE STORAGE ACCESS MECHANISM

Deleting Storage Access Mechanisms

- Description** The Delete Storage Access Mechanism command, available from the Design Dictionary and Design Map windows, allows you to delete the storage access mechanism defined for the current data structure.
- Usage Tips** Use this command to delete storage access mechanisms only—use the Delete Access Mechanism command on the Access menu to delete an access mechanism.
- Procedure** à **To delete the storage access mechanism from the current data structure:**
- 1 Choose **Delete Storage...** from the Access menu.

Result: The Delete Access Mechanism dialog box appears with the type and name of the storage access mechanism to be deleted appear in the dialog box.
 - 2 If you want to delete the storage access mechanism in the current design view only, click on **Delete in current design view only**.

If you want to delete the storage access mechanism from the entire encyclopedia, click on **Delete from entire encyclopedia**.
 - 3 To delete the storage access mechanism, click on **OK**.

If you do not want to delete the storage access mechanism, click on **Cancel**.

DELETE USER GROUP

Deleting User Groups

Description The Delete User Group command, available from the Visible Advantage Admin Utility, allows you to delete a defined user group from the encyclopedia.

Procedure à **To delete a user group:**

1 Choose **Delete** from the Group menu.

Result: The Delete Group dialog box appears.

2 Select the user group from the list, then click on **OK**.

2 Note The user group must be empty before it can be deleted. If the user group contains users, an error message is displayed.

DESELECT ALL

Deselecting All Objects

Description The Deselect All command removes selection status from all currently selected objects in a window. This command is available from the following windows: Model View Hierarchy, Planning Outline, Data Map, and Design Map.

Procedure à **To deselect all objects in an applicable window:**

Choose **Deselect All** from the Select menu.

Result: All objects that were selected before you chose the command are deselected.

DESIGN DICTIONARY

Opening the Design Dictionary Window

Description The Design Dictionary command allows you to open a Design Dictionary window. This window provides a textual view of the data structures, data items, data structure relationships, access mechanisms, and other design details in the current database design. This command is available from all windows.

Usage Tips You may use the Design Dictionary window to add data structures, data items, and all other design objects and details to the encyclopedia.

Procedure à **To open a Design Dictionary window:**

- 1 From the main Visible Advantage window, choose **Design Dictionary...** from the Design menu.
or
Click on the Design Dictionary window icon on the main Visible Advantage window workspace.

From any other window, choose **Design** from the main menu, then choose **Design Dictionary...** from the cascading menu.

Result: The Select Design View dialog box appears.

- 2 The Select Design View dialog box contains a list of all database designs defined for the encyclopedia.

Highlight the name of the database design you want to display in the Design Dictionary window, then click on **OK**.

Related Topics Use the table below to access related information about the Design Dictionary window.

<u>For more information on...</u>	<u>See...</u>
how to use each command in the Design Dictionary window	the entry in this manual for the individual command.

how to use the Design Dictionary window's special features, such as the tool bar, mouse commands, and keyboard shortcuts

the Database Design section in the *User's Guide*.

DESIGN MAP

Opening the Design Map Window

Description The Design Map command allows you to open a Design Map window. This window provides a graphical view of the data structures, data items, data structure relationships, access mechanisms, and other design details in the current database design. This command is available from all windows.

Usage Tips You may use the Design Map window to add data structures, data items, and other design objects and details to the encyclopedia.

Procedure à **To open a Design Map window:**

1 From the main Visible Advantage window, choose **Design Map...** from the Design menu.

or

Click on the Design Map window icon on the main Visible Advantage window workspace.

From any other window, choose **Design** from the main menu, then choose **Design Map...** from the cascading menu.

Result: The Select Design View dialog box appears.

2 The Select Design View dialog box contains a list of all database designs defined for the encyclopedia.

Highlight the name of the database design you want to display in the Design Map window, then click on **OK**.

Related Topics Use the table below to access related information about the Design Map window.

<u>For more information on...</u>	<u>See...</u>
how to use each command in the Design Map window	the entry in this manual for the individual command.

how to use the Design Map window's special features, such as the tool bar, mouse commands, and keyboard shortcuts

the Design section in the *User's Guide*.

DESIGN OBJECT MODE

Design Reference in Design Object Mode

- Description** The Design Object Mode command, available from the Design Reference window, displays the Design Reference window by Design Object.
- Usage Tips** The four modes available in the Design Reference window—design object, data item, entity, and attribute—allow you to reference the information in a database design based on that object. Each mode displays the mode object at the top of the window and all of its referenced objects or details underneath it.
- Procedure**
- à **To run the Design Reference window in Design Object mode:**
Choose **Design Object** from the Mode menu.

If the current mode is entity or attribute, the Select Design View dialog box appears. Choose a view and click on **OK**.

Result: A checkmark appears beside the command name and the Design Reference window redisplay in Design Object mode.

DESIGN REFERENCE

Opening the Design Reference Window

- Description** The Design Reference command allows you to open a Design Reference window. This window provides a cross-reference of each data structure, data item, entity, and attribute that is or may be involved in the database design. You can view the Design Reference window in four different modes, one for each type of object (data structure, data item, entity, and attribute). This command is available from all windows.
- Usage Tips** Through this window, you may view the cross-references between database design and data modeling objects; link data structures to entities in the data model; and edit the details for the data structures, data items, entities, and attributes displayed in the window.
- Procedure** à **To open a Design Reference window:**
- 1 From the main Visible Advantage window, choose **Design Reference...** from the Design menu.
or
Click on the Design Reference window icon on the main Visible Advantage window workspace.

From any other window, choose **Design** from the main menu, then choose **Design Reference...** from the cascading menu.

Result: The Select Design View dialog box appears.
 - 2 The Select Design View dialog box contains a list of all database designs defined for the encyclopedia.

Highlight the name of the database design you want to display in the Design Reference window, then click on **OK**.

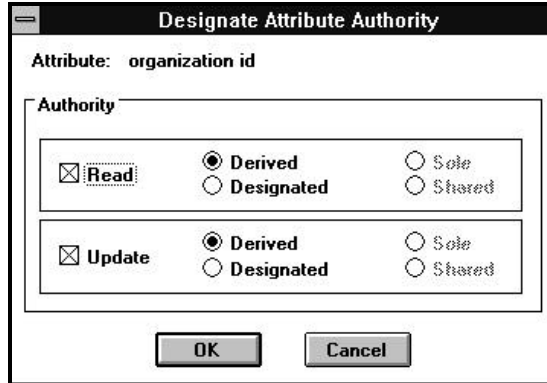
DESIGNATE ATTRIBUTE AUTHORITY

Designating an Attribute's Authority

- Description** The Designate Attribute Authority command, available from the Data Dictionary window, allows you to override the sole/shared model view authority status designated by Visible Advantage for each attribute.
- Usage Tips** This command is available only when a model view is displayed; it is dimmed when the entire encyclopedia is displayed in the Data Dictionary window.
- This command allows you to:
- Let Visible Advantage designate the sole/shared Read and Update status for an attribute based on its presence/designation in other model views (this is the default setting),
or
Override Visible Advantage's sole/shared Read and Update designation for an attribute. Any incorrect designations at the time of Model Analysis will be reported.
- 2 Note** To pass Model Analysis, an attribute's sole/shared designation must be consistent with its presence/designation in other model views. Model Analysis reports any sole/shared designation inconsistencies.
- Procedure** à **To override the sole/shared Read and Update designation for an attribute:**
- 1 In the Data Dictionary window, click on the name of the attribute whose model view designation you want to designate.
 - 2 Choose **Designate Authority...** from the Attribute menu.
Result: The Designate Attribute Authority dialog box appears.
 - 3 Complete the Designate Attribute Authority dialog box, then click on **OK**.

Designate Attribute Authority Dialog Box

Dialog Box Illustration



Designate Attribute Authority Dialog Box

Dialog Box Components

Use the information below to complete the Designate Attribute Authority dialog box.

<u>Component</u>	<u>Description</u>
Attribute	The name of the attribute whose model view authority you are designating appears in this box.
Read	Select this checkbox if you want the current model view to be able to read the attribute. This box will already be selected if it was selected when the attribute was added or last edited. When you select this checkbox, the Derived/Designated selections in the Read area will become available.
Update	Select this checkbox if you want the current model view to be able to update the attribute. This box will already be selected if it was selected when the attribute was added or last edited.

When you select this checkbox, the **Derived/Designated** selections in the **Update** area will become available.

Derived/
Designated

Select the **Derived** button if you want Visible Advantage to derive the attribute's sole/shared designation for its Read authority. When you select this button, you do not make any sole/shared selection. This is the default setting.

Select the **Designated** button if you want to override Visible Advantage's designation for the attribute's sole/shared designation for its Read authority.

When you select the **Designated** button in the Read area, the Read sole/shared selections are available.

When you select the **Designated** button in the Update area, the Update sole/shared selections are available.

Sole/Shared

The selections in this area will only be available if you selected the **Designated** button for the Read and/or Update authority.

Select the **Sole** button if you want the model view to have sole read or update authority for the attribute, even if Visible Advantage derives a shared authority for the attribute, based on its presence/designation in other model views.

Select the **Shared** button if you want the model view to have shared read or update authority for the attribute, even if Visible Advantage derives a sole authority for the attribute, based on its presence/designation in other model views.

DESIGNATE ENTITY AUTHORITY

Designating an Entity's Authority

- Description** The Designate Entity Authority command, available from the Data Dictionary window, allows you to override the sole/shared model view authority status designated by Visible Advantage for each entity.
- Usage Tips** This command is available only when a model view is displayed; it is dimmed when viewing the entire model in the Data Dictionary window.
- This command allows you to:
- Let Visible Advantage designate the sole/shared Create, Read, Update, and Delete status for an entity based on its presence/designation in other model views. This is the default setting.
- or*
- Override Visible Advantage's sole/shared Create, Read, Update, and Delete designation for an entity.
- 2 Note** To pass Model Analysis, an entity's sole/shared designation must be consistent with its presence/designation in other model views. Model Analysis will report any sole/shared designation inconsistencies.
- This command is available for multiple entities selected with the Select Entities command on the Entity menu.
- Procedure** à **To designate the authority of selected entities in the current model view:**
- 1 Choose **Designate Authority...** from the Entity menu.

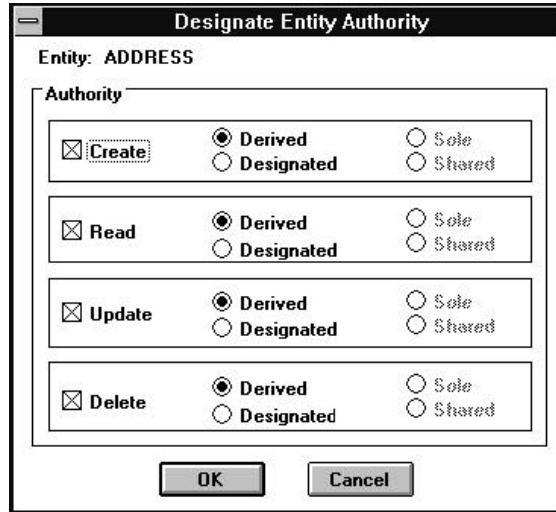
Result: The Designate Entity Authority dialog box appears.
 - 2 Complete the Designate Entity Authority dialog box, then click on **OK**

Result: If you selected multiple entities, the Designate Entity Authority dialog box for the next selected entity appears.

Otherwise, the active Data Dictionary window redisplay.

Designate Entity Authority Dialog Box

Dialog Box Illustration



Designate Entity Authority Dialog Box

Dialog Box Description

Use the information below to complete the Designate Entity Authority dialog box.

<u>Component</u>	<u>Description</u>
Entity	The name of the currently selected entity appears in this box.
Create	Select this checkbox if you want the current model view to be able to create the entity. This box will already be selected if it was selected when the entity was added or last edited. When you select this checkbox, the Derived/Designated selections in the Create area will become available.

Read	<p>Select this checkbox if you want the current model view to be able to read the entity. This box will already be selected if it was selected when the entity was added or last edited.</p> <p>When you select this checkbox, the Derived/Designated selections in the Read area will become available.</p>
Update	<p>Select this checkbox if you want the current model view to be able to update the entity. This box will already be selected if it was selected when the entity was added or last edited.</p> <p>When you select this checkbox, the Derived/Designated selections in the Update area will become available.</p>
Delete	<p>Select this checkbox if you want the current model view to be able to delete the entity. This box will already be selected if it was selected when the entity was added or last edited.</p> <p>When you select this checkbox, the Derived/Designated selections in the Delete area will become available.</p>
Derived/ Designated	<p>Select the Derived button if you want Visible Advantage to derive the entity's sole/shared designation for its Create, Read, Update, or Delete authority. When you select this button, you do not make any sole/shared selection. This is the default setting.</p> <p>Select the Designated button if you want to override Visible Advantage's designation for the entity's sole/shared designation for its Create, Read, Update, or Delete authority.</p> <p>When you select the Designated button in the Create, Read, Update, or Delete area, the sole/shared selections in each selected area are available.</p>
Sole/Shared	<p>The selections in this area will only be available if you selected the Designated button for the Create, Read, Update, and/or Delete authority.</p>

Select the **Sole** button if you want the model view to have sole read or update authority for the entity, *even if* Visible Advantage derives a shared authority for the entity, based on its presence/designation in other model views.

Select the **Shared** button if you want the model view to have shared read or update authority for the entity, *even if* Visible Advantage derives a sole authority for the entity, based on its presence/designation in other model views.

DESIGNATED CLUSTER END POINT

Designating Cluster End Points

Description The Designate Cluster End Point command, available from the Data Dictionary window, designates the current entity as a cluster end point. A cluster is a group of entities that represents a meaningful subset of the data model.

Visible Advantage derives an entity to be a cluster end point if there are no other entities dependent on it. You can use this command to *designate* a cluster end point even if other entities are dependent on it. This is useful when you want an entity to be the focal point for a cluster.

Usage Tips The Designated Cluster End Point command toggles between an active and inactive state. When the current entity has been designated as a cluster end point, there is a checkmark beside the command. When the command is inactive, there is no checkmark beside the command.

If the entity dependency for the entity changes, Visible Advantage will automatically re-evaluate the derived end point status. An entity may be both a designated and derived end point.

Both derived and designated cluster end points for the data model are reported in the Cluster report. You name a derived or designated end point through the Name End Point command on the Entity menu.

Procedure à **To designate the current entity as an end point:**

Choose **Designated Cluster End Point** from the Entity menu.

Result: A checkmark will appear beside the command, and the **Cluster End Pt.** field will appear in the Data Dictionary record for the current entity.

à **To remove the end point designation for the current entity:**

Choose **Designated Cluster End Point** from the Entity menu.

Result: The checkmark beside the command will disappear, indicating that the current entity is no longer a designated end point. The **Cluster End Pt.**

field will disappear from Data Dictionary window if the current entity is not a derived end point.

DOCUMENTS

Publishing Encyclopedia Documents

Description The Documents command allows you to assemble encyclopedia reports into a comprehensive document. This command is available from all windows.

You can configure each document with a table of contents, consecutive page numbering, an index of selected objects, and an appendix of report options. You save each document configuration so that it can be reprinted and modified over the life of the project.

Usage Tips Use this command when you want to configure encyclopedia reports so that you receive consistent reports throughout a project.

+ **Example** You want to print consistent Planning Statement, Entity, and Attribute reports at the end of certain project phases. You want the reports to be assembled into a single document with consecutive page numbering, a table of contents, and an index of planning statements, entities, and attributes.

To do this, you use the Documents command to configure and save a document with the desired options. Each time you print the configured document, the reports will include the same individual report options, as well as document features (page numbering, table of contents, and index).

Procedure à **To configure and save a document made up of encyclopedia reports:**

1 Open the encyclopedia for which you want to configure a document.

2 Choose **Documents...** from the File or Main menu.

Result: The Documents dialog box appears.

3 Click on **Add**.

Result: The Add Document dialog box appears.

-
- 4 Complete the Add Document dialog box, then click on **OK**.

Result: The Documents dialog box reappears with the new document name in the **Documents** list box.

- 5 Do you want to print the document?

If yes, make sure the document name is highlighted in the **Documents** list box, then click on **Print**.

Result: The Report Destination dialog box appears. Select a destination (**Printer**, **File**, or **Screen**), then click on **OK** to print the document.

If no, click on **Cancel**.

à **To modify an existing document configuration:**

- 1 Open the encyclopedia in which you configured the document.

- 2 Choose **Documents...** from the File or Main menu.

Result: The Documents dialog box appears.

- 3 In the **Documents** list box, highlight the name of the document you want to modify, then click on **Modify**.

Result: The Edit Document dialog box appears.

- 4 Complete the Edit Document dialog box (for a description of the dialog box components), then click on **OK**.

Result: The Documents dialog box reappears.

- 5 Do you want to print the modified document?

If yes, make sure the document name is highlighted in the **Documents** list box, then click on **Print**.

Result: The Report Destination dialog box appears. Select a destination (**Printer**, **File**, or **Screen**), then click on **OK** to print the document to the selected device.

If no, click on **Cancel**.

à **To print an existing document:**

1 Open the encyclopedia in which you configured the document.

2 Choose **Documents...** from the File menu.

Result: The Documents dialog box appears.

3 In the **Documents** list box, highlight the name of the document you want to print, then click on **Print**.

Result: The Report Destination dialog box appears. Select a destination (**Printer**, **File**, or **Screen**), then click on **OK** to print the document to the selected device.

à **To delete an existing document:**

1 Open the encyclopedia in which you configured the document.

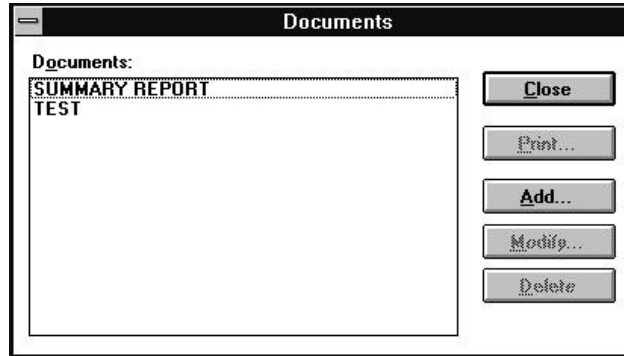
2 Choose **Documents...** from the File menu.

Result: The Documents dialog box appears.

3 In the **Documents** list box, highlight the name of the document you want to delete, then click on **Delete**.

Documents Dialog Box

Dialog Box Illustration



Documents Dialog Box

Dialog Box Components

Use the information below to complete the Documents dialog box.

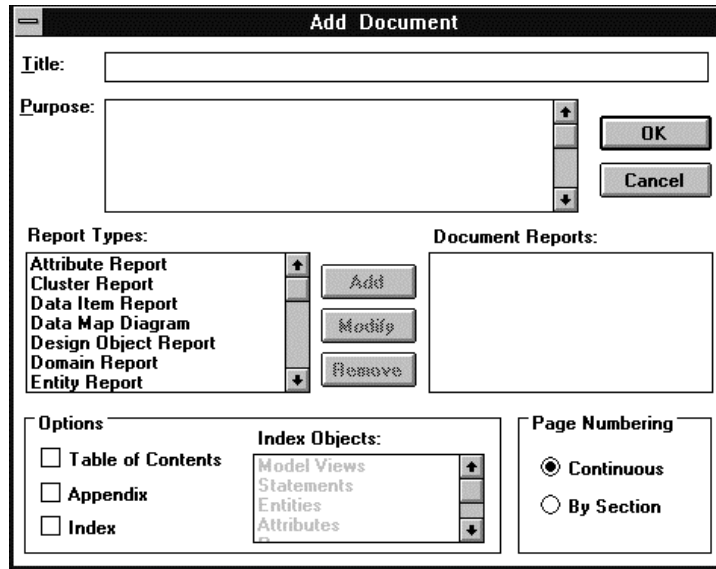
Component	Description
Documents	This list contains all documents configured and saved for the current encyclopedia.
Close	Use this button when you have finished adding, changing, or printing your document.
Print	Use this button to print a document. In the Documents list, highlight the document you want to print, then click on this button to print the document.
Add	Use this button to configure a new document for the encyclopedia. When you click on this button, the Add Document dialog box appears.
Modify	In the Documents list, highlight the document you want to modify, then click on this button to modify the document's individual report or publishing options.

Delete

Use this button to delete a configured document from the encyclopedia. In the **Documents** list, highlight the document you want to delete, then click on this button to delete the document.

Add Document Dialog Box

Dialog Box Illustration



Add Document Dialog Box

Dialog Box Components

Use the information below to complete the Add Document dialog box.

Component	Description
Title	Type the name of the new document into this box. The name may contain up to 51 characters.
Purpose	Type a purpose for the document into this text box. You may type up to 32,000 characters.
Report Types	This box contains a list of all reports available in Visible Advantage. To include a report in the current document, highlight the report type in this list, then click on the Add button (see below).
Document Reports	This box contains a list of the report types added to the current document through the Add button.

Add	<p>Use this button to add a report type to the document. In the Report Types list box, highlight the report type you want to add to the document, then click on this button.</p> <p>When you click on the Add button, the dialog box for the selected report type appears. Once you complete the report dialog box and click on OK, the report type will appear in the Document Reports box.</p> <p>See the Reports section of this manual for information on completing each report dialog box.</p>
Modify	<p>Use this button to modify the options for a document report. In the Document Reports list box, highlight the name of the report whose options you want to modify, then click on this button.</p> <p>When you click on the Modify button, the dialog box for the selected document report appears. You may then edit the information in the dialog box and click on OK.</p>
Remove	<p>Use this button to remove a report from the document. In the Document Reports list box, highlight the name of the report you want to remove, then click on this button.</p>
Table of Contents	<p>Select this checkbox if you want to include a table of contents for the current document.</p> <p>The table of contents will print at the beginning of the document and will contain the name of each report and the page number on which it begins.</p>
Appendix	<p>Select this checkbox if you want to include an appendix for the current document.</p> <p>The appendix will contain a list of all selected options for each document report, as defined in the dialog box for each report.</p>
Index	<p>Select this checkbox if you want to include an index for the current document.</p>

When you select this checkbox, the **Index Objects** list becomes available.

The index will print at the end of the document and will contain a list of the objects selected from the Index Objects list and the page numbers on which occurrences of each can be found.

Index Objects Select each encyclopedia object you want to include in the document index.

You select multiple consecutive index objects by holding down the shift key while selecting objects.

You select multiple disparate index objects by holding down the control key while selecting objects.

Continuous Select this button if you want the page numbering within the document to be continuous across all reports.

By Section Select this button if you want the page numbering to restart at `1` at the beginning of each report.

Defining Attribute Domains

Description The Domains command, available from the Data Map, Data Dictionary, Design Map, and Design Dictionary windows, allows you to add, change, and delete the domain sets for the current encyclopedia.

Usage Tips The domain sets you define with this command appear in the **Domain** field in the Add/Update Primary Key, Add/Update Foreign Key, Add/Update Non-Key Attribute, and Add Data Item dialog boxes.

If you want to define domain sets for encyclopedias that will be created in the future, use the Encyclopedia Initializer command before you define the domain sets.

Procedure à **To add a domain set:**

- 1 Choose **Domains...** from the Attribute or Property menu.

Result: The Domain Sets dialog box appears.

2 Note Adding a property domain makes that domain available to attributes. Adding an attribute domain makes that domain available to properties.

- 2 Type a name for the new domain set, then click on **Add**.

Result: The Add Domain Set dialog box appears.

- 3 Complete the information requested in the Add Domain Set dialog box.

To define domain ranges for the **Ranges** list box, click on **Define Ranges** button. The Domain Ranges dialog box appears. Complete the dialog box, then click on **OK** to return to the Add Domain Set dialog box.

To define allowed values for the **Values** list box, click on the **Define Values** button. The Domain Values dialog box appears. Complete the dialog box, then click on **OK** to return to the Add Domain Set dialog box.

To define subdomains for the **Subdomains** list box, click on the **Add Subdomains** button. The Subdomains dialog box appears. Complete the dialog box, then click on **OK** to return to the Add Domain Set dialog box.

- 4 Click on **OK** in the Add Domain Set dialog box, then on **Close** in the Domain Sets dialog box.

à **To change the settings for an existing domain set:**

- 1 Choose **Domain...** from the Attribute or Property menu.
Result: The Domain Sets dialog box appears.
- 2 Highlight the name of the domain set you want to change, then click on **Change**.

Result: The Edit Domain Set dialog box appears.

- 3 Complete the Edit Domain Set dialog box.

To change the domain ranges in the **Ranges** list box, click on **Define Ranges** button. The Domain Ranges dialog box appears. Complete the dialog box, then click on **OK** to return to the Edit Domain Set dialog box.

To change the allowed values in the **Values** list box, click on the **Define Values** button. The Domain Values dialog box appears. Complete the dialog box, then click on **OK** to return to the Edit Domain Set dialog box.

To change the subdomains in the **Subdomains** list box, click on the **Add Subdomains** button. The Subdomains dialog box appears. Complete the dialog box, then click on **OK** to return to the Edit Domain Set dialog box.

- 4 Click on **OK** in the Edit Domain Set dialog box, then **Close** in the Domain Sets dialog box.

à **To delete a domain set:**

- 1 Choose **Domain...** from the Attribute or Property menu.

Result: The Domain Sets dialog box appears.

- 2 Highlight the name of the domain set you want to delete, then click on **Delete**.

If the domain set is referenced by any encyclopedia objects, a message appears informing you of this. You may not delete a domain set that is used by objects in the encyclopedia.

à **To combine two domain sets:**

- 1 Choose **Domain...** from the Attribute or Property menu.

Result: The Domain Sets dialog box appears.

- 2 Click on **Combine**.

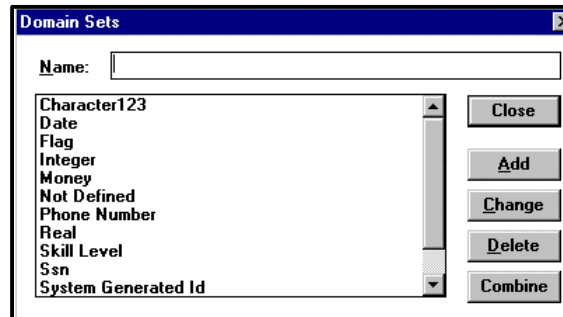
Result: The Combine Domain Sets dialog box appears.

- 3 Select the Source Domain from the drop-down list. Select the Target Domain from the drop-down list.

- 4 Click on **Combine**.

Domain Sets Dialog Box

Dialog Box Illustration



Domain Sets Dialog Box

Dialog Box Components

Use the information below to complete the Domain Sets dialog box.

<u>Component</u>	<u>Description</u>
Name	Type a name for the new domain set into this box.
Domain Sets	This box contains a list of the domain sets that have been defined.
Close	Use this button when you are finished adding, changing, and deleting domain sets.
Add	Use this button to add a new domain set. When you click on this button, the Add Domain Set dialog box appears.
Change	Use this button to change a domain set listed in the Domain Sets list box. Highlight a domain set name, then click on this button to change its settings. When you click on this button, the Edit Domain Set dialog box appears.

Delete Use this button to delete a domain set from the **Domain Sets** list box. Highlight a domain set name, then click on this button to delete it.

Combine Use this button to combine two domain sets.

When you click on this button, the Combine Domain Sets dialog box appears.

Combining one domain into another will move all attributes and data items that use the Source domain to the Target domain. Domains must have the same logical data type in order for them to be combined. All of the data items will inherit the domain implementations of the Target domain in the process. Once the Combine has been completed, all links to the source domain have been moved to the Target domain and the Source domain can be deleted.

Add Domain Set Dialog Box

Dialog Box Illustration

The screenshot shows a dialog box titled "Add Domain Set". It features a "Name" field containing the text "test". Below it is a "Purpose" text area. The "Data Type" is set to "Not Defined" in a dropdown menu. To the right of the dropdown are buttons for "OK", "Cancel", "Define Ranges...", "Define Values...", and "Add Subdomains...". Below these are "Global Dimensions" (checkbox), "Length" (input field), and "Precision" (input field). At the bottom, there are three empty text boxes labeled "Ranges:", "Values:", and "Subdomains:".

Add Domain Set Dialog Box

Dialog Box Components

Use the information below to complete the Add Domain Set dialog box.

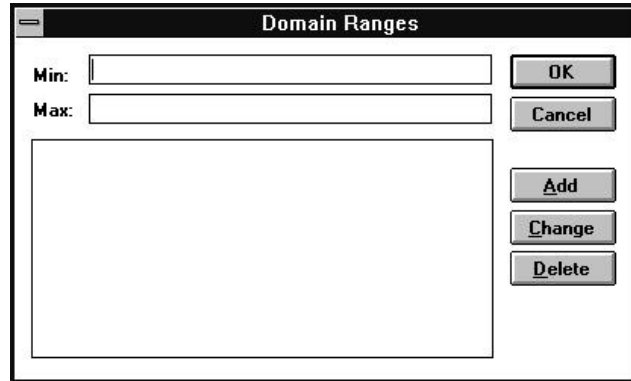
Component	Description
Name	Type the name of the new domain set into this box. The name may contain up to 51 characters.
Purpose	Type a purpose for the domain set into this text box.
Data Type	Select a data type for the domain set from this drop-down list. The list includes all predefined data types, as well as any defined through the Admin Utility/Table/Data Types command.
Global Dimensions	Select this checkbox to make the dimension definition (length and precision) available at the Domain level.

	<p>If checked, all attributes and data items that use the Domain will inherit the length and precision of the domain; no length or precision can be specified for the attribute or data item. If unchecked, length and precision will be available at the attribute level, subject to characteristics of the data type specified in the data type selected in the drop-down list above.</p>
Length	<p>The number of digits in the domain. A default value for the selected data type will appear in this box. You may override the default length by typing a new value over it.</p>
Precision	<p>The number of digits to the right of the decimal point for the domain.</p> <p>A default value for the selected data type will appear in this box. You may override the default precision by typing a new value over it.</p>
Define Ranges	<p>Use this button to define one or more ranges for the domain set. The ranges you define will appear in the Ranges list box.</p> <p>When you click on this button, the Domain Ranges dialog box appears.</p>
Define Values	<p>Use this button to define one or more predefined allowed values for the domain set. The values you define will appear in the Values list box.</p> <p>When you click on this button, the Domain Values dialog box appears.</p>
Add Subdomains	<p>Use this button to define subdomains for the domain set.</p> <p>When you click on this button, the Subdomains dialog box appears.</p>
Ranges	<p>This list box contains the ranges defined for the domain set through the Define Ranges button.</p>

Values	This list box contains the values defined for the domain set through the Define Values button.
Subdomains	This list box contains the subdomains defined for the domain set through the Add Subdomain button.

Domain Ranges Dialog Box

Dialog Box Illustration



Domain Ranges Dialog Box

Dialog Box Components

Use the information below to complete the Domain Ranges dialog box.

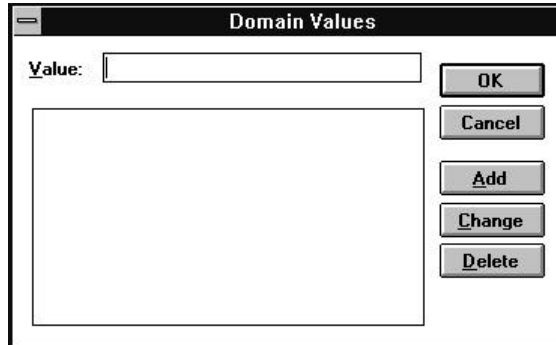
Component	Description
Min	Type a minimum range value for the domain set in this box. You may type a negative or positive value.
Max	Type a maximum range value for the domain set in this box. You may type a negative or positive value.
Ranges	The ranges defined for the domain set are listed in this box.
Add	Use this button to add Min and Max values as ranges for the domain set. Type values into the Min and Max boxes, then click on this button. The values appear in the Ranges list box.
Change	Use this button to change a range in the Ranges list box. Highlight the range you want to change, change the range values in the Min and Max fields, then click on this button to change the defined range.

Delete

Use this button to delete a range in the Ranges list box. Highlight the range you want to delete, then click on this button to delete the selected range.

Domain Values Dialog Box

Dialog Box Illustration



Domain Values Dialog Box

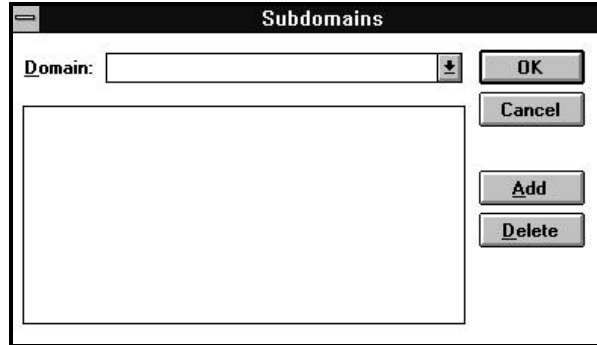
Dialog Box Components

Use the information below to complete the Domain Values dialog box.

Component	Description
Value	Type an allowed value for the domain set into this box.
Values	This box contains a list of the allowed values defined for the domain set.
Add	Use this button to add a value to the Values box. Type a value into the Value field, then click on this button.
Change	Use this button to change a value in the Values list box. Highlight the value you want to change, change its value in the Value box, then click on this button.
Delete	Use this button to delete a value from the Values list box. Highlight the value you want to delete, then click on this button to delete the value.

Subdomains Dialog Box

Dialog Box Illustration



Subdomains Dialog Box

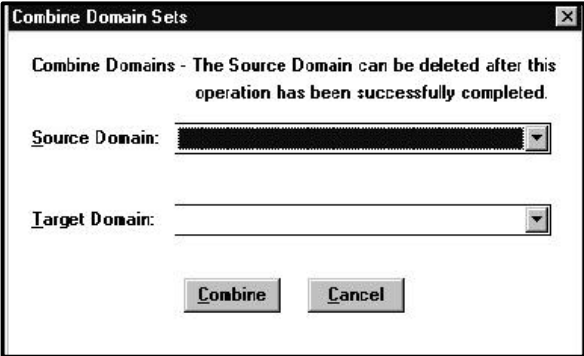
Dialog Box Components

Use the information below to complete the Subdomains dialog box.

Component	Description
Domain	Select the name of the domain you want to define as a subdomain from this drop-down list. The list includes all defined domains for the current encyclopedia.
Subdomains	This list contains all domains defined as subdomains for the current domain set.
Add	Use this button to add a new domain to the Subdomain list. Select a domain from the Domain drop-down list box, then click on this button to add it to the Subdomains box.
Delete	Use this button to delete a domain from the Subdomains list box. In the Subdomains box, highlight the name of the domain you want to delete, then click on this button.

Combine Domain Sets Dialog Box

Dialog Box Illustration



Combine Domain Sets Dialog Box

Dialog Box Components

Use the information below to complete the Combine Domain Sets dialog box.

Component	Description
Source Domain	Select the source domain from the drop-down list.
Target Domain	Select the target domain from the drop-down list.

EDIT ACCESS MECHANISM

Editing Access Mechanisms

Description The Edit Access Mechanism command, available from the Design Dictionary and Design Map windows, allows you to edit an access mechanism for a data structure.

Usage Tips You may edit only access mechanisms with this command. If you want to edit a storage access mechanism, use the Edit Storage command on the Access menu.

Procedure à **To edit an access mechanism in the Design Dictionary window:**

1 In the Design Dictionary's **Access Mech** field, highlight the access mechanism you want to edit.

2 Choose **Edit...** from the Access menu.

Result: The dialog box for editing the access mechanism appears. The dialog box that appears depends on the type of access mechanism highlighted in the Design Dictionary window.

3 Edit the information in the dialog box, then click on **OK**.

For information on the fields in the various access mechanism dialog boxes, see Add Access Mechanism in this manual.

à **To edit an access mechanism in the Design Map window:**

1 Select the access mechanism you want to edit.

2 Choose **Edit...** from the Access menu.

or

Double click on the access mechanism.

Result: The dialog box for editing the access mechanism appears. The dialog box that appears depends on the type of access mechanism highlighted in the Design Map window.

3 Edit the information in the dialog box, then click on **OK**.

For information on the fields in the various access mechanism dialog boxes, see Add Access Mechanisms in this manual.

EDIT ASSOCIATION

Editing Associations

Description The Edit Association command, available from both the Data Map and Data Dictionary windows, allows you to edit an association between two entities in the current model view.

Usage Tips Use the Edit Association command to:

- Change the association's type
- Edit the purpose of the association
- Reverse the left and right entities in the association

This command is available for multiple selected entities in the Data Map window. See the *User's Guide* for instructions on selecting multiple entities in the Data Map window.

In the Data Dictionary window, this command is available for the currently displayed entity only.

Procedure à **To edit an association for one or more selected entities from the Data Map window:**

1 Select the entities for which you want to update associations.

2 Choose **Edit...** from the Association menu.

Result: The Select Association dialog box appears.

3 Highlight the association or associations you want to edit, then click on **OK**.

Result: The Edit Association dialog box appears.

4 Edit the information in the Edit Association dialog box (see Add Association in this manual for a description of the dialog box components), then click on **OK**.

Result: If you selected multiple associations, the Edit Association dialog box for the next selected association appears. (*Repeat this step for each selected association.*)

If you selected multiple entities, the Select Association dialog box for the next selected entity appears. (*Repeat steps 3-4 for each selected entity.*)

Otherwise, the Data Map window redisplay.

à To edit an association for the current entity in the Data Dictionary window:

- 1 In the Data Dictionary window's **Associations** field, highlight the association you want to edit, then choose **Edit...** from the Association menu.

Result: The Edit Association dialog box appears.

- 2 Edit the information in the Edit Association dialog box (see Add Association in this manual for a description of the dialog box components), then click on **OK**.

EDIT ATTRIBUTE

Editing Attributes

Description The Edit Attribute command, available from both the Data Map and Data Dictionary windows, allows you to edit the details associated with an attribute.

Usage Tips This command is available for multiple selected entities in the Data Map window. See the *User's Guide* for instructions on selecting multiple entities in the Data Map window.

In the Data Dictionary window, this command is available for the currently displayed entity only.

Procedure à **To edit an attribute for selected entities in the Data Map window:**

1 Select the entity or entities that contain the attributes you want to edit.

2 Choose **Edit...** from the Attribute menu.

Result: The Select Attribute dialog box appears.

3 Select the attribute or attributes you want to edit, then click on **OK**.

Result: Depending on the type of attribute selected, the Edit Primary Key, Edit Foreign Key, or Edit Non-Key Attribute dialog box for the first selected attribute appears.

4 Complete the dialog box (see Add Attribute for a description of the fields in each type of dialog box), then click on **OK**.

Result: If you selected multiple attributes, the dialog box for the next selected attribute appears. (*Repeat this step for the next selected attribute.*)

If you selected multiple entities, the Select Attribute dialog box for the next selected entity appears. (*Repeat steps 3-4 for each selected entity.*)

Otherwise, the Data Map window redisplay.

â To edit an attribute for the currently displayed entity in the Data Dictionary window:

- 1 In the Data Dictionary window, highlight the name of the attribute you want to edit, then choose **Edit...** from the Attribute menu.

Result: The Edit Attribute dialog box for the selected attribute appears.

- 2 Edit the details in the Edit Attribute dialog box (see Add Attribute for a description of these fields), then click on **OK**.

EDIT BUSINESS EVENT

Editing Business Events

Description The Edit Business Event command, available from the Process Hierarchy window, allows you to edit a business event in the process model.

Usage Tips You may also edit business events through the Planning Outline window and the Statement Editor window. Any planning statement assigned the *business event* type is a business event.

Procedure à **To edit a business event:**

- 1 Choose **Edit...** from the Event menu.
Result: The Edit Business Event dialog box appears.
- 2 Update the information in the Edit Business Event dialog box (see Add Business Event for a description of dialog box components), then click on **OK**.

EDIT CONTROL

Editing Controls

Description The Edit Control command, available from the Process Map window, allows you to edit the condition and result (success or failure) of a stop control in the current process.

Usage Tips Since parallel controls and condition ends have no details to edit, this command is not used to edit those process model components.

Procedure à **To edit the selected process stop in the current process:**

1 Choose **Edit...** from the Control menu.

Result: The Edit Stop Control dialog box appears.

2 Edit the information in the Edit Stop Control dialog box (see Add Stop Control for a description of dialog box components), then click on **OK**.

EDIT CONTROL FLOW

Editing Control Flows

- Description** The Edit Control Flow command, available from the Process Map window, allows you to edit one or more control flows in the currently displayed process in the Process Map window.
- Usage Tips** To select a single control flow, click on the control flow line so that a solid rectangle appears in the center of the line.
- You may also select control flow by holding down the left mouse button and dragging the mouse cursor down and across the control flow you want to select.
- Procedure** à **To edit one or more selected control flows:**
- 1 Choose **Edit...** from the Flow menu.
Result: The Edit Control Flow dialog box appears.
 - 2 Update the information in the Edit Control Flow dialog box (see Add Control Flow in this manual for a description of dialog box components), then click on **OK**.

EDIT DATA ITEM

Editing Data Items

- Description** The Edit Data Item command, available from the Design Dictionary and Design Map window, allows you to edit a data item for the currently displayed data structure.
- Usage Tips** You may also edit a data item by double-clicking on it in either the Design Dictionary or Design Reference window.
- Procedure**
- à **To edit a data item for the currently displayed data structure in the Design Dictionary window:**
- 1 In the Design Dictionary window's **Data Items** field, highlight the data item you want to edit.
 - 2 Choose **Edit...** from the Property menu.
Result: The Edit Data Item dialog box appears.
 - 3 Update the information in the Edit Data Item dialog box (see Add Data Item for a description of dialog box components), then click on **OK**.
- à **To edit a data item for the currently displayed data structure in the Design Map window:**
- 1 Select a data structure.
 - 2 Choose **Edit...** from the Property menu.
Result: The Select Design Object Property dialog box appears.
 - 3 Select the property you wish to edit and click on **OK**.
Result: The Edit Data Item dialog box appears.
 - 4 Update the information in the Edit Data Item dialog box (see Add Data Item for a description of the dialog box components), then click on **OK**.

EDIT DATA STRUCTURE

Editing Data Structures

Description The Edit Data Structure command, available from the Design Dictionary and Design Map windows, allows you to edit the current or selected data structures.

Usage Tips You may also edit a data structure by double-clicking on it in either the Design Dictionary or Design Reference window.

In the Design Dictionary and Design Map windows, this command is available for multiple selected data structures. See Select Data Structures in this manual for instructions on selecting multiple data structures.

Procedure à **To edit the current or selected data structures:**

1 Choose **Edit...** from the Design Object menu.

Result: The Edit Data Structure dialog box appears.

2 Update the information in the Edit Data Structure dialog box (see Add Data Structure in this manual for dialog box fields), then click on **OK**.

Result: If you selected multiple data structures, the Edit Data Structure dialog box for the next selected data structure appears. (*Repeat step two for each selected data structure.*)

Otherwise, the Design Dictionary or Design Map window redisplay.

EDIT DATA STRUCTURE MANAGER

Editing the Data Structure Manager

Description The Data Structure Manager command, available from the Table menu of the Visible Advantage Admin Utility, allows the system administrator to specify the storage and to manipulate data in the implemented system.

Procedure à **To edit a data structure manager:**

- 1 Choose the Visible Advantage Admin Utility from the Program Manager window.
- 2 Select the Table menu.
- 3 Choose the **Data Structure Managers** option from the Table menu.

Result: A list of the available Data Structure Managers appears.

This list includes Visible Advantage predefined Data Structure Managers: DBS, Microsoft SQL (Sybase), or Oracle, and any user-defined data structure managers.

- 4 Highlight the Data Structure Manager to be edited.

To edit , either double click on the highlighted item or click on the Change option.

Result: The Edit Data Structure Manager dialog box appears. (See Data Structure Managers for information on dialog box fields.)

EDIT DATA STRUCTURE RELATIONSHIP

Editing Data Structure Relationships

Description The Edit Data Structure Relationship command, available from the Design Dictionary and Design Map windows, allows you to edit a relationship for the current data structure.

Procedure à **To edit a data structure relationship for the current data structure in the Design Dictionary window:**

- 1 In the Design Dictionary window's **Relationships** field, highlight the relationship you want to edit.
- 2 Choose **Edit...** from the Relationship menu.

Result: The Edit Relationship dialog box appears.
- 3 Update the information in the Edit Relationship dialog box (see Add Relationship for information on dialog box fields), then click on **OK**.

à **To edit a data structure relationship for the current data structure in the Design Map window:**

- 1 Select one or more data structures.
- 2 Choose **Edit...** from the Relationship menu.

Result: The Select Design Object Relationship dialog box appears.
- 3 Select the relationship you wish to edit.

Result: The Edit Relationship dialog box appears.
- 4 Update the information in the Edit Relationship dialog box (see Add Relationship for information on dialog box fields), then click on **OK**.

EDIT ENTITY

Editing Entities

Description The Edit Entity command, available from both the Data Map and Data Dictionary windows, allows you to edit details for an entity in the current model view.

Usage Tips This command is available for multiple selected entities in both the Data Map and Data Dictionary window. See the *User's Guide* for instructions on selecting multiple entities in these windows.

In the Data Map window, you may edit a single entity by double-clicking on it. In the Data Dictionary window, you may edit a single entity by double-clicking on its name in the **Entity** field.

Procedure à **To edit the details for selected entities in the Data Map or Data Dictionary window:**

- 1 Select the entities you want to edit.
- 2 Choose **Edit...** from the Entity menu.

Result: The Edit Entity dialog box for the first selected entity appears.

- 3 Edit the information in the Edit Entity dialog box (see Add Entity for a description of the dialog box fields), then click on **OK**.

Result: If you selected multiple entities, the Edit Entity dialog box for the next selected entity appears. (*Repeat this step for each selected entity.*)

Otherwise, the active window redisplay.

EDIT MODEL VIEW

Editing Model Views

Description The Edit Model View command allows you to edit the name, purpose, type, or business level of selected model views in the Model View Hierarchy window or the current model view in any other window. This command is available from all windows *except* the main Visible Advantage window, the Encyclopedia Management windows, the Statement Editor window, the Database Design window and the System Building window.

Usage Tips You can use this command to edit multiple selected model views in the View Hierarchy window. See the *User's Guide* for instructions on selecting multiple model views in the Model View Hierarchy window.

In any other window, this command is available for the current model view only.

Procedure à **To edit the details of selected model views in the Model View Hierarchy window:**

1 Choose **Edit...** from the View menu.

Result: The Edit View dialog box appears for the first selected model view.

2 Edit the information in the Edit View dialog box (see Add Model View in this manual for a description of the dialog box fields), then click on **OK**.

Result: If you selected multiple model views, the Edit View dialog box for the next selected model view appears. (*Repeat the previous step for each selected model view.*)

Otherwise, the Model View Hierarchy window redisplay.

à **To edit a model view's details from any other window, including non-design phase windows:**

1 Choose **Edit...** from the View menu.

Result: The Edit View dialog box appears.

- 2 Edit the information in the Edit View dialog box (see Add View in this manual for a description of the dialog box fields), then click on **OK**.

EDIT PROCESS

Editing Processes

Description The Edit Process command allows you to edit a business process or data access process. This command is available from both the Process Hierarchy and Process Map windows; however, in the Process Hierarchy window, you may edit only business processes.

Usage Tips This command is available for multiple selected processes in the Process Hierarchy window. In the Process Map window, this command is available for the current process only.

Procedure à **To edit selected processes in the Process Hierarchy window:**

- 1 Choose **Edit...** from the Process menu.

Result: The dialog box for updating the first selected process appears. This may be the Edit Business Process dialog box or the Edit Data Access Process dialog box, depending on the type of the first selected process.

- 2 Complete the Edit Business Process dialog box or Edit Data Access Process dialog box, then click on **OK**. See Add Process in this manual for descriptions of dialog box components.

Result: If you selected multiple processes, the dialog box for editing the next selected process appears. (*Repeat this step for each selected process.*)

à **To edit the current process in the Process Map window:**

- 1 Choose **Edit...** from the Process menu.

Result: The dialog box for updating the current process appears. This may be the Edit Business Process dialog box or the Edit Data Access Process dialog box, depending on the type of the current process.

-
- 2 Complete the Edit Business Process dialog box or Edit Data Access Process dialog box, then click on **OK**. See Add Process in this manual for descriptions of dialog box components.

EDIT PROCESS STEP

Editing Process Steps

Description The Edit Process Step command, available from the Process Map window, allows you to edit the details for selected steps in the current process.

Procedure à **To edit the selected process steps:**

1 Choose **Edit...** from the Step menu.

Result: The dialog box for editing the first selected step appears.

2 Edit the information in the dialog box, then click on **OK**.

See Add Process Step in this manual for descriptions of dialog box components.

EDIT SESSION

Editing Session Details

Description The Edit Session command allows you to edit the title, type, and/or notes for the current session. This command is available from all windows.

Procedure à **To edit the current session's details:**

- 1 Choose **Sessions** from the Encyclopedia menu on the main Visible Advantage window.
or
Choose **Encyclopedia Management** from the main menu on any other menu, then choose **Sessions** from the cascading menu.
- 2 Choose **Edit...** from the cascading menu for the Sessions command.

Result: The Edit Session dialog box appears.

- 3 Complete the Edit Session dialog box (see New Session for a description of the fields in this dialog box), then click on **OK**.

EDIT STATEMENT

Editing Planning Statements

Description The Edit Statement command, available from both the Planning Outline and Planning Dictionary windows, allows you to edit the title, type, and/or text of the selected statements in the Planning Outline window or current planning statement in the Planning Dictionary window.

Usage Tips This command is available for multiple selected statements in both the Planning Outline and Planning Dictionary windows. See the User's Guide for information on selecting multiple statements in these windows.

When you edit a statement assigned the type *business event*, the changes will affect the business event in the Process Hierarchy window, as well as in the planning windows.

For more extensive editing capabilities, such as search and replace and character formatting, use the Statement Editor window to add and edit statements. You access the Statement Editor window through the Statement Editor command on the Plan menu.

Procedure à **To edit selected planning statements in the Planning Outline or Planning Dictionary window:**

1 Choose **Edit...** from the Statement menu.

Result: The Edit Planning Statement dialog box appears.

2 Edit the information in the **Title** and **Type** fields, if necessary, and the text of the statement in the large text box.

3 Click on **OK**.

Result: If you selected multiple statements, the Edit Planning Statement dialog box for the next selected statement appears. (*Repeat steps 2 and 3 for each selected statement.*)

Otherwise, the active planning window redisplay.

EDIT STORAGE ACCESS MECHANISM

Editing Storage Access Mechanisms

Description The Edit Storage Access Mechanism command, available from the Design Dictionary and Design Map windows, allows you to edit the storage access mechanism for the current data structure.

Usage Tips You may edit only storage access mechanisms with this command. If you want to edit a standard access mechanism, use the Edit command on the Access menu.

Procedure à **To edit the storage access mechanism for the current data structure in the Design Dictionary window:**

- 1 Choose **Edit Storage...** from the Access menu.

Result: The dialog box for editing the storage access mechanism defined for the current data structure appears. The dialog box that appears depends on the type of access mechanism added to the data structure.

- 2 Edit the information in the dialog box, then click on **OK**.

For information on the fields in the various access mechanism dialog boxes, see Add Storage Access Mechanism in this manual.

à **To edit the storage access mechanism for the current data structure in the Design Map window:**

- 1 Select the storage access mechanism and then choose **Edit Storage...** from the Access menu.

or

Double click on the storage access mechanism.

Result: The dialog box for editing the storage access mechanism defined for the current data structure appears.

The dialog box that appears depends on the type of access mechanism added to the data structure.

- 2 Edit the information in the dialog box, then click on **OK**.

For information on the fields in the various access mechanism dialog boxes, see Add Storage Access Mechanism in this manual.

EDIT USER

Editing User Accounts

Description The Edit User command, available from the Visible Advantage Admin Utility, allows a system administrator to edit the logon, password, name, user group, privilege (standard user or system administrator), or status (active or inactive) of an authorized user of the current encyclopedia.

Usage Tips Only system administrators may use the Visible Advantage Admin Utility.

Procedure à **To edit the information for an existing user:**

1 Choose **Edit...** from the User menu.

Result: The Select User dialog box appears.

2 From the **Logon** list box, select the logon of the user you want to edit. The list includes the logons of all active and inactive users of the encyclopedia.

3 Click on **OK**.

Result: The Edit User dialog box appears.

4 Complete the Edit User dialog box (see Add User for a description of the dialog box fields), then click on **OK**.

EDIT USER GROUP

Editing User Groups

Description The Edit User Group command, available from the Visible Advantage Admin Utility, allows the system administrator to edit the name and purpose of a user group.

Procedure à **To edit a user group:**

- 1 Choose **Edit...** from the Group menu.
Result: The Select Group dialog box appears.
- 2 Select the name of the group you want to edit, then click on **OK**.
Result: The Edit User Group dialog box appears.
- 3 Edit the name and purpose of the user group, then click on **OK**.

EDIT VALID WORD

Editing Valid Words

Description The Valid Words command allows you to edit words in the standard words dictionary.

Usage Tips The Valid Words command is available from all windows except Generate SQL Schema.

Procedure **à To edit words in the standard words dictionary:**

1 Choose **Standard Words Dictionary** from the Encyclopedia menu.

Result: The Valid Words Dictionary dialog box appears.

2 Choose the word you want to edit, then click on **Change**.

Result: The Edit Valid Word dialog box appears.

3 Make the changes, then click on **OK**.

2 Note The Edit Valid Word dialog box is the same as the Add Valid Word dialog box.

EDIT VIEW

Editing Design Views

Description The Edit View command, available from the Design Dictionary and Design Map windows, allows you to edit a database design's name, purpose, and data structure manager (DB2, Oracle, etc.).

Procedure à **To edit the details for the current design view:**

- 1 Choose **Edit...** from the View menu.

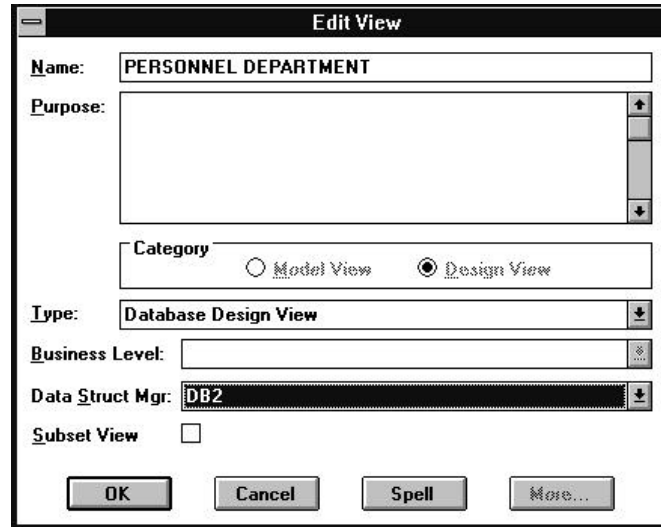
Result: The Edit View dialog box for the current design view appears.

2 Note If you want to edit the details for a different design view, use the Change To command on the Design menu to change to that design before using the Edit command.

- 2 Update the information in the Edit View dialog box, then click on OK.

Edit View Dialog Box

Dialog Box Illustration



Edit View Dialog Box

Dialog Box Components

Use the information below to complete the Edit View Dialog Box.

<u>Component</u>	<u>Description</u>
Name	The name of the view is displayed here.
Purpose	The purpose of the view is displayed here.
Model View	Select this button for a model view.
Design View	Select this button for a design view.
Type	Select a type from the drop-down list. You may select Application Design View or Database Design View or any user-configured view.

Business
Level

Select a business level from the drop-down
list.

Data
Structure
Manager

Select a data structure manager from the
drop-down list.

EDITOR FONT

Changing the Font in an Editor Window

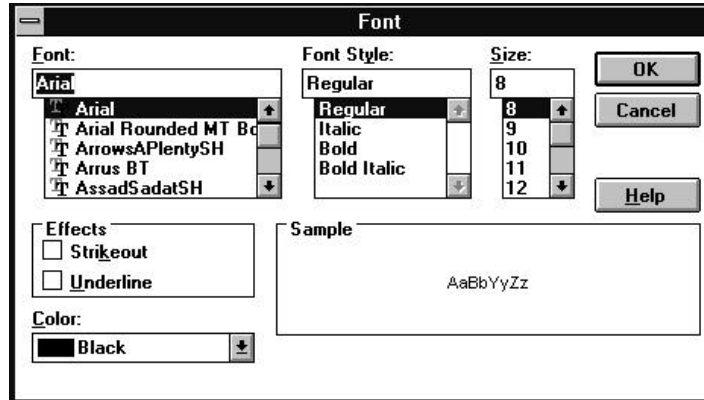
- Description** The Editor Font command, available from the Statement Editor window, allows you to change the font, size, and style for the text that displays in and prints from the Statement Editor window.
- Usage Tips** The Statement Editors window appears when you use the Statement Editor command. The font you select through this command will be used if you print the displayed statement or session text through the Print command on the Editor window's File menu.
- This command uses the standard Windows dialog box for changing fonts and font styles. The fonts that appear in the Font dialog box depend on the fonts installed on your computer. See your Windows documentation for more information on adding fonts and font sizes in Windows applications.
- 2 Note** For information on using the Font command, available from the Planning Outline and any Matrix, see Font in this manual. For information on using the Report Font command, available from both the main Visible Advantage and the Report-Viewing windows, see Report Font.

Procedure à **To change the font in the Statement Editor window:**

- 1 Choose **Editor Font...** from the Format menu.
Result: The Font dialog box appears.
- 2 Complete the Font dialog box, then click on **OK**.

Font Dialog Box

Dialog Box Illustration



Font Dialog Box

Dialog Box Components

Use the information below to complete the Font dialog box.

Component	Description
Font	All fonts installed through Windows are displayed in this list box. Scroll through the list and highlight the desired font, or type its name into the Font box.
Font Style	The available styles for the selected font appear in this list box. Highlight the desired style, or type it into the Font Style box.
Size	The available sizes for the font and font style you selected appear in this list box. Highlight the desired size, or type it into the Size box.
Strikeout	Select this checkbox if you want the editor text to have a strikeout (line through the text) effect.
Underline	Select this checkbox to underline the editor text.
Color	Select a color from this drop-down list box. The default color is black.

ENCYCLOPEDIA INITIALIZER

Using the Encyclopedia_INITIALIZER

Description The Encyclopedia_INITIALIZER command, available from the Visible Advantage Admin Utility, opens the Encyclopedia_INITIALIZER, which allows the system administrator to change default settings under the Project and File menus. These default settings will be in effect for all new encyclopedias.

Usage Tips This command is useful for setting standards for all encyclopedias. Without this command, you would have to define the desired settings for each new encyclopedia.

+ **Example** A project manager has defined additional planning statement, session, and model view types. Before creating an encyclopedia, she uses the Encyclopedia_INITIALIZER command to add these types. The types she defined will now be in effect for all new encyclopedias.

Remember, the changes you make through the Encyclopedia_INITIALIZER command affect only encyclopedias created *after* this command is used. These changes are in effect until the next time you change the settings through the Encyclopedia_INITIALIZER command.

Procedure à **To set initial default settings for encyclopedias:**

1 Select the **Initializer...** from the Encyclopedia menu. Only users defined as system administrators may use this command.

Result: The Visible Advantage Logon dialog box appears.

2 Type in the system administrator Logon, then click on **OK**.

Result: The Encyclopedia_INITIALIZER will open. It looks and works like any other encyclopedia, except only certain commands are available.

3 Change the desired settings by choosing the appropriate command.

-
- 4 Close the Encyclopedia Initializer by creating or opening an encyclopedia or by closing Visible Advantage Admin.

Result: The changes you made in the Encyclopedia Initializer will affect all new encyclopedias.

ENTITY MODE

Design Reference in Entity Mode

- Description** The Entity Mode command, available from the Design Reference window, displays the Design Reference window by entity, rather than by design object, data item, or attribute.
- Usage Tips** The four modes available in the Design Reference window—design object, data item, entity, and attribute—allow you to reference the information in a database design based on that object. Each mode displays the mode object at the top of the window and all of its referenced objects or details underneath it.
- Procedure** à **To run the Design Reference window in Entity mode:**
- Choose **Entity** from the Mode menu.
- Result: A checkmark appears beside the command name and the Design Reference window redisplay in Entity mode.
- 2 Note** If you are in Design Object or Data Item mode, the Select Model View dialog box appears. Select the model view, then click on **OK**.

ENTITY-VIEW MATRIX

About the Entity-View Matrix Window

Description The Entity-View Matrix window allows you to view the model views in which each entity is visible. You can also add entities to and remove them from model views through this window. This command is available from all windows.

Procedure à **To open an Entity-View Matrix window:**

- 1 From the main Visible Advantage window, choose **Entity-View Matrix...** from the Data menu.

From any other window, choose **Data Modeling** from the main menu, then choose **Entity-View Matrix...** from the cascading menu.

Result: The Entity-Model View Matrix dialog box appears.

- 2 If you want to display entities of all types on the left axis of the matrix, select the **All Entity Types** button.

If you want to display entities of selected types, select the **Selected Entity Types** button, then click on **Select Types** in the **Left Axis** area. The Entity Types dialog box appears. Select the entity types you want to display, then click on **OK** to return to the Entity-Model View Matrix dialog box.

- 3 If you want to display model views of all types on the top axis, select the **All Model View Types** button.

If you want to display selected model view types, select the **Selected Model View Types** button, then click on **Select Types**. The Model View Types dialog box appears. Select the model view types you want to display, then click on **OK**.

- 4 If you want to display entities in the entire model, click on the **Entire Model** button.

If you want to display entities in one model view, click on the **Single Model View** button, then select the model from the drop-down list.

- 5 Click on **OK** in the Entity-Model View Matrix dialog box.

EVENT-PROCESS MATRIX

Opening an Event-Process Matrix Window

Description The Event-Process Matrix window allows you to view the interrelationships between business events and processes. The process invoked by each event is shown in the Process Hierarchy window. This matrix is the only window that shows the multiple events to which each process responds. This command is available from all windows.

You may also add and edit relationships between events and processes through this window.

Procedure à **To open an Event-Process Matrix window:**

- 1 From the main Visible Advantage window, choose **Event-Process Matrix...** from the Process menu.

From any other window, choose **Process Modeling** from the main menu, then choose **Event-Process Matrix...** from the cascading menu.

Result: The Select Model View dialog box appears.
- 2 The Select Model View dialog box contains a list of all model views defined for the encyclopedia.

If you want to display the model view list in hierarchical order, select the **Structured** button. If you want to display the model view list in alphabetical order, select the Alphabetical button.
- 3 Highlight the name of the model view that contains the business events you want to display in the Event-Process Matrix window. If you want to display all business events in the encyclopedia, select Entire Model in the **Select** area.
- 4 Click on **OK**.

Exiting Visible Advantage

Description The Exit command, available from the main Visible Advantage window, allows you to exit Visible Advantage.

Procedure **à To exit from the main Visible Advantage window:**

Choose **Exit** from the File menu.

or

Double-click on Visible Advantage's Control-menu box in the upper left-hand corner of the window.

à To exit Visible Advantage from any other window:

1 Choose **Close All** from the Window menu.

Result: The main Visible Advantage window appears.

2 Choose **Exit** from the File menu.

EXPAND ALL

Expanding All Hierarchy/Outline Levels

Description The Expand All command displays all levels of the hierarchy or outline, regardless of the model views or statements selected. This command is available from the View Hierarchy window.

Usage Tips Several symbols can appear inside the model view boxes, statement icons, and process icons. These symbols let you know whether there are any levels to expand beneath a model view or statement. The symbols are explained below.

Symbol	Meaning
+ (plus sign)	One or more collapsed levels are beneath the object.
- (minus sign)	All collapsed levels beneath the object have been expanded.
[no symbol]	There are no levels beneath the object.

+ **Example** In the Planning Outline window, the statement icon has a plus sign in it; this means that there is at least one contracted statement beneath it.

Procedure à **To expand all levels of the model view hierarchy:**

Choose **Expand All** from the Hierarchy menu.

à **To expand all levels of the planning outline:**

Choose **Expand All** from the Outline menu.

EXPAND ONE BRANCH

Expanding One Hierarchy/Outline Branch

Description The Expand One Branch command displays all collapsed levels of the model view hierarchy or planning outline beneath one or more selected model views or statements. This command is available from the View Hierarchy window.

Usage Tips Several symbols can appear inside the model view boxes, statement icons, and process icons. These symbols let you know whether there are any levels to expand beneath a model view or statement. The symbols are explained below.

Symbol	Meaning
+ (plus sign)	One or more collapsed levels are beneath the object.
- (minus sign)	All collapsed levels beneath the object have been expanded.
[no symbol]	There are no levels beneath the object.

+ **Example** In the Planning Outline window the statement icon has a plus sign in it; this means that there is at least one contracted statement beneath it.

Procedure à **To expand all levels of the view hierarchy beneath selected views:**

Choose **Expand One Branch** from the Hierarchy menu.

à **To expand all levels of the planning outline beneath selected statements:**

Choose **Expand One Branch** from the Outline menu.

EXPAND ONE LEVEL

Expanding One Hierarchy/Outline Level

Description The Expand One Level command displays a collapsed level of the model view hierarchy or planning outline hierarchy beneath one or more selected model views or statements. This command is available from the View Hierarchy window.

Usage Tips Several symbols can appear inside the model view boxes, statement icons, and process icons. These symbols let you know whether there are any levels to expand beneath a model view or statement. The symbols are explained below.

Symbol	Meaning
+ (plus sign)	One or more collapsed levels are beneath the object.
- (minus sign)	All collapsed levels beneath the object have been expanded.
[no symbol]	There are no levels beneath the object.

+ **Example** If in the Planning Outline window the statement icon has a plus sign in it, there is at least one contracted statement beneath it.

Procedure à **To expand the first level of the view hierarchy beneath selected views:**

Choose **Expand One Level** from the Hierarchy menu.

à **To expand the first level of the planning outline beneath selected statements:**

Choose **Expand One Level** from the Outline menu.

Exporting Encyclopedias

Introduction The Export command allows you to export an encyclopedia to a VSC file or a Microsoft Access (.mdb) file from a Visible Advantage encyclopedia. These files are produced by other Visible products (VSC files), by another CASE tool, from scratch using a text editor, or from a previously performed Visible Advantage export (.mdb files).

Usage Tips Export is the only function within the Utilities menu that can be performed a user who is not a system administrator. Any user may export data from the encyclopedia.

When you export information from a Visible Advantage encyclopedia, you log into the source encyclopedia, specify the portion of the encyclopedia you want to export (entire model or selected model views), then select the destination location for the files you will export.

Exported Files The files you Export from Visible Advantage will default to these names and will default to the directory in which the encyclopedia is stored:

VSC	export.ad
Access	imp-exp.mdb

The Exported Information After you export an encyclopedia to VSC or .mdb format, you can then import it into another CASE tool or, if applicable, back into Visible Advantage.

To import the files back into Visible Advantage, use the Import command under the Import menu in the Visible Advantage Utilities program

Warning! VSC files may not support all of the configurable options that you have selected in Visible Advantage. To export and then re-import data, use the .mdb format. If you export to .ad and then import back into Visible Advantage, you may lose something in the translation.

Procedure

à **To export an encyclopedia to a VSC file:**

- 1 Choose **To VSC File** from the Export menu.
Result: The Select Encyclopedia dialog box appears.
- 2 Complete the Select Encyclopedia dialog box and click on **OK**.
Result: The Logon dialog box appears.
- 3 Complete the Logon dialog box and click on **OK**.
Result: The Model View dialog box appears.
- 4 Complete the Model View dialog box and click on **OK**.
Result: The Save As dialog box appears.
- 5 Complete the Save As dialog box and click on **OK**.
Result:

The encyclopedia is exported.
or
If there are undefined domains, the Domain Data Type dialog box appears. Select a domain type from the drop-down list, and click on **OK** to export the encyclopedia.

à **To export an encyclopedia to Access:**

- 1 Choose **To Access** from the Export menu.
Result: The Select Encyclopedia dialog box appears.
- 2 Complete the dialog box and click on **OK**.
Result: The Logon dialog box appears.

3 Complete the Logon dialog box and click on **OK**.

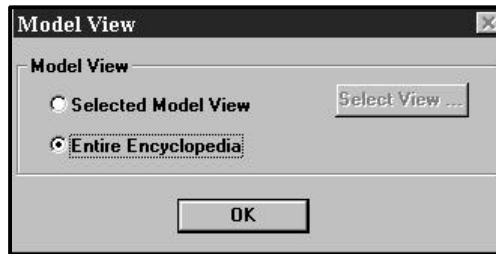
Result: The Save As dialog box appears.

4 Complete the Save As dialog box and click on **OK**.

Result: The export file is created.

Model View Dialog Box

Dialog Box Illustration



Model View Dialog Box

Dialog Box Components

Use the information below to complete the Model View dialog box.

Component	Description
Selected Model View	Select this button to export selected model views. When you select this button, the Select View button is available.
Select View	Click on this button to display the Select Views dialog box. Select the views and click on OK .
Entire Encyclopedia	Select this button to export the entire encyclopedia.

Finding Text

Description The Find command allows you to locate a text string in text displayed in the Statement Editor or Report-Viewing windows.

Usage Tips The Statement Editor window appears when you use the Statement Editor command. The Report-Viewing window appears when you generate a report and route its output to the screen.

This command operates on the text either before or after the current cursor position. If you want to search the entire statement or session text, place the text cursor at the beginning of the statement or session text and choose **Down** in the **Direction** area of the Find dialog box.

Procedure à **To find a text string in the text displayed in the Statement Editor or Report-Viewing windows:**

1 Choose **Find...** from the Search menu.

Result: The Find dialog box appears.

2 Complete the Find dialog box, then click on **Find Next** to have Visible Advantage search for the text you specified.

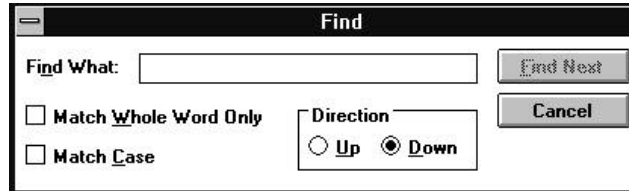
Result: If a match is found, the first occurrence of the specified text is highlighted in the active window. You may repeat this step to find each successive occurrence of the specified text.

If no match is found, the message *No more matching strings were found* appears. Click on **OK** to return to the Find dialog box.

3 When you are finished searching for the text string, click on **Close** in the Find dialog box.

Find Dialog Box

Dialog Box Illustration



Find Dialog Box

Dialog Box Components

Use the information below to complete the Find dialog box.

<u>Component</u>	<u>Description</u>
Find What	Type the text string you want to find inside this box.
Match Whole Word Only	Select this checkbox if you would like to find an exact match for the entire string for which you are searching. Otherwise, the search will find occurrences of the text string that are part of other words, as well as those that appear as separate words. + Example If you specify the word `inform' in the Find What box and do not select the Match Whole Word Only checkbox, Visible Advantage will find the word `information', as well as the word `inform'. If you do select the Match Whole Word Only checkbox, Visible Advantage will narrow its search to occurrences of the word `inform' only.
Match Case	Select this checkbox if you would like to find only those occurrences of the specified text string that match the case (upper-, lower-, or mixed-case) of the text you typed in the Find What box. Otherwise Visible Advantage will find occurrences of the text string that use any combination of upper- and lower-case letters.

Up	Select this button to search the text <i>before</i> the current cursor position in the Text Editor window.
Down	Select this button to search the text <i>after</i> the current cursor position in the Text Editor window.
Find Next	Click on this button to find the next occurrence of your selected string.

FIND NEXT

Finding Next Text Occurrences

Description The Find Next command allows you to locate in the active Statement Editor or Report-Viewing windows subsequent occurrences of the text string last specified through the Find command on the Search menu.

Usage Tips The Statement Editor window appears when you use the Statement Editor command. The Report-Viewing window appears when you generate a report and route its output to the screen.

The Find Next command searches the text *after* the last located text string. For information on using the Find command, see Find in this manual.

Procedure à **To find subsequent occurrences of the text last specified through the Find command:**

Choose **Find Next** from the Search menu.

Result: If a match is found, its occurrence in the text will be highlighted. You may repeat the command to locate each later occurrence of the text string.

If no further matches are found, the message *No more matching strings were found* appears.

FIND PREVIOUS

Finding Previous Text Occurrences

- Description** The Find Previous command allows you to locate in the active Statement Editor or Report-Viewing windows previous occurrences of the text string last specified through the Find command on the Search menu.
- Usage Tips** The Statement Editor window appears when you use the Statement Editor command. The Report-Viewing window appears when you generate a report and route its output to the screen.
- The Find Previous command searches the text before the last located text string. For information on using the Find command, see Find in this manual.
- Procedure** à **To find previous occurrences of the text string last specified through the Find command on the Search menu:**
- Choose **Find Previous** from the Search menu.
- Result:** If a match is found, the first occurrence will be highlighted in the active window. You may repeat the command to search for each previous occurrence of the text string.
- If no previous matches are found, the message *No more matching strings were found* appears.

Changing a Window's Display Font

Description The Font command allows you to change the font size or style for display text. This command is available from the following windows: View Hierarchy, Planning Outline, Data Map, Design Map, or any matrix.

Usage Tips Font information for each window is stored with the current window, rather than with the current model view or encyclopedia. This means that if you change the font for a specific window, the font you choose will remain active not only for the current model view and the current encyclopedia, but also for any new encyclopedias you subsequently create.

This command uses the standard Windows dialog box for changing fonts, font styles, and font sizes. The fonts that appear in the Font dialog box depend on the fonts installed through Windows (TrueType, Adobe Type Manager, or other package). See your Windows documentation for more information on adding fonts and font sizes in Windows applications.

2 Note For information on using the Editor Font command, available from the Statement/Session Editor window, see Editor Font in this manual. For information on using the Report Font command, available from both the main Visible Advantage window and the Report-Viewing window, see Report Font in this manual.

Procedure à **To change the display font from the Design Map and Data Map windows:**

- 1 Choose **Font...** from the Display menu.
Result: The Select Fonts dialog box appears.
- 2 Click on **Select Typeface and Style**.
Result: The Font dialog box is displayed.
- 3 Complete the Font dialog box, then click on **OK**.

à To change the display font from other applicable windows:

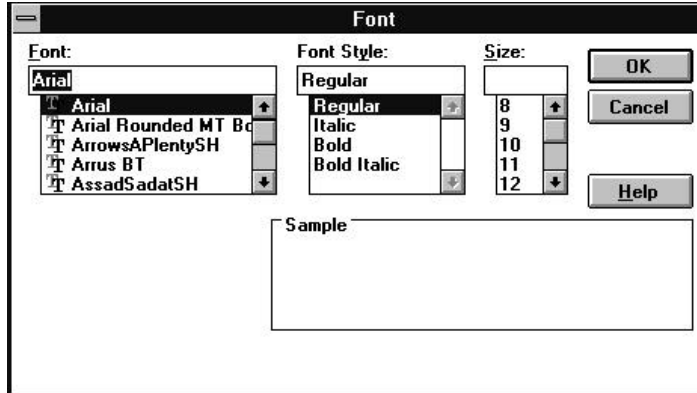
1 Choose **Font...** from the Display menu.

Result: The Font dialog box is displayed.

2 Complete the Font dialog box, then click on **OK**.

Font Dialog Box

Dialog Box Illustration



Font Dialog Box

Dialog Box Components

Use the information below to complete the Font dialog box.

Component	Description
Font	All fonts installed through Windows are displayed in this list box. Scroll through the list and highlight the desired font, <i>or</i> type its name into the Font box.
Font Style	The available styles (regular, italic, bold, or bold italic) for the selected font appear in this list box. Highlight the desired style, <i>or</i> type it into the Font Style box.
Size	The available sizes for the font and font style you selected appear in this list box. Select the desired size. In the View Hierarchy, Design Map, and Data Map windows, the size you select here will not affect the window display.

FREEZE ALL OBJECTS

Freezing All Encyclopedia Objects

Description This command freezes all objects in an encyclopedia. It is not really part of the Copy, Check-in/Out or Merge process, but rather allows you to use the freeze feature of Visible Advantage to create backup copies of encyclopedias that cannot be modified and can serve as reference backup.

This is useful to preserve information in a backed up encyclopedia that is used for ad-hoc reporting by users who may inadvertently change information in the encyclopedias when performing inquiries.

Usage Tips The Freeze All command is part of the Visible Advantage Utility program that comes with Visible Advantage. To use the Freeze function, click on the Visible Advantage Utility icon inside the Visible Advantage program group. The Freeze command is under the Copy/Merge menu.

The Freeze command generates a Compare Encyclopedia report, detailing the differences between the two encyclopedias.

2 Note If you want to unfreeze all objects in the encyclopedia, select the **Clear Checked-out** function.

Procedure à **To copy all or part of an encyclopedia to another drive or directory:**

1 Choose **Freeze All** from the Copy/Merge menu of the Utilities program.

Result: The Open Encyclopedia dialog box appears.

2 Select from the **Encyclopedias** list box the encyclopedia you want to copy from. If the encyclopedia is not listed, navigate through the directories in the Path list box until it appears.

3 Click on **OK**.

4 Type your logon for the encyclopedia and, if necessary, a password. Click on **OK**.

Result: If you typed a valid logon and password, the Freeze All Objects dialog box appears. The list box displays the encyclopedia(s) checked out.

Otherwise, an error message appears and you must return to the logon dialog box to type a different logon.

- 5 Click on **OK** to freeze the objects.

Freezing and Unfreezing Concepts

Freezing Objects When you check-out an encyclopedia, you check-out one or more selected views. After you complete the check-out operation, the checked-out objects are frozen in the encyclopedia from which they were copied. The objects that were copied out in the subset but not checked out (usually for viewing and modeling perspective purposes) are frozen in the subset but not in the primary encyclopedia. This prevents users from modifying any objects that have been copied to another drive or directory for multi-user support, ensuring that any one object is available for update (i.e., unfrozen) in only one place.

Freezing may also be done on an entire encyclopedia (see Freeze All). This is a method of exercising change control over a version of an encyclopedia that is archived for documentation and/or historical purposes.

Unfreezing Objects Once the checked-out and original encyclopedias have been merged back together through the Check-in/Merge command, the frozen objects are automatically unfrozen in the merged encyclopedia.

The Unfreeze/Clear Check-out command may also be used to unfreeze objects. This is used when you want to permanently disconnect the checked-out encyclopedia from the primary encyclopedia and **not** merge back in the changes made in the checked-out copy. Performing this command against a checked-out encyclopedia will cause Visible Advantage to function as if the check-out encyclopedia will cause Visible Advantage to function as if the check-out was never made.

The Unfreeze/Clear Check-out is also used to reverse the Freeze All command.

FUNCTIONS

Defining Functions

Description The Functions command allows you to add, change, and delete functions and operators. You use these functions and operators in derived attribute formulas during Data Modeling. This command is available from the following windows: Data Map, Data Dictionary, Design Map, and Design Dictionary.

Usage Tips You can use any function you add through this command in the Add Non-Key Attribute dialog box **Formula** field when defining a derived attribute in the Data Map, Data Dictionary, Design Map, or Design Dictionary window.

See the Appendices section of this manual for information on valid syntax for expressions in data and process modeling windows.

Procedure à **To add a new function:**

- 1 Choose **Functions...** from the Attribute menu in the Data Map and Data Dictionary windows, or from the Property menu in the Design Map and Design Dictionary windows.

Result: The Functions dialog box appears.

- 2 Type the name of the new function in the **Name** box, then click on the **Add** button.

Result: The Add Function dialog box appears.

- 3 Complete the Add Function dialog box.

If you want to add a data type to the function argument, select a data type from the **Data Type** drop-down list, then click on the **Add** button. It will then appear in the **Arguments** list box.

To change an argument listed in the **Arguments** list box, highlight the argument, select a new data type from the **Data Type** drop-down list, then click on the **Change** button.

To delete an argument in the **Arguments** list box, highlight it and then click on the **Delete** button.

- 4 Click on **OK** in the Add Function dialog box.

Result: The Functions dialog box appears.

- 5 If necessary, repeat the above steps to add more functions to the encyclopedia.

When you are finished adding functions, click on **Close** in the Functions dialog box.

à **To delete a function:**

- 1 Choose **Functions...** from the Attribute menu in the Data Map and Data Dictionary windows, or from the Property menu in the Design Map and Design Dictionary windows.

Result: The Functions dialog box appears.

- 2 Highlight the name of the function you want to delete, then click on the **Delete** button.

If the function is referenced by any encyclopedia objects, a message appears informing you of this. You may not delete any functions used by encyclopedia objects.

à **To change a function:**

- 1 Choose **Functions...** from the Attribute menu in the Data Map and Data Dictionary windows, or from the Property menu in the Design map and Design Dictionary windows.

Result: The Functions dialog box appears.

- 2 Highlight the name of the function you want to change, then click on the **Change** button.

Result: The Edit Function dialog box appears.

-
- 3 Change the information in the Edit Function dialog box.

If you want to add a data type to the function argument, select a data type from the **Data Type** drop-down list, then click on the **Add** button. It will then appear in the **Arguments** list box.

To change an argument listed in the **Arguments** list box, highlight the argument, select a new data type from the **Data Type** drop-down list, then click on the **Change** button.

To delete an argument in the **Arguments** list box, highlight it and then click on the **Delete** button.

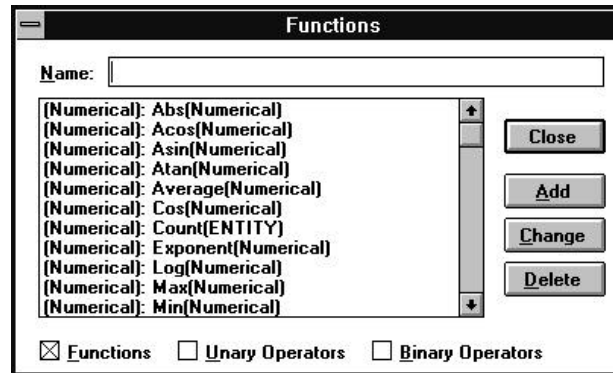
- 4 Click on **OK** in the Add Function dialog box.

Result: The Functions dialog box appears.

- 5 Click on **Close** when you are finished editing functions.

Functions Dialog Box

Dialog Box Illustration



Functions Dialog Box

Dialog Box Components

Use the information below to complete the Functions dialog box.

<u>Component</u>	<u>Description</u>
Name	Type the name of the function or operator you would like to add, change, or delete. If the function exists, you may select it from the large list box beneath the Name box.

In the large list box, the name of the function or operator is typically the only part of the string that is *not* enclosed in parentheses.

The first parentheses contain the data type of the function (numerical, character, etc.). The second parentheses contain the data type of each of the function's arguments; if an argument is an entity, the word *ENTITY* is listed along with the other arguments.

You may use *where* clauses, and parentheses may be used to establish precedence. For a complete list of allowed symbols, see the Appendix.

+ **Example** The user-defined function Count (*ENTITY*, where *EMPLOYEE.job code = JOB.job code*) is a function named Count that counts all occurrences of an entity where the attribute job code is equal to another entity's occurrence of that attribute.

2 Note There may be functions and operators with the same name that involve different data types.

Functions Select this checkbox if you want to list all defined functions in the list box (count, sum, etc.).

Unary Operators Select this checkbox if you want to list all defined unary operators in the list box (positive, negative, etc.).

Binary Operators Select this checkbox if you want to list all defined binary operators in the list box (greater than, less than, addition, subtraction, etc.).

2 Note You can select multiple checkboxes. For example, if you want to display all functions and operators, select all three checkboxes. If you want to display a list of all operators only, select the **Unary Operators** and **Binary Operators** checkboxes.

Add Click on this button to add a new function to the list. The Add Function dialog box appears.

Change Select a function or operator from the list box, then click on this button to edit its settings. The Edit Function dialog box appears.

Delete

Select a function or operator from the list box, then click on this button to delete it. You may not delete a function or operator that is being used in the encyclopedia.

Add Function Dialog Box

Dialog Box Illustration

The screenshot shows a dialog box titled "Add Function". It has a standard Windows-style title bar with a close button. The dialog contains several input fields and buttons. At the top, there are "Name:" and "Purpose:" labels followed by text input boxes. To the right of these are "OK" and "Cancel" buttons. Below "Purpose" is a "Data Type:" label with a dropdown menu showing "Not Defined". To the right of this is a "Literal" checkbox. A section titled "Function Arguments" contains two radio buttons: "Value" (which is selected) and "Entity". Below the radio buttons is another "Data Type:" label with a dropdown menu showing "Not Defined". Below that is an "Arguments:" label followed by a large empty text area. To the right of this text area are three buttons: "Add", "Change", and "Delete".

Add Function Dialog Box

Dialog Box Components

Use the information below to complete the Add Function dialog box.

<u>Component</u>	<u>Description</u>
Name	Type the name of the new function in this box. If you selected a function in the Functions dialog box before you clicked on Add , this box will contain the name of the selected function.
Purpose	Type the purpose of the new function in this box. The purpose is especially important if the name of the function or operator is a symbol.
Data Type	Choose a data type from this drop-down list. The data types of the function's arguments will be displayed in brackets behind its name in the Functions dialog box.

The drop-down list will include all defined data types. If you want to add new data types, use the Admin Utility/Table/Data Types command.

Literal	Check this box if the function is to be a literal.
Value	Select this button if the function argument is a value. This is the default setting. You may then select a data type from the Data Type list box below and add the argument to the Arguments list.
Entity	Select this button if the function argument is an entity. When you click on this button, the Data Type list box below will be dimmed.
Add	Click on this button to add the argument you defined through the Value , Entity , and/or Data Type settings.
Change	Select an argument from the Arguments list, change the Value , Entity , and/or Data Type settings, then click on this button to make the changes.
Delete	Select an argument from the Arguments list, then click on this button to delete it.

GENERAL PREFERENCES

Defining General Preferences

- Description** The General Preferences command, available from the main Visible Advantage window, allows you to define a monochrome or color display for use with Visible Advantage.
- Usage Tips** If you have a monochrome monitor, setting this option to Monochrome will improve the display quality.
- Procedure** à **To define general preferences for the current encyclopedia:**
- 1 Choose **General Preferences** from the Project menu.

 Result: The General Preferences dialog box appears.
 - 2 Select **Color Monitor** or **Monochrome Monitor**, depending on the type of display you are using, then click on **OK**.

GENERATE DATA ACCESS PROCESSES

Generating Data Access Processes

- Description** The Generate Data Access Processes command, available from the main Visible Advantage window, allows you to generate all required data access processes for all or selected entities in all or selected model views.
- Usage Tips** The generated data access processes are added to the process model and may be viewed or edited through the Process Map window.
- This command produces the DAP Generation Report, which details the data access processes generated for the entities selected.
- Procedure** à **To generate data access processes:**
- 1 From the main Visible Advantage window, choose **Generate Data Access Processes....** from the Process menu.

From any other window, choose **Process Modeling** from the main menu, then choose **Generate Data Access Processes...** from the cascading menu.

Result: The Generate Data Access Processes dialog box appears.
 - 2 Complete the Generate Data Access Processes dialog box, then click on **OK**.

Result: The Report Destination dialog box appears.
 - 3 Select a report destination (**Printer**, **File**, or **Screen**), then click on **OK**.

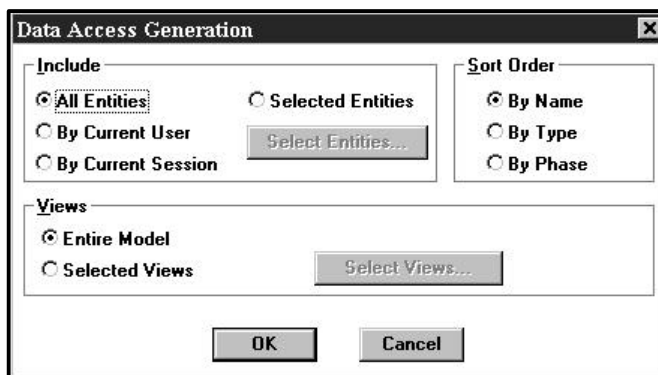
Result: If you selected **Printer**, the report will be sent to the printer.

If you selected **File**, you will be prompted for the name of the file to which you want the report to be sent.

If you selected **Screen**, the report-viewing window and menu bar appear. Refer to the Reports section of the *User's Guide* for more information on viewing reports on the screen.

Generate Data Access Processes Dialog Box

Dialog Box Illustration



Data Access Generation Dialog Box

Dialog Box Components

Use the information below to complete the Generate Data Access Processes dialog box.

Component	Description
All Entities	Select this button if you want to generate data access processes for all entities in the model view(s) selected in the Model View area below.
By Current User	Select this button if you want to generate data access processes only for those entities created or modified by the current user that are visible in the model view(s) selected in the Model View area below.
By Current Session	Select this button if you want to generate data access processes only for those entities created or modified during the current session that are visible in the model view(s) selected in the Model View area below.
Selected Entities	Select this button if you want to generate data access processes only for selected entities that are visible in

the model view(s) selected in the Model View area below. To select the entities to include, click on the **Select Entities** button, described below.

- Select Entities** Use this button to select the entities for which to generate data access processes. This button is available only if you selected the Selected Entities button, described above. Click on this button to display the Select Entities dialog box.
- Entire Model** Select this button if you want to include entities in the entire encyclopedia.
- Selected Model Views** Select this button if you want to include entities in selected model views only. To select the model views, click on the **Select Views** button, described below.
- Select Views** Use this button to select the model views for which to generate data access processes. This button is available only if you selected the Selected Model Views button, described above. Click on this button to display the Select Model Views dialog box.
- By Name** Select this button to alphabetize the data access processes in the DAP Generation report by entity name.
- By Type** Select this button to sort the data access processes in the DAP Generation report by entity type.
- By Phase** Select this button to sort the data access processes in the DAP Generation report by entity phase.

GENERATE SQL SCHEMA

Generating SQL Schema

Description The Generate SQL Schema command, available from all windows, produces an SQL relational database schema for a database design that uses an SQL-based data structure manager. This command is available from all windows.

Usage Tips The schema generated by this command conforms to the format of the data structure manager assigned to the database design for which the schema is generated. Visible Advantage is shipped with the following predefined SQL data structure managers: DB2, Microsoft SQL (Sybase), and Oracle.

You may edit these data structure managers or add new ones through the Admin Utility/Table/Data Structure Managers command. When you edit a data structure manager, you may define the following SQL output options:

- Support for "NOT NULL", "UNIQUE", "CREATE INDEX" clauses
- Requirement of "VALUES" clause
- Statement separator options (semicolon, forward slash, or no separator)
- Representation of literals (single or double quotes)

Objects in an encyclopedia are translated in the schema as follows:

- Entities become tables
- Attributes become fields or columns within each entity table
- Attribute values become table occurrences for static entities

Procedure à **To generate SQL schema for the current encyclopedia:**

- 1 Choose **Generate SQL Schema...** from the Build menu on the main menu bar or from the main menu on any other menu bar.

Result: The Generate SQL Schema dialog box appears.

- 2 Complete the Generate SQL dialog box, then click on **OK**.

Result: If the database design you selected is based on an SQL data structure manager, the Report Destination dialog box appears. *(Proceed to next step.)*

If the database design you selected is not based on an SQL data structure manager, an error message appears. To make the data structure manager SQL-based, go the main Visible Advantage Admin Utility window and use the Table/Data Structure Managers command. *(End of procedure.)*

- 3 Select a report destination (**Printer**, **File**, or **Screen**), then click on **OK**.

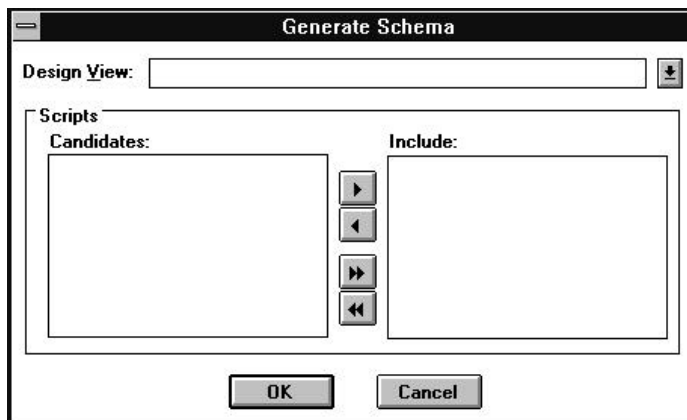
Result: If you selected **Printer**, the report will be sent to the printer.

If you selected **File**, you will be prompted for the name of the file to which you want the report to be sent.

If you selected **Screen**, the report-viewing window and menu bar appear. Refer to the Reports section of the *User's Guide* for more information on viewing reports on the screen.

Generate SQL Schema Dialog Box


Dialog Box Illustration



Generate SQL Schema Dialog Box

Dialog Box Components

Use the information below to complete the Generate SQL Schema dialog box.

Component	Description
Design View	Select the design view from the drop-down list.
Candidates	This box contains all scripts defined for the current encyclopedia.
Include	This box contains all scripts included in the current encyclopedia.
	Use this button to select one or more script candidates. To select one candidate, highlight the candidate in the Candidates list, then click on this button. The candidate will then appear in the Include list box. To select more than one candidate, hold down the CTRL key, highlight the candidates, then click on this button.



Use this button to deselect one or more scripts. Highlight the script in the Include list, then click on this button. The script will then appear in the Candidate list box. To deselect more than one candidate, hold down the CTRL key, highlight the candidates, then click on this button.



Use this button to select all script candidates. When you click on this button, all script candidates will be moved to the Include list box.



Use this button to deselect all scripts. When you click on this button,, all scripts will be moved to the Candidate list box.

IMMEDIATE MODE

Running Matrix Windows in Immediate Mode

- Description** The Immediate Mode command saves your matrix changes as you edit a matrix, rather than only when you use the Write Matrix command. This command is available in all matrices.
- Usage Tips** The Immediate Mode command toggles between an active and inactive state. When the command is active, a checkmark displays next to the command name on the Matrix menu; when the command is inactive, no checkmark displays.
- Procedure** **â To activate Immediate Mode in the active matrix window:**
- Choose **Immediate Mode** from the Matrix menu.
- Result: A checkmark appears beside the Immediate Mode command. Subsequent changes you make to the matrix are written to the encyclopedia database immediately after you make them.
- â To deactivate Immediate Mode in the active matrix window:**
- Choose Immediate Mode from the Matrix menu.
- Result: The checkmark beside the Immediate Mode command disappears. Subsequent changes you make to the matrix will not be made until you choose **Write Matrix** from the Matrix menu.

IMPORT

Importing Encyclopedias

Description The Import Facility allows you to import a VSC (Visible Systems Corporation proprietary format) or a Microsoft Access (.mdb) file into Visible Advantage as a new encyclopedia. These files are produced by other Visible products (VSC files), by another CASE tool, from scratch using a text editor, or from a previously performed Visible Advantage export (.mdb files).

Usage Tips When you import information into Visible Advantage as an encyclopedia, you specify new encyclopedia information (title, logon, password and directory), along with the location of the files you want to import.

Imported Files The files you import into Visible Advantage will default to these names:

VSC	import.ad
Access	imp-exp.mdb

The Imported Encyclopedia Once you import an external file into Visible Advantage, you access and modify the resulting encyclopedia in the same way as you would any other encyclopedia. If you need to export the encyclopedia back to VSC or .mdb format, use the Export command under the Export menu in the Visible Advantage Utilities program.

Procedure à **To import an encyclopedia from a VSC file:**

- 1 Choose **Import from VSC File** from the Import menu.
Result: The Open Encyclopedia dialog box appears.
- 2 Complete the Open Encyclopedia dialog box and click on **OK**.
Result: The New Encyclopedia dialog box appears.
- 3 Complete the New Encyclopedia dialog box and click on **OK**.
Result: The encyclopedia is imported.

à To import an encyclopedia from Access:

1 Choose **Import from Access** from the Import menu.

Result: The Open dialog box appears.

2 Select the encyclopedia you want to import from the list of encyclopedias displayed in the list box.

3 Click on **OK**.

Result: The encyclopedia is imported.

INPUT LIST

Displaying and Hiding the Input List

Description The Input List command, available from the Process Map window, displays the Input List box in the Process Map window when it is hidden, and hides the Input List box when it is displayed.

The Input List box contains a list of attributes that the current business process uses for its completion.

Procedure à **To display or hide the Input List box:**

Choose **Input List** from the Display menu.

Result: If the Input List box was hidden when you choose the command, the list appears in the active Process Map window.

If the Input List was displayed when you chose the command, the list disappears from the active Process Map window.

INVOCATION LIST

Displaying and Hiding the Invocation List

Description The Invocation List command, available from the Process Map window, displays the Invocation List box in the Process Map window when it is hidden, and hides the Invocation List box when it is displayed.

The Invocation List box contains a list of attributes that the current business or data access process invokes for its completion.

Procedure à **To display or hide the Invocation List box:**

Choose **Invocation List** from the Display menu.

Result: If the Invocation List box was hidden when you chose the command, the list appears in the active Process Map window.

If the Invocation List was displayed when you chose the command, the list disappears from the active Process Map window.

KEYS

Defining Association Keys

- Description** The Keys command, available from the Data Dictionary window, allows you to define the key attributes that support an association.
- Usage Tips** Visible Advantage considers any primary and/or foreign keys shared by both entities in an association to be potential supporting keys. In the Association Keys dialog box, you choose which shared keys you want to define as actual supporting keys for the association.
- + **Example** An association exists between the entities JOB and EMPLOYEE. JOB contains the primary key “job code,” and EMPLOYEE contains the primary key “employee number” and the foreign key “job code.” The key “job code” supports this association, since it is contained in both entities.
- Procedure** à **To define supporting keys for one of the current entity's associations:**
- 1 In the Data Dictionary window, highlight the association for which you want to define supporting keys.
 - 2 Choose **Edit...** from the Association menu.
Result: The Edit Association dialog box appears.
 - 3 Click on **Keys**.
Result: The Association Keys dialog box appears.
 - 4 Complete the Association Keys dialog box, then click on **OK**.
- 2 Note** See Add Association for a description of this dialog box.

LARGER

Enlarging Graphical Objects in a Window

Description The Larger command allows you to make the objects in a graphical window larger. This command is available from the following windows: View Hierarchy, Design Map, and Data Map.

Procedure à **To enlarge objects in the View Hierarchy, Design Map, and Data Map window:**

Choose **Larger** from the Display menu.

Result: The objects in the active window appear larger. You may repeat the above step until the objects are the size you desire.

LINE WRAP

Wrapping Text to the Next Line

- Description** The Line Wrap command, available from Statement Editor windows, automatically wraps text to the next line when you reach the end of a line.
- Usage Tips** This command is available from the Statement Editor window. The Statement Editor window appears when you use the Statement Editor command.
- This command toggles between an active and inactive state. When the command is active, a checkmark appears next to the command; when the command is inactive, no checkmark appears next to the command.
- Procedure** à **To activate the line wrap feature of the Statement Editor window:**
- Choose **Line Wrap** from the Format menu.
- Result: Line Wrap is turned on and a checkmark appears next to the command.

LINK ASSOCIATION TO STATEMENT

Linking Associations to Statements

- Description** The Link Association To Statement command, available from the Data Dictionary window, allows you to link an association to a planning statement in the current model view.
- Usage Tips** When you link an association to a planning statement, the link information will appear in the Data Links field in the Planning Dictionary window. The link will also be included in applicable reports.
- Procedure**
- à **To link an association to a planning statement:**
- 1 Highlight the association to which you want to link a planning statement. The association you select must be visible in the current model view. This means that you cannot select an association that is dimmed in the Data Dictionary window.
 - 2 Choose **Link To Statement...** from the Association menu.

Result: The Link Association to Planning Statement dialog box appears.
 - 3 Select the type of planning statement to which you want to link the data model
 - 4 Select a planning statement title from the Title drop-down list, then click on **OK**. The list includes all titles of the type specified in the Type field above that are visible in the current model view.

LINK ATTRIBUTE TO PROPERTY

Linking Attributes to Properties

Description The Link Attribute to Property command, available from the Data Map and Data Dictionary windows, allows you to define a link between an attribute and one or more properties within a database design.

Usage Tips After you link an attribute to a property, the link information is displayed in the **Logical Links** field for the data structure record in the Design Dictionary window and in various fields in the Design Reference window. The information is also included on applicable reports.

Procedure à **To link an attribute to one or more properties from the Data Map window:**

- 1 Choose **Link to Property...** from the Attribute menu.
Result: The Select Attribute dialog box appears.
- 2 Select the attribute you want to link, then click on **OK**.

Result: The Link Attribute to Property dialog box appears.
- 3 Complete the dialog box, then click on **OK**.

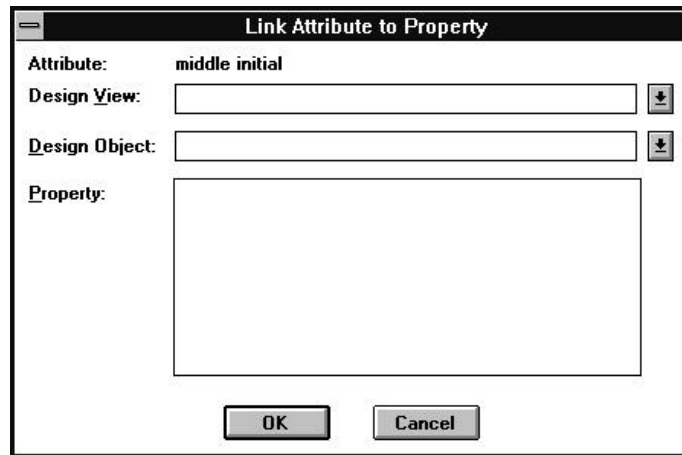
à **To link an attribute to one or more properties from the Data Dictionary window:**

- 1 In the **Attributes** field, highlight the name of the attribute you want to link.
- 2 Choose **Link to Property...** from the Attribute menu.

Result: The Link Attribute to Property dialog box appears.
- 3 Complete the dialog box, then click on **OK**.

Link Attribute to Property Dialog Box

Dialog Box Illustration



Link Attribute to Property Dialog Box

Dialog Box Components

Use the information below to complete the Link Attribute to Property dialog box.

Component	Description
Attribute	The name of the attribute to be linked to the data item(s).
Design View	Select the name of the design view in which the data item's data structure is located. The list includes all design views defined for the encyclopedia.
Design Object	Select the name of the design object to which the data item belongs. The list includes all design objects within the design view you specified in the Design View.
Property	Highlight the name of the property you want to link to the attribute.

2 Note You may select multiple *sequential* properties by holding down the SHIFT key while clicking on the first property you want to select, then clicking on the last property you want to select. You may select multiple *non-sequential* properties by holding down the CTRL key and clicking on each property you want to select.

LINK ATTRIBUTE TO STATEMENT

Linking Attributes to Statements

- Description** The Link Attribute to Statement command, available from the Data Dictionary window, allows you to link an attribute to a planning statement in the current model view.
- Usage Tips** After you link an attribute to a statement, the link information is displayed in the **Data Links** field in the Planning Dictionary window and in the **Model Links** field of the Data Dictionary window. The link is also included on applicable reports.
- Procedure** à **To link an attribute to a planning statement:**
- 1 Highlight the attribute to which you want to link a planning statement.
 - 2 Choose **Link to Statement...** from the Attribute menu.

Result: The Link Attribute to Planning Statement dialog box appears.
 - 3 Select the type of planning statement to which you want to link the attribute from the drop-down list.

The list includes standard statement types, along with any additional types added through the Table/Statement Types command.
 - 4 Select a planning statement title from the **Title** drop-down list, then click on **OK**. The list includes all titles of the type specified in the **Type** field above that are visible in the current model view.

LINK DESIGN OBJECT TO ENTITY

Linking Design Objects to Entities

Description The Link Design Object to Entity command, available from the Design Dictionary and Design Map windows, allows you to link a design object to an entity in the data model.

Usage Tips When you link a design object to an entity through the Link Design Object To Entity command, you have a chance to link the design object's properties to the linked entity's attributes.

Design object-entity links are displayed in the Design Reference window.

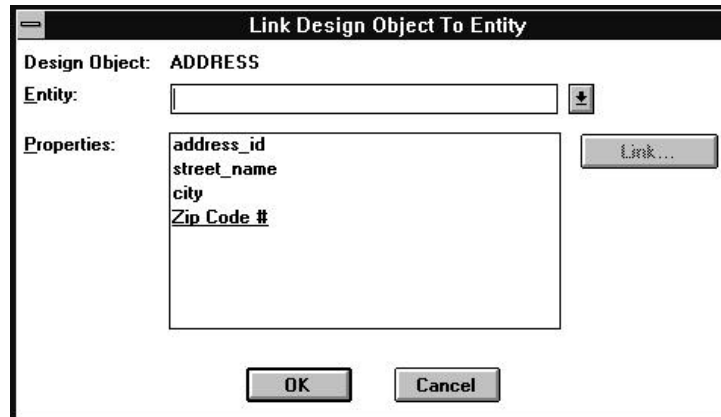
Procedure à **To link the current design object to an entity in the data model:**

- 1 Choose **Link to Entity...** from the Design Object menu.

Result: The Link Design Object to Entity dialog box appears.
- 2 Complete the Link Design Object to Entity dialog box.
- 3 If you want to link any of the design object's properties to one of the entity's attributes, highlight the property, then click on the Link button. The Select Attributes dialog box appears, allowing you to select the attributes to which you want to link the property.
- 4 Repeat the previous step for each property you want to link to the entity's attributes.
- 5 When you are finished linking properties, click on **OK** in the Link Design Object to Entity dialog box.

Link Design Object to Entity Dialog Box

Dialog Box Illustration



Link Design Object to Entity Dialog Box

Dialog Box Components

Use the information below to complete the Link Design Object To Entity dialog box.

<u>Component</u>	<u>Description</u>
Design Object	The name of the design object to be linked to an entity appears in this field.
Entity	Select from this drop-down list the entity to which you want to link the design object.
Properties	The properties that belong to the design object appear in this list box. You can link any of the properties to the linked entity's attributes through the Link button (see below).
Link	Use this button to link a property to one or more of the entity's attributes. To do this, highlight the property in the Properties list box, then click on the Link button.

When you click on this button, the Select Attributes dialog box appears. The Select Attributes dialog box

works in the same way as the Select Data Items dialog box.

LINK ENTITY TO DESIGN OBJECT

Linking Entities to Design Objects

- Description** The Link Entity to Design Object command, available from both the Data Map and Data Dictionary windows, allows you to define a link between an entity and a design object within a design view.
- Usage Tips** When you link an entity to a design object, you may also choose to link its attributes to the design object's properties.
- This command is available for multiple selected entities in both the Data Map and Data Dictionary windows. See the *User's Guide* for instructions on selecting multiple entities in those windows.
- After you link an attribute to a property, the link information is displayed in the Physical Links field in the Data Dictionary window and the Logical Links field in the Design Dictionary window. The information is also included on applicable reports.

- Procedure** à **To link an entity to a design object:**
- 1 Choose **Link to Design Object...** from the Entity menu.

 Result: The Link Entity to Design Object dialog box appears.
 - 2 Complete the Link Entity to Design Object dialog box.

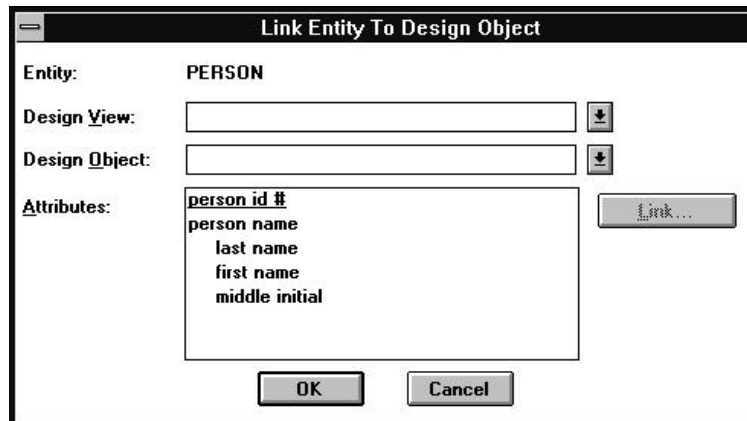
 To link one of the entity's attributes to one or more of the design object's properties, highlight an attribute and then click on Link.

 Result: The Select Properties dialog box appears.
 - 3 Complete the Select Properties dialog box, then click on **OK**.

 Result: The Link Entity to Design Object dialog box reappears.
 - 4 Click on **OK**.

Link Entity to Design Object Dialog Box

Dialog Box Illustration



Link Entity to Design Object Dialog Box

Dialog Box Components

Use the information below to complete the Link Entity to Design Object dialog box.

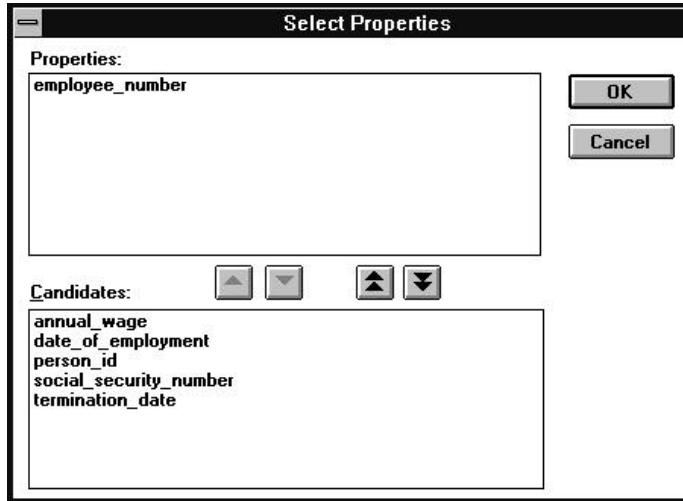
Component	Description
Entity	The name of the entity to be linked to the design object.
Design View	Select the name of the design view in which the design object is located. The list includes all design views defined for the encyclopedia.
Design Object	Select the name of the design object to which you want to link the entity. The list includes all design objects within the design view you specified in the Database Design field.
Attributes	Highlight the name of the attribute you want to link to the design object's properties, then click on Link to display the Select Properties dialog box.

Link

Click on this button to select the properties to which you want to link the attribute you highlighted in the Attributes list box. When you click on this button, the Select Properties dialog box appears.

Select Properties Dialog Box


Dialog Box Illustration



Select Properties Dialog Box

Dialog Box Components

Use the information below to complete the Select Properties dialog box.

<u>Component</u>	<u>Description</u>
Properties	The names of the selected properties are listed in this box. Initially, this list box is empty. You add properties to this list from the Candidates list box.
Candidates	This box contains all properties that belong to the design object selected in the Link Entity To Design Object dialog box.
	Use this button to select one or more properties candidates. To select one property, highlight the property in the Candidates list box, then click on this button. It will then appear in the Properties list box.

To select more than one property, hold down the CTRL key and highlight the properties.



Use this button to deselect one or more properties. To select one property, highlight the property in the Properties list box, then click on this button. It will then return to the Candidates list box. To select more than one property, hold down the CTRL key and highlight the properties.



Use this button to select all property candidates. When you click on this button, all properties in the Candidates list box will be moved to the Properties list box.



Use this button to deselect all selected Properties. When you click on this button, all Properties in the Properties list box will be returned to the Candidates list box.

LINK ENTITY TO STATEMENT

Linking Entities to Statements

Description The Link Entity to Statement command, available from the Data Dictionary and Data Map windows, allows you to link selected entities to a planning statement in the current model view.

Usage Tips After you link an entity to a planning statement, the link information appears in the Model Links field in the Data Dictionary window and the Data Links field in the Planning Dictionary window. The link is also included on applicable reports.

This command is available for multiple selected entities in the Data Dictionary window. See Select Entities in this manual for instructions on selecting multiple entities.

Procedure à **To link selected entities to a planning statement:**

1 Choose **Link to Statement...** from the Entity menu.

Result: The Link Entity to Statement dialog box appears.

2 Select the type of planning statement to which you want to link the entity from the Type drop-down list.

The list includes standard statement types, along with any additional types added through the Admin Utility Table/Statement Types command.

3 Select a planning statement title from the Title drop-down list, then click on **OK**. The list includes all titles of the type specified in the Type field above that are visible in the current model view.

LINK PROPERTY TO ATTRIBUTE

Linking Properties to Attributes

Description The Link Property to Attribute command, available from the Design Dictionary and Design Map windows, allows you to link a property to one or more attributes in the data model.

Usage Tips When you link a data structure to an entity through the Link Data Structure to Entity command, you can also link the data structure's properties to the linked entity's attributes. See Link Data Structure to Entity in this manual for more information. Data item-attribute links are displayed in the Design Reference window.

Procedure **â To link a property to one or more attributes in the data model from the Design Dictionary window:**

1 In the Design Dictionary window's Data Items field, highlight the name of the property you want to link to an attribute.

2 Choose **Link to Attribute...** from the Property menu.

Result: The Link Property to Attribute dialog box appears.

3 Complete the Link Property to Attribute dialog box, then click on **OK**.

â To link a property to one or more attributes in the data model from the Design Map window:

1 In the Design Map window, highlight the design object that has the property you want to link to an attribute.

Result: The Select Design Object Property dialog box appears.

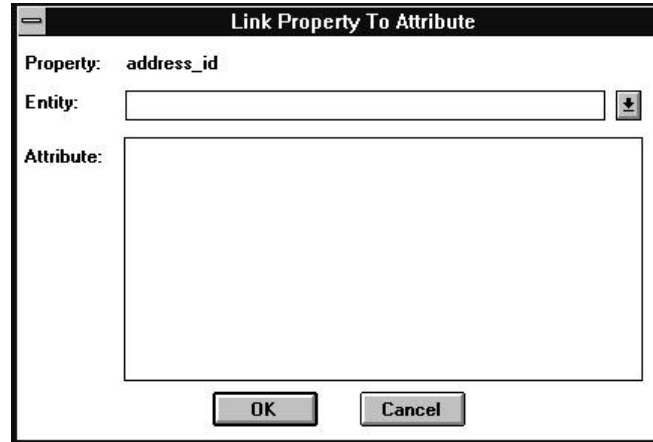
2 Select the design object property you want to link, then click on **OK**.

Result: The Link Property to Attribute dialog box appears.

-
- 3 Complete the Link Property to Attribute dialog box, then click on **OK**.

Link Property to Attribute Dialog Box

Dialog Box Illustration



Link Property to Attribute Dialog Box

Dialog Box Components

Use the information below to complete the Link Property to Attribute dialog box.

Component	Description
Property	The name of the property to be linked to an attribute appears in this field.
Entity	Select from this drop-down list the entity containing the attribute to which you want to link the property.
Attribute	When you select an entity from the Entity drop-down list, the attributes that belong to the selected entity appear in the Attribute list box. You select from this list the attribute(s) to which you want to link the property.

2 Note You may select multiple *sequential* list properties by holding down the SHIFT key while clicking on the first property you want to select, then clicking on the last property you want to select. You may select multiple *non-sequential* properties by holding down the CTRL key and clicking on each property you want to select.

LINK STATEMENT TO ASSOCIATION

Linking Statements to Associations

- Description** The Link Statement to Association command, available from both the Planning Outline and Planning Dictionary windows, allows you to link selected planning statements to one or more association(s) in the current model view. An association is visible in a model view only if both entities in the association are visible in the current model view.
- Usage Tips** After you link planning statements to an association, the link information appears in the Data Links field in Planning Dictionary window and is included on any applicable reports.
- This command is available for multiple selected statements in both the Planning Outline and Planning Dictionary windows. See the *User's Guide* for instructions on selecting multiple statements in these windows.
- Procedure** à **To link selected planning statements to one or more associations:**
- 1 Choose **Link to Association...** from the Link menu.

Result: The Link Statement to Association dialog box appears.
 - 2 From the Entity drop-down list, select one of the entities in the association to which you want to link the statement. This list includes all entities in the current model view. After you select an entity, a list of associations for that entity appears in the Associations box.

Result: A list of associations for the entity you selected appears in the Associations list box.
 - 3 From the Associations list, select the association(s) to which you want to link the statement, then click on **OK**.
- 2 Note** You may select multiple *sequential* list items by holding down the SHIFT key while clicking on the first item you want to

select, then clicking on the last item you want to select. You may select multiple *non-sequential* items by holding down the CTRL key and clicking on each item you want to select.

LINK STATEMENT TO ATTRIBUTE

Linking Statements to Attributes

Description The Link Statement to Attribute command, available from both the Planning Outline and Planning Dictionary windows, allows you to link the current planning statement to an attribute in the current model view.

Usage Tips When you link a planning statement to an attribute the link information appears in the Data Links field in the Planning Dictionary window. This information is also included on any applicable reports.

This command is available for multiple selected statements in both the Planning Outline and Planning Dictionary windows. See the *User's Guide* for instructions on selecting multiple statements in these windows.

Procedure à **To link selected statements to an attribute in the current model view:**

1 Choose **Link to Attribute...** from the Link menu.

Result: The Link Statement to Attribute dialog box appears.

2 Select an attribute from the Attribute drop-down list, then click on **OK**. The list includes all attributes in the current model view.

LINK STATEMENT TO DESIGN OBJECT

Linking Statements to Design Objects

Description The Link Statement command, available from the Planning Outline and Planning Dictionary windows, allows you to define a link between a statement and a design object.

Procedure à **To link a design object to a statement:**

1 In the Planning Outline window, highlight the statement you want to link. In the Planning Dictionary window, display the statement you want to link.

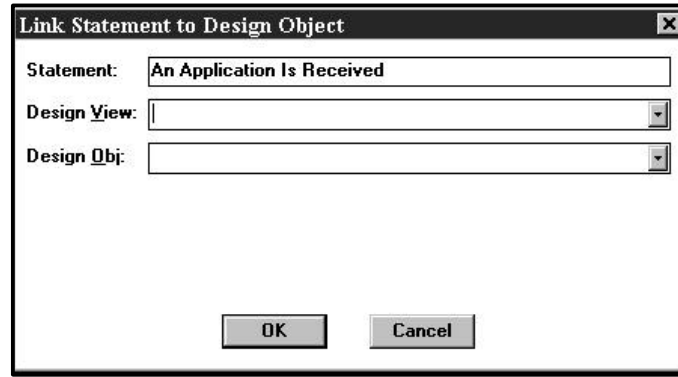
2 Choose **Link to Design Object** from the Link menu.

Result: The Link Statement to Design Object dialog box appears.

3 Complete the Link Statement to Design Object dialog box, then click on **OK**.

Link Statement to Design Object Dialog Box

Dialog Box Illustration



Link Statement to Design Object Dialog Box

Dialog Box Components

Use the information below to complete the Link Statement to Design Object dialog box.

Component	Description
Statement	The statement you selected to link.
Design View	Select the design view you want to link from the drop-down list. The list includes all design views defined for the encyclopedia.
Design Object	Select the design object you want to link from the drop-down list. The list includes all design objects within the design view you specified in the Design View field.

LINK STATEMENT TO ENTITY

Linking Statements to Entities

Description The Link Statement to Entity command, available from both the Planning Outline and Planning Dictionary windows, allows you to link the current planning statement to an entity in the current model view.

Usage Tips When you link a planning statement to an entity, the link information appears in the Data Links field in the Planning Dictionary window and in the Stmt Links (statement links) field in the Data Dictionary window. The link information is also included on applicable reports.

This command is available for multiple selected statements in both the Planning Outline and Planning Dictionary windows. See the *User's Guide* for instructions on selecting multiple statements in these windows.

Procedure à **To link selected statements to an entity in the current model view:**

- 1 Choose **Link to Entity...** from the Link menu

Result: The Link Statement to Entity dialog box appears.

- 2 Select an entity from the Entity drop-down list, then click on **OK**. This list includes all entities in the current model view.

LOCATE ATTRIBUTE

Locating Attributes

- Description** The Locate Attribute command, available from both the Data Map and Data Dictionary windows, allows you to locate an individual use of an attribute in the current model view.
- Usage Tips** Since an attribute may be located in multiple entities, you specify the entity record in which to locate the attribute. When Visible Advantage locates an attribute in a specified entity record, the entity record displays in the active window.
- Procedure** à **To locate an occurrence of an attribute in the current model view from the Data Map or Data Dictionary window:**
- 1 Choose **Locate...** from the Attribute menu.
Result: The Locate Attribute dialog box appears.
 - 2 Select an attribute name from the Attribute drop-down list. This list includes all attributes in the current model view.
Result: A list of entities in which the selected attribute can be found appears in the Entity box.
 - 3 Select the entity in which you want to locate the attribute, then click on **OK**.

LOCATE DESIGN OBJECT

Locating Design Objects

Description The Locate Design Object command is available from the Design Dictionary and Design Map windows. It is also available from the Design Reference window if you are in the design object mode. The Locate Design Object command allows you to locate a design object within the current design view.

Usage Tips When the Design Reference window is displayed in design object mode, you may locate a design object from that window through the object command on the Locate menu.

Procedure à **To locate a design object in the Design Dictionary window:**

1 Choose **Locate...** from the Design Object menu.

Result: The Locate Design Object dialog box appears.

2 Select the design object you want to locate from the Design Object drop-down list box, then click on **OK**.

LOCATE ENTITY

Locating Entities

Description The Locate Entity command, available from both the Data Map and Data Dictionary windows, allows you to locate an entity in the current model view.

Procedure à **To locate an entity in the current model view in the Data Map or Data Dictionary window:**

- 1 Choose **Locate...** from the Entity menu.

Result: The Locate Entity dialog box appears.

- 2 From the Entity drop-down list, select the name of the entity you want to locate, then click on **OK**.

LOCATE MODEL VIEW

Locating Model Views

Description The Locate Model View command, available from the View Hierarchy window, allows you to locate a model view in the View Hierarchy window. When a model view is located, the current model view cursor moves to the located model view.

Procedure à **To locate a model view in the View Hierarchy window:**

1 Choose **Locate...** from the View menu.

Result: The Select View dialog box appears.

2 Select the model view you want to locate from the View list box.

If you want to display the list in hierarchical order, select the Structured button; if you want to display the list in alphabetical order, select the Alphabetical button.

2 Note If you are in the Model View, you must also select either View or the Entire Model by clicking on the appropriate button.

3 Click on **OK**.

LOCATE NEXT STATEMENT

Locating the Next Statement

Description The Locate Next Statement command, available from the Planning Outline window, locates the next occurrence of the statement last specified in the Locate Statement dialog box. This command is useful for finding each occurrence of a statement in the planning outline.

Procedure à **To locate the next occurrence of a statement:**

Choose **Locate Next** from the Statement menu.

Result: The next occurrence of the statement last specified in the Locate Statement dialog box is highlighted in the planning outline. If there are no successive occurrences of the statement, the first occurrence of this statement is highlighted.

Repeat this procedure to find successive occurrences of the statement.

LOCATE PROPERTY

Locating Properties

Description The Locate Property command, available from the Design Dictionary and Design Map windows, allows you to locate a property within the current design view.

Usage Tip When the Design Reference window is displayed in Property mode, you may locate a property from that window through the Object command on the Locate menu.

Procedure à **To locate a property in the Design Dictionary and Design Map windows:**

1 Choose **Locate...** from the Property menu.

Result: The Locate Property dialog box appears.

2 Select the property you want to locate from the Property drop-down list box.

Result: The design objects to which the selected property belongs appear in the Design Objects list box.

3 In the Design Objects list box, highlight the design object where you want to locate the property, then click on **OK**.

LOCATE STATEMENT

Locating Planning Statements

Description The Locate Statement command, available from both the Planning Outline and Planning Dictionary windows, allows you to locate a planning statement in the current model view. When a statement is located, it is highlighted in the active planning window.

Procedure à **To locate a statement in the current model view:**

1 Choose **Locate...** from the Statement menu.

Result: The Locate Planning Statement dialog box appears.

2 From the Title drop-down list, select the statement you want to locate, then click on **OK**.

MANUAL POSITIONING

Manually Positioning Data Map Entities

Description The Manual Positioning command, available from the Data Map and Design Map windows, allows you to turn the manual positioning feature of the Data Map and Design Map windows on and off. Manual Positioning allows you to manually place each object in the map windows, rather than having Visible Advantage automatically determine its placement.

Using This Command This command toggles on and off each time you choose the command. When a checkmark appears beside the command, Manual Positioning is active; when no checkmark appears beside the command, Manual Positioning is inactive.

The Manual Positioning mode is saved with the current model view. This means that if you turn the command on and leave the model view or close the encyclopedia, the mode is still active when you return to the model view.

When Manual Positioning is active, you may move an object around the map by holding down the left mouse button and dragging the object to its new location. The new location must be vacant; that is, not already occupied by another object. When you turn Manual Positioning off by choosing the command again, the map redraws the objects by phase.

You may prefer the Manual Positioning mode if you are creating a map for presentation purposes and want to control where each object appears on the map.

Under normal circumstances, however, we recommend you make manual positioning *inactive*. When manual positioning is inactive, Visible Advantage positions objects by phase (either horizontally or vertically, as defined through the Display menu/Options command in the Data Map and Design Map windows).

Procedure

à **To enable manual positioning:**

- 1 Choose **Options** from the Display menu.
Result: The Map Display Options dialog box appears.
- 2 Select **Manual** in the Drawing Mode box, then click on **OK**.

à **To disable manual positioning:**

- 1 Choose **Options** from the Display menu.
Result: The Map Display Options dialog box appears.
- 2 Select **Auto** in the Drawing Mode box, then click on **OK**.

Mounting an Encyclopedia

Description Visible Advantage has both a stand-alone and a client-server edition. Encyclopedias created on the stand-alone edition are not available under the client-server edition until they have been copied to the server's catalog using the Mount command. Similarly, client-server encyclopedias are not available to stand-alone users until they have been copied to their workstations using the Unmount command.

The Mount command is available only in the client-server edition of Visible Advantage 7.0 or higher. This command is accessed from the Admin program, under the Encyclopedia menu.

2 Note The Mount command can only be used on encyclopedias created on or converted to Visible Advantage 7.0. If you want to create a client-server copy of an IE:Advantage 6.1 encyclopedia, you must first convert it using the process described in the Setup section of the *User's Guide*.

Procedure **à To create a client-server copy of an encyclopedia using the Mount command:**

- 1 Start the Visible Advantage Admin program from Windows.
- 2 If you have not set up automatic Raima server login, supply the server name, user name, and password to log on to the Raima database server.
- 3 Open the Encyclopedia menu, and click on the **Mount** command.
- 4 Select the encyclopedia you want to convert to client-server, and click on **OK**.
- 5 Provide your ID and password, and click on **OK**.
- 6 Select the encyclopedia you want to convert to client-server, and click on **OK**. Note that the dialog box remains on the screen while the encyclopedia is being processed. Do not click on any of the screen buttons while the Mount command is processing; doing so may cause the process to abort.

Result: The new client-server copy of the encyclopedia will be created, while no changes will be made to the original stand-alone copy.

MOVE ATTRIBUTE

Moving Attributes

Description The Move Attribute command, available from both the Data Map and Data Dictionary windows, allows you to move an occurrence of a non-key attribute from the current entity to another entity in the current model view.

Usage Tips Use this command when you want to remove a non-key attribute from the current entity and add it to another entity. Each non-key attribute may belong to only one entity in the encyclopedia. Data modeling rules dictate that you may not use this command to move primary or foreign key attributes.

+ **Example** You have added the non-key attribute *wage* to the entity *JOB*. You then decide that the attribute should belong to the entity *EMPLOYEE*. You use the Move command, specifying *EMPLOYEE* as the target entity. The attribute *wage* is then deleted from the entity *JOB* and added to the entity *EMPLOYEE*.

Procedure à **To move a non-key attribute from a selected entity to another entity from the Data Map window:**

1 Choose **Move...** from the Attribute menu.

Result: The Select Attribute dialog box appears. All attributes that belong to the current entity are listed in the list box.

2 Select the attribute you want to move, then click on **OK**.

Result: The Move Attribute dialog box appears.

3 From the **Move To** drop-down list box, select the entity to which you want to move the attribute. The list includes all entities in the current model view.

4 Click on **OK**.

â To move a non-key attribute from the current entity to another entity from the Data Dictionary window:

- 1 Choose **Move...** from the Attribute menu
Result: The Move Attribute dialog box appears.
- 2 From the **Move To** drop-down list box, select the entity to which you want to move the attribute. The list includes all entities in the current model view.
- 3 Click on **OK**.

MOVE PROPERTY FROM DESIGN OBJECT

Moving Properties from a Design Object

Description The Move Property From Design object command, available from the Design Dictionary and Design Map windows, allows you to move a property from another design object in the current design view to the current design object.

Procedure à **To move a property from another design object to the current design object:**

1 In the Design Dictionary window, display the design object to receive the property.

In the Design Map window, select the design object to receive the property.

2 Choose **Move From Design Object...** from the Property menu.

Result: The Move Property From Design object dialog box appears.

3 From the **Design Object** drop-down list, select the design object that contains the property you want to move.

Result: The properties that belong to the selected design object appear in the **Properties** list box.

4 Highlight the name of the property you want to move to the current design object, then click on **OK**.

MOVE PROPERTY TO DESIGN OBJECT

Moving Properties to a Design Object

Description The Move Property To Design Object command, available from the Design Dictionary and Design Map windows, allows you to move a property from the current design object to another design object in any design view.

Procedure à **To move a property from the current design object to another design object in the Design Dictionary window:**

1 In the Design Dictionary window, display the design object that contains the property you wish to move. Highlight the property to be moved.

2 Choose **Move To Design Object...** from the Property menu.

Result: The Move Property To Design Object dialog box appears.

3 From the **Design View** drop-down list, select the design view that contains the design object to which you want to move the property.

Result: The design objects within the selected design view appear in the **Design Object** list box.

4 Highlight the name of the design object to which you want to move the property, then click on **OK**.

à **To move a property from the current design object to another design object in the Design Map window:**

1 Select the design object that contains the property you wish to move.

2 Choose **Move to Design Object...** from the Property menu.

Result: The Select Design Object Property dialog box appears.

- 3 Select the name of the property you want to move, then click on **OK**.

Result: The Move Property to Design Object dialog box appears.

- 4 From the **Design View** drop-down list, select the design view that contains the design object to which you want to move the property.

Result: The design objects within the selected design view appear in the **Design Object** list box.

- 5 Highlight the name of the design object to which you want to move the property, then click on **OK**.

MOVE VIEW

Moving Views

Description The Move View command, available from the View Hierarchy window, allows you to move one or more selected views to another position in the view hierarchy.

Usage Tips Use this command when you want one or more views to be subview(s) of another view.

Procedure à **To move the current view:**

1 Choose **Move...** from the View menu.

 Result: The Move View dialog box appears.

2 Select the view to which you want to move the selected view(s) from the **Move To** list box.

 If you want to display the list in hierarchical order, select the **Structured** button. If you want to display the list in alphabetical order, select the **Alphabetical** button.

3 Click on **OK**.

NAME CLUSTER END POINT

Naming Cluster End Points

Description The Name Cluster End Point command allows you to name the designated or derived cluster end point represented by the current entity. A cluster end point is an entity that represents a meaningful subset of the data model. This command is available from the Data Dictionary window.

Usage Tips This command is dimmed to indicate it is not available if the current entity is not a designated or derived cluster end point.

You designate an entity as a cluster end point through the Designated End Point command on the Entity menu. Visible Advantage automatically detects if an entity is a derived end point.

Procedure à **To name the end point represented by the current entity:**

1 Highlight **[unnamed]** in the **Cluster End Pt.** field.

2 Choose **Name Cluster End Point...** from the Entity menu

Result: The Cluster Name dialog box appears.

3 Type a name for the cluster into the **Cluster Name** box, then click on **OK**.

Result: The name of the end point appears in the **Cluster End Pt.** field.

à **To edit the name of a cluster end point:**

Highlight the name of the cluster in the Cluster End field, then choose **Name Cluster End Point...** from the Entity menu.

Result: The Cluster Name dialog box appears, allowing you to edit the cluster's name.

NAMING PREFERENCES

Description The Naming Preferences command, available from the Visible Advantage Admin Utility, allows you to set capitalization standards for each type of encyclopedia object for the current encyclopedia or the Encyclopedia_INITIALIZER.

Usage Tips You may choose one of the following preferences:

- All uppercase
- All lowercase
- Each word initially capitalized
- Free form (the name is capitalized the way you type it in when you add the object)

The naming preferences you define with this command are for the current encyclopedia only. If you want to define naming preferences for all future encyclopedias, use the Encyclopedia_INITIALIZER command before you use the Naming Preferences command.

Procedure à **To define naming preferences for each object/detail in the current encyclopedia or the Encyclopedia_INITIALIZER:**

1 Choose **Naming...** from the Preferences cascading menu.

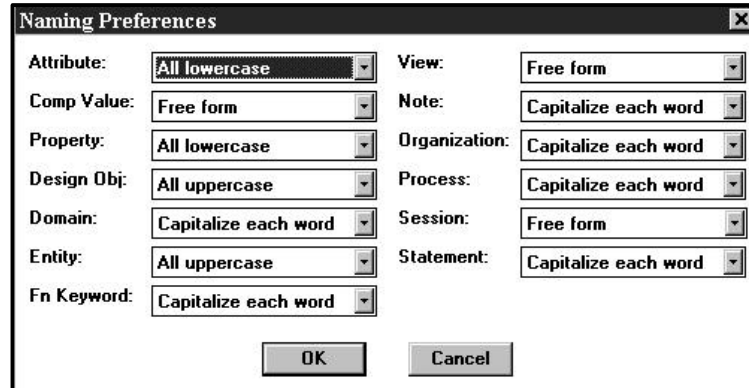
Result: The Naming Preferences dialog box appears.

2 Select a naming preference for each object from its respective drop-down list, then click on **OK**.

For each object or detail, you have the following choices: all uppercase, all lowercase, each word initially capitalized, or free form (the name is capitalized the way you type it in when you add the object).

Naming Preferences Dialog Box

Dialog Box Illustration



Naming Preferences Dialog Box

Dialog Box Components

Use the information below to complete the Naming Preferences dialog box.

Component	Description
Attribute	Choose a capitalization preference for attribute names.
Comp Value	Choose a capitalization preference for completion values.
Property	Choose a capitalization preference for property names.
Design Object	Choose a capitalization preference for design object names.
Domain	Choose a capitalization preference for domains.
Entity	Choose a capitalization preference for entity names.
Fn Keyword	Choose a capitalization preference for foreign key words.

Model View	Choose a capitalization preference for model view names.
Note	Choose a capitalization preference for note titles.
Organization	Choose a capitalization preference for organization names.
Process	Choose a capitalization preference for process names.
Session	Choose a capitalization preference for session titles.
Statement	Choose a capitalization preference for statement titles.

NAVIGATE ASSOCIATION

Navigating Through Associations

Description The Navigate command displays the record for the entity at the opposite end of an association.

Usage Tips This command is only available for associations in which both entities in the association are visible in the current model view. This means that the command may not be used for associations that appear dimmed in the Data Dictionary window.

To return to the original entity after you use this command, simply choose the Navigate command again.

+ **Example** You use the Navigate command to display the entity at the opposite end of an association. You then choose Navigate again to return to the original entity record.

Procedure à **To display the entity at the opposite end of an association:**

- 1 In the Data Dictionary window, display the record for one of the entities in the association.
- 2 In the **Associations** field, highlight the association through which you want to navigate.
- 3 Choose **Navigate** from the Association menu.

Result: The record for the entity at the opposite end of the selected association is displayed in the active Data Dictionary window.

NEW ENCYCLOPEDIA

Creating New Encyclopedias

Description The New Encyclopedia command allows you to create a new encyclopedia.

Usage Tips It is preferable to designate an initial system administrator who will create the encyclopedia. The initial system administrator may then add other authorized users to the encyclopedia through the Visible Admin Utility User/Add command.

When you create a new encyclopedia, you must define a logon that will allow you to access the encyclopedia. For additional security, you may also define a password for your logon.

The session feature allows documentation of additions and changes to the encyclopedia. To use this feature, you simply define a session with which all encyclopedia changes will be associated until a different session is selected.

To define a default path for new encyclopedias, use the Default Path command on the File menu.

Procedure à **To create an encyclopedia:**

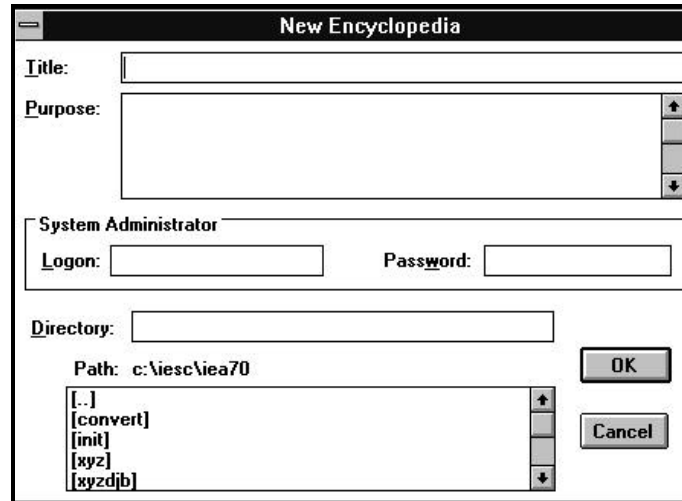
1 Choose **New...** from the Encyclopedia menu.

Result: The New Encyclopedia dialog box appears.

2 Complete the New Encyclopedia dialog box, then click on **OK**.

New Encyclopedia Dialog Box

Dialog Box Illustration



New Encyclopedia Dialog Box

Dialog Box Components

Use the information below to complete the New Encyclopedia dialog box.

<u>Component</u>	<u>Description</u>
Title	Type a title for the encyclopedia in this box. The title can be from 2 to 51 alphanumeric characters long and may include spaces. This is a required field.
Purpose	Type a purpose for the encyclopedia in this text box. The purpose can be up to 32,000 alphanumeric characters long.
Logon	Type a logon for yourself in this box. The logon can be from 2 to 15 alphanumeric characters long, may include spaces and is <i>not</i> case-sensitive (^`abc' is the same as `ABC' and `Abc'). This is a required field.

As a security measure, you will be required to type this logon each time you open the encyclopedia. Any system administrator may later change your logon through the File/System Administration/User Accounts/Edit User command.

Password

If desired, type a password for yourself in this box. The password can be 1 to 11 alphanumeric characters long, may include spaces, and *is* case sensitive.

If you define a password here, you will be required to supply the password with your logon each time you open the encyclopedia.

Directory

When the desired path appears in the **Path** field, type the name of the new encyclopedia's directory in the **Directory** field. The directory name must be unique, can be from 1 to 8 alphanumeric characters long, and may not include spaces.

Path

Each Visible Advantage encyclopedia must be located in a new directory. Before Visible Advantage can create the new directory, you must specify its name and where you want it to be located.

In the **Path** list box, double-click on the letter of the drive where you want the new encyclopedia's directory to be located. You may have to scroll through the list to reach the drive letters.

The drive letter appears in the **Path** field and the names of the directories on the specified drive are displayed in the **Path** list box. To move up one directory level, double-click on the [..] symbol in the **Path** list box.

If you want the new encyclopedia's directory to be a subdirectory of an existing directory, double-click on the name of that directory in the **Path** list box. The directory name will appear after the drive letter in the **Path** field.

NEW SESSION

Adding New Sessions

- Description** The New Session command allows you to add a new session with which encyclopedia changes will be associated.
- Usage Tips** When you add a new session, you specify its title, type, and notes. For more extensive editing capabilities, such as search and replace and character formatting, use the Session Editor command on the Encyclopedia menu.

The session you add will not become the active session until you activate it through the Select Session command.

Procedure **à To add a new session:**

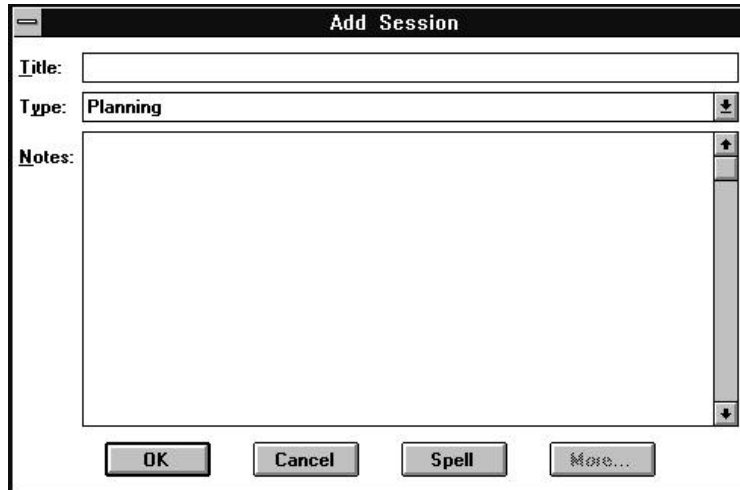
- 1 Choose **Sessions** from the Encyclopedia menu on the main Visible Advantage window.
or
Choose **Encyclopedia Management** from the main menu on any other window, then choose **Sessions** from the cascading menu.
- 2 Choose **New...** from the cascading menu from the Sessions command.

Result: The Add Session dialog box appears.

- 3 Complete the Add Session dialog box, then click on **OK**.

Add Session Dialog Box

Dialog Box Illustration



Add Session Dialog Box

Dialog Box Components

Use the information below to complete the Add Session dialog box.

Component	Description
Title	Type the session title into this box. You may type up to 51 alphanumeric characters.
Type	Select a session type from this drop-down list. This list includes the standard session types, along with any types added through the Table command on the main Visible Advantage Admin Utility window.
Notes	Type notes for the session in this text box. Session notes might include session attendees, the date the session first convened, and any stated objectives for the session. Your notes may be up to 32,000 characters long.

Returning Graphic Objects to Normal Scale

- Description** The Normal command allows you to return graphic objects to normal, or default, scale.
- Usage Tips** Use this command after using the Larger, Smaller, or Window command to rescale the objects in a graphic window.
- This command is available in the Model View Hierarchy, Design Map, and Data Map windows.
- Procedure** à **To return objects in a graphic window to normal scale:**
- Choose **Normal** from the Display menu.
- Result: The objects in the active window are redrawn to normal scale.

NORMAL TEXT

Removing Formatting from Editor Text

Description The Normal command, available from the Statement Editor window, removes special formatting (bold or underline) from selected statement text in the Statement Editor window.

Procedure à **To remove special formatting from selected Editor window text:**

- 1 Select the text from which you want to remove bold or underline formatting.
- 2 Choose **Style** from the Format menu.
- 3 Choose **Normal** from the cascading menu for the Style command.

Result: The selected text appears normal in the Statement Editor window.

Adding Notes to the Encyclopedia

Description The Notes command allows you to attach notations to specific objects in the encyclopedia. These notes can serve as reminders about certain objects or they can be used to communicate with other encyclopedia users.

Usage Tips The Notes command is available from all windows except the matrix windows, Statement Editor windows, and the Design Reference window. The command is located on the menu for the window's principal object.

+ **Example** If you are using the Data Dictionary or Data Map window, the Notes command is located on the Entity menu; if you are using the Planning Outline or Planning Dictionary, the Notes command is located on the Statement menu.

If a note has been attached to the currently selected object in a window where the Notes command is available, a checkmark appears next to the Notes command.

You can print the notes you add to the encyclopedia in the form of a Notes report or through the Notes option on reports for principal objects (statements, entities, etc.). See the Reports section of this manual and the *User's Guide* for more information.

Procedure à **To add a note to the encyclopedia:**

1 Choose **Notes...** from the menu for the active window's principal object (see Usage Tips, above).

Result: The Notes dialog box appears.

2 Click on the **Compose** button.

Result: The Add Note dialog box appears.

3 Type a title for the note into the **Title** field, then type the text of your note into the **Text** field.

-
- 4 Attach your note to specific objects in the encyclopedia. To do this, click on the button in the **Attach** area that corresponds with the object type to which you want to attach the note (**User**, **View**, **Statement**, **Entity**, or **Design Object**).

Result: A Select or Locate dialog box for the type of object appears, allowing you to select an object for note attachment.

- 5 Select the object name or title from the Select or Locate dialog box, then click on **OK**.

Result: The Add Note dialog box reappears, and the object name or title appears in the **Attached** list box.

- 6 Repeat the previous two steps for each object to which you want to attach the note, then click on **OK** in the Add Note dialog box.

Result: The Notes dialog box appears, and the title of the new note appears in the **Notes** list box.

- 7 Click on **Close** in the Notes dialog box.

à **To modify an existing note in the encyclopedia:**

- 1 Choose **Notes...** from the menu for the active window's principal object (see Usage Tips, above).

Result: The Notes dialog box appears.

- 2 Highlight the title of the note in the **Notes** list box. If the title of your note is not displayed in the list, click on the **All Notes** button in the **Include** area.

- 3 Click on **Modify**.

Result: The Edit Note dialog box appears.

- 4 Edit the title and/or text of the note.

To attach additional objects to the note, use the buttons in the **Attach** area.

To remove existing object attachments, highlight the object attachment in the **Attached** list box, then click on **Detach**.

- 5 When you are finished editing the note and its object attachments, click on **OK**.

Result: The Notes dialog box reappears.

- 6 Click on **Close** in the Notes dialog box.

à **To read a note:**

- 1 Choose **Notes...** from the menu for the active window's principal object (see Usage Tips, above).

Result: The Notes dialog box appears.

- 2 Highlight the title of the note in the **Notes** list box. If the title of your note is not displayed in the list, click on the **All Notes** button in the **Include** area.

- 3 Click on **Read**.

Result: The Read Note dialog box appears.

- 4 View the note, then click on **OK**.

Result: The Notes dialog box reappears.

- 5 Click on **Close** in the Notes dialog box.

à **To delete a note from the encyclopedia:**

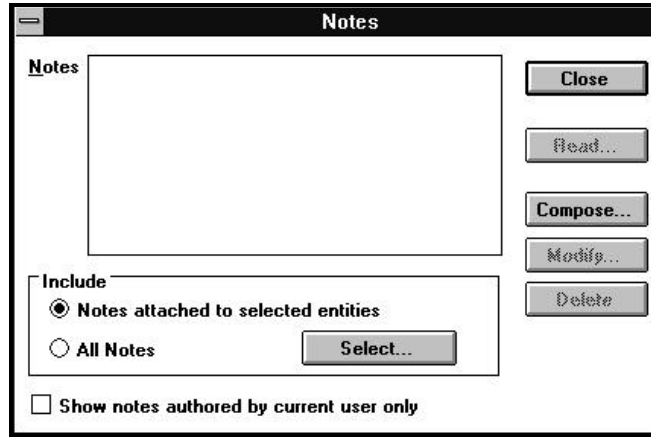
- 1 Choose **Notes...** from the menu for the active window's principal object (see Usage Tips, above).

Result: The Notes dialog box appears.

-
- 2 Highlight the title of the note in the **Notes** list box. If the title of your note is not displayed in the list, click on the **All Notes** button in the **Include** area.
 - 3 Click on **Delete**.
 - 4 Click on **Close**.

Notes Dialog Box

Dialog Box Illustration



Notes Dialog Box

Dialog Box Components

Use the information below to complete the Notes dialog box.

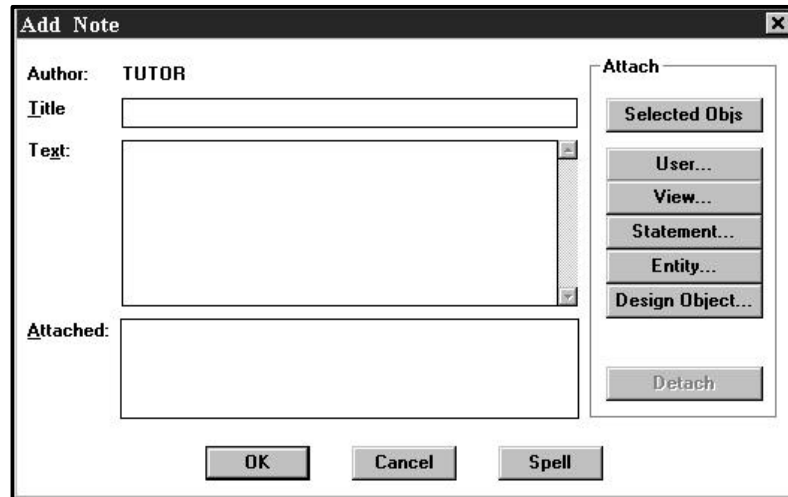
<u>Component</u>	<u>Description</u>
Notes	The notes added to the encyclopedia appear in this list box. Use the buttons and checkboxes in the Include area to filter the notes that appear in this list.
Notes attached to selected [objects]	Click on this button to display in the Notes list box only those notes attached to the objects you select through the Select button.
Select	Click on this button to select objects whose attached notes you want to display in the Notes list box. When you click on this button, a dialog box for selecting the active window's principal object appears. This may be the Select Views, Select Statements, Select Entities, or Select Design Objects dialog box, depending on the active window.

For information on completing these dialog boxes, see Select Statements, Select Entities, or Select Data Structures in this manual.

All Notes	Click on this button to include all notes in the Notes list box that have been written by the current user.
Show notes authored by current user only	Click on this checkbox if you want to include in the Notes list box only those notes that have
Read	Use this button to read a note. In the Notes list, highlight the title of the note, then click on this button. The Read Note dialog box appears, allowing you to view, but not edit, the note.
Compose	Use this button to add a new note to the encyclopedia. When you click on this button, the Add Note dialog box appears.
Modify	Use this button to edit the title, text, and object attachments for the note. In the Notes list, highlight the title of the note you want to modify, then click on this button. The Edit Note dialog box appears.
Delete	Use this button to delete a note. In the Notes list, highlight the title of the note, then click on this button.

Add Note Dialog Box

Dialog Box Illustration



Add Note Dialog Box

Dialog Box Components

Use the information below to complete the Add Note dialog box.

Component	Description
Author	The logon of the current user appears in this field.
Title	Type a title for the note into this field.
Text	Type the text of the note into this box. You can type up to 32,000 alphanumeric characters.
Attached	The object attachments for the note are listed in this box. Use the buttons in the Attach area to attach the note to specific objects.
User	Use this button to attach the note to an encyclopedia user. This is the same as addressing the note to the user. When you click on this button, the Select User dialog box appears.

View	<p>Use this button to attach the note to a view defined for the encyclopedia.</p> <p>When you click on this button, the Select Model View dialog box appears.</p>
Statement	<p>Use this button to attach the note to a planning statement defined for the encyclopedia.</p> <p>When you click on this button, the Locate Planning Statement dialog box appears.</p>
Entity	<p>Use this button to attach the note to an entity defined for the encyclopedia.</p> <p>When you click on this button, the Locate Entity dialog box appears.</p>
Design Object	<p>Use this button to attach the note to a design object defined for the encyclopedia.</p> <p>When you click on this button, the Locate Design Object dialog box appears.</p>
Detach	<p>Use this button to remove an attachment between a note and an object. In the Attached list, highlight the object you want to detach, then click on this button.</p>

OPEN ENCYCLOPEDIA

Opening Encyclopedias

- Description** The Open Encyclopedia command, available from the main Visible Advantage window, allows you to access an existing encyclopedia.
- Usage Tips** Only authorized users of an encyclopedia may open it. When you open an encyclopedia, you must supply a valid logon and, if one has been defined for your logon, a password. Users defined as system administrators may add other authorized users through the User/Add command.

You may also select or add a session with which the encyclopedia modifications you make will be associated. Associating encyclopedia modifications with a specific session provides thorough documentation of the encyclopedia's development.

Procedure à **To open an existing encyclopedia:**

- 1 Choose **Open...** from the File menu.

 Result: The Open Encyclopedia dialog box appears.
- 2 Complete the Open Encyclopedia dialog box, then click on **OK**.

 Result: The Visible Advantage Logon dialog box appears.
- 3 Type your logon into the **Logon** field. Your entry should be the logon specified when you were added as an authorized user of the encyclopedia.

 2 Note The **Logon** field *is not* case-sensitive.
- 4 If a password has been defined for your logon, you must type it into the **Password** field. To ensure security as you type your password, asterisks will appear in the field.

 2 Note The password field *is* case-sensitive.

 If a password *has not* been defined for your logon, leave the **Password** field blank.

-
- 5 Click on **OK**.

Result: If the logon and password you typed were valid, the Select Session dialog box appears. (*Proceed to step 6.*)

If the logon and password you typed *were not* valid, the Invalid Logon error message dialog box appears. If this happens, click on **OK** to return to the Visible Advantage Logon dialog box. You may then type a correct logon or cancel the dialog box.

- 6 Do you want to select an existing session for your encyclopedia modifications?

If yes, select a session in the Select Session dialog box, then click on **OK**. The **Session** list includes all open sessions. Open sessions are those that have not been closed through the Project/Sessions/Close command. (*End of procedure.*)

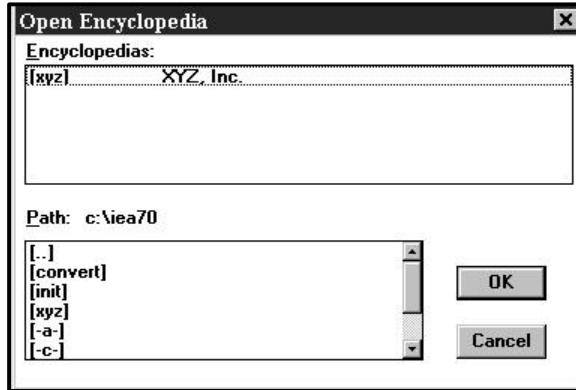
Do you want to create a new session for your encyclopedia modifications?

If yes, click on the **New** command button in the Select Session dialog box. The Add Session dialog box appears. (*Proceed to step 7.*)

- 7 Complete the Add Session dialog box, then click on **OK**.

Open Encyclopedia Dialog Box

Dialog Box Illustration



Open Encyclopedia Dialog Box

Dialog Box Components

Use the information below to complete the Open Encyclopedia dialog box

Component	Description
Encyclopedias	<p>A list of directories and titles is in this box. The list includes all encyclopedias located in the path displayed in the Path field.</p> <p>If the encyclopedia you want to open is listed here, highlight its name.</p>
Path	<p>The drives available on your computer are in this list box.</p> <p>If the encyclopedia you want to open is <i>not</i> listed in the Encyclopedias list box, navigate through this list box to display the encyclopedia's drive in the Path field (above the list box).</p> <p>2 Note The encyclopedia's directory may be in a sub-directory. If so, double-click its name so that it appears in the Path field after the selected drive letter.</p>

OPEN STATEMENT

Opening Statements

Description The Open Statement command, available from the Statement Editor window, allows you to open a statement text file so that you may edit the statement text.

Procedure à **To open a statement file in the Statement Editor window:**

1 Choose **Open...** from the File menu.

 Result: The Select Statement dialog box appears.

2 Select the statement you want to open from the **Statement** list box, then click on **OK**.

OPTIONS

Overview

Description The Options command allows you to set display preferences in certain Visible Advantage windows. The Options command is available from all windows except the Design Reference, Statement Editor, main Visible Advantage, and Matrix windows.

Usage Tips Most display options are stored with the entire encyclopedia, rather than with the current model view. Those stored with the current model view are noted, where applicable.

In This Section This chapter contains the following topics:

Topic

Setting View Hierarchy Options
Setting Planning Outline Options
Setting Planning Dictionary Options
Setting Data Map Options
Setting Data Dictionary Options
Setting Process Map Options
Setting Design Dictionary Options
Setting Design Map Options
View Display Options Dialog Box
Outline Display Options Dialog Box
Planning Dictionary Options Dialog Box
Data Map Display Options Dialog Box
Data Dictionary Display Options Dialog Box
Process Map Display Options Dialog Box
Design Dictionary Display Preferences Dialog Box
Design Map Display Options Dialog Box
Color Dialog Box

SETTING VIEW HIERARCHY OPTIONS

- Description** In the View Hierarchy window, use the Options command to:
- Add or remove the shadow effect on the model views in the window
 - Adjust the row spacing of the model view hierarchy diagram
 - Change the model view and text colors in the window
- Usage Tips** All Model View Hierarchy display options are stored with the entire encyclopedia.
- Procedure** à **To set View Hierarchy window display options:**
- 1 Choose **Options...** from the Display menu.

Result: The View Display Options dialog box appears.
 - 2 Complete the View Display Options dialog box.

If you want to change the color of the model views in the model view diagram, click on **View Color**. The Color dialog box appears.

If you want to change the color of the text inside the model view boxes, click on **View Text Color**. The Color dialog box appears.
 - 3 When you are finished completing the dialog box, click on **OK**.

SETTING PLANNING OUTLINE OPTIONS

- Description** In the Planning Outline window, use this command to:
- Define the type of line numbering scheme to display in the planning outline
 - Show or hide statement types and priorities
- Usage Tips** All Planning Outline options are stored with the entire encyclopedia.
- Procedure** à **To set planning outline display options for the current model view:**
- 1 Choose **Options...** from the Display menu.

Result: The Outline Display Options dialog box appears.
 - 2 Complete the Outline Display Options dialog box, then click on **OK**.

SETTING PLANNING DICTIONARY OPTIONS

Description In the Planning Dictionary window, use this command to show or hide parent and child statements, data links, model views, and time/date stamps.

Usage Tips All Planning Dictionary options are stored with the entire encyclopedia.

Procedure à To set planning dictionary display options for the current model view:

- 1 Choose **Options...** from the Display menu.

Result: The Planning Dictionary Display Options dialog box appears.
- 2 Complete the Planning Dictionary Display Options dialog box, then click on **OK**.

SETTING DATA MAP OPTIONS

- Description** In the Data Map window, use the Options command to:
- Change entity box and text color and display or hide entity shadowing
 - Show or hide view authorities, entity types, control lines, key attributes, non-key attributes, association names, association cardinalities, and/or static values
 - Change the data map's orientation (horizontal or vertical)
 - Optimize entity groupings for maximum space efficiency
 - Adjust the data map's row and column spacing
 - Choose automatic or manual drawing mode
- Usage Tips** Color and shadowing settings are stored with the entire encyclopedia. All other Data Map display options are stored with the current model view only.
- Procedure** à **To set display options for the Data Map window:**
- 1 Choose **Options...** from the Display menu.
Result: The Map Display Options dialog box appears.
 - 2 Complete the Map Display Options dialog box.

If you want to change the color of the entities in the data map, click on **Entity Color**. The Color dialog box appears.

If you want to change the color of the text on the entities, click on **Entity Text Color**. The Color dialog box appears.
 - 3 When you are finished completing the dialog box, click on **OK**.

SETTING DATA DICTIONARY OPTIONS

Description In the Data Dictionary window, use the Options command to show or hide cluster end points, attributes, associations, control links, statement links, model views, model links, and time/date stamps in the Data Dictionary window.

Usage Tips All Data Dictionary display options are stored with the entire encyclopedia.

Procedure à **To set display options for the Data Dictionary window:**

1 Choose **Options...** from the Display menu.

Result: The Data Dictionary Display Options dialog box appears.

2 Complete the Data Dictionary Display Options dialog box, then click on **OK**.

SETTING PROCESS MAP OPTIONS

- Description** In the Process Map window, use the Options command to:
- Show or hide each step's attribute list(s)
 - Change step box and text color and display or hide entity shadowing
- Usage Tips** All Process Map display options are stored with the entire encyclopedia.
- Procedure** à **To set display options for the Process Map window:**
- 1 Choose **Options...** from the Display menu.
Result: The Process Map Display Options dialog box appears.
 - 2 Complete the Process Map Display Options dialog box.

If you want to change the color of the steps in the process map, click on **Step Color**. The Color dialog box appears.

If you want to change the color of the text inside the steps, click on **Step Text Color**. The Color dialog box appears.
 - 3 When you are finished completing the dialog box, click on **OK**.

SETTING DESIGN DICTIONARY OPTIONS

Description In the Design Dictionary window, use the Options command to show or hide the following data structure details:

- Properties
- Data access mechanisms
- Design views
- Relationships
- Model links
- Time/date stamps

Usage Tips All Design Dictionary display options are stored with the entire encyclopedia.

Procedure à **To set display options for the Design Dictionary window:**

- 1 Choose **Options...** from the Display menu.

Result: The Design Dictionary Display Options dialog box appears.
- 2 Complete the dialog box, then click on **OK**.

SETTING DESIGN MAP OPTIONS

- Description** In the Design Map window, use the Options command to show or hide the following:
- Change box and text color
 - Display or hide properties, view authorities, types and static values
 - Change design map's orientation (horizontal or vertical)
 - Adjust the design map's row and column spacing
 - Choose automatic or manual drawing mode
 - Display or hide relationship names and cardinalities and access mechanism relationships
 - Optimize box groupings for maximum space efficiency

Procedure **à To set display options for the Design Map window:**

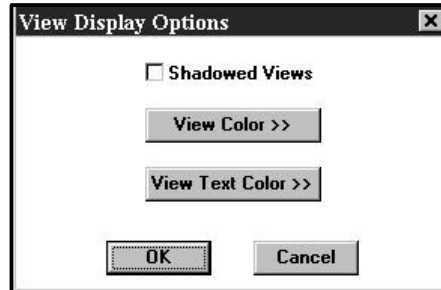
- 1 Choose **Options...** from the Display menu.

Result: The Design Map Display Options dialog box appears.

- 2 Complete the dialog box, then click on **OK**.

View Display Options Dialog Box

Dialog Box Illustration



View Display Options Dialog Box

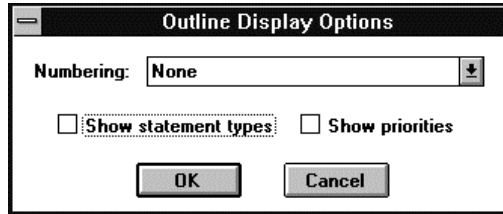
Dialog Box Components

Use the information below to complete the View Display Options dialog box.

<u>Component</u>	<u>Description</u>
Shadowed Views	Select this checkbox if you want the model view boxes in the diagram to display with a shadowed effect.
View Color	Click on this button if you want to change the color of the model view boxes in the model view diagram. The color dialog box appears when you click on this button.
View Text Color	Click on this button if you want to change the color of the text inside the model view boxes. The color dialog box appears when you click on this button.

Outline Display Options Dialog Box

Dialog Box Illustration



Outline Display Options Dialog Box

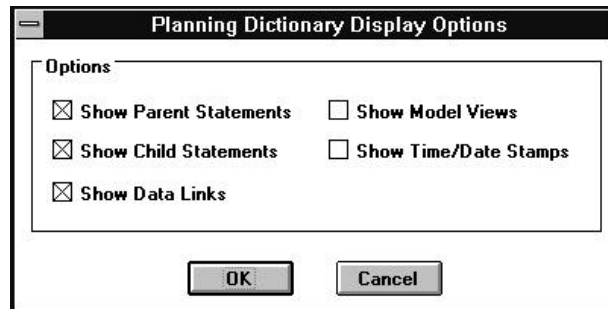
Dialog Box Components

Use the information below to complete the Outline Display Options dialog box.

Component	Description
Numbering	Select a line numbering scheme from this drop-down list. The available options are explained below.
None	Lines are not numbered.
Outline numbering	Lines are numbered using the following scheme: I-II-III (first level), A-B-C (second level), 1-2-3 (third level), a-b-c (fourth level).
Line numbering	Lines are numbered sequentially.
Specification numbering	Lines are numbered using the following scheme: 1-2-3 (first level), 1.1-1.2-1.3 (second level), 1.1.1-1.1.2-1.1.3 (third level), and so on.
Show Statement Types	Select this checkbox if you want each statement's type to appear in parentheses after its title.
Show Priorities	Select this checkbox if you want each statement's priority level to appear in brackets after its title.

Planning Dictionary Display Options Dialog Box

Dialog Box Illustration



Planning Dictionary Display Options

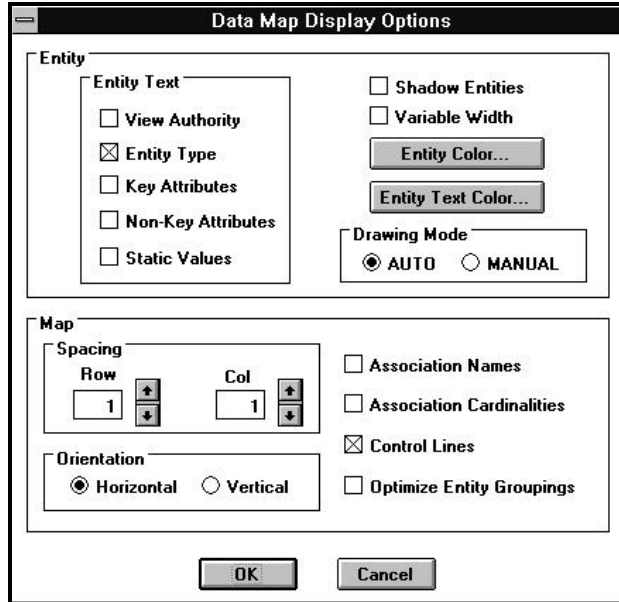
Dialog Box Components Use the information below to complete the Planning Dictionary Display Options dialog box.

Component	Description
Show Parent Statements	Select this checkbox if you want to display the Is Part Of field, listing each statement's parent statement.
Show Child Statements	Select this checkbox if you want to display the Consists Of field, listing each statement's child statements.
Show Data Links	Select this checkbox if you want to display the Data Links field, which lists the dictionary objects linked to each statement.
Show Model Views	Select this checkbox if you want to display the Model Views field, which lists the names of all model views in which each statement is visible.
Show Time/Date Stamps	Select this checkbox if you want to display the Created and Modified fields, which show the date and time each statement was created and last

modified, as well as the name of the user responsible for the creation and last modification.

Data Map Display Options Dialog Box

Dialog Box Illustration



Data Map Display Options Dialog Box

Dialog Box Components

Use the information below to complete the Map Display Options dialog box.

Component	Description
Entity Text	Select the checkbox for each item you want to display on the entity boxes. This includes, view authorities, entity types, key and non-key attributes, and static values.
Shadow Entities	Select this checkbox to display the entities with a shadowed effect.
Variable Width	Select this checkbox to display the entities with variable width.

Entity Color	Click on this button to define the color of the entity boxes in the Data Map window. The Color dialog box appears when you click on this button.
Entity Text Color	Click on this button to define the color of the text in the data map entity boxes. The Color dialog box appears when you click on this button.
Auto	Select this button for automatic drawing mode.
Manual	Select this button for manual drawing mode.
Row	Select the number of rows you want placed between each entity in the data map diagram. Increasing the number in the Row box makes the data map diagram <i>taller</i> . You do this by clicking on the up and down arrows until the desired number of rows between each entity appears in the Row box.
Col	Select the number of columns you want placed between each entity in the data map diagram. Increasing the number in the Col box makes the data map diagram <i>wider</i> . You do this by clicking on the up and down arrows until the desired number of columns between each entity appears in the Col box. For small model views, a column spacing of `1` is adequate. For larger data models (over 200 entities), you will need to increase the column spacing to allow room for association lines between entities.
Association Names	Select this checkbox if you want to display association names.
Association Cardinalities	Select this checkbox if you want to display association cardinalities.
Control Lines	Select this checkbox if you want to display control link lines between entities. Control links are

displayed as dotted arrows pointing from the controlling entity to the controlled entity.

Optimize
Entity
Groupings

Select this checkbox if you want Visible Advantage to arrange entities so that the association lines are as short as possible (useful for large models).

Horizontal

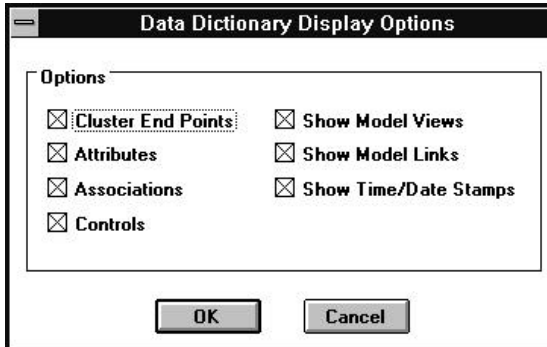
Select this button if you want to orient the data map horizontally (association lines left to right).

Vertical

Select this button if you want to orient the data map vertically (association lines top to bottom).

Data Dictionary Display Options Dialog Box

Dialog Box Illustration



Data Dictionary Display Options Dialog Box

Dialog Box Components

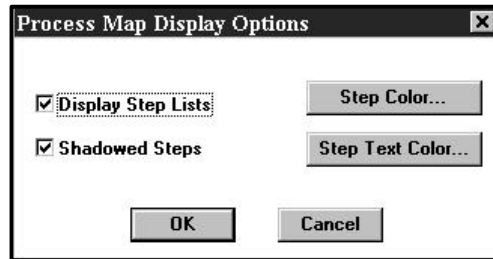
Use the information below to complete the Data Dictionary Display Options dialog box.

<u>Component</u>	<u>Description</u>
Cluster End Points	Select this checkbox if you want to display the Cluster End Pt field for entities that are derived or designated cluster end points.
Attributes	Select this checkbox if you want to display the Attributes field, which lists each entity's attributes.
Associations	Select this checkbox if you want to display the Associations field, which lists the associations for each entity.
Controls	Select this checkbox if you want to display the Controls and Controlled By fields. The Controls field lists the entities that <i>are controlled by</i> the current entity; the Controlled By field lists the entities that <i>control</i> the current entity.

Show Model Views	Select this checkbox if you want to display the Model Views field, which lists the model views in which each entity is visible.
Show Model Links	Select this checkbox if you want to display the Model Links field, which lists the models linked to each entity.
Show Time/ Date Stamps	Select this checkbox if you want to display the Created and Modified fields, which show the date and time each entity was created and last modified, as well as the name of the user(s) responsible for the creation and last modification.

Process Map Display Options Dialog Box

Dialog Box Illustration



Process Map Display Options Dialog Box

Dialog Box Components

Use the information below to complete the Process Map Display Options dialog box.

<u>Component</u>	<u>Description</u>
Display Step Lists	Select this checkbox to display each process step's attribute list(s) (Initiation, Return, etc.).
Shadow Steps	Select this checkbox to display the steps with a shadowed effect.
Step Color	Click on this button to define the color of the step boxes in the Process Map window. The Color dialog box appears when you click on this button.
Step Text Color	Click on this button to define the color of the text in the process map step boxes. The Color dialog box appears when you click on this button.

Design Dictionary Display Preferences Dialog Box

Dialog Box Illustration



Design Dictionary Display Preferences Dialog Box

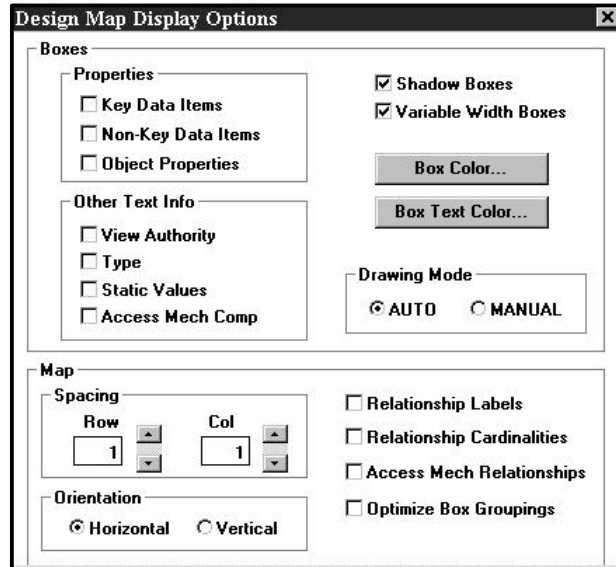
Dialog Box Components

Use the information below to complete the Design Dictionary Display Preferences dialog box.

Component	Description
Properties	Select this checkbox if you want to display the properties that belong to each design object in the Design Dictionary window.
Data Access Mechanisms	Select this checkbox if you want to display the access mechanisms for each design object.
Design Views	Select this checkbox if you want to display the design view to which the design objects belong.
Relationships	Select this checkbox if you want to display the relationships for each design object.
Model Links	Select this checkbox if you want to display the links between design objects and other encyclopedia objects (statements, entities, etc.)
Time/Date Stamps	Select this checkbox if you want to display the time and date each design object was created and last modified.

Design Map Display Options Dialog Box

Dialog Box Illustration



Design Map Display Options Dialog Box

Dialog Box Components

Use the information below to complete the Design Map Display Options dialog box.

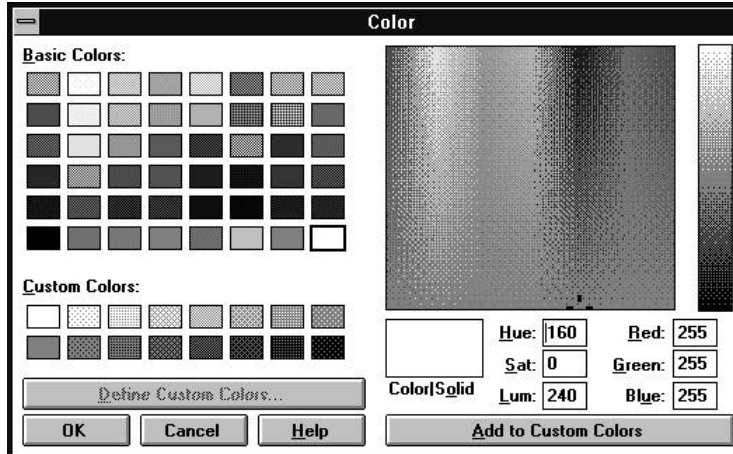
<u>Component</u>	<u>Description</u>
Properties	Select the checkbox for each item you want to display on the boxes. This includes key data items, non-key data items, and object properties.
Other Text Inf.	Select the checkbox for each item you want to display on the boxes. This includes view authorities, types, static values, and access mechanisms.
Shadow Boxes	Select this checkbox to display the boxes with a shadowed effect.

Variable Width	Select this checkbox to display the boxes with variable width.
Box Color	Click on this button to define the color of the boxes in the Design Map window. The Color dialog box appears when you click on this button.
Box Text Color	Click on this button to define the color of the text in the design map boxes. The Color dialog box appears when you click on this button.
Auto	Click this button for automatic drawing mode.
Manual	Select this button for manual drawing mode.
Row	<p>Select the number of rows you want placed between each box in the design map diagram. Increasing the number in the Row box makes the design map diagram <i>taller</i>.</p> <p>You do this by clicking on the up and down arrows until the desired number of rows between each box appears in the Row box.</p>
Col	<p>Select the number of columns you want placed between each box in the design map diagram. Increasing the number in the Col box makes the design map diagram <i>wider</i>.</p> <p>You do this by clicking on the up and down arrows until the desired number of columns between each box appears in the Col box.</p> <p>For small views, a column spacing of '1' is adequate. For larger design models, you will need to increase the column spacing to allow room for relationship lines between entities.</p>
Relationship Names	Select this checkbox if you want to display relationship names.

Relationship Cardinalities	Select this checkbox if you want to display relationship cardinalities.
Access Mech Relationships	Select this checkbox if you want to display access mechanism relationships.
Optimize Box Groupings	Select this checkbox if you want Visible Advantage to arrange boxes so that the relationship lines are as short as possible (useful for large models).
Horizontal	Select this button if you want to orient the design map horizontally (relationship lines left to right).
Vertical	Select this button if you want to orient the design map vertically (relationship lines top to bottom).

Color Dialog Box

Dialog Box Illustration



Color Dialog Box

Dialog Box Components

Use the information below to complete the Color dialog box.

Component	Description
Basic Colors	If you want to choose one of the 48 predefined basic colors, click on one in this area. The selected color appears on the left side of the Color/Solid box.
Custom Colors	If you want to define a custom color, click on one of the boxes in this area, then adjust the color using the Hue, Sat, Lum or Red, Green, Blue fields and click on the Add to Custom Colors button.
Hue, Sat, Lum	You may change a custom color by entering values in these fields, which represent the Hues color model. Hue, saturation, and luminosity may also be adjusted by sliding the color refiner cursor (the black cross in the

center of the large color spectrum box) until the desired color appears on the left side of the Color/Solid box.

Red, Green,
Blue

You may also define a custom color by entering values in these fields, which represent the RGB (Red/Green/Blue) color model.

Red, green, and blue values may also be adjusted by sliding the color refiner cursor (the black cross in the center of the large color spectrum box) until the desired color appears on the left side of the Color/Solid box.

Add to Custom
Colors

Click on this button to add the color displayed in the Color/Solid box to the Custom Colors palette.

OUTPUT LIST

Displaying and Hiding the Output List

Description The Output List command, available from the Process Map window, displays the Output List box in the Process Map window when it is hidden, and hides the Output List box when it is displayed.

The Output List box contains the sum of all Present lists of a process, showing all data the process provides.

Procedure à **To display or hide the Output List:**

Choose **Output List** from the Display menu.

Result: If the Output List box was hidden when you chose the command, the list appears in the active Process Map window.

If the Output List was displayed when you chose the command, the list disappears from the active Process Map window.

PARAMETERS

Setting Matrix Window Parameters

Description The Parameters command, available from all matrix windows, allows you to select the objects and/or object types to display on the left and top axes of the active matrix window.

Usage Tips This command is available from all matrix windows. The dialog box that appears for the command, however, depends on the current matrix window. Each matrix window has a distinct dialog box.

+ **Example** If you are working in the Entity-View Matrix window and you choose this command, the Entity-Model View Matrix dialog box appears.

Procedure à **To set matrix window parameters for the current matrix window:**

1 Choose **Parameters...** from the Matrix menu.

Result: The dialog box for choosing the objects/object types for the left and top axes appears.

2 Complete the dialog box, then click on **OK**.

For information on completing the dialog box, see the section in this manual for opening the type of matrix window in which you are working.

+ **Example** To read about the fields in the parameters dialog box for the Statement-View Matrix window, see Statement-View Matrix in this manual.

PASTE

Pasting Text in a Text Editor Window

Description The Paste command, available from the Statement text editor windows, pastes text from the Windows clipboard to a location in the Statement Editor window.

Selected text is copied or cut to the Windows clipboard through the Copy and Cut commands on the Statement/Session Editor window's Edit menu.

Procedure à **To paste clipboard text to a new location:**

- 1 Click on the location you want the pasted text to appear (the insertion point).
- 2 Choose **Paste** from the Edit menu.

Result: The text appears in the new location.

PLANNING DICTIONARY

Opening a Planning Dictionary Window

- Description** The Planning Dictionary command allows you to open a Planning Dictionary window. This window provides a textual record of the statements in the current model view. This command is available from all windows.
- Usage Tips** Planning statements are listed in alphabetical order in the Planning Dictionary window. The Planning Dictionary window may be sized and converted to an icon using standard Windows commands.
- Procedure** à **To open a Planning Dictionary window:**
- 1 Choose **Planning Dictionary...** from the Plan menu on the main Visible Advantage window.
or
Choose **Planning** from the main menu on any other window, then choose **Planning Dictionary...** from the Planning cascading menu.

Result: If model views have been defined for the encyclopedia, the Select Model View dialog box appears. (*Proceed to next step.*)

Otherwise, the Planning Dictionary window for the entire encyclopedia appears. (*End of procedure.*)
 - 2 The Select Model View dialog box contains a list of all model views defined for the encyclopedia.

If you want to display the model view list in hierarchical order, select the **Structured** button. If you want to display the model view list in alphabetical order, select the **Alphabetical** button.
 - 3 Highlight the name of the model view you want to display in the Planning Dictionary window. If you want to display the entire encyclopedia, select **Entire Model** in the **Select** area.
 - 4 Click on **OK**.

Related Topics The table below shows where you can find information related to the Planning Dictionary command.

For More Information On...	See...
how to use each command in the Planning Dictionary window	the entry in this manual for the individual command. For example, to learn how to use the Add command on the Statement menu, see Add Statement
how to use the Planning Dictionary window's special features, such as the tool bar, mouse commands, and keyboard shortcuts,	the Planning section in the <i>User's Guide</i>

PLANNING OUTLINE

Opening a Planning Outline Window

Description The Planning Outline command allows you to open a Planning Outline window. The Planning Outline window provides a structured outline of the planning statements that direct the construction of various parts of the encyclopedia. This command is available from all windows.

Usage Tips The Planning Outline window may be sized and converted to an icon using standard Windows commands.

The planning outline shows relationships between the planning statements, such as which policy statement(s) supports an objective statement. You may add, edit, and delete statements and statement links through the Planning Outline window.

If you want to view and/or edit a detailed view of the statements in an encyclopedia, use the Planning Dictionary window, which provides an alphabetical listing of planning statements.

Procedure à **To open a Planning Outline window:**

- 1 Choose **Planning Outline...** from the Plan menu on the main Visible Advantage window.
 or
 Click on the Planning Outline window icon on the main Visible Advantage window.
 or
 Choose **Planning** from the main menu on any other window, then choose **Planning Outline...** from the Planning cascading menu.

Result: If any model views have been defined for the encyclopedia, the Select Model View dialog box appears. (*Proceed to next step.*)

Otherwise, the Planning Outline window for the entire encyclopedia appears. (*End of procedure.*)

-
- 2 The Select Model View dialog box contains a list of all model views defined for the encyclopedia.

If you want to display the model view list in hierarchical order, select the **Structured** button. If you want to display the model view list in alphabetical order, select the **Alphabetical** button.

- 3 Highlight the name of the model view you want to display in the Planning Outline window. If you want to display the entire encyclopedia, select **Entire Model** in the **Select** area.
- 4 Click on **OK**.

Related Topics The table below shows you where to find information related to the Planning Outline command.

For More Information On...	See...
how to use each command in the Planning Outline window	the entry in this manual for the individual command. For example, to learn how to use the Add command on the Statement menu, see Add Statement.
how to use the Planning Outline window's special features, such as the tool bar, mouse commands, and keyboard shortcuts,	the Planning section in the <i>User's Guide</i> .

POPULATE

Populating Tables

Description The Populate command allows you to record predefined values for a static entity's attributes or a static design object's data items.

Usage Tips This command is available only for static entities and data structures. If the current entity's/data structure's nature has been defined as dynamic, rather than static, this command is dimmed to indicate that it is not available.

The values you enter through this command are included as data in any database generated with the Generate SQL Schema command on the Implementation menu.

Procedure à **To populate a table for the current entity or data structure:**

- 1 Choose **Populate...** from the Entity menu (Data Dictionary/Data Map) or from the Design Object menu (Design Dictionary).

Result: The Populate dialog box appears. The current entity's attributes or design object's data items are listed across the top of the dialog box.

- 2 Type a value for each attribute or data item. To do this, you must first click on the cell that intersects with the attribute/data item and row number for which you want to add a value. Each value may be up to 31 alphanumeric characters long and may include spaces.

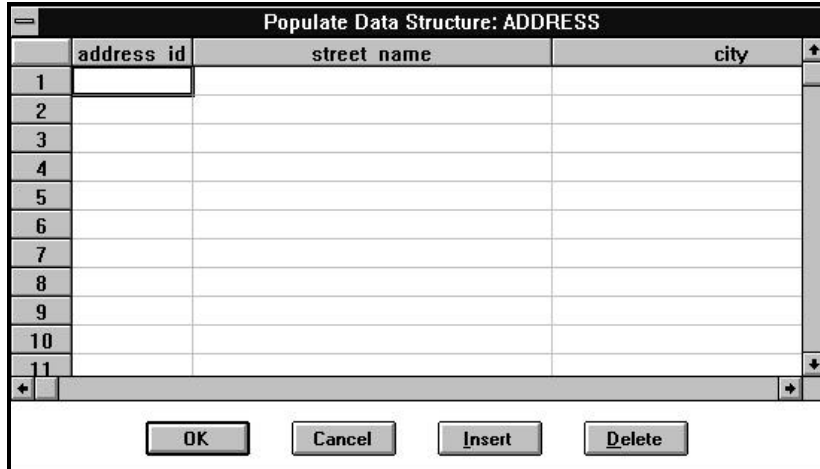
If you want to insert a row of values between two existing rows in the table, highlight the number of the row before which you want to insert the new row, then click on **Insert**.

If you want to delete a row, highlight the number of the row you want to delete, then click on **Delete**.

- 3 Repeat the previous step for each static value you want to add.
- 4 When you are finished adding values, click on **OK**.

Populate Dialog Box

Dialog Box Illustration



Populate Dialog Box

Dialog Box Components

Use the information below to complete the Populate dialog box.

Component	Description
Insert	Use this button to insert a row between two existing rows. Highlight the number of the row before which you want to insert the new row, then click on this button.
Delete	Use this button to delete an existing row. Highlight the number of the row you want to delete, then click on this button.

PRINT DATA MAP

Printing Data Maps

- Description** The Print Data Map command, available from the Data Map window, allows you to print the data map diagram displayed in the Data Map window.
- Usage Tips** When you print a data map, you can specify a title and subtitle to be printed at the top of the data map. You can also include entity details, page numbers, and crop marks on the printed data map, and define the size of the diagram.
- If the data map is displayed in IDEF1X format when you choose this command, it will print in that format. See the Appendices section of this manual for more information on data maps printed and displayed in IDEF1X format.

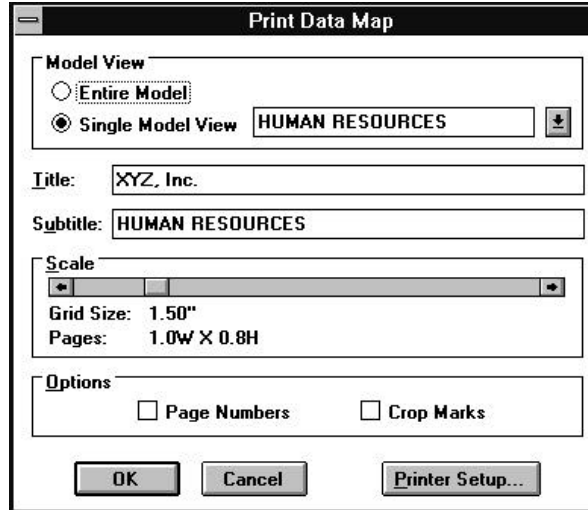
Procedure à **To print a data map diagram:**

- 1 Choose **Print Data Map...** from the Display menu.

 Result: The Print Data Map dialog box appears.
- 2 Complete the dialog box, then click on **OK**.

Print Data Map Dialog Box

Dialog Box Illustration



Print Data Map Dialog Box

Dialog Box Components

Use the information below to complete the Print Data Map dialog box.

Component	Description
Entire Model	Select this button to print the entire model view.
Single Model View	Select this button to print a single model view. Select the view from the drop down list.
Title	Type a title for the data map into this box. The title appears in large letters at the top of the printed data map diagram.
Subtitle	The name of the model view appears in this box. If you wish, you may type a new subtitle for the data map. The subtitle appears beneath the title at the top of the data map diagram.

Scale	<p>Slide this scroll bar until the values in the Grid Size and/or Pages fields correspond to the desired diagram size.</p> <p>The Pages value tells you how many pages wide and high the diagram will cover at the scale value selected. This scroll bar allows you to define the size of the printed data map.</p>
Page Numbers	<p>Select this checkbox if you want the data map pages to be numbered.</p> <p>The numbering scheme is `C/R', where `C' is the column number for the data map page assembly, and `R' is the row number. This numbering scheme makes it easy to paste the pages of the data map together.</p>
Crop Marks	<p>Select this checkbox if you want crop marks to print on the data map pages. Crop marks are guides that show you where to cut each data map page before pasting the pages together.</p>
Printer Setup	<p>Use this button to define the printer to which the data map will be printed.</p> <p>When you click on this button, the Windows Printer Setup dialog box appears. See your Windows documentation for information on installing and selecting printers in Windows applications.</p>

PRINT DESIGN MAP

Printing the Design Map

Description The Print Design Map command, available from the Design Map window, allows you to print the design map diagram.

Procedure à **To print the design map:**

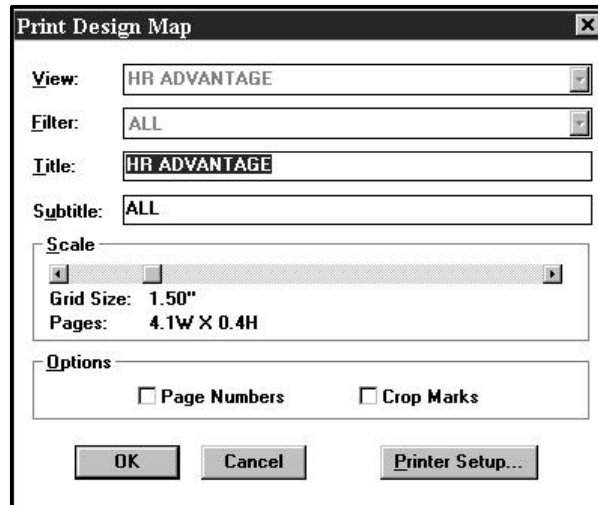
1 Choose **Print Design Map...** from the Display menu.

Result: The Print Design Map dialog box appears.

2 Complete the dialog box, then click on **OK**.

Print Design Map Dialog Box

Dialog Box Illustration



Print Design Map Dialog Box

Dialog Box Components

Use the information below to complete the Print Design Map dialog box.

Component	Description
View	Select the view from the drop-down list.
Template	Select the template from the drop-down list.
Title	Type a title for the map in this box. The title will print at the top of the printed map. This field defaults to the name of the encyclopedia.
Subtitle	Type a subtitle for the map in this box. The subtitle will print below the title. This field defaults to the name of the template.

Scale	Slide this scroll bar until the values in the Grid Size and/or Pages fields correspond to the desired diagram size.
Page Numbers	Select this checkbox if you want to print page numbers on the printed diagram. The numbering scheme is 'C/R,' where 'C' is the column number for the diagram page assembly, and 'R' is the row number. This numbering scheme makes it easy to paste the pages of the diagram together.
Crop Marks	Select this checkbox if you want to print crop marks showing you where to trim the map pages before you paste them together.
Printer Setup	Click on this button to access the Printer Setup dialog box. See Printer Setup in this manual for more information.

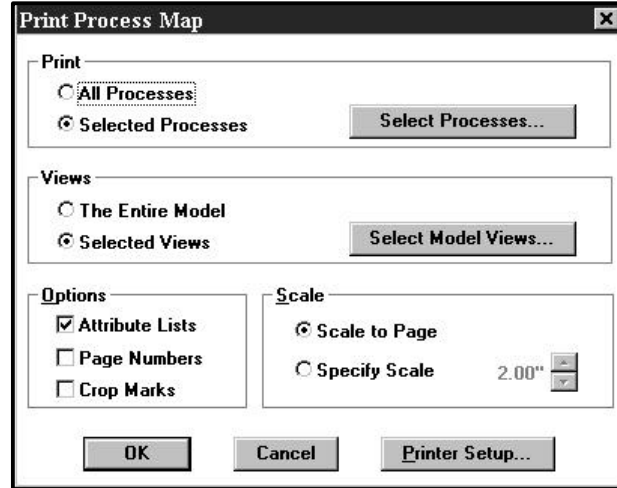
PRINT PROCESS MAP

Printing Process Maps

- Description** The Print Process Map command, available from the Process Map window, allows you to print the process map diagrams from the encyclopedia's process model.
- Usage Tips** When you print process maps, you can include all or selected processes and those that access the entire model or selected model views. You can also print attribute lists, page numbers, and crop marks, as well as define the size of the diagrams.
- Procedure** à **To print process map diagrams:**
- 1 Choose **Print Process Map...** from the Display menu.
 Result: The Print Process Map dialog box appears.
 - 2 Complete the dialog box, then click on **OK**.

Print Process Map Dialog Box

Dialog Box Illustration



Print Process Map Dialog Box

Dialog Box Components

Use the information below to complete the Print Process Map dialog box.

<u>Component</u>	<u>Description</u>
All Processes	Select this button if you want to print a map for each process in the process model.
Selected Processes	Select this button if you want to print a process map only selected processes in the process model. You click on Select Processes button to select the processes you want to include.
Select Processes	Use this button to select the processes for which you want to print process maps. When you click on this button, the Select Processes dialog box appears.
The Entire Model	Select this button if you want to print processes that access entities in the entire

	encyclopedia, rather than a single or selected model views.
Selected Model Views	Select this button if you want to print process maps that access entities in selected model views. You use the Select Model Views button to select the model views.
Select Model Views	Use this button to select the model views that contain the entities accessed by the processes for which you want to print process maps.
Attribute Lists	Select this checkbox if you want the attribute list(s) for each process step to be printed on the process map diagram(s).
Page Numbers	Select this checkbox if you want the process map pages to be numbered. The numbering scheme is `C/R', where `C' is the column number for the process map page assembly, and `R' is the row number. This numbering scheme makes it easy to paste the pages of the map together.
Crop Marks	Select this checkbox if you want crop marks to print on the map pages. Crop marks are guides that show you where to cut each map page before pasting the pages together.
Scale to Page	Select this button if you want Visible Advantage to scale the process map(s) so that each one fits on a page.
Specify Scale	Select this button if you want to scale the process map(s) to a specified scale. To specify the scale, click on the up and down arrows to the right of this selection button until the desired scale appears in the field. The number in the field represents the number of inches between process steps on the printed process map(s). If you increase the scale number, your process map diagram may not fit on a single page.

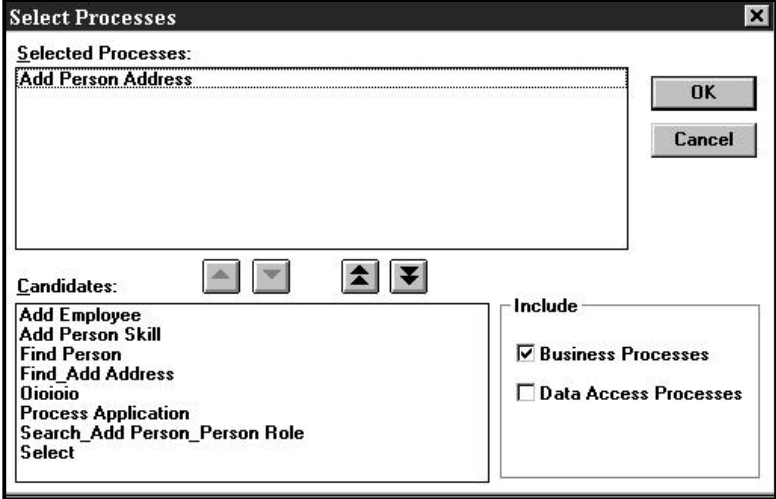
Printer Setup

Use this button to define the printer to which the process map(s) will be printed.

When you click on this button, the Windows Printer Setup dialog box appears. See your Windows documentation for information on installing and selecting printers in Windows applications.

Select Processes Dialog Box


Dialog Box Illustration



Select Processes Dialog Box

Dialog Box Components

Use the information below to complete the Select Processes dialog box.

<u>Component</u>	<u>Description</u>
Selected Processes	The names of the selected processes are listed in this box. Initially, this list box is empty. You add processes to this list from the Candidates list box.
	Use this button to select process candidates. Highlight the processes in the Candidates list box, then click on this button. They will then appear in the Selected Processes list box.



Use this button to deselect processes. Highlight the processes in the Selected Process list box, then click on this button. They will then return to the Candidates list box.



Use this button to select all process candidates. When you click on this button, all processes in the Candidates list box will be moved to the Selected Processes list box.



Use this button to deselect all selected processes. When you click on this button, all processes in the Selected Processes list box will be returned to the Candidates list box.

Candidates

This box contains all processes that access the selected model view(s) that are of the type(s) specified in the Include area (business processes and/or data access processes).

If both Include checkboxes are selected, then all processes that access the selected model view(s) are listed in this list box.

Business Processes

Select this checkbox to include business processes in the Candidates list box.

Data Access Processes

Select this checkbox to include data access processes in the Candidates list box.

PROCESS-ATTRIBUTE MATRIX

Opening a Process-Attribute Matrix Window

Description The Process-Attribute Matrix window is a graphical matrix table listing an encyclopedia's processes on the left axis and the attributes in the encyclopedia or a single or selected model view(s) on its top axis. Inside each cell is a letter for each type of access the process has for the attribute (create, read, update or delete).

Procedure à **To open a Process-Attribute Matrix window:**

- 1 From the main Visible Advantage window, choose **Process-Attribute...** from the Process menu.
or
From any other window, choose **Process Modeling** from the main menu, then choose **Process-Attribute** from the cascading menu.

Result: The Process-Attribute Matrix dialog box appears.
- 2 Select each checkbox for the process type(s) you want to display on the left and top axes (business processes and/or data access processes).
- 3 If you want to display the processes that access all attributes in the encyclopedia, click on **Entire Model**. If you want to display the processes that access the attributes in one model view, click on the **Single Model View** button, then select the model view from the drop-down list.
- 4 Click on **OK**.

PROCESS-ENTITY MATRIX

Opening a Process-Entity Matrix Window

Description The Process-Entity Matrix command allows you to open a Process-Entity Matrix window for a single model view or for the entire encyclopedia. The Process-Entity Matrix window allows you to view relationships between the processes and entities in the encyclopedia. This command is available from all windows.

Procedure à **To open a Process-Entity Matrix window:**

- 1 From the main Visible Advantage window, choose **Process-Entity Matrix...** from the Process menu.

From any other window, choose **Process Modeling** from the main menu, then choose **Process-Entity Matrix...** from the cascading menu.

Result: The Process-Entity dialog box appears.
- 2 Select the process types you want to display on the left axis of the matrix (business processes and/or data access processes).
- 3 If you want to display all types of entities on the top axis of the matrix, select the **All Entity Types** button.

If you want to display selected types of entities on the top axis, select the **Selected Entity Types** button, then click on **Select Entity Types**. The Entity Types dialog box appears. Select the entity types, then click on **OK** to return to the Process-Entity Matrix dialog box.
- 4 If you want to display all entities in the encyclopedia, select **Entire Model** in the **Select** area. If you want to display the entities in one model view, click on the **Single Model View** button, then select the model view from the drop-down list.
- 5 Click on **OK**.

PROCESS HIERARCHY

Opening a Process Hierarchy Window

Description The Process Hierarchy command allows you to open a Process Hierarchy window, which provides a structured hierarchy of the following process model components:

- Business events
- Business processes initiated by each business event
- Data access processes that access the data model

This command is available from all windows.

Usage Tips The Process Hierarchy window may be sized and converted to an icon using the standard Windows commands.

The Process Hierarchy window shows relationships between the different processes such as which business event causes which business process and which data access process(es) or other business processes a business process causes. You may add, edit, and delete processes and their dependencies through the Process Hierarchy window.

If you want to view and/or edit a detailed process, along with its steps and control flows, use the Process Map window, which provides a graphical map of a particular process and its components.

Procedure à **To open a Process Hierarchy window:**

- 1 Choose **Process Hierarchy...** from the Process menu on the main menu bar or from the Main menu on any other menu bar.

Result: The Select Model View dialog box appears.

- 2 The Select Model View dialog box contains a list of all model views defined for the encyclopedia.

If you want to display the model view list in hierarchical order, select the **Structured** button. If you want to display the model view list in alphabetical order, select the **Alphabetical** button.

-
- 3 Highlight the name of the model view you want to display in the Process Hierarchy window. If you want to display the entire encyclopedia, select **Entire Model** in the **Select** area.
 - 4 Click on **OK**.

Related Topics The table below shows you where to find information related to the Process Hierarchy command.

<u>For more information on...</u>	<u>See...</u>
how to use each command in the Process Hierarchy window	the entry in this manual for the individual command. For example, to learn how to use the Add command on the Process menu, see Add Process.
how to use the Process Hierarchy window's special features, such as the tool bar, mouse commands, and keyboard shortcuts,	the Process Hierarchy Window section in the <i>User's Guide</i>

PROCESS MAP

Opening a Process Map Window

Description The Process Map command allows you to open a Process Map window. This window provides a graphical representation of a selected process, its steps, control flows and other components in the current model view. This command is available from all windows.

Usage Tips The Process Map window may be sized and converted to an icon using standard Windows commands. When a Process Map window is activated, the Process Map menu bar appears across the top of the workspace.

Procedure à **To open a Process Map window:**

- 1 Choose **Process Map...** from the Process menu on the main menu bar or from the main menu on any other menu bar.

or

Click on the Process Map icon on the main Visible Advantage window.

Result: The Select Model View dialog box appears.

- 2 The Select Model View dialog box contains a list of all model views defined for the encyclopedia.

If you want to display the model view list in hierarchical order, select the **Structured** button. If you want to display the model view list in alphabetical order, select the **Alphabetical** button.

- 3 Highlight the name of the model view you want to display in the Process Map window.

If you want to display the entire encyclopedia, select **Entire Model** in the **Select** area.

- 4 Click on **OK**.

Result: The Select Process dialog box appears.

-
- 5 Complete the Select Process dialog box, then click on **OK**. See Change To Process in this manual for information on completing the Select Process dialog box.

Related Topics

The table below shows you where to find information related to the Process Map command.

<u>For more information on...</u>	<u>See...</u>
how to use each command in the Process Map window	the entry in this manual for the individual command. For example, to learn how to use the Add command on the Step menu, see Add Step
how to use the Process Map window's special features, such as the tool bar, mouse commands, and keyboard shortcuts	the Process Map Window section

PROCESS-PROCESS MATRIX

Opening a Process-Process Matrix Window

Description The Process-Process Matrix window allows you to view the invocation relationships between processes, providing a useful overview of the processes invoked by other processes in the model. The Process-Process matrix is not active. This means that you can only view the information in it, you cannot change it. This command is available from all windows.

Procedure à **To open a Process-Process Matrix window:**

- 1 From the main Visible Advantage window, choose **Process-Process Matrix...** from the Process menu.
or
From any other window, choose **Process Modeling** from the main menu, then choose **Process-Process Matrix** from the cascading menu.

Result: The Process-Process Matrix dialog box appears.
- 2 Select each checkbox for the process type(s) you want to display on the left and top axes (business processes and/or data access processes).
- 3 If you want to display the processes that access all entities in the encyclopedia, click on **Entire Model**. If you want to display the processes that access the entities in one model view, click on the **Single Model View** button, then select the model view from the drop-down list.
- 4 Click on **OK**.

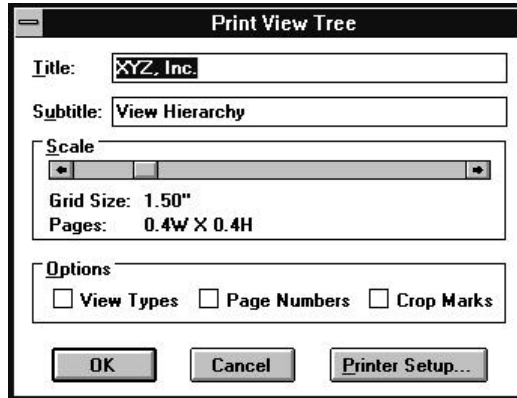
PRINT VIEW TREE

Printing the View Tree Diagram

- Description** The Print View Tree command, available from the View Hierarchy window, allows you to print the view hierarchy diagram.
- Usage Tips** If the view tree diagram is too large to fit on one page, use the Crop Marks feature in the Print View Tree dialog box. This option prints lines showing where you should trim your printed diagram pages before you paste the pages together.
- Procedure** à **To print the model view tree diagram:**
- 1 Choose **Print View Tree...** from the Display menu.
Result: The Print View Tree dialog box appears.
 - 2 Complete the dialog box, then click on **OK**.

Print View Tree Dialog Box

Dialog Box Illustration



Print View Tree Dialog Box

Dialog Box Components

Use the information below to complete the Print View Tree dialog box.

Component	Description
Title	Type a title for the diagram into this box. The title will print at the top of the printed diagram. This field defaults to the name of the encyclopedia.
Subtitle	Type a subtitle for the diagram into this box. The subtitle will print below the title. This field defaults to <i>View Hierarchy</i> .
Scale	Slide this scroll bar until the values in the Grid Size and/or Pages fields correspond to the desired diagram size. The Pages value tells you how many pages wide and high the diagram will cover at the scale value selected.
View Types	Select this checkbox if you want to include view types on the printed diagram.

-
- Page Numbers** Select this checkbox if you want to print page numbers on the printed diagram.
- The numbering scheme is `C/R', where `C' is the column number for the diagram page assembly, and `R' is the row number. This numbering scheme makes it easy to paste the pages of the diagram together.
- Crop Marks** Select this checkbox if you want to print crop marks showing you where to trim the diagram pages before you paste them together.
- Printer Setup** Click on this button to access the Printer Setup dialog box. See Printer Setup in this manual for more information.

PRINTER SETUP

Setting Up Printers

- Description** The Printer Setup command allows you to access the Windows Control Panel Printer Setup dialog boxes. This command is available from all windows.
- Usage Tips** The dialog boxes that this command invokes depend on what printers have been installed and defined as active in your Windows configuration. See your Windows documentation for information on setting up printers in Windows applications.
- Procedure** à **To access the Windows Printer Setup dialog box from within Visible Advantage:**
- Choose **Printer Setup...** from the File menu.

PURGE CLUSTER

Purge Cluster Run

Description This command allows the system administrator to delete a parent entity in a data model along with its children and other dependent relationships.

Procedure à **To purge a cluster run:**

- 1 Choose the Visible Advantage Admin Utility icon from the Program Manager window.
- 2 Open the **Encyclopedia** containing the Cluster to be purged.
- 3 Choose **Purge Cluster Run** from the cascading Encyclopedia menu.

Result: The Purge Cluster Run dialog box appears.

- 4 Choose the cluster to be deleted. Click on **OK**.

Result: The Cluster is purged from the encyclopedia.

PURGE HISTORY LOG

Purging the History Log

Description The Purge History Log command, available from the Visible Advantage Admin Utility program on the Program Manager window, allows a system administrator to purge the history file of all data as of a specified date.

Procedure à **To purge the history log file:**

- 1 Choose the Visible Advantage Admin Utility icon from the Program Manager window
- 2 Open the **Encyclopedia** containing the **History Log** to be purged.
- 3 Choose **Purge History Log...** from the cascading menu for the System Administration command.

Result: The Purge History Log dialog box appears.

- 4 Complete the Purge History Log dialog box, then click on **OK**.

Purge History Log Dialog Box

Dialog Box Illustration



Purge History Log Dialog Box

Dialog Box Components Use the information below to complete the Purge History Purge History Log dialog box.

Component	Description
Purge All	Select this button if you want to purge all history from the history file.
Purge Up To	Select this button if you want to purge all history before a specified date.
Purge Date	Type the date before which all history will be purged. Use the mm/dd/yy format.
First Entry Date	The first date that the current history log was updated appears in this box. This is not an input field.

REDISPLAY

Redisplaying the Active Window

- Description** The Redisplay command redraws the information inside the active window.
- Usage Tips** Occasionally, the words, lines, and images in a window become misaligned. Redrawing the window with this command corrects this misalignment.
- This command is available in all windows except the main Visible Advantage window.
- Procedure** à **To redraw the active window:**
- Choose **Redisplay** from the Window menu.

REMOVE STATEMENT FROM PARENT

Removing a Statement from an Outline Parent

- Description** The Remove From Parent command allows you to remove one or more statements from their current child positions in the outline.
- Usage Tips** To be eligible for this command, all selected statements must belong to more than one parent statement. Therefore, the command will be dimmed when any of the selected statements is the last occurrence of the statement in the outline.
- When you want to remove a statement from its last position in the outline, use the Delete command on the Statement menu.

- Procedure** à **To remove selected statements from their current outline positions:**
- 1 Select **Remove From Parent...** from the Statement menu.

Result: The Remove Planning Statement From Parent dialog box appears.

2 Note The command will not be available if any of the selected statements is the last occurrence of the statement.
 - 2 The **Title** field displays the name of all selected statements, which will be removed from their parents through this command.

If you still want to complete the command, click on **OK**.
Otherwise, click on **Cancel**.

RENAME ENCYCLOPEDIA

Renaming Encyclopedias

Description The Rename Encyclopedia command allows you to change the title and/or purpose of the current encyclopedia. The name of the directory in which the encyclopedia is located stays the same. This command is available from the Visible Advantage Admin Utility main menu.

Procedure à **To change the title of the current encyclopedia:**

1 Choose **Rename...** from the Encyclopedia menu.

 Result: The Rename Encyclopedia dialog box appears.

2 Change the information in the **Title** and/or **Purpose** box, then click on **OK**.

REOPEN SESSION

Reopening Sessions

Description The Reopen Session command allows you to reactivate a session that has been deactivated through the Close Session command.

Procedure à **To reopen a session:**

- 1 Choose **Sessions** from the Project menu on the main Visible Advantage window.
or
 Choose **Project Management** from the main menu on any other window, then choose **Sessions** from the cascading menu.
- 2 Choose **Reopen...** from the cascading menu for the Sessions command.

Result: If there are closed sessions for the encyclopedia, the Reopen Session dialog box appears. (*Proceed to next step.*)

If there are no closed sessions for the encyclopedia, a message box appears. (*Click on **OK**. End of procedure.*)

- 3 Highlight the title of the session you want to reopen in the **Session** list box. This list includes all sessions that have been closed through the Close Session command.
- 4 Click on **OK**.

REPLACE

Replacing Text in a Text Editor Window

Description The Replace command allows you to search and replace text inside the Session or Statement Editor windows.

Procedure à **To search and replace text in an editor window:**

1 Choose **Replace...** from the Search menu.

Result: The Replace dialog box appears.

2 Complete the Replace dialog box.

Click on **Find Next** to find the first occurrence of the text to be replaced.

If an occurrence is found, it is highlighted in the editor window.
(Proceed to next step.)

If an occurrence is not found a message indicating this appears in the window. *(End of procedure.)*

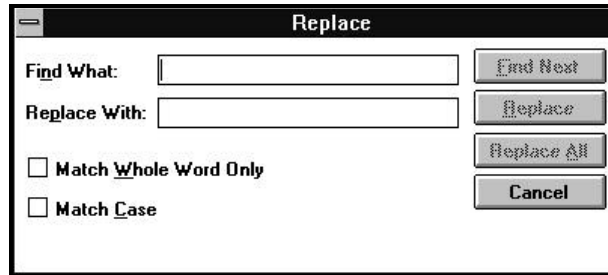
3 Click on **Replace** to replace only the currently highlighted occurrence of the specified text.

Click on **Replace All** to replace the current occurrence and all future occurrences of the specified text.

Click on **Cancel** if you do not want to replace any text.

Replace Dialog Box

Dialog Box Illustration



Replace Dialog Box

Dialog Box Components

Use the information below to complete the Replace dialog box.

<u>Component</u>	<u>Description</u>
Find What	Type the text string you want to find inside this box.
Replace With	Type the text string with which you want to replace the found text.
Match Whole Word Only	Select this checkbox if you would like to find an exact match for the entire string for which you are searching. Otherwise, the search and replace will find occurrences of the text string that are part of other words, as well as those that appear as separate words. + Example If you specify the word 'inform' in the Find What box and do not select the Match Whole Word Only checkbox, Visible Advantage will find the word 'information', as well as the word 'inform'. If you do select the Match Whole Word Only checkbox, Visible Advantage will narrow its search to occurrences of the word 'inform' only.

Match Case	Select this checkbox if you would like to find only those occurrences of the specified text string that match the case (upper-, lower-, or mixed-case) of the text you typed in the Find What box. Otherwise, Visible Advantage will find occurrences of the text string that use any combination of upper- and lower-case letters.
Find Next	Click on this button to find the next occurrence of your selected string.
Replace	Click on this button to replace the current occurrence of the text string.
Replace All	Click on this button to replace all occurrences of the text string.

REPORT FONT

Changing the Font for a Report

Description The Report Font command, available from main Visible Advantage window, allows you to change the font, font size, or font style for the reports and documents you print from the software tool.

Usage Tips The font you select through this command will be used until you use the command again to select a new font.

This command uses the standard Windows dialog box for changing fonts and font styles. The fonts that appear in the Font dialog box depend on the fonts installed on your computer. See your Windows documentation for more information on adding fonts and font sizes in Windows applications.

2 Note For information on using the Font command, available from the Planning Outline window or any Matrix window, see Font in this manual.

For information on using the Editor Font command, available from both the Session and Statement Editor windows, see Editor Font in this manual.

Procedure à **To change the font for reports and documents:**

1 From the main Visible Advantage window, choose **Report Font...** from the main menu.

Result: The Font dialog box appears.

2 Complete the Font dialog box, then click on **OK**.

REPORTS

Overview

Description You can print a wide variety of reports that document the data in your encyclopedias. This section explains the basic procedure for printing a report and describes the specific options available for each report, along with the fields that appear on the report.

For additional information on reports, including samples and report field descriptions, see the Reports section in the *User's Guide*. For information on how to configure and save report documents, see Documents in this manual.

In This Section This section covers the following topics.

Topic

- Printing Reports
- View Report
- Planning Statement Report
- Entity Report
- Attribute Report
- Cluster Report
- Domain Report
- Process Report
- Process Hierarchy Report
- Design Object Report
- Data Item Report
- Model Analysis Report
- Notes Report
- Session Report
- History Log Report
- Valid Words Dictionary Report

Printing Reports

- Description** The basic procedure is the same for printing each type of report. This section explains this procedure.
- Usage Tips** Any report may be directed to a printer, text file, or the screen. If you direct output to the screen, the Report-Viewing window appears, allowing you to search for text strings within the report, save the report to a text file, or print it. For information on the Report-Viewing window, see Reports in the *User's Guide*.
- Procedure** à **To print a report:**
- 1 From the main Visible Advantage window, choose **Reports** from the File menu, then choose the name of the report you want to print from the cascading menu that appears.

Result: The dialog box for the report you selected appears.
 - 2 Complete the dialog box, then click on **OK**. See the following pages for information on completing the dialog box for each report.

Result: The Report Destination dialog box appears.
 - 3 Select a report destination (**Printer**, **File**, or **Screen**). If you select **Printer**, be sure your printer is turned on and is online.
 - 4 Click on **OK**.

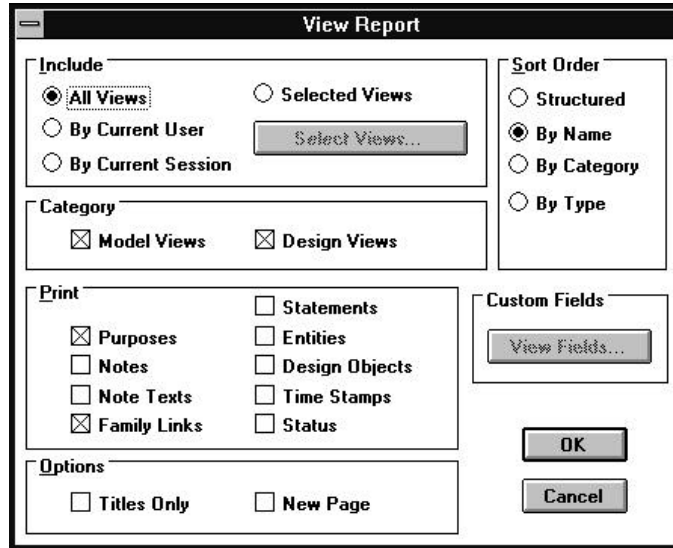
Result: If you selected **Printer**, the report will be sent to the printer.

If you selected **File**, you will be prompted for the name of the file to which you want the report to be sent.

If you selected **Screen**, the report-viewing window and menu bar appear. Refer to the Reports section of the *User's Guide* for more information on viewing reports on the screen.

View Report Dialog Box

Dialog Box Illustration



View Report Dialog Box

Report Description

The View report prints information on all or selected model views, including the following special options: hierarchy family links, attached notes, and the statements, entities, and designs within each reported model view. You can sort the View report by hierarchy level, by statement title, or by statement type.

A totals page prints at the end of the View report, detailing the number of each type of model view and the total number of model views reported.

Dialog Box Components

Use the information below to complete the View Report dialog box.

<u>Component</u>	<u>Description</u>
All Views	Select this button to include all views.
By Current User	Select this button to include only those views created or modified by the current user.

By Current Session	Select this button to include only those model views created or modified during the current session.
Selected Views	Select this button to include only selected views. To select views, click on the Select Views button, described below.
Select Views	Select the views to include in the report. This button is available only if the Selected Views button, described above, is selected. When you click on this button, the Select Views dialog box appears.
Purposes	Select this checkbox to include the purpose for each reported view.
Notes	Select this checkbox to include the notes attached to each reported view.
Note Texts	Select this checkbox to include the text of each reported note.
Family Links	Select this checkbox to include the parent and child views of each reported, as defined by the view hierarchy.
Statements	Select this checkbox to include the statements visible in each reported view.
Entities	Select this checkbox to include the entities visible in each reported model view.
Design Objects	Select this checkbox to include the design objects related to each reported design view.
Time Stamps	Select this checkbox to include the date and time the model view as created and last modified, along with the user who created/modified it and the session in which it was created/modified.
Status	Select this checkbox to include the status of the view.

Structured	Select this button to sort the report hierarchically, as defined by the view hierarchy.
By Name	Select this button to sort the report alphabetically by name of reported model views.
By Category	Select this button to sort the report by category.
By Type	Select this button to sort the report by type of reported model views.
View Fields	Click on this button to select the custom fields to include in the report. This button is only available if custom fields have been defined using Admin Utility Table/Custom Fields.
Titles Only	Select this checkbox to include only the titles of the reported model views, with no details.
New Page	Select this checkbox to start each reported model view on a new page.

Planning Statement Report Dialog Box

Dialog Box Illustration

The screenshot shows the 'Planning Statement Report' dialog box. It is organized into several sections:

- Include:** Radio buttons for 'All Statements' (selected), 'By Current User', and 'By Current Session'. A 'Selected Statements' radio button and a 'Select Statements...' button are also present.
- Sort Order:** Radio buttons for 'Outline', 'By Title' (selected), and 'By Type'.
- Statement Types:** Radio buttons for 'All Statement Types' (selected) and 'Selected Statement Types'. A 'Select Statement Types...' button is also present.
- Views:** Radio buttons for 'Entire Model' (selected) and 'Selected Views'. A 'Select Views...' button is also present.
- Custom Fields:** A 'Statement Fields...' button.
- Print:** Checkboxes for 'Statement Text' (checked), 'Model Links' (checked), 'Outline Links', 'Priorities', 'Notes', 'Note Texts', 'Time Stamps', and 'Status'. An 'Outline Numbering:' dropdown menu is set to 'None'.
- Options:** Checkboxes for 'Titles Only' and 'New Page'.

At the bottom of the dialog are 'OK' and 'Cancel' buttons.

Planning Statement Report Dialog Box

Report Description

The Planning Statement report prints information on all or selected planning statements and business events, including the following special options: statement text, dictionary links, attached notes, and outline family links. You can sort the Planning Statement report by hierarchy level, by statement title, or by statement type.

A totals page prints at the end of the Planning Statement report, detailing the number of each type of statement and the total number of entities reported.

Dialog Box Components

Use the information below to complete the Planning Statement Report dialog box.

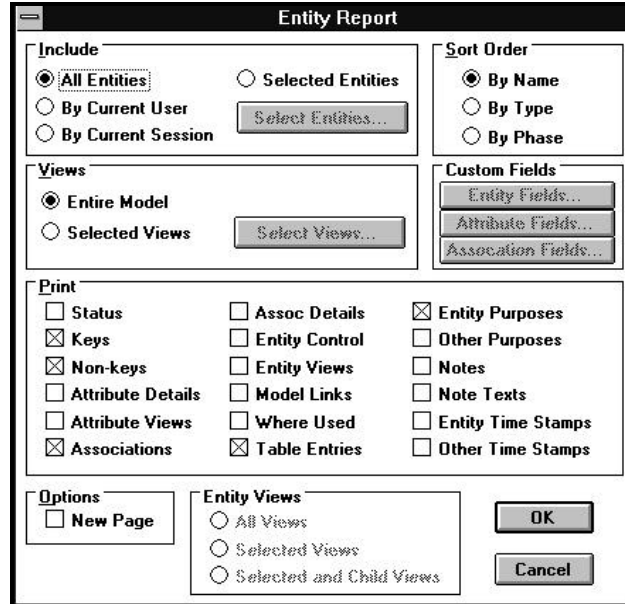
Component	Description
All Statements	Select this button to include in the report all statements visible in the selected model view(s) (see below).
By Current User	Select this button to include in the report all statements created or modified by the current user that are visible in the selected model view(s).
By Current Session	Select this button to include in the report all statements created or modified in the current session that are visible in the selected model view(s).
Selected Statements	Select this button to include in the report only selected statements within the selected model view(s). To select the statements, click on the Select Statements button, described below.
Select Statements	Select the statements to include in the report. When you click on this button, the Select Statements dialog box appears. See Select Statements in this manual for a description of the fields in this dialog box.
Outline	Select this checkbox to arrange the report in outline format as defined in the planning outline.
By Title	Select this checkbox to arrange the report alphabetically by statement title.
By Type	Select this checkbox to arrange the report by statement type.
All Statement Types	Select this button to include statements of all types that meet the specifications defined in the Include and Model Views areas.
Selected Statement Types	Select this button to include only statements of selected types that meet the specifications defined in the Include and Model Views areas. To select statement types, click on the Select Statement Types button, described below.

Select Statement Types	<p>Select the types of statements to include in the report. When you click on this button, the Select Statement Types dialog box appears.</p> <p>This dialog box allows you to select statement types by moving them from the Available list box to the Selected list box.</p>
Entire Model	<p>Select this button to include in the report all statements in the encyclopedia that meet the specifications defined in the Include area.</p>
Selected Views	<p>Select this button to include in the report only those statements visible in selected views that meet the specifications defined in the Include area. To select views, click on the Select Views button, described below.</p>
Select Views	<p>Select the views to include in the report. When you click on this button, the Select Views dialog box appears.</p> <p>This dialog box works the same way as the Select Statements dialog box. See Select Statements in this manual for information on completing this type of dialog box.</p>
Statement Fields	<p>Use this button to select custom fields.</p>
Statement Text	<p>Select this checkbox to include the text of each reported statement.</p>
Model Links	<p>Select this checkbox to indicate the links between each reported statement and entities, attributes, design objects, and associations in the data model.</p>
Outline Numbering	<p>Select from this drop-down list the outline numbering format you want to use. This option is available only if the Outline button in the Sort Order area is selected.</p>

Outline Links	Select this checkbox to indicate the parent and child statements as defined in the planning outline for each reported statement.
Priorities	Select this checkbox to include the priority of each statement in each position in the outline hierarchy. This option is available only if the Outline button in the Sort Order area is selected. This is necessary because a single statement can have a different priority assigned to it at each position in the outline.
Notes	Select this checkbox to indicate any notes attached to each reported statement.
Note Texts	Select this checkbox to include the text of each reported statement's notes.
Time Stamps	Select this checkbox to include the date and time each reported statement was created and last modified.
Status	Select this checkbox to include the status of each reported statement.
Titles Only	Select this checkbox to print only the title and, if selected, outline numbers on the report.
New Page	Select this checkbox to start each reported statement on a new page.

Entity Report Dialog Box

Dialog Box Illustration



Entity Report Dialog Box

Report Description

The Entity report prints information on all or selected entities, including the following special options: attributes and details; attribute and entity views; associations and details; attached notes; and control, statement, and design links.

A totals page prints at the end of the Entity report, detailing the number of each type of entity reported and the total number of entities reported.

Dialog Box Components

Use the information below to complete the Entity Report dialog box.

Component	Description
All Entities	Select this button to include in the report all entities visible in the selected model view(s) (see below).

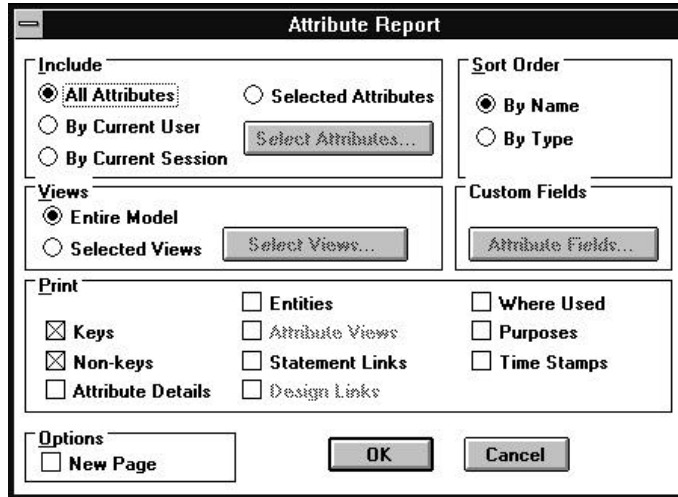
By Current User	Select this button to include in the report all entities created or modified by the current user that are visible in the selected model view(s).
By Current Session	Select this button to include in the report all entities created or modified in the current session that are visible in the selected model view(s).
Selected Entities	Select this button to include in the report only selected entities within the selected model view(s). To select the entities, click on the Select Entities button, described below.
Select Entities	Select the entities to include in the report. When you click on this button, the Select Entities dialog box appears. See Select Entities in this manual for a description of the fields in this dialog box.
By Name	Select this button to sort by name.
By Type	Select this button to sort by type.
By Phase	Select this button to sort by phase.
Entire Model	Select this button to include in the report all entities in the encyclopedia that meet the specifications defined in the Include area.
Selected Model Views	Select this button to include in the report only those entities visible in selected model views and that meet the specifications defined in the Include area. To select model views, click on the Select Views button, described below.
Select Views	Select the model views to include in the report. When you click on this button, the Select Model Views dialog box appears.
	This dialog box works the same way as the Select Statements dialog box. See Select Statements in this manual for information on completing this type of dialog box.

Entity Fields	Select this button to select the custom entity fields to include in the report.
Attribute Fields	Select this button to select the custom attribute fields to include in the report.
Association Fields	Select this button to select the custom association fields to include in the report.
Status	Select this checkbox to include the status of the reported entities.
Keys	Select this checkbox to include the primary and foreign keys for each reported entity.
Non-Keys	Select this checkbox to include the non-key attribute(s) for each reported entity.
Attribute Details	Select this checkbox to include details for each reported attribute (key and non-key), such as its domain, entity of origin, nature, and edit rule.
Attribute Views	Select this checkbox to include the model views and authorities for each reported attribute.
Associations	Select this checkbox to include the associations for each reported entity.
Assoc Details	Select this checkbox to include the association details for each reported association.
Entity Control	Select this checkbox to indicate the entities controlled by or that control each reported entity.
Entity Views	Select this checkbox to include the model views in which each reported entity is visible.
Model Links	Select this checkbox to indicate the model objects linked to each reported entity.
Where Used	Select this checkbox to include where the reported entity is used.

Entity Purposes	Select this checkbox to include the purpose text for each reported entity.
Other Purposes	Select this checkbox to include the purpose text for each reported attribute and association.
Notes	Select this checkbox to indicate any notes attached to each reported entity.
Note Texts	Select this checkbox to include the text of each reported entity's notes.
Entity Time Stamps	Select this checkbox to include the date and time each reported entity was created and last modified.
Other Time Stamps	Select this checkbox to include the date and time that the attributes and associations for each reported entity were created and last modified.
New Page	Select this checkbox to begin each reported entity on a new page.
All Views	If the Attribute Views and/or Entity Views checkboxes are selected in the Print area, the report will print all model views in which the reported attributes and/or entities are visible.
Selected Views	If the Attribute Views and/or Entity Views checkboxes are selected in the Print area, the report will print only those model views selected through the Select Views button in which the reported attributes and/or entities are visible.
Selected and Child Views	If the Attribute Views and/or Entity Views checkboxes are selected in the Print area, the report will print only those model views selected through the Select Views button and their child views in which the reported attributes and/or entities are visible.

Attribute Report Dialog Box

Dialog Box Illustration



Attribute Report Dialog Box

Report Description

The Attribute report prints information on all or selected attributes, including the following special options: keys and non-keys, attribute details, owning entities, attribute views, statement and design links.

A totals page prints at the end of the Attribute report, detailing the number of each type of attribute reported and the total number of attribute reported.

Dialog Box Components

Use the information below to complete the Attribute Report dialog box.

Component	Description
All Attributes	Select this button to include all attributes visible in the selected model view(s) (see below).
By Current User	Select this button to include all attributes created or modified by the current user that are visible in the selected model view(s).

By Current Session	Select this button to include all attributes created or modified in the current session that are visible in the selected model view(s).
Selected Attributes	Select this button to include only selected attributes within the selected model view(s). To select the attributes, click on the Select Attributes button, described below.
Select Attributes	Select the attributes to include in the report. When you click on this button, the Select Attributes dialog box appears. This dialog box works the same way as the Select Entities dialog box. See Select Entities in this manual for a description of the fields in this dialog box.
By Name	Select this button to arrange the report alphabetically by attribute name.
By Type	Select this button to arrange the report alphabetically by attribute type (elemental and group attributes).
Entire Model	Select this button to include in the report all attributes in the encyclopedia that meet the specifications defined in the Include area.
Selected Views	Select this button to include only those attributes visible in selected model view(s) that meet the specifications defined in the Include area. To select model views, click on the Select Views button, described below.
Select Views	Select the model view(s) to include in the report. When you click on this button, the Select Model Views dialog box appears. This dialog box works the same way as the Select Entities dialog box.
Attribute Fields	Select this button to select custom attribute fields to include in the report.
Keys	Select this checkbox to include primary and foreign keys.

Non-Keys	Select this checkbox to include non-key attributes.
Attribute Details	Select this checkbox to include details for each reported attribute (key and non-key), such as its domain, entity of origin, nature, and edit rule.
Entities	Select this checkbox to include the entities to which each reported attribute belongs.
Attribute Views	Select this checkbox to indicate the model views in which each attribute is visible, including the model view authority each model view has for each attribute.
Statement Links	Select this checkbox to indicate the planning statements to which each attribute has been linked.
Design Links	Select this checkbox to indicate the design objects and data items to which each attribute has been linked.
Where Used	Select this checkbox to indicate where each reported attribute is used.
Purposes	Select this checkbox to include the purpose text for each attribute.
Time Stamps	Select this checkbox to indicate the date and time each attribute was created and last modified.
New Page	Select this checkbox to begin each new reported attribute on a new page.

Cluster Report Dialog Box

Dialog Box Illustration

The screenshot shows a dialog box titled "Cluster Report". It is divided into several sections:

- Views:** Two radio buttons are present: "Entire Model" (which is selected) and "Selected Views". A "Select Views..." button is located to the right of the "Selected Views" radio button.
- Print:** Three checkboxes are shown: "View Authorities", "Core Entities Only", and "Relationships".
- New Cluster Run:** Two radio buttons: "Generate new cluster run" (selected) and "Reprint old cluster run". A checked checkbox "Save new cluster run" is also present. Below these is a "Title:" label followed by a text input field and a small downward-pointing arrow button.
- Old Cluster Run:** A checked checkbox "Compare to previous cluster run" is at the top. Below it is a list box containing three entries:
 - XYZ1.CLU (Fri Dec 27 11:41:32 1996)
 - XYZ2.CLU (Fri Dec 27 15:32:50 1996)
 - XYZ3.CLU (Tue Dec 31 18:11:39 1996)

In the top right corner, there are "OK" and "Cancel" buttons.

Cluster Report Dialog Box

Report Description

The Cluster report generates the clusters for the encyclopedia or individual model views and includes the analysis information in a report.

Cluster analysis provides a precise determination of separately implementable subsets of the data model based on data dependency. Cluster analysis is precise. It is not an approximation, nor does it require guesswork on the part of users.

When you print a Cluster report, you can save the cluster information in a cluster file; you may then compare clusters analyzed in subsequent Cluster reports to those reported in an existing cluster file.

The name of the file to which cluster information has been saved appears at the end of the Cluster report.

Dialog Box Components

Use the information below to complete the Cluster Report dialog box.

Component	Description
Entire Model	Analyze the clusters in the entire encyclopedia.
Selected Views	Analyze the clusters in selected model views only. To select the model views, use the Select Views button, described below.
Select Views	Select the model view(s) whose clusters you want to analyze. This button is not available if the Selected Views button is not selected. When you click on this button, the Select Model Views dialog box appears.
View Authorities	Select this checkbox to include the model view authority for each reported entity.
Core Entities Only	Select this checkbox to include only core entities in the cluster. A cluster of core entities includes only mandatory parent entities—"mandatory-away" associated or control-linked entities are not included. Core entities are marked in the Cluster report by bold text.
Relationships	Select this checkbox to include an explanation of why each entity is included in the cluster.
Generate new cluster file	Generate a file to contain the cluster information from this report. This enables you to compare the cluster information to cluster files generated in the future, or print a report from the cluster information.
Reprint Old Cluster Run	Select this button to reprint the old cluster run.
Save New Cluster Run	Select this checkbox to save the new cluster run.
Title	Select the title from the drop-down list.

Compare to
previous
cluster file

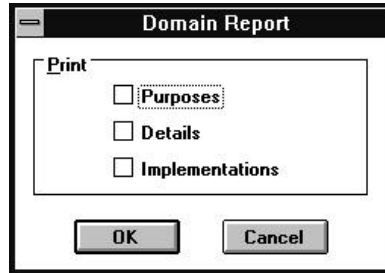
Compare the clusters detected in this report with those detected in a previously run report. To do this, a cluster file must have been generated for the previous cluster information (use the Generate new cluster file option).

File name
(Old Cluster
File area)

Select the name of the previous cluster file, to which you want to compare the new cluster information. When you click on the name of the previous cluster file in this list box, the file name appears in the File Name field.

Domain Report Dialog Box

Dialog Box Illustration



Domain Report Dialog Box

Report Description

The Domain report prints information about the domains that have been defined for the encyclopedia, including the following options: purposes, details, and data conversions necessary for each data structure manager.

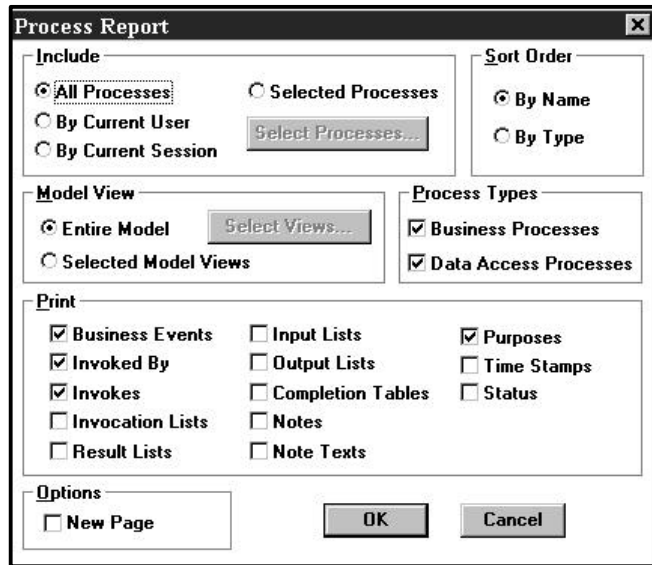
Dialog Box Components

Use the information below to complete the Domain Report dialog box.

Component	Description
Purposes	Select this checkbox to include the purpose of each domain.
Details	Select this checkbox to include the data type and length for each domain.
Implementations	Select this checkbox to include the data type of each domain when used with each data structure manager defined for the encyclopedia.

Process Report Dialog Box

Dialog Box Illustration



Process Report Dialog Box

Report Description

The Process report prints information on all or selected processes, including the following special options: business events; Invocation, Result, Input, and Output lists; notes; and completion tables.

A totals page including the number of each process type prints at the end of the Process report.

Dialog Box Components

Use the information below to complete the Process Report dialog box.

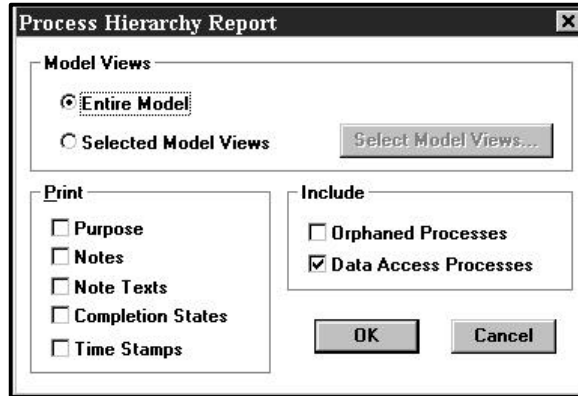
Component	Description
All Processes	Include all processes in the report that are visible in the selected model view(s).
By Current User	Include all processes created or modified by the current user that are visible in the selected model view(s).

By Current Session	Include all processes created or modified during the current session that are visible in the selected model view(s).
Selected Processes	Include only selected processes within the selected model view(s). To select the processes, click on the Select Processes button, described below.
Select Processes	Select the processes to include in the report. Click on this button to display the Select Processes dialog box.
Entire Model	Include processes that access or respond to data in the entire encyclopedia and meet the specifications defined in the Include area.
Selected Model Views	Include only those processes that access or respond to data in selected model view(s) and meet the specifications defined in the Include area. To select model views, click on the Select Views button, described below.
Select Views	Select the applicable model view(s) for the report. Click on this button to display the Select Model Views dialog box.
Business Processes	Include business events in the report.
Data Access Processes	Include data access processes in the report.
Business Events	Include business events in the report.
Invocation Lists	Include a list of attributes that invoke each reported process, if applicable.
Result Lists	Include a list of attributes that result from the completion of each reported process, if applicable.
Input Lists	Include a list of attributes accepted by each reported process, if applicable.

Output Lists	Include a list of attributes presented by each reported process, if applicable.
Completion Tables	Indicate the valid completion states for each reported process.
Notes	Indicate the notes attached to each reported process.
Note Text	Include the text of each note attached to reported processes.
Purposes	Include the purpose of each process.
Time Stamps	Indicate the date and time each process was created and last modified.
By Name	Arrange the report alphabetically by process name.
By Type	Arrange the report by process type (business processes, data access processes).

Process Hierarchy Report Dialog Box

Dialog Box Illustration



Process Hierarchy Report Dialog Box

Report Description

The Process Hierarchy report prints the process hierarchy for the entire encyclopedia or for selected model views. The report offers the following options: business events, business processes, data access processes, notes, completion states.

A totals page detailing the number of each reported object prints at the end of the Process Hierarchy report.

Dialog Box Components

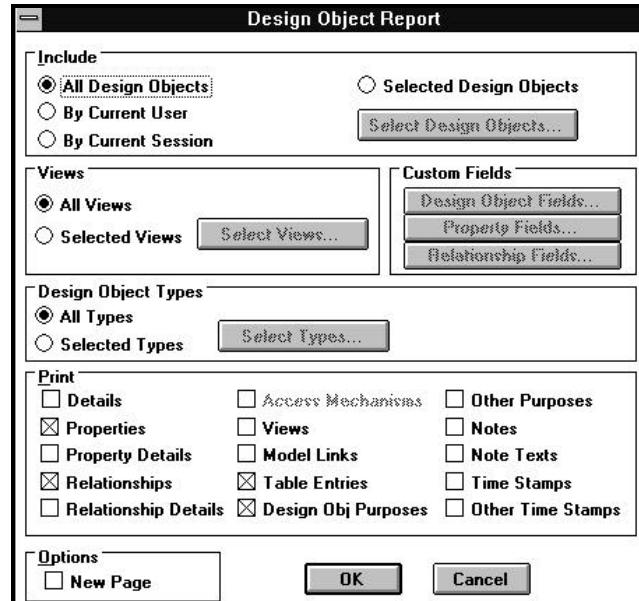
Use the information below to complete the Process Hierarchy Report dialog box.

Component	Description
Entire Model	Include the data access processes that access the data in the entire encyclopedia and the business processes that respond to business events in the entire encyclopedia.
Selected Model Views	Include the data access processes that access the data in the selected model view(s) and the business processes that respond to business events in the selected model view(s). To select the model view(s), use the Select Views button.

Select Views	Select the applicable model view(s) for the report. This button is available only if you select the Selected Model Views button. Click on this button to display the Select Model Views dialog box.
Business Events	Include business events in the report.
Business Processes	Include business processes in the report.
Data Access Processes	Include data access processes in the report.
Purpose	Include the purpose of each process.
Notes	Indicate the notes attached to each reported process.
Note Text	Include the text of each note attached to each reported process.
Completion States	Indicate the valid completion states for each process.
Time Stamps	Indicate the date and time each process was created last modified.

Design Object Report Dialog Box

Dialog Box Illustration



Design Object Report Dialog Box

Report Description

The Design Object report prints information on all or selected design objects, including the following special options: data items and details, relationships and details, database designs, data model links, notes, and table entries.

A totals page prints at the end of the design object report, detailing statistics for the design object(s) reported.

Dialog Box Components

Use the information below to complete the Design Object Report dialog box.

Component	Description
All Design Objects	Select this button to include in the report all design objects that reside in the selected database designs.

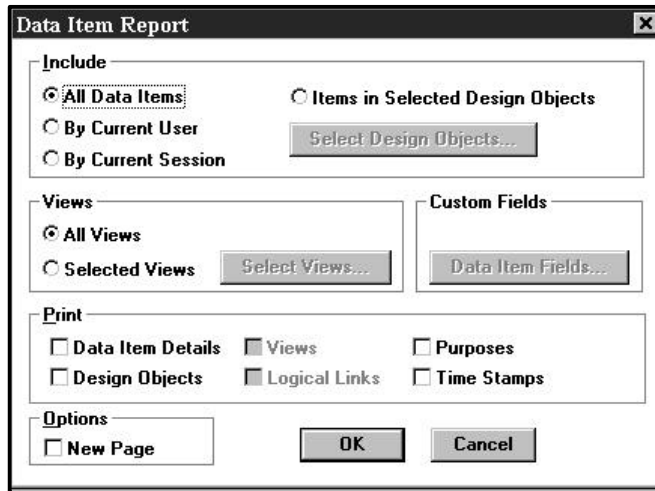
By Current User	Select this button to include in the report all design objects created or modified by the current user.
By Current Session	Select this button to include in the report all design objects created or modified during the current session.
Selected Design Objects	Select this button to include in the report only selected design objects. To select design objects, use the Select Data Structures button.
Select Design Objects	Select the design object to include in the report. This button is available only when the Selected Design Objects button is selected. Click on this button to display the Select Design Objects dialog box.
All Views	Select this button to include in the report the design objects in all views.
Selected Views	Select this button to include in the report the design objects in selected views. To select the views, click on the Select Views button.
Select Views	Select the views that contain the design objects you want to include in the report. This button is available only when the Selected Views button is selected. Click on this button to display the Select Views dialog box.
Design Object Fields	Select this button to select the custom design object fields you want to include in the report.
Property Fields	Select this button to select the custom property fields you want to include in the report.
Relationship Fields	Select this button to select the custom relationship fields you want to include in the report.
All Types	Select this button to include all design object types.
Selected Types	Select this button to include only selected design object types.

Select Types	Select this button to select the design object types to include. Click on this button to display the Select Design Object Types dialog box.
Details	Select this checkbox if you want to print details for each reported design object. Details include code, type, and volume.
Properties	Select this checkbox to include the properties for each reported design object.
Property Details	Select this checkbox to include property details for each reported design object.
Relationships	Select this checkbox to include design object relationships.
Relationship Details	Select this checkbox to include details for each reported design object relationship.
Access Mechanisms	Select this checkbox to include access mechanisms.
Views	Select this checkbox to indicate the views in which each reported design object resides.
Model Links	Select this checkbox to indicate the entities and attributes to which each design object has been linked.
Table Entries	Select this checkbox to indicate the values of each property for each static design object.
Design Object Purposes	Select this checkbox to include the purpose of each reported design object.
Other Purposes	Select this checkbox to include the purpose of each reported property and design object relationship.
Notes	Select this checkbox to indicate the notes attached to each reported design object.

Note Text	Select this checkbox to include the text of each note attached to reported design objects.
Time Stamps	Select this checkbox to indicate the date and time each design object was created and last modified.
Other Time Stamps	Select this checkbox to indicate the date and time each data item and data structure relationship was created and last modified.
New Page	Start each new design object on a new page.

Data Item Report Dialog Box

Dialog Box Illustration



Data Item Report Dialog Box

Report Description

The Data Item report prints information on all or selected data items, including the following special options: owning data structures, database designs, and data model links.

A totals page prints at the end of the Data Item report, detailing the statistics for the data items reported.

Dialog Box Components

Use the information below to complete the Data Item Report dialog box.

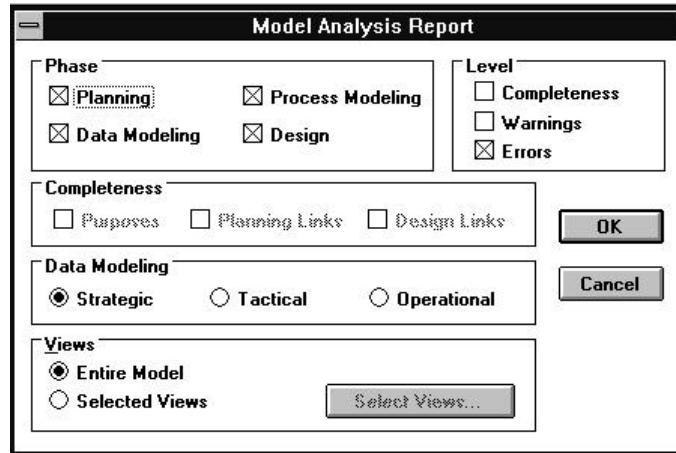
<u>Component</u>	<u>Description</u>
All Data Items	Select this button to include in the report all data items that reside in the selected database designs.
By Current User	Select this button to include in the report all data items created or modified by the current user.
By Current Session	Select this button to include in the report all data items created or modified during the current session.

Items in Selected Design Objects	Select this button to include in the report only selected design objects. To select design objects, use the Select Design Objects button.
Select Design Objects	Select the design objects to include in the report. This button is available only when the Selected Design Objects button is selected. Click on this button to display the Select Design Objects dialog box.
All Views	Select this button to include in the report the data items in all views.
Selected Views	Select this button to include in the report the data items in selected views. To select the views, click on the Select Views button.
Select Views	Select the views that contain the data items you want to include in the report. This button is available only when the Selected Views button is selected. Click on this button to display the Select Views dialog box.
Data Item Fields	Select the custom data item fields that you want to include in the report.
Data Item Details	Select this checkbox to include data item details in the report. These include the data item's data type and type (buffer, column, etc.).
Design Objects	Select this checkbox to indicate the design object(s) to which each data item belongs.
Views	Select this checkbox to indicate the views in which each data item resides.
Logical Links	Select this checkbox to indicate the entity/entities and attribute(s) linked to each data item.
Purposes	Select this checkbox to include the purpose of each data item.

-
- Time Stamps Select this checkbox to include the date and time each data item was created and last modified.
- New Page Select this checkbox to start each new data item on a new page.

Model Analysis Report Dialog Box

Dialog Box Illustration



Model Analysis Report Dialog Box

Report Description

The Model Analysis report automates the consistency quality-checking required to enforce the rigor of business-driven Information Engineering. The level of detail for this analysis is determined by the methodology phase selected (planning through design) and the model view(s) you include in the analysis. Model Analysis also checks to ensure that all necessary object details have been defined.

See the Appendices section of the *Reference Manual* for a complete checklist of all items analyzed during Model Analysis.

Dialog Box Components

Use the information below to complete the Model Analysis Report dialog box.

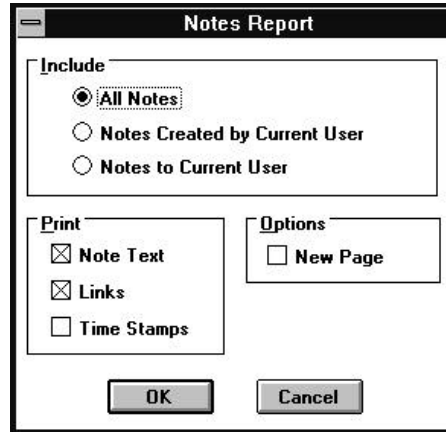
<u>Component</u>	<u>Description</u>
Planning	Select this checkbox to analyze objects in the planning phase of the encyclopedia. This includes data added through any of the planning windows.

Data Modeling	Select this checkbox to analyze objects in the data modeling phase of the encyclopedia. This includes data added through any of the data modeling windows.
Process Modeling	Select this checkbox to analyze objects in the process modeling phase of the encyclopedia. This includes data added through any of the process modeling windows.
Design	Select this checkbox to analyze objects in the database design phase of the encyclopedia. This includes data added through the Design Dictionary window.
Completeness	Select this checkbox if you want to check for analysis items that are in the completeness category.
Warnings	Select this checkbox if you want to check for analysis items that are in the warnings category.
Errors	Select this checkbox if you want to check for analysis items that are in the errors category.
Purposes	If Completeness is selected in the Level area, select this checkbox if you want to check purposes for completeness.
Planning Links	If Completeness is selected in the Level area, select this checkbox if you want to check planning links for completeness.
Design Links	If Completeness is selected in the Level area, select this checkbox if you want to check design links for completeness.
Strategic	If Data Modeling is selected in the Phase area, select this button if you want to check the data model for items required only at the strategic level.
Tactical	If Data Modeling is selected in the Phase area, select this button if you want to check the data model view items required through the tactical level.

Operational	If Data Modeling is selected in the Phase area, select this button if you want to check the data model view items required through the operational level.
Entire Model	If Planning, Data Modeling, and/or Process Modeling is selected in the Phase area, analyze the selected phases' objects in the entire model.
Selected Views	If Planning, Data Modeling, and/or Process Modeling is selected in the Phase area, analyze the selected phases' objects in selected model views. Use the Select Views button to select the model views.
Select Views	Select the model views you want Model Analysis to check. This button is available only if you selected the Selected Model Views button. Click on this button to display the Select Model Views dialog box.

Notes Report Dialog Box

Dialog Box Illustration



Notes Report Dialog Box

Report Description

The Notes report prints notes written for the encyclopedia (all notes, those written by the current user, or those written to the current user). You can optionally include the note text and/or any object links for the notes.

A totals page prints at the end of the Notes report, detailing the statistics for the notes reported.

Dialog Box Components

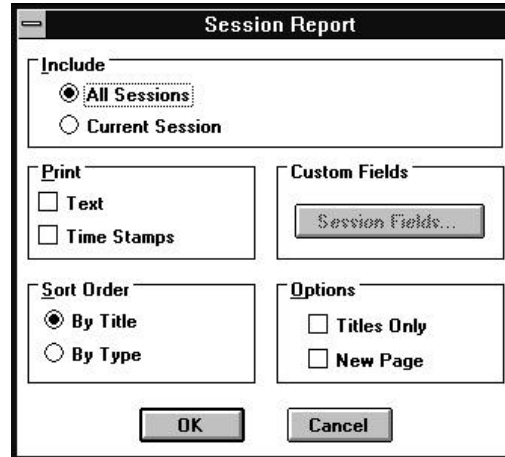
Use the information below to complete the Notes Report dialog box.

<u>Component</u>	<u>Description</u>
All Notes	Select this button if you want to include all notes in the report.
Notes Created By Current User	Select this button if you want to include only notes created by the current user.
Notes to Current User	Select this button if you want to include notes attached to the current user.

Note Text	Select this option if you want to include the text of reported notes.
Links	Select this option if you want to include a list of objects to which the note has been attached.
Time Stamps	Select this button if you want to include the date and time the note was created and last modified.
New Page	Select this option if you want each note to begin on a new page.

Session Report Dialog Box

Dialog Box Illustration



Session Report Dialog Box

Report Description The Session report prints information on all or selected sessions, including session notes, if specified.

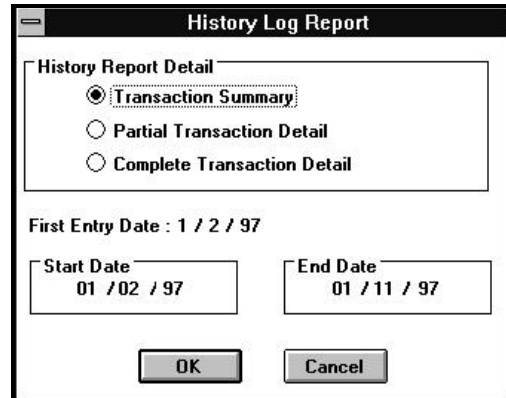
Dialog Box Components Use the information below to complete the Session Report dialog box.

<u>Component</u>	<u>Description</u>
All Sessions	Select this button to include all sessions.
Current Session	Select this button to include only the current session.
Text	Select this button to include session note text.
Time Stamps	Select this button to include date/time stamps for each reported session.
Session Fields	Select this button to select the custom session fields to include in the report.

By Title	Select this button to sort the report alphabetically by session title.
By Type	Select this button to sort the report by type.
Titles Only	Select this checkbox to include only the title of each session, with no details.
New Page	Select this checkbox to begin each reported session on a new page.

History Log Report Dialog Box

Dialog Box Illustration



History Log Report Dialog Box

Report Description

The History Log report prints the contents for the history log file, which contains a record of each change made to the encyclopedia since the last time the file was purged through the Purge History Log command.

You may choose one of three increasingly detailed levels for the History Log report: transaction summary, partial transaction detail, and complete transaction detail.

Dialog Box Components

Use the information below to complete the History Log Report dialog box.

<u>Component</u>	<u>Description</u>
Transaction Summary	Select this button if you want to print a summary of transactions, with no detail. This summary includes the type of transaction (create, update, delete), along with the name of the object of the transaction, and the time/date stamp for the transaction.
Partial Transaction Detail	Select this button if you want to include in the report the actions taken during each transaction.

Complete
Transaction
Detail

Select this button if you want to include details about each action taken during each transaction.

First Entry
Date

This field displays the first date recorded in the history log. This is either the date the encyclopedia was created or the last date the history log was purged.

You purge history log data through the Purge History Log File command.

Start Date

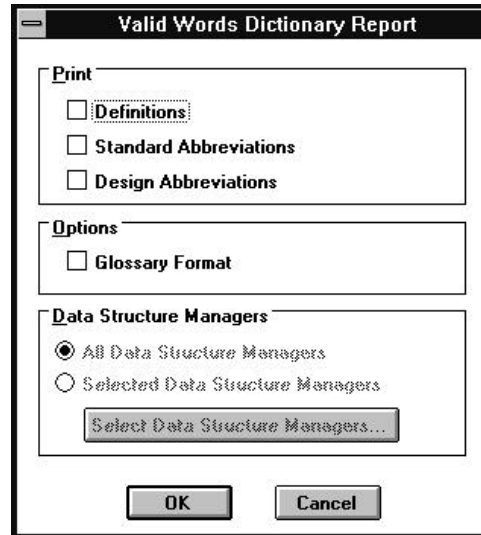
Type into this field the date *from* which you want to include transactions. This field uses *mm/dd/yy* format.

End Date

Type into this field the date *until* which you want to include transactions. This field uses *mm/dd/yy* format.

Valid Words Dictionary Report Dialog Box

Dialog Box Illustration



Valid Words Dictionary Report Dialog Box

Report Description

The Valid Words Dictionary Report prints a report of all the words contained in the standard words dictionary. This Dictionary is primarily used for standard abbreviations that can be applied when copying data from logical to physical Views and vice versa.

Dialog Box Components

Use the information below to complete the Valid Words Dictionary Report Dialog Box.

Component	Description
Definitions	Select this checkbox to print definitions.
Standard Abbreviations	Select this checkbox to print standard abbreviations.
Design Abbreviations	Select this checkbox to print design abbreviations.

Glossary
Format

Select this checkbox to print the report in
glossary format.

All Data
Structure
Managers

Select this button to include all data structure
managers in the report.

Selected Data
Structure
Managers

Select this button to include only selected data
structure managers in the report.

Select Data
Structure
Managers

Select the data structure managers you want to
include in the report. This button is available only
if you selected the Selected Data Structure
Managers button.

RESULT LIST

Displaying and Hiding the Result List

Description The Result List command displays the Result List box in the Process Map window when it is hidden, and hides the Result List box when it is displayed.

The Result List box contains the aggregate of unaccounted for components of the Accept and Return lists in the process.

Procedure à **To display or hide the Result List:**

Choose **Result List** from the Display menu.

Result: If the Result List box was hidden when you chose the command, the list appears in the active Process Map window. If the Result List was displayed when you chose the command, the list disappears from the active Process Map window.

REVERSE ENGINEERING

Reverse Engineering a Database

Description The Reverse Engineering utility allows you to recover database design information about Data Structures (tables), Data Items (fields), Access Mechanisms (Indexes, Primary Keys, Foreign Keys), and relationships. Reverse engineering through the ODBC connection allows the utility to get information about the database structure directly from the database's catalog. Reverse engineering from an SQL script will get information about the database structure that is contained in the SQL DDL (Data Definition Language) in the text file.

Usage Tips Use this utility when you wish to derive a design model from an existing system for use with Visible Advantage.

Procedure **à To Reverse Engineer a database through an ODBC connection:**

- 1 Choose **32 bit ODBC ...** or **16 bit ODBC ...** from the Reverse Engineering menu in the Utility program.

Result: The New Encyclopedia dialog box appears.

- 2 Complete the dialog box and click on **OK**.

Result: The Extract Database Location Information dialog box appears.

- 3 Complete the dialog box and click on **OK**.

Result: The Select Data Source dialog box appears.

- 4 Complete the dialog box and click on **OK** to reengineer the database.

à To Reverse Engineer a database from an SQL file:

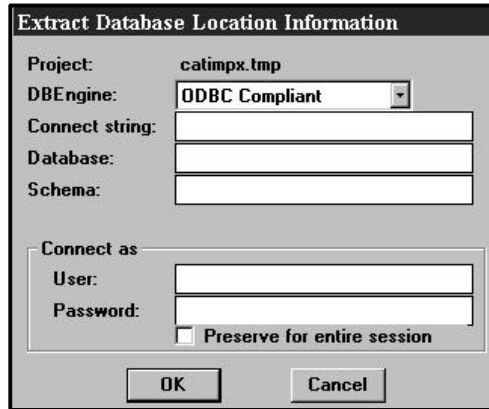
- 1 Choose **SQL Script ...** from the Reverse Engineering menu in the utilities program.

Result: The New Encyclopedia dialog box appears.

-
- 2 Complete the dialog box and click on **OK**.
Result: The Select SQL Dialect dialog box appears.
 - 3 Select the SQL file that contains the SQL DDL script and click on **OK**.
Result: The Parse Option dialog box appears.
 - 4 Enter the default authorization/owner ID and click **OK** to reverse engineer the database.

Extract Database Location Information Dialog Box

Dialog Box Illustration



Extract Database Location Information Dialog Box

Dialog Box Components

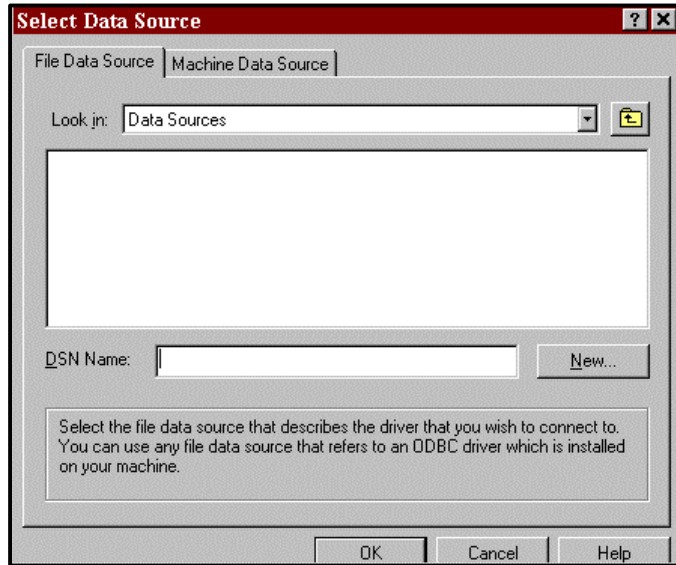
Use the information below to complete the Extract Database Location Information dialog box.

<u>Component</u>	<u>Description</u>
Project	The project file name. This information is read only; you may not edit this information.
DB Engine	Select the ODBC source from those that have been set up previously within Windows.
Connect String	Type the connect string to use.
Database	Type the database name.
Schema	Type the schema name.
User	Type the user name.
Password	Type the password.

Preserve for Entire Session Click on this checkbox to preserve the user name and password for the entire session.

Select Data Source Dialog Box

Dialog Box Illustration



Select Data Source Dialog Box

Dialog Box Components

Use the information below to complete the Select Data Source dialog box.

Component	Description
<i>File Source Tab</i>	
Look In	Select the source from the drop-down list. Options are displayed in the list box.
DSN Name	Type in the data source name.
New	Click on this button if the DSN name is new. When you click this button, the Create New Data Source dialog box is displayed. Follow the instructions on screen to create the new data source.

Machine Data Source

List Box Select a source from the list displayed.

New Click on this button if the source name is new. When you click this button, the Create New Data Source dialog box is displayed. Follow the instructions on screen to create the new data source.

SAVE AS STATEMENT

Saving Text as Another Statement

Description The Save As command, available from the Statement Editor windows, allows you to save the text inside the window under a different statement title.

Procedure à **To save the statement or session text inside the text editor window under a different name:**

1 Choose **Save As...** from the File menu.

Result: The Statement Title or Session Title dialog box appears.

2 Type a new title and type into the dialog box, then click on **OK**.

SAVE STATEMENT

Saving Statements and Sessions

Description The Save command saves the current statement or session in the Statement Editor window.

Procedure à **To save the session or statement text inside the active editor window:**

Choose **Save** from the File menu.

SCALE

Scaling Matrix Windows

Description The Scale command allows you to control the size of the rows and columns in any Matrix window.

Usage Tips This command allows you to adjust the size of matrix components (rows, columns, and labels).

Note As an alternative to using the Scale command, you may adjust the top label height and left label width by holding down the left mouse button and dragging the label separator lines. See the *User's Guide* for more information on mouse operations in the Matrix windows.

Procedure à **To scale the matrix in the active Matrix window:**

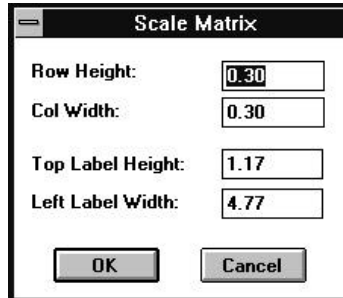
1 Choose **Scale...** from the Display menu.

Result: The Scale Matrix dialog box appears.

2 Complete the Scale Matrix dialog box, then click on **OK**.

Scale Matrix Dialog Box

Dialog Box Illustration



Scale Matrix Dialog Box

Dialog Box Components

Use the information below to complete the Scale Matrix dialog box.

Component	Description
Row Height	Type the desired height in inches of each row in the matrix.
Col Width	Type the desired width in inches of each column in the matrix.
Top Label Height	Type the desired height in inches of the top row containing the header labels.
Left Label Width	Type the desired width in inches of the left column containing the header labels.

Scrubbing the Encyclopedia

Description Scrub, available from the File menu of the Visible Advantage Utility, is a utility that scans the entire encyclopedia and cleans up (“scrubs”) anomalies in the encyclopedia.

Procedure à **To run scrub:**

1 Choose **Scrub** from the Advantage Utility File menu.

 Result: The Scrubber Utility dialog box appears.

2 Complete the dialog box, then click on **Start**.
 Make sure that the **Don't Fix Errors** option is selected.

3 Scrub scans the encyclopedia and displays the number of
 errors and warnings (if any).

4 If there are errors or warnings, call technical support.

SELECT ALL

Selecting All Objects in a Window

- Description** The Select All command selects all objects in the active window for subsequent copy or delete commands.
- Usage Tips** Once objects are selected, you may:
- Use the Copy To Model View command to make them visible in another model view or to a database design (entities only)
 - Use the Delete command to delete them from the current model view
- You may deselect all objects by choosing the Deselect All command from the Select menu.
- Procedure** à **To select all objects in the active View Hierarchy, Planning Outline, Design Map, or Data Map window:**
- Choose **Select All** from the Select menu.

SELECT CLUSTER

Selecting Clusters

Description The Select Cluster command selects all entities within the cluster represented by all selected entities.

Usage Tips This command is especially useful for copying all entities in one or more clusters to another model view.

If you select entities that are neither designated or derived cluster end points, **Visible Advantage** will temporarily designate them as end points for this command.

Once clusters are selected, you may:

- Use the Copy To Model View command to make them visible in another model view or to a database design (entities only)
- Use the Delete command to delete them from the current model view

You may deselect all entities by using the Deselect All command on the Select menu.

Procedure à **To select all entities in one or more clusters:**

- 1 Select all cluster end point entities whose represented clusters you want to select.

If you select entities that are neither designated or derived cluster end points, Visible Advantage will temporarily designate them as end points for this command.

- 2 Choose **Select Cluster** from the Select menu.

Result: All entities in the clusters represented by the selected entity or entities are selected.

SELECT CURRENT

Selecting the Current Object

- Description** The Select Current command selects or deselects the current statement in the active window.
- Usage Tips** This command toggles between an active and inactive state. When this command is active, there is a checkmark beside the command and the current object is selected. When this command is inactive, there is no checkmark beside the command and the current object is not selected.
- Once an object is selected, you may:
- Use the Copy To Model View command to make it visible in another model view
 - Use the Delete command to delete it from the current model view
- Procedure** à **To select the current object in the Planning Outline window:**
- Choose **Select Current** from the Select menu.

SELECT DESIGN OBJECTS

Selecting Design Objects

Description The Select Design Objects command, available from the Design Dictionary window, allows you to select multiple design objects within the current design view. Once they are selected, you may execute a command for all of them at once, or for one after another, depending on the nature of the command.

Usage Tips The design object selections you make with this command are in effect until you display a different design object in the Design Dictionary window. After you display a new design object, your selections are cleared.

In the Design Dictionary window, the following commands are available for multiple selected design objects:

- Edit Design Object
- Delete Design Object
- Copy Design Object To Entity
- Link Design Object to Entity

Procedure à **To select multiple design objects in the Design Dictionary window:**

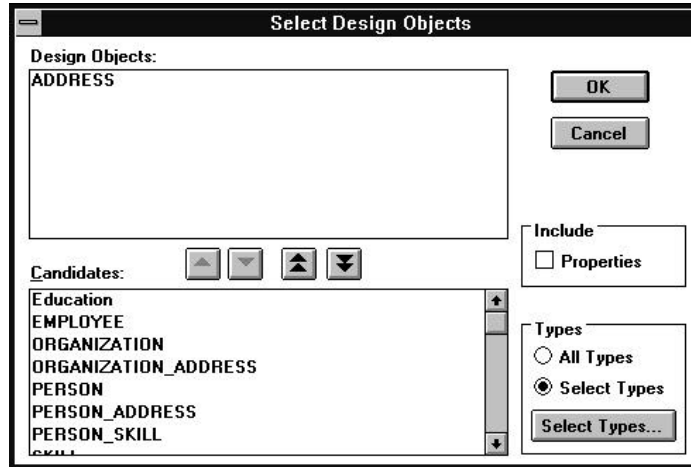
1 Choose **Select...** from the Design Object menu.

Result: The Select Design Objects dialog box appears.

2 Complete the Select Design Objects dialog box, then click on **OK**.

Select Design Objects Dialog Box


Dialog Box Illustration



Select Design Objects Dialog Box

Dialog Box Components

Use the information below to complete the Select Design Objects dialog box.

Component	Description
Design Objects	The names of the selected design objects are listed in this box. Initially, this list box contains the name of the design object currently displayed in the Design Dictionary window. You add design objects to this list from the Candidates list box.
	Use this button to select one or more design object candidates. Highlight the design object in the Candidates list box, then click on this button. It will then appear in the Design Objects list box. To select multiple candidates, hold down the CTRL key, highlight the design objects in the Candidates list box, then click on this button.



Use this button to deselect one or more design objects. Highlight the design object in the Design Objects list box, then click on this button. It will then return to the Candidates list box. To deselect multiple candidates, hold down the CTRL key, highlight the design objects in the Candidates list box, then click on this button.



Use this button to select all design object candidates. When you click on this button, all design objects in the Candidates list box will be moved to the Design Objects list box.



Use this button to deselect all selected design objects. When you click on this button, all design objects in the Design Objects list box will be returned to the Candidates list box.

Candidates

This box lists all design objects in the current database design.

Properties

Select this checkbox to include properties.

All Types

Select this button to include all types of design objects.

Select Types

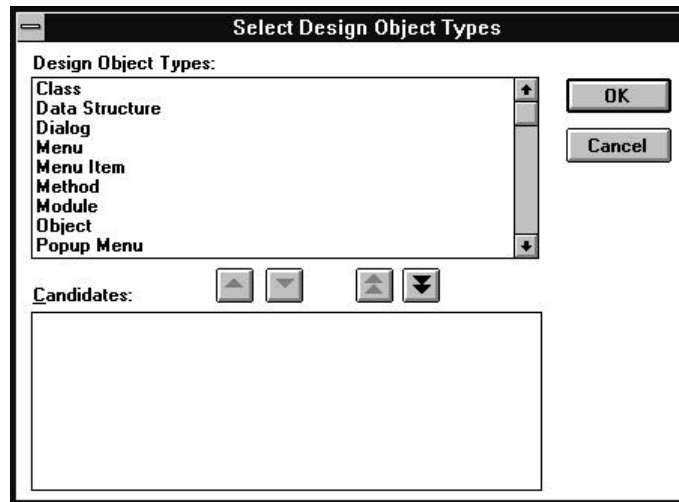
Select this button to select the types of design objects to include. When you select this button the Select Types button becomes available.

Select Types

Use this button to display the Select Design Object Types dialog box and select design object types.

Select Design Object Types Dialog Box


Dialog Box Illustration



Select Dialog Object Types Dialog Box

Dialog Box Components

Use the information below to complete the Select Dialog Object Types dialog box.

<u>Component</u>	<u>Description</u>
Design Object Types	The types of design objects are listed in this box. Initially, this list box contains the type of the design object currently displayed in the Design Dictionary window. You add design object types to this list from the Candidates list box.
	Use this button to select one or more design object type candidates. Highlight the design object type in the Candidates list box, then click on this button. It will then appear in the Design Object Types list box. To select more than one design object type,

hold down the CTRL key, highlight the Candidates, then click on this button.



Use this button to deselect one or more design object types. Highlight the design object type in the Design Object Types list box, then click on this button. It will then return to the Candidates list box. To deselect more than one design object type, hold down the CTRL key, highlight the Candidates, then click on this button.



Use this button to select all design object type candidates. When you click on this button, all design object types in the Candidates list box will be moved to the Design Objects Types list box.



Use this button to deselect all selected design object types. When you click on this button, all design object types in the Design Objects list box will be returned to the Candidates list box.

Candidates

This box lists all design object types in the current design view.

SELECT ENTITIES

Selecting Entities

Description The Select Entities command, available from the Data Dictionary window, allows you to select multiple entities in the Data Dictionary window. Once they are selected, you may execute a command for all of them at once, or for one after another, depending on the nature of the command.

Usage Tips The entity selections you make with this command are in effect until you return to the Data Dictionary window and display a different entity in the window. After you display a different entity, your selections are cleared.

In the Data Dictionary window, the following commands are available for multiple selected entities:

- Edit Entity
- Delete Entity
- Copy Entity To Model View
- Designate Entity Authority
- Name Cluster End Point
- Control Entity
- Populate Static Table
- Copy Entity To Design
- Add Attribute
- Add Association

2 Note In the Data Map window, you may also select multiple entities. See the *User's Guide* for information on this.

Procedure à **To select multiple entities in the Data Dictionary window:**

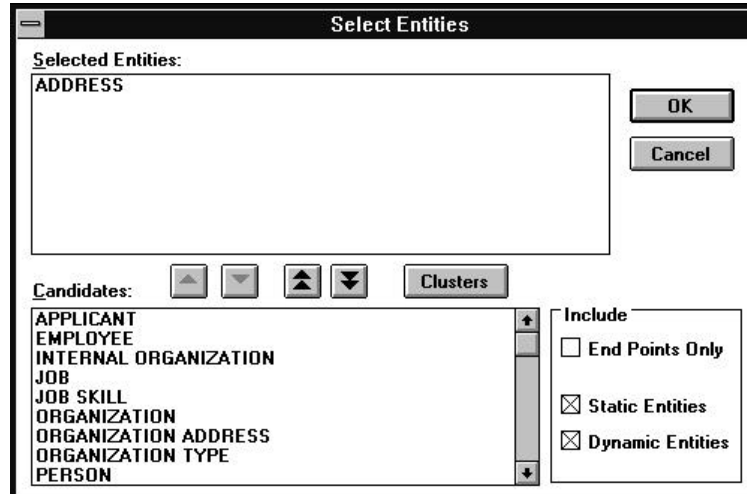
1 Choose **Select Entities...** from the Entity menu.

Result: The Select Entities dialog box appears.

2 Complete the Select Entities dialog box, then click on **OK**.

Select Entities Dialog Box


Dialog Box Illustration



Select Entities Dialog Box

Dialog Box Components

Use the information below to complete the Select Entities dialog box.

<u>Component</u>	<u>Description</u>
Selected Entities	The names of the selected entities are listed in this box. Initially, this list box contains the name of the entity currently displayed in the Data Dictionary window. You add entities to this list from the Candidates list box.
	Use this button to select one or more entity candidates. Highlight the entity in the Candidates list box, then click on this button. It will then appear in the Selected Entities list box. To select more than one entity, hold down the CTRL button, highlight the entities, then click on this button.



Use this button to deselect one or more entities. Highlight the entity in the Selected Entities list box, then click on this button. It will then return to the Candidates list box. To deselect more than one entity, hold down the CTRL key, highlight the Candidates, then click on this button.



Use this button to select all entity candidates. When you click on this button, all entities in the Candidates list box will be moved to the Selected Entities list box.



Use this button to deselect all selected entities. When you click on this button, all entities in the Selected Entities list box will be returned to the Candidates list box.

Clusters

Use this button to select all entities within the clusters represented by the entities listed in the Selected Entities box.

When you click on this button, entities within the selected entities' clusters are moved from the Candidates list box to the Selected Entities list box.

Candidates

This box contains all entities in the current model view that belong to the group(s) specified in the Include area (cluster end points, static entities, and dynamic entities).

If all Include checkboxes are selected, then all entities in the current model view are listed in this list box.

End Points
Only

Select this checkbox if you want only cluster end points to appear in the Candidates list box.

Static Entities

Select this checkbox if you want only static entities to appear in the Candidates list box.

Dynamic
Entities

Select this checkbox if you want only dynamic entities to appear in the Candidates list box.

SELECT NEIGHBORHOOD

Selecting an Entity Neighborhood

Description The Select Neighborhood command, available from the Data Map window, selects all entities that are associated with all currently selected entities. Selected objects are represented in the Data Map window by reverse video.

Procedure à **To select the neighborhood of one or more currently selected entities:**

Choose **Select Neighborhood** from the Select menu.

Result: All entities associated with the previously selected entities are selected. You may deselect all entities by using the Deselect All command on the Select menu.

SELECT SESSION

Selecting Sessions

Description The Select Session command allows you to choose an existing session with which any subsequent changes during the current logon will be associated. This command is available from all windows.

Usage Tips Sessions that have been closed through the Close Session command will not appear in the Select Session dialog box. Use the Reopen Session command to reopen a closed session.

Procedure à **To select a session:**

- 1 Choose **Sessions** from the Encyclopedia Menu on the main **Visible Advantage** window.
or
 Choose **Encyclopedia Management** from the main menu on any other window, then choose **Sessions** from the cascading menu.
- 2 Choose **Select...** from the cascading menu for the Sessions command.

 Result: The Select Session dialog box appears.
- 3 Do you want to specify an existing session?
 If yes, highlight the name of the session, then click on **OK**. All active sessions are listed. (*End of procedure.*)

 Do you want to add a new session? If yes, click on **New**.

 Result: The Add Session dialog box appears. (*Proceed to next step.*)
- 4 Complete the Add Session dialog box (see Add Session for a description of dialog box fields), then click on **OK**.

SELECT STATEMENTS

Selecting Statements

Description The Select Statements command, available from the Planning Dictionary window, allows you to select multiple planning statements in the Planning Dictionary window.

Usage Tips The statement selections you make with this command are in effect until you return to the Planning Dictionary window and display a different statement in the window. After you display a new statement, your selections are cleared.

In the Planning Dictionary window, the Copy Statement To Model View command is available for multiple selected statements.

2 Note In the Planning Outline window, you may select multiple non-consecutive statements by holding down the CTRL key and clicking on each statement you want to select.

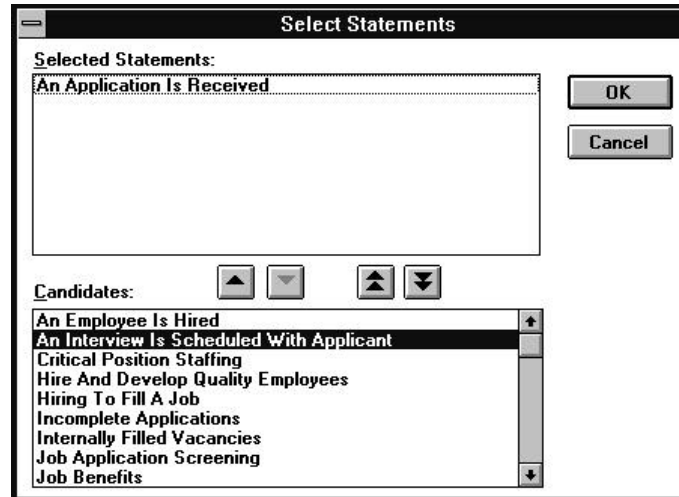
You may select multiple *consecutive* statements by holding down the SHIFT key and clicking on the first and last statements in the series you want to select.

Procedure à **To select multiple statements in the Planning Dictionary window:**

- 1 Choose **Select...** from the Statement menu.
Result: The Select Statements dialog box appears.
- 2 Complete the Select Statements dialog box, then click on **OK**.

Select Statements Dialog Box


Dialog Box Illustration



Select Statements Dialog Box

Dialog Box Components

Use the information below to complete the Select Statements dialog box.

<u>Component</u>	<u>Description</u>
Selected Statements	The names of the selected statements are listed in this box. Initially, this list box contains the name of the statement currently displayed in the Planning Dictionary window. You add statements to this list from the Candidates list box.
	Use this button to select one or more statement candidates. Highlight the statement in the Candidates list box, then click on this button. It will then appear in the Selected Statements list box. To select

more than one statement, hold down the CTRL key, highlight the Candidates, then click on this button.



Use this button to deselect one or more statements. Highlight the statement in the Selected Statements list box, then click on this button. It will then return to the Candidates list box. To deselect more than one statement, hold down the CTRL key, highlight the Candidates, then click on this button.



Use this button to select all statement candidates. When you click on this button, all statements in the Candidates list box will be moved to the Selected Statements list box.



Use this button to deselect all selected statements. When you click on this button, all statements in the Selected Statements list box will be returned to the Candidates list box.

Candidates

This box lists all statements in the current model view.

SELECT SUB-TREE

Selecting Model View Sub-Trees

Description The Select Sub-Tree command, available from the View Hierarchy window, selects all model views beneath one or more selected model views.

Usage Tips Once model views are selected, you may:

- Use the Edit command to edit their titles and details
- Use the Delete command to delete them
- Use the Move command to move them to a new location in the model view hierarchy

You may deselect all model views by using the Deselect All command on the Select menu.

Procedure à **To select all model views beneath one or more selected model views:**

Choose **Select Sub-Tree** from the Select menu.

SESSION TYPES

Defining Session Types

- Description** The Session Types command, available from the Visible Advantage Admin allows you to add, edit, and delete types that you can assign to sessions in the current or future encyclopedia.
- Usage Tips** The session types you define with this command are for the current encyclopedia only. If you want to define session types for all future encyclopedias, use the Encyclopedia_INITIALIZER command before you use the Session Types command.
- Procedure**
- à **To add a session type for the current encyclopedia or Encyclopedia_INITIALIZER:**
- 1 Choose **Session Types...** from the Table menu.
Result: The Edit Session Type Table dialog box appears.
 - 2 Type the name of the new type into the **Entry** field. If you highlighted an entry in the type list box, you will have to clear its entry from the field before typing the entry for the new type. You may type 1-31 alphabetic characters.
 - 3 To add the new entry to the end of the type list, click on **Append**.
 - 4 Repeat the procedure for each entry you want to add to the type table.
 - 5 Click on **OK**.
- à **To edit an existing session type for the current encyclopedia or Encyclopedia_INITIALIZER:**
- 1 Choose **Session Types...** from the Table menu.
Result: The Edit Session Type Table dialog box appears.
 - 2 Highlight the entry in the large list box that you want to edit.

Result: The session type appears in the **Entry** field.

- 3 Edit the information in this field, then click on **Change**.

à To delete a session type for the current encyclopedia or Encyclopedia Initializer:

- 1 Choose **Session Types...** from the Table menu.

Result: The Edit Session Type Table dialog box appears.

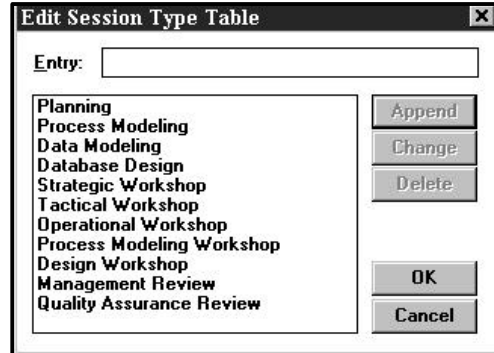
- 2 Highlight the entry in the large list box that you want to delete.

Result: The session type appears in the **Entry** field.

- 3 Click on **Delete**.

Edit Session Type Table Dialog Box

Dialog Box Illustration



Edit Session Type Table Dialog Box

Dialog Box Components

Use the information below to complete the Edit Session Type Table dialog box.

Component	Description
Entry	The name of the session type that is highlighted in the session type list box, or that you enter when you are adding a new type.
Append	Use this button to add a new session type to the end of the session type list.
Change	Use this button to edit a session type in the table. To do this, highlight the session type in the list, edit the Entry field, then click on this button.
Delete	Use this button to delete a session type from the table. To do this, highlight the session type in the list, then click on this button.

SMALLER

Shrinking Graphical Objects in a Window

Description The Smaller command allows you to make the objects in a graphical window smaller. This command is available from the following windows: View Hierarchy, Data Map, Process Map, and Design Map.

Procedure à **To shrink objects:**

Choose **Smaller** from the Display menu.

Result: The objects in the active window appear smaller. You may repeat the above step until the objects are the size you desire.

SORT STATEMENT CHILDREN

Sorting Outline Children

Description The Sort Children command, available from the Planning Outline window, allows you to sort statement children (those that appear beneath a statement in the outline) either by title or priority.

Usage Tips This command sorts the children of all selected statements. If you want to sort the children of all statements, use the Outline/Sort Top Level command and the Select/Select All commands before using this command. You should also select all statements before using this command.

Procedure à **To sort statement children:**

- 1 Select the statements whose children you want to sort. These statements then appear highlighted in the Planning Outline window.

- 2 Choose **Sort Children...** from the Outline menu.

 Result: The Sort Children dialog box appears.

- 3 Complete the Sort Children dialog box, then click on **OK**.

Sort Children Dialog Box

Dialog Box Illustration



Sort Children Dialog Box

Dialog Box Components

Use the information below to complete the Sort Children dialog box.

<u>Component</u>	<u>Description</u>
Statement	The title(s) of the selected statement(s) displays in this box. If multiple statements are selected, the titles will not fit completely in the box.
By Priority	Select this button if you want to sort the statement children by priority.
By Title	Select this button if you want to sort the statement children alphabetically by title.
Ascending	Select this button if you want to sort statements in ascending (lowest to highest) order.
Descending	Select this button if you want to sort statements in descending (highest to lowest) order.

SORT TOP LEVEL

Sorting the Top Outline Level

Description The Sort Top Level command, available from the Planning Outline window, sorts the outer-most outline level in the current model view either by title or priority.

Usage Tips This command sorts all statements in the top outline level, regardless of which statements are selected.

Use this command before using the Sort Children command when you want to sort all statements in the current model view.

Procedure à **To sort all planning statements in the top outline level:**

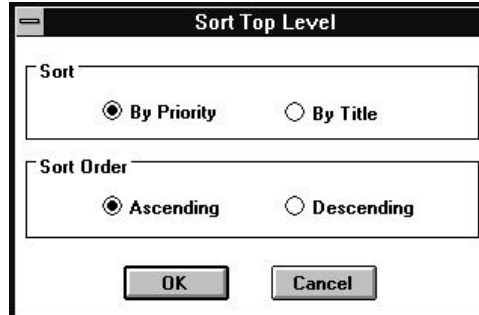
1 Choose **Sort Top Level...** from the Outline menu.

Result: The Sort Top Level dialog box appears.

2 Complete the Sort Top Level dialog box, then click on **OK**.

Sort Top Level Dialog Box

Dialog Box Illustration



Sort Top Level Dialog Box

Dialog Box Components

Use the information below to complete the Sort Top Level dialog box.

<u>Component</u>	<u>Description</u>
By Priority	Select this button if you want the statements to be sorted by priority.
By Title	Select this button if you want the statements to be sorted alphabetically by title.
Ascending	Select this button if you want the statements to be sorted in ascending (lowest to highest) order.
Descending	Select this button if you want the statements to be sorted in descending (highest to lowest) order.

SPELL CHECK

Spell Checking in a Text Editor Window

Description The Spell Check command, available from the Statement Editor windows, allows you to check the spelling of the text inside the active Statement Editor window.

Usage Tip Spell checking is also available in many dialog boxes by clicking on the Spell button.

Procedure à **To spell check the text inside the editor window:**

- 1 Choose **Spell Check...** from the Edit menu.

Result: If any misspelled words are found, the spell-checking dialog box appears. (*Proceed to next step.*)

If no misspelled words are found, the active window redisplay. (*End of procedure.*)

- 2 If you want to retain the word the way you spelled it and add it to your dictionary of correctly spelled words, click on the **Add to user dictionary** button.

If you want to change the word to one of the suggested spellings, select the desired suggested spelling and then click on **OK**.

If you want to ignore the misspelling and proceed, click on the **Ignore** button.

If you want to exit the spell-checking dialog box, click on **Exit**.

SPLIT DESIGN OBJECT

Splitting a Design Object

Description The Split Design Object command, available from the Design Dictionary window, allows you to split the current design object into two design objects.

Procedure à **To split the current design object into two design objects:**

1 In the Design Dictionary window, display the design object you want to split.

2 Choose **Split...** from the Design Object menu.

Result: The Split Design Object dialog box appears.

3 All of the information in the dialog box is filled in with the details from the current design object except for its name.

Type a name into the **Name** field, and edit any of the other fields, as necessary.

4 If you want to add any of the current design object's data items to the new design object, click on **Edit Property List**. The Select Properties dialog box appears. Select the properties you want to include in the new design object, then click on **OK** to return to the Split Design Object dialog box.

5 When you are finished editing the information, click on **OK** in the Split Design Object dialog box.

Split Design Object Dialog Box

Dialog Box Illustration

The image shows a dialog box titled "Split Design Object". It contains the following fields and controls:

- Name:** A text input field.
- Meta Id:** A text input field.
- Purpose:** A text area containing the text "Address of an organization or person. Contains all addresses."
- Code:** A text input field.
- Type:** A dropdown menu currently showing "Table".
- Nature:** A group box containing two radio buttons: "Dynamic" (selected) and "Static".
- Volume:** A text input field containing the value "0".
- Buttons:** "OK", "Cancel", and "Edit Property List..." (disabled).

Split Design Object Dialog Box

Dialog Box Components

Use the information below to complete the Split Design Object dialog box.

Component	Description
Name	Type a name for the new design object that results from this command into this box.
Meta Id	Type a meta id for the design object. The meta id is used to differentiate when two or more design objects have the same name.
Purpose	The purpose for the split design object appears in this text box. You may edit the purpose, if necessary.
Code	The code, or alias, for the split design object appears in this box. You may edit the code for the new data structure.

Type	The split design object type appears in this box. You may choose a new type from this drop-down list, if necessary.
Storage Access Mechanism	Choose a storage access mechanism from this drop-down list. All storage access mechanisms defined for the current design object manager are included on the list.
Dynamic	Select this nature if the design object's property values will be user-defined. This is the default nature value.
Static	Select this nature if the user will select the design object's property values from a predefined set of values. Use the Populate command on the Design Object menu to enter the predefined values for a static design object's properties.
Volume	Type into this field the expected maximum number of times the design object will appear in the implemented system.
Edit Property List	Use this button to add properties to the new design object from the split design object. When you click on this button, the Edit Property List dialog box appears.

STATEMENT-DATA MATRIX

Opening a Statement-Data Matrix Window

Description The Statement-Data Matrix command allows you to open a Statement-Data Matrix window. This window lists in matrix format the supporting object links defined for each planning statement in the current model view. You can also add and remove Statement-Data links by making changes to the matrix and saving those changes. This command is available from all windows.

Procedure **à To open a Statement-Data Matrix window:**

- 1 Choose **Statement-Data Matrix...** from the Plan menu on the main Visible Advantage window.

From any other window, choose **Planning** from the Main menu, then choose **Statement-Data Matrix...** from the cascading menu.

Result: The Statement-Data Matrix dialog box appears.

- 2 In the **Left Axis** area, select the statement types you want to display in the window. If you want to display all types, select the **All Statement Types** button. If you want to select specific statement types, click on **Select Types**. The Statement Types dialog box appears, allowing you to select statement types. After you finish selecting statement types, click on **OK**.

In the **Top Axis** area, click on each checkbox that corresponds with the data objects you want to display in the window (**Entities**, **Attributes**, or **Associations**).

- 3 If you want to display the statements and data model objects in the entire model, click on the **Entire Model** button. If you want to display only statements from one model view, click on the **Single Model View** button, then select the model view from the drop-down list.
- 4 Click on **OK** in the Statement-Data Matrix dialog box.

STATEMENT EDITOR

Opening a Statement Editor Window

- Description** The Statement Editor window allows you to create, edit, format, spell-check, and search/replace text in a planning statement. You can also print the statement text or save it to a file. This command is available from all Visible Advantage windows.
- Usage Tips** You do not have to use the Statement Editor window to edit statement text; you can use the Edit statement command to edit notes if you do not need any extensive word processing or formatting features.
- Procedure** à **To open a Statement Editor window:**
- Choose **Statement Editor...** from the Planning menu on the main Visible Advantage window.
- or*
- Choose **Planning** from the main menu on any other window, then choose **Statement Editor...** from the cascading menu.
- Related Topics** Use the table below to access related information about the Statement Editor window.

<u>For More Information On...</u>	<u>See...</u>
how to use each command in the Statement Editor window	the entry in this manual for the individual command. For example, to learn how to use the Editor Font command on the Format menu, see Editor Font.
how to use the Statement Editor window's special features, such as the tool bar, mouse commands, and keyboard shortcuts,	the Planning section in the <i>User's Guide</i>

STATEMENT PRIORITY

Setting Statement Priorities

Description The Statement Priority command, available from the Planning Outline window, lets you determine a ranking order of a particular statement in relation to other statements contained in the view or the entire encyclopedia. This ranking order is displayed in brackets after the statement in the Planning Outline window and in the Priority box on the Planning Outline window tool panel.

Usage Tips Use this command to assign a number to some or all statements in the current model view to signify their relative importance to one another. A statement included in more than one model view can have a different priority for each model view in which it appears. The same priority may be assigned to multiple statements.

2 Note As an alternative to using the menu command, you may also assign a priority to a statement through the Planning Outline window tool panel. Simply type the priority into the Priority box on the tool panel and press ENTER.

Procedure à **To assign a priority to a statement:**

- 1 Choose **Priority...** from the Statement menu.
Result: The Statement Priority dialog box appears.
- 2 Type a priority into the **Priority** box.
- 3 Click on **OK**.

STATEMENT-STATEMENT MATRIX

Opening a Statement-Statement Matrix Window

Description The Statement-Statement Matrix window command, available from all windows, allows you to view, add, and remove the parent-child relationships between statements.

Procedure à **To open a Statement-Statement Matrix window:**

- 1 Choose **Statement-Statement Matrix...** from the Plan menu on the main Visible Advantage window.

From any other window, choose **Planning** from the main menu, then choose **Statement-Statement Matrix...** from the cascading menu.

Result: The Statement-Statement Matrix dialog box appears.

- 2 Select the statement types you want to display on the matrix axes. To do this, click on the appropriate buttons in the dialog box. If you want to select specific types, use the **Select Types** buttons in each area (**Left Axis** and **Top Axis**).

A dialog box allowing you to select the statement types appears. When you are finished selecting types for each axis, click on **OK** to return to the Statement-Statement Matrix dialog box.

- 3 If you want to display the statements in the entire model, click on the **Entire Model** button. If you want to display only statements from one model view, click on the **Single Model View** button, then select the model view from the drop-down list.
- 4 Click on **OK** in the Statement-Statement Matrix dialog box.

STATEMENT TITLE AND TYPE

Assigning Titles to Statements

Description The Statement Title and Type command, available from the Statement Editor window, lets you assign a title and type for a statement when adding a statement or editing an existing one.

Usage Tips The Statement Editor window appears when you choose **Statement Editor...** from the Plan menu.

As an alternative to using this command, you may also assign a title and type to a statement through the Statement Editor window tool bar. To assign a title, simply type one into the **Title** box on the tool bar and press ENTER. To assign a type, select one from the **Type** drop-down list on the tool panel.

Procedure à **To title a statement:**

- 1 Choose **Statement Title and Type...** from the Statement Editor window's File menu.

Result: The Statement Title dialog box will appear.

- 2 Type or change the title in the **Title** field and/or the type in the **Type** field, then click on **OK**.

STATEMENT TYPES

Defining Statement Types

Description The Statement Types command, available from the main Visible Advantage Admin Utility window, allows you to add, edit, and delete types that you can assign to planning statements in the current encyclopedia.

Usage Tips The statement types you define with this command are for the current encyclopedia only. If you want to define statement types for all future encyclopedias, use the Encyclopedia Initializer command before you use the Statement Types command.

Procedure **à To add a statement type for the current encyclopedia or Encyclopedia Initializer:**

- 1 Choose **Statement Types...** from the Table menu.

Result: The Edit Statement Type Table dialog box appears.

- 2 Type the name of the new type into the **Entry** field. If you highlighted an entry in the type list box, you will have to clear its entry from the field before typing the entry for the new type. You may type 1-31 alphabetic characters.

- 3 To add the new entry to the end of the type list, click on **Append**.

- 4 Repeat the procedure for each entry you want to add to the type table.

- 5 Click on **OK**.

à To edit an existing statement type for the current encyclopedia or Encyclopedia Initializer:

- 1 Choose **Table**, then **Statement Types...** from the cascading menu.

Result: The Edit Statement Type Table dialog box appears.

2 Highlight the entry in the large list box that you want to edit.

Result: The statement type appears in the **Entry** field.

3 Edit the information in this field, then click on **Change**.

à To delete a statement type for the current encyclopedia or Encyclopedia Initializer:

1 Choose **Table**, then **Statement Types...** from the cascading menu.

Result: The Edit Statement Type Table dialog box appears.

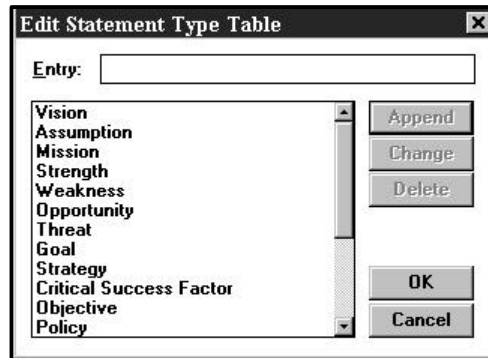
2 Highlight the entry in the large list box that you want to delete.

Result: The statement type appears in the **Entry** field.

3 Click on **Delete**.

Edit Statement Type Table Dialog Box

Dialog Box Illustration



Edit Statement Type Table Dialog Box

Dialog Box Components

Use the information below to complete the Edit Statement Type Table dialog box.

Component	Description
Entry	The name of the statement type that is highlighted in the statement type list box, or that you enter when you are adding a new type.
Append	Use this button to add a new statement type to the end of the statement type list.
Change	Use this button to edit a statement type in the table. To do this, highlight the statement type in the list, edit the Entry field, then click on this button.
Delete	Use this button to delete a statement type from the table. To do this, highlight the statement type in the list, then click on this button.

STATEMENT-VIEW MATRIX

Opening a Statement-View Matrix Window

Description The Statement-View Matrix window command, available from all windows, allows you to view the model views in which each planning statement is visible. You can also add statements to and remove them from model views through this window by making changes to the matrix and saving those changes.

Procedure à **To open a Statement-View Matrix window:**

- 1 Choose **Statement-View Matrix...** from the Plan menu on the main Visible Advantage window.

From any other window, choose **Planning** from the main menu, then choose **Statement-View Matrix...** from the cascading menu.

Result: The Statement-Model View Matrix dialog box appears.

- 2 If you want to display statements of all types on the left axis of the matrix, select **All Statement Types**.

If you want to display statements of selected types, select **Selected Statement Types**, then click on **Select Types** in the **Left Axis** area. The Statement Types dialog box appears. Select the statement types you want to display, then click on **OK** to return to the Statement-Model View Matrix dialog box.

- 3 If you want to display model views of all types on the top axis, select **All Model View Types**. If you want to display model views of selected types, select **Selected Model View Types**, then click on **Select Types**. The Model View Types dialog box appears. Select the model view types you want to display, then click on **OK** to return to the Statement-Model View Matrix dialog box.

-
- 4 If you want to display the statements in the entire model, click on the **Entire Model** button. If you want to display only statements from one model view, click on the **Single Model View** button, then select the model view from the drop-down list.

SYNCHRONIZE

Synchronizing Visible Advantage Windows

Description The Synchronize command causes all open Visible Advantage windows to be updated simultaneously. This command is available in all windows *except* the main Visible Advantage window.

Usage Tips The Synchronize command is useful when you want to see how the changes you make affect other parts of the encyclopedia.

To maximize the usefulness of this command, you should first use the Tile command on the Window menu so all open windows are visible. Windows allows up to eight windows to be open at the same time.

The Synchronize command toggles between an active and inactive state. When the command is active, a checkmark appears next to the command name; when the command is inactive, no checkmark appears next to the command name.

2 Note Because every open window must be redrawn each time you make a change in the active window, Synchronize slows data entry.

Procedure à **To synchronize all open windows:**

1 Although it is not necessary for the command's operation, it is useful to use the Tile command so that all open windows are visible.

To do this, choose **Tile** from the Window menu.

2 Choose **Synchronize** from the Window menu.

Result: A checkmark appears next to the Synchronize command. You may deactivate the command by choosing it again.

Maintaining Tables

Description The Table command, available from the Visible Advantage Admin Utility main window, allows system administrators to maintain tables in the current encyclopedia.

Tables you may edit are:

- View Types
- Statement Types
- Session Types
- Data Types
- Design Object Types
- Design Object Relationship Reasons
- Property Type Rules
- Property Relationship Reasons
- Data Structure Managers
- Data Structure Types
- Data Item Types
- Data Access Methods
- Custom Fields
- Domains
- Functions
- Standard Words
- Diagram Filters

Usage Tips Only system administrators logged onto an encyclopedia may maintain tables.

Procedure à **To maintain tables:**

1 Choose **Table** from the main menu.

2 Select the table type you wish to edit from the cascading menu.

Result: The appropriate Edit dialog box appears for the type of table you selected.

3 Complete the dialog box and click on **OK**.

2 Note For information on each type of Edit dialog box, see the appropriate command in this reference manual.

Tiling Open Windows on the Workspace

Description The Tile command arranges all open windows in smaller sizes so that all are completely visible on the workspace. This command is available from all windows **except** the main Visible Advantage window.

Usage Tips This command is especially useful when you use it with the Synchronize command. See Synchronize in this manual for details.

Procedure à **To arrange all open Visible Advantage windows in a tile formation:**

Choose **Tile** from the Window menu.

TOOL BAR

Displaying and Hiding the Tool Bar

- Description** The Tool Bar command is a toggle that turns the tool bar display on and off. This command is available in all windows.
- Usage Tips** This command toggles between an active and inactive state. When there is a checkmark beside the Tool Bar command, the tool bar is displayed; when there is no checkmark beside the command name, the tool bar is hidden.
- The Tool Bar command affects all Visible Advantage windows, not just the active window.
- Procedure** à **To display or hide the tool bar:**
- Choose **Tool Bar** from the Window menu of any window.
- Result: If the tool bar was hidden when you chose this command, a checkmark will appear beside the command and the tool bar will display at the top of the active window.
- If the tool bar was displayed when you chose this command, the checkmark beside the command will disappear and the tool bar will be hidden in the active window.

UNCONTROL ENTITY

Removing Entity Control Links

Description The Uncontrol command, available from both the Data Map and Data Dictionary windows, allows you to remove a control link for the current entity.

Usage Tips To use this command, there must be at least one controlled or controlling entity defined for the current entity.

Control links are represented in the Data Map window by a dotted arrow pointing from the controlling entity to the controlled entity.

If an entity *controls* another entity, the controlled entity name is listed in the Data Dictionary window's **Controls** field. If an entity *is controlled by* another entity, the controlling entity name is listed in the Data Dictionary window's **Controlled by** field.

This command is available for multiple selected entities in the Data Map window. See the *User's Guide* for instructions on selecting entities in the Data Map window. In the Data Dictionary window, this command is available for the currently displayed entity only.

Procedures **â To remove a control link for the selected entities in the Data Map window:**

1 Highlight the entity for which you wish to remove a control.

2 Choose **Uncontrol...** from the Entity menu.

Result: The Delete Entity Control dialog box for the first selected entity appears.

3 In the Delete Entity Control dialog box, select the entity from which you want to remove the control, then click on **OK**.

Result: If you selected more than one entity, the Delete Entity Control dialog box for the next selected entity appears. (*Repeat this step for each selected entity.*)

Otherwise, the active Data Map window reappears. (*End of procedure.*)

â To remove an entity control link when you are working in the Data Dictionary window:

- 1 In the **Controls** or **Controlled by** field, highlight the name of the entity for which you want to remove a control link.
- 2 Choose **Uncontrol** from the Entity menu.

UNDERLINE

Underlining Text in an Editor Window

Description The Underline command underlines selected text in the Statement Editor window.

Procedure à **To underline statement text:**

- 1 In the Statement Editor window, select the text you want to underline.
- 2 Choose **Style** from the Format menu.
- 3 Choose **Underline** from the cascading menu for the Style command.

Result: The selected text appears underlined in the active window.

à **To remove underlining from selected text:**

- 1 In the Statement Editor window, select the text from which you want to remove underlining.
- 2 Choose **Style** from the Format menu.
- 3 Choose **Normal** from the cascading menu for the Style command.

Result: The selected text appears normal in the active window.

UNDO

Reversing Your Last Editing Action

Description The Undo Editing command allows you to reverse your last editing action in the Statement Editor window.

Usage Tips This command is useful when you mistakenly delete text or want to undo a search-and-replace operation you just completed.

Procedure à **To undo your last editing action:**

Choose **Undo Editing** from the Edit menu.

UNFREEZE/ CLEAR CHECK-OUT

Unfreezing/Clearing a Checked-out Encyclopedia

Description This command unfreezes all objects that were checked out in a previous encyclopedia check-out and clears the copy as if it were never made. It should only be used when you wish to discard the checked-out encyclopedia and not Check-in/Merge it back in. It is also used to reverse a Freeze All command.

Usage Tips The Clear Check-out command is part of the Visible Advantage Utility program that comes with Visible Advantage. To use the Clear Check-out function, click on the Visible Advantage Utility icon inside the Visible Advantage program group. The Clear Check-out command is under the Copy/Merge menu.

Procedure à **To clear a checked-out encyclopedia:**

1 Choose **Clear Check-out** from the Copy/Merge menu.

Result: The Open Encyclopedia dialog box appears.

2 Select from the **Encyclopedias** list box the encyclopedia you want to unfreeze/clear check-out. If the encyclopedia is not listed, navigate through the directories in the Path list box until it appears.

3 Click on **OK**.

4 Type your logon for the encyclopedia and, if necessary, a password. Click on **OK**.

Result: If you typed a valid logon and password, the Clear Encyclopedia Copy dialog box appears.

Otherwise, an error message appears and you must return to the logon dialog box to type a different logon.

-
- 5 To clear selected subset encyclopedias, click the Selected Checked-out button, then select the encyclopedias in the checked-out list box.

If there are no copies to be cleared, or to clear all encyclopedias, click on the All Checked-out (Unfreeze All) button to cycle through all objects in the encyclopedia and ensure that each is unfrozen.

UNLINK ASSOCIATION FROM STATEMENT

Unlinking Associations from Statements

Description The Unlink Association From Statement command, available from the Data Dictionary window, allows you to unlink an association from one or more planning statements.

Procedure à **To unlink an association from one or more planning statements:**

- 1 In the **Associations** field, highlight the association from which you want to unlink a planning statement.
- 2 Choose **Unlink From Statement...** from the Association menu.

Result: The Unlink Statement dialog box appears.

- 3 The **Unlink Statement** box lists all statements to which the selected association has been linked.

Highlight the statement(s) from which you want to unlink the association, then click on **OK**.

2 Note To highlight multiple *consecutive* list items, hold down the SHIFT key and click on the first item you want to highlight, and then click on the last item you want to highlight. To highlight multiple *non-consecutive* items, hold down the CTRL key and click on each item you want to highlight.

UNLINK ATTRIBUTE FROM PROPERTY

Unlinking Attributes from Properties

Description The Unlink Attribute From Property command, available from both the Data Map and Data Dictionary windows, allows you to remove a link between an attribute and one or more properties within a database design.

Procedure à **To remove a link between an attribute and one or more properties while working in the Data Map window:**

- 1 Select the entity that contains the attribute for which you want to remove the property link(s).
- 2 Choose **Unlink From Property...** from the Attribute menu.

Result: The Select Attribute dialog box appears.
- 3 Select the attribute from which you want to remove the data item link(s), then click on **OK**.

Result: The Unlink Attribute From Property dialog box appears.
- 4 Select the database design that contains the property(s) from which you want to unlink the attribute. The list contains all design views added to the encyclopedia.
- 5 Select the property(s) from which you want to unlink the attribute, then click on **OK**. The list includes all properties within the design views selected above.

2 Note To highlight multiple *consecutive* list items, hold down the SHIFT key and click on the first item you want to highlight, and then click on the last item you want to highlight. To highlight multiple *non-consecutive* items, hold down the CTRL key and click on each item you want to highlight.

à To remove a link between an attribute and one or more properties while working in the Data Dictionary window:

- 1 Highlight the name of the attribute in the **Attributes** field for which you want to remove property link(s).
- 2 Choose **Unlink From Property...** from the Attribute menu.

Result: The Unlink Attribute From Property dialog box appears.
- 3 Select the design view that contains the property(s) from which you want to unlink the attribute. The list contains all design views added to the encyclopedia.
- 4 Select the property(s) from which you want to unlink the attribute, then click on **OK**. The list includes all properties within the design views selected above.

2 Note To highlight multiple *consecutive* list items, hold down the SHIFT key and click on the first item you want to highlight, and then click on the last item you want to highlight. To highlight multiple *non-consecutive* items, hold down the CTRL key and click on each item you want to highlight.

UNLINK ATTRIBUTE FROM STATEMENT

Unlinking Attributes from Statements

Description The Unlink Attribute From Statement command, available from the Data Dictionary window, allows you to unlink an attribute from planning statement(s).

Procedure **à To unlink an attribute from planning statement(s):**

1 In the **Attributes** field, highlight the attribute from which you want to unlink a planning statement.

2 Choose **Unlink From Statement...** from the Attribute menu.

Result: The Unlink Statement dialog box appears.

3 Select the statement(s) from which you want to unlink the attribute, then click on **OK**.

2 Note To highlight multiple *consecutive* list items, hold down the SHIFT key and click on the first item you want to highlight, and then click on the last item you want to highlight. To highlight multiple *non-consecutive* items, hold down the CTRL key and click on each item you want to highlight.

UNLINK DESIGN OBJECT FROM ENTITY

Unlinking Design Objects from Entities

Description The Unlink Design Object From Entity command, available from the Design Dictionary and Design Map windows, allows you to remove defined links between the current design object and one or more entities in the data model.

Procedure à **To unlink a design object from one or more entities to which it is linked in a Design Dictionary window:**

- 1 In the Model Link field in the Design Dictionary window, highlight the link you want to remove.
- 2 Choose **Unlink...** from the Design Object menu.

Result: The link is removed.

à **To unlink a design object from one or more entities to which it is linked in a Design Map window:**

- 1 Select the design object to unlink.
 - 2 Choose **Unlink...** from the Design Object menu.
- Result: The Unlink Design Object dialog box appears.
- 3 All of the entities to which the design object has been linked are listed in the **Entities** list box.

Highlight the entity or entities from which you want to unlink the design object, then click on **OK**.

2 Note To highlight multiple consecutive entities, hold down the SHIFT key and click on the first entities you want to highlight, and then click on the last entities you want to highlight. To highlight multiple non-consecutive entities, hold down the CTRL key and click on each entity you want to highlight.

UNLINK ENTITY FROM DESIGN OBJECT

Unlinking Entities from Design Objects

Description The Unlink Entity from Design Object command, available from both the Data Map and Data Dictionary windows, allows you to remove a link between an entity and one or more design objects within a database design.

Procedure **à To remove a link between an entity and design object(s) in the Data Map window:**

- 1 Select the entity you wish to unlink.
- 2 Choose **Unlink from Design Object...** from the Entity menu.

 Result: The Unlink Entity From Design Object dialog box appears.
- 3 Select the database design that contains the design object from which you want to unlink the entity. The list contains all database designs added to the encyclopedia.
- 4 Select the design object(s) from which you want to unlink the entity, then click on **OK**. The list includes all design objects within the database design selected above.

2 Note To highlight multiple *consecutive* design objects, hold down the SHIFT key and click on the first design object you want to highlight, then click on the last design object you want to highlight. To highlight multiple *non-consecutive* design objects, hold down the CTRL key and click on each design object you want to highlight.

à To remove a link between an entity and design object(s) in the Data Dictionary window:

- 1 In the Model Link field in the Data Dictionary window, highlight the link you want to remove.

2 Select **Unlink** from the Entity menu.

Result: The entity is unlinked.

UNLINK ENTITY FROM STATEMENT

Unlinking Entities from Statements

Description The Unlink Entity From Statement command, available from the Data Dictionary window, allows you to unlink the current entity from a planning statement.

Procedure à **To unlink the current entity from a planning statement:**

- 1 In the **Model Links** field, highlight the planning statement link you want to remove.
- 2 Choose **Unlink** from the Entity menu.

UNLINK PROPERTY FROM ATTRIBUTE

Unlinking Properties from Attributes

Description The Unlink Property From Attribute command, available from the Design Dictionary and Design Map windows, allows you to remove a defined link between a property and an attribute in the data model.

Procedure à **To unlink a property from one or more attributes in the Design Dictionary window:**

- 1 In the **Properties** field, highlight the property you want to unlink from an attribute or attributes.
- 2 Choose **Unlink From Attribute...** from the Property menu.

Result: The Unlink Property dialog box appears.

- 3 All of the attributes to which the property has been linked are listed in the **Attributes** list box.

Highlight the attribute(s) from which you want to unlink the property, then click on **OK**.

2 Note To highlight multiple *consecutive* attributes, hold down the SHIFT key and click on the first attribute you want to highlight, and then click on the last attribute you want to highlight. To highlight multiple *non-consecutive* attributes, hold down the CTRL key and click on each attribute you want to highlight.

à **To unlink a property from one or more attributes in the Design Map window:**

- 1 Highlight the design object from which you want to unlink a property.
- 2 Choose **Unlink From Attribute...** from the Property menu.

Result: The Select Design Object Property dialog box appears.

- 3 Select the property, then click on **OK**.

Result: The Unlink Property dialog box appears.

- 4 All of the attributes to which the property has been linked are listed in the **Attributes** list box.

Highlight the attribute(s) from which you want to unlink the property, then click on **OK**.

2 Note To highlight multiple *consecutive* attributes, hold down the **SHIFT** key and click on the first attribute you want to highlight, and then click on the last attribute you want to highlight. To highlight multiple *non-consecutive* attributes, hold down the **CTRL** key and click on each attribute you want to highlight.

UNLINK STATEMENT FROM OBJECT

Unlinking Statements from Objects

Description The Unlink command, available from both the Planning Outline and Planning Dictionary windows, allows you to remove a link between the current or selected statement(s) and an entity, attribute, association, or design object.

Procedure à **To unlink selected statement(s) from one or more data modeling objects while you are working in the Planning Outline window:**

- 1 Choose **Unlink...** from the Link menu.

Result: The Unlink Dictionary Object dialog box appears.

- 2 Select the object(s) from which you want to unlink the statement, then click on **OK**.

2 Note To select multiple items, hold down the CTRL key and click on each item you want to select.

à **To unlink the current statement from a data modeling object while you are working in the Planning Dictionary window:**

- 1 In the **Model Links** field, highlight the link you want to remove.

- 2 Choose **Unlink** from the Link menu.

Result: Statement is unlinked.

UNMOUNT

Creating a Stand-Alone Encyclopedia

- Description** The Unmount command, available from the Visible Advantage Admin Utility, allows the system administrator to create a stand-alone encyclopedia by copying a client/server edition encyclopedia.
- Usage Tips** This command is available in client/server versions only, and can only be used on encyclopedias created on or imported into Version 7 of Visible Advantage.
- Procedure** à **To create a stand-alone copy of an encyclopedia:**
- 1 Start the Visible Advantage Admin program from Windows.
 - 2 If you have not set up automatic Raima server login, supply the server name, user name, and password to log on to the Raima database server.
 - 3 Pull down the Encyclopedia menu, and click on **Open**.
 - 4 Select the encyclopedia you want to convert to stand-alone and click on **OK**.
 - 5 Provide your ID and password, and click on **OK**.
 - 6 Pull down the Encyclopedia menu and click on **Unmount**.

USER GROUP REPORT

Printing a User Group Report

Description The User Group Report command, available from the Visible Advantage Admin Utility, allows a system administrator to print a report that lists the names, logons, privileges, and status of each authorized user group of the current encyclopedia.

Procedure à **To print a user group report:**

- 1 Choose the Visible Advantage Admin Utility icon from the Program Manager window.

- 2 Choose **Group User Report** from the Group menu.

 Result: The Group User Report Dialog box appears.

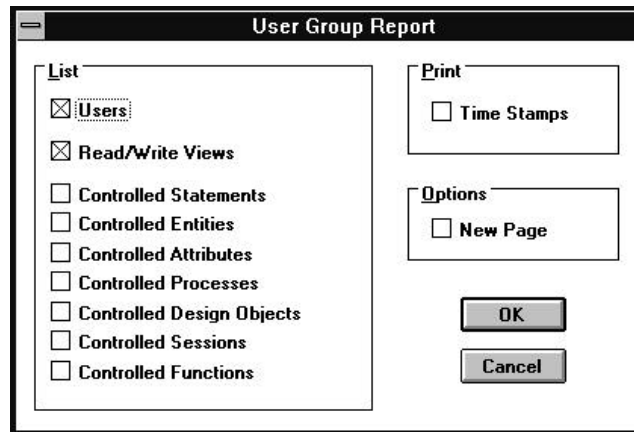
- 3 Complete the dialog box, then click on **OK**.

 Result: The Report Destination dialog box appears.

- 4 Select a report destination (**Printer, File** or **Screen**), then click on **OK**.

User Group Report Dialog Box

Dialog Box Illustration



User Group Report Dialog Box

Dialog Box Components

Use the information below to complete the User Group Report dialog box.

Component	Description
Users	Prints the individual users assigned to the user group.
Read/Write Views	Prints the user group access levels for views.
Controlled Statements	Prints if user group has control assignment by view or by object ownership.
Controlled Entities	Prints if user group has control assignment by control by view or by object ownership.
Controlled Attributes	Prints all attributes assigned to user group.

Controlled Processes	Prints (by view or by object ownership).
Controlled Design Object	Prints all design objects assigned (by design view or by object ownership) to user group.
Controlled Sessions	Prints all sessions assigned (by ownership) to user group.
Controlled Functions	Prints all functions assigned (by ownership) to user group.
Time Stamps	Prints the date and time each user group was added to the encyclopedia, along with the date and time each user group was modified.
New Page	Select this checkbox if you want each user group to start on a new page.

USER REPORT

Printing User Reports

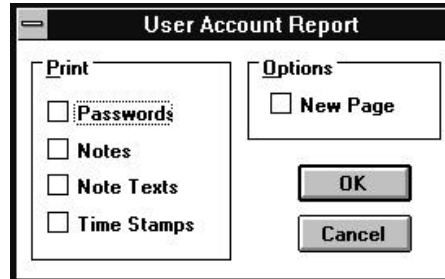
Description The User Report command, available from the Visible Advantage Admin Utility, allows a system administrator to print a report that lists the name, logon, privilege, and status of each authorized user of the current encyclopedia.

Procedure à **To print a user report:**

- 1 Choose **User Report...** from the User command.
Result: The User Report dialog box appears.
- 2 Complete the dialog box, then click on **OK**.
Result: The Report Destination dialog box appears.
- 3 Select a report destination (**Printer, File, or Screen**), then click on **OK**.

User Account Report Dialog Box

Dialog Box Illustration



User Account Report Dialog Box

Dialog Box Components Use the information below to complete the User Account Report dialog box.

Component	Description
Passwords	Prints the password for each account.
Notes	Prints the notes attached to each reported user.
Note Texts	Prints the text of each reported note.
Time Stamps	Prints the date and time each user account was added to the encyclopedia, along with the date and time each user account was modified.
New Page	Select this checkbox if you want each user account to start on a new page.

VARIABLES

Defining Attribute Variables

Description The Variables command, available from the Process Map window, allows you to define a variable for each attribute used in the process model. Variables are used to differentiate between multiple occurrences of the same attribute, either between different or the same entities.

Usage Tips Variables are defined globally, for the entire process model, rather than for the current process only. Once a variable is defined, you can select it when adding or editing attribute lists for applicable process steps.

Procedure à **To add a variable for an attribute used by the process model:**

- 1 Choose **Variables...** from the Process menu.

Result: The Variables dialog box appears.

- 2 From the **Attribute** drop-down list, select the attribute for which you want to define a variable.

- 3 Type the variable name into the **Variable** box, then click on **Add**.

Result: The variable and attribute appear in the large list box.

à **To change a variable defined for an attribute:**

- 1 Choose **Variables...** from the Process menu.

Result: The Variables dialog box appears.

- 2 In the large list box, click on the variable and attribute combination you want to change, make changes to the **Variable** or **Attribute** field, then click on **Change**.

If the **Show Unused Variables Only** checkbox is selected, only those variables that have not been used by any process steps are listed in the large list box. You may change both used and unused

variables. If you change a used variable, the change will be reflected in all process steps that use the variable.

â To delete a variable for an attribute:

- 1 Choose **Variables...** from the Process menu.

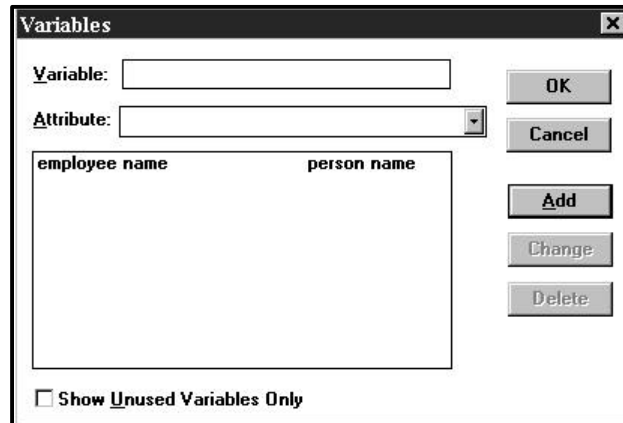
Result: The Variables dialog box appears.

- 2 In the large list box, click on the variable and attribute combination you want to delete, then click on **Delete**.

If the **Show Unused Variables Only** checkbox is selected, only those variables that have not been used by a process are listed in the list box. You may delete *only* unused variables.

Variables Dialog Box

Dialog Box Illustration



Variables Dialog Box

Dialog Box Components

Use the information below to complete the Variables dialog box.

Component	Description
Variable	Type into this box the variable name for the attribute you selected from the Attribute list.
Attribute	Select from this drop-down list the attribute that the variable represents.
Show Unused Variables Only	Select this checkbox if you want to display only unused variables in the variable list box. You may delete only unused variables; however, if you change a variable used in the process model, the change will be reflected in each use of the variable.
Add	Use this button to add the variable and attribute combination shown in the Variable and Attribute fields.

Change	Use this button to change a variable. Highlight the variable-attribute combination you want to change, make the changes to the Variable and/or Attribute field(s), then click on this button.
Delete	Use this button to delete a variable. Highlight the variable-attribute combination you want to delete, then click on this button.

VIEW TYPES

Defining Model View Types

- Description** The View Types command, available from the Visible Advantage Admin Utility, allows you to define view types in the current encyclopedia.
- Usage Tips** The view types you define with this command are for the current encyclopedia only. If you want to define view types for all future encyclopedias, use the Encyclopedia Initializer command before you use the View Types command.
- Procedure** à **To add a view type for the current encyclopedia or Encyclopedia Initializer.**
- 1 Choose **Table** main Visible Advantage Admin Utility window, then choose **View Types...** from the cascading menu that follows.

Result: The Edit View Type Table dialog box appears.
 - 2 Type the name of the new type into the **Entry** field. If you highlighted an entry in the type list box, you will have to clear its entry from the field before typing the entry for the new type. You may type 1-31 alphabetic characters.
 - 3 Type an abbreviation for the model view into the **Abbreviation** field. This abbreviation appears in the lower right-hand corner of each model view rectangle in the Model View Hierarchy window and printed diagram.

If you highlighted an entry in the type list box before you typed your entry, you will have to clear the entry in the **Abbreviation** field before typing the abbreviation for the new type.
 - 4 To add the new entry to the end of the type list, click on **Append**.
 - 5 Repeat the procedure for each entry you want to add to the type table.

6 Click on **OK**.

à **To edit an existing view type for the current encyclopedia or Encyclopedia_INITIALIZER:**

1 Choose **View Types...** from the Table menu.

Result: The Edit View Type Table dialog box appears.

2 Highlight the entry in the large list box that you want to edit.

Result: The view type and its abbreviation appear in the **Entry** and **Abbreviation** fields.

3 Edit the information in these fields, then click on **Change**.

2 Note A message appears telling you that the type cannot be changed if the entry is a system-defined model view type (root view, functional area) protected from editing by Visible Advantage.

à **To delete a view type for the current encyclopedia or Encyclopedia_INITIALIZER:**

1 Choose **View Types...** from the Table menu.

Result: The Edit View Type Table dialog box appears.

2 Highlight the entry in the large list box that you want to delete.

Result: The view type and its abbreviation appear in the **Entry** and **Abbreviation** fields.

3 Click on **Delete**.

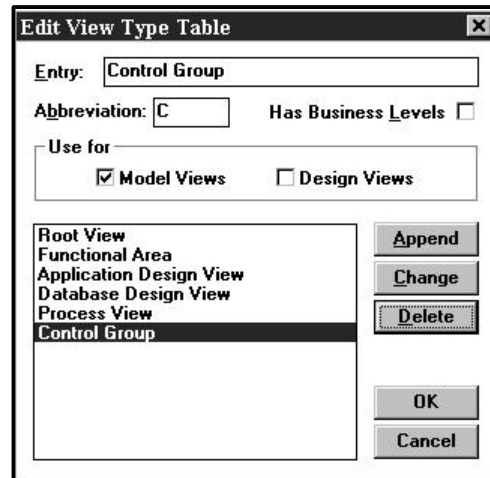
Result: The entry will be deleted.

2 Note A message appears telling you that the type cannot be deleted if the entry is a system-defined model view type (root view, functional area) protected from deletion by Visible Advantage.

Advantage, or if it is referenced by any model view in the encyclopedia.

Edit View Type Table Dialog Box

Dialog Box Illustration



Edit View Type Table Dialog Box

Dialog Box Components

Use the information below to complete the Edit View Type Table dialog box.

<u>Component</u>	<u>Description</u>
Entry	The name of the model view type that is highlighted in the model view type list box, or that you enter when you are adding a new type.
Abbreviation	The abbreviation for the model view type that is highlighted in the model view type list box, or that you enter when you are adding a new type. The model view type abbreviation appears in the lower right-hand corner of each model view rectangle in the model view hierarchy diagram.
Has Business Levels	Select this checkbox if you want to be able to define a business level (strategic, tactical, operational) when you add a model view.

Model Views	Select this checkbox if you want the entry to be used for model views.
Design Views	Select this checkbox if you want the entry to be used for design views.
Append	Use this button to add a new model view type to the end of the model view type list.
Change	<p>Use this button to edit a model view type in the table. To do this , highlight the model view type in the list, edit the Entry and/or Abbreviation fields, then click on this button.</p> <p>A view type cannot be changed if it is a system-defined type (root view, functional area) protected from editing by Visible Advantage.</p>
Delete	<p>Use this button to delete a model view type from the table. To do this, highlight the model view type in the list, then click on this button.</p> <p>A view type cannot be deleted if it is a system-defined type (root view, functional area) protected from deletion by Visible Advantage, or if it is referenced by any model view in the encyclopedia.</p>

Opening a View Hierarchy Window

Description The Views command allows you to open a View Hierarchy window. This window provides a graphical representation of the model views defined for the encyclopedia and the hierarchical relationships between them. This command is available from all windows.

Procedure à **To open a View Hierarchy window:**

Choose **Views...** from the Encyclopedia menu on the main Visible Advantage window.

or

Choose **Views** from the main menu Encyclopedia Management sub-menu on any other menu bar.

or

Click on the Views icon on the main Visible Advantage window workspace.

Result: The View Hierarchy window and menu bar appear.

Related Topics Use the table below to find information on topics related to the Views command.

<u>For More Information On...</u>	<u>See...</u>
how to use each command in the View Hierarchy window	the entry in this manual for the individual command. For example, to learn how to use the Add command on the View menu, see Add View.
how to use the View Hierarchy window's special features, such as the tool panel, mouse commands, and keyboard shortcuts	the Encyclopedia Management section in the <i>User's Guide</i> .

Scaling Graphic Information to a Window

- Description** The Window command resizes the model view hierarchy or data map diagram to fit inside the window. This command is available from the following windows: View Hierarchy, Design Map, and Data Map.
- Usage Tips** After you use this command, you may use the Normal command on the Display menu to return the diagram to the default scale. You can also use the Larger and Smaller commands on the Display menu to further refine the size of the diagram.
- Procedure** à **To scale a diagram to fit inside the active window:**
Choose **Window** from the Display menu.

WRITE MATRIX

Writing Matrix Changes to the Database

- Description** The Write Matrix command saves any matrix changes to the current encyclopedia's database. This command is available from all matrix windows **except** the Process-Entity Matrix, which is not an active matrix.
- Usage Tips** If you are running the active matrix window in immediate mode, your changes are written to the database as you make them, and you do not need to use this command to make your changes effective in the encyclopedia.
- If you are not running in immediate mode, your matrix changes are not written to the encyclopedia database until you choose this command.
- Procedure** à **To write your matrix changes to the encyclopedia database:**
- Choose **Write Matrix** from the Matrix menu.

ZOOM

Zooming the Model View Hierarchy

Description The Zoom command, available from the View Hierarchy window, displays only the selected view and those beneath it in the View Hierarchy window.

Using This Command This command is useful when you want to view only a focused group of model views. The Zoom command is not available when more than one view is selected.

Procedure à **To zoom in on a view subset:**

- 1 Select the view you want to zoom in on.
- 2 Choose **Zoom** from the Hierarchy menu.

Result: The subset will display and a checkmark will appear next to the Zoom command. This lets you know that only a subset of the view is displayed.

ZOOM SELECTION

Zooming in on Selections

Description The Zoom Selection command, available from the Design Map and Data Map windows, enlarges one or more selected objects . This command is useful when you want a close-up view of a group in the window.

Procedure à **To zoom in on selected objects:**
Choose **Zoom Selection** from the Display menu.

APPENDICES

In This Unit The Appendices unit contains the following appendices.

Appendix

Functions and Expressions Guide

Model Analysis Checklist

IDEF1X Data Map Notation

VSC File Formats

FUNCTIONS AND EXPRESSIONS GUIDE

Overview

Introduction This section provides useful information on using expressions and functions in your Visible Advantage data and process models.

An expression is a rigorous depiction of logic. Each expression is a specific instance of a function, which is a generic pattern of logic. When you evaluate an expression for specific instances of values, it returns results fitting a predefined pattern. Expressions define calculations and decision logic based on variable data represented in the data model.

Related to expressions and functions, a variable can represent an entity attribute to clarify the different uses of the same attribute.

In This Appendix

This appendix contains the following sections.

Section

Using Functions

Using Variables

Applying Expressions

Using Functions

Introduction A Function is a generic pattern of logic that returns a value of a known domain. Functions include Algorithmic Functions and Unary and Binary Functions.

Algorithmic Functions An Algorithmic Function is the function type that accomplishes a predefined algorithm on a variable set of arguments. The data type of the value returned by the function is indicated in parentheses to the left of the colon. Following the colon is the predefined algorithm and then the type of argument the algorithm will be performed on.

- (Numerical): Abs(Numerical)
- (Numerical): Acos(Numerical)
- (Numerical): Asin(Numerical)
- (Numerical): Atan(Numerical)
- (Numerical): Average(Numerical)
- (Numerical): Cos(Numerical)
- (Numerical): Count(ENTITY)
- (Numerical): Exponent(Numerical)
- (Numerical): Log(Numerical)
- (Numerical): Max(Numerical)
- (Numerical): Min(Numerical)
- (Numerical): Remainder(Numerical)
- (Numerical): Sin(Numerical)
- (Numerical): Sqrt(Numerical)
- (Numerical): Tan(Numerical)

Unary Operators A Unary Operator is the function type that always has one and only one argument. Essentially, Unary Operators accomplish signing functions. The plus and minus signs in the examples below are operators and in parentheses is the type of argument.

- +(Numerical)
- -(Numerical)

Binary Operators A Binary Operator is the function type that always has two and only two arguments. There are many Binary Operators included in Visible Advantage.

The values returned by Binary Operators can be:

- Boolean (true or false, yes or no, on or off, etc.)
- Numerical

- Character
- Date

The pattern is:

(data type of return value): (argument) operator (argument)

Binary Operators That Return a Boolean

Boolean Binary Operators compare two arguments of the same type and can be:

- Numerical
- Character
- Date
- Time

The table below explains each logical operator used to compare two arguments.

<u>Description</u>	<u>Symbol</u>
Not equal to	!=
Equal to	=
Greater than	>
Less than	<
Greater than or equal to	>=
Less than or equal to	<=
Or	
And	&

The arguments and logical operators can be combined to make many expressions. The table below provides some examples:

<u>Binary Operator</u>	<u>Description</u>
<i>(Boolean): (Numerical) != (Numerical)</i>	If one numerical value (a fixed number, attribute, or variable) is not equal to another numerical value, then "True" is returned; otherwise, the expression is "False."

(Boolean): (Date) <= (Date)

If the first date is less than or equal to the second date, then "True" is returned, otherwise the expression is "False."

(Boolean): (Boolean) | (Boolean)

If either the first or second Boolean is "True," then "True" is returned. If both are "False," the whole expression is "False."

Binary Operators That Return Values Other Than Boolean

Other Binary Operators have the same pattern and return either a numerical, character or date value; the arguments don't necessarily have to be the same type, and the arithmetic operators available are:

- Addition: +
- Subtraction: -
- Multiplication: *
- Division: /
- Exponentiation: **

+ **Examples**

*(Numerical): (Numerical) * (Numerical)*. Two numerical values are multiplied together returning a numerical value.

(Date): (Date) - (Numerical). A date minus a number returns a date.

(Character): (Character) + (Character). A character is concatenated with another character returning a character.

Using Functions

When you use a function you do not write it exactly as shown above. You do not write the data type of the value returned, parenthesis or colon. For example, if you want to use the function, *(Numerical): (Numerical) * (Numerical)*, you simply write, $2 * 5$ or substitute the numerical values with attributes.

Creating Functions

You can create additional functions, if required. To read about adding functions, see Functions in this manual.

Using Variables

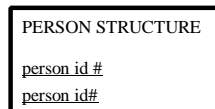
Definition A variable is an alias for an attribute of an entity. Variables are used in Process Modeling primarily to clarify the different uses of the same attribute.

Where You Can Use a Variable You can use variables:

- In any attribute list of both business process and data access process steps
- In the modified attribute expression of Initiation lists
- In the qualifying expression of a Do Read and Do Update process step
- In an Evaluate process step expression
- As the object of an Examine step

2 Note You cannot use variables in derivation formulas.

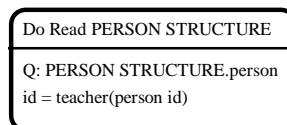
Examples Suppose you have the following structure entity:



You can assign a variable such as *teacher* to one *person id* and *student* to the other to differentiate which *person id* is being referenced.

2 Note You may assign more than one variable to any attribute. Variables are encyclopedia-wide and may be used by any process.

Below is an example of a variable in a qualifying expression of a Do Read process step.



Applying Expressions

Introduction Currently, you can use expressions in Data Modeling and Process Modeling:

- In the derivation formula for attributes (note that you cannot use variables for derivation formulas)
- In the qualifying expression
- In a conditional step that evaluates to a continuous domain
- In the Evaluate process step expression
- In the modified attribute expression of Initiation lists

Derivation Formula The derivation formula is an expression used to determine the values for a derived attribute. You may not use variables in a derivation formula.

Derived attributes use an algorithm or calculation involving other attributes and/or fixed numbers to determine its values. Usually, derived attributes use mathematical logic yielding a numerical result. Date and time computations are also possible.

+ **Examples** Below are two examples of derivation formulas for attributes.

Derived Attribute: *total vacant jobs*

Purpose: The number of job openings.

Derivation Formula: *total number of jobs - total jobs filled*

This derivation formula is using the binary operator

(Numerical): (Numerical) - (Numerical)

Derived Attribute: *head count*

Purpose: The total number of employees.

Derivation Formula: *Count(EMPLOYEE)*

This derivation formula is using the algorithmic function

Count(ENTITY)

Qualifying Expressions A qualifying expression identifies which occurrence(s) of an entity or entity-attribute in an expression. A qualifying expression can be used in:

- Do Read process step
- Do Update process step
- To qualify which entity occurrences a process step acts on

+ **Examples** Below are examples of qualifying expressions.

Derived Attribute: *total jobs filled*

Purpose: The number of positions currently filled for a specific job.

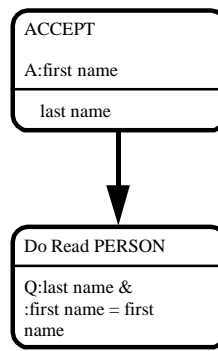
Derivation Formula: $count(EMPLOYEE\ JOB\ [where\ EMPLOYEE.job\ code = JOB.job\ code])$

This derivation formula is using the algorithmic function $Count(ENTITY)$.

2 Note If a qualifying expression is part of a larger expression, the matching brackets are required but "where" is optional. If an attribute exists in more than one entity, the entity name followed by a period must precede the attribute name so it won't be ambiguous.

Process step: *Do Read PERSON*

Purpose: This process step invokes the data access process *Read PERSON* and the occurrence(s) read should be limited to the name provided by the user in the previous Accept step.



The Do Read PERSON process step should be read as "*Read PERSON where PERSON.last name equals the last name provided by the user and PERSON.first name equals the first name provided by the user.*"

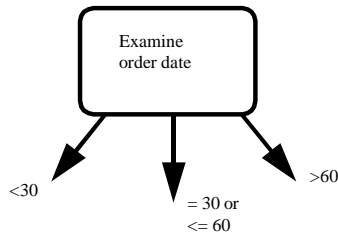
2 Note Since the expression is a qualifying expression and not part of a larger expression, the matching brackets and "where" are not allowed. The entity name PERSON is not required because the attribute's last name and first name do not exist anywhere else.

The colon is required before the attributes (or variables) that are being read to differentiate it from the attributes that are being provided by the user (that is, a colon identifies an attribute as a value coming from or within the data model). It does not matter which order you put the attributes in; i.e., "*last name = :last name & first name = :first name*" is also allowed.

Condition Expressions

If the object attribute of a process step with the condition is static, then the condition for selecting from alternative actions must be the set of static values for that attribute. However, if the object attribute is dynamic, then the condition must be a mutually exclusive set of values or expression.

An example of a condition expression in an Examine step is illustrated below.

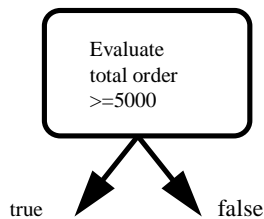


2 Note You may include the object attribute name as part of the condition expression but this is not required. In other words, the condition expression, job code 100, is legal. However, if the object attribute exists in more than one entity, then you must specify the entity name to avoid ambiguity.

Evaluate Step Expression

An Evaluate step is the category of decision control step that uses an expression as the basis for selecting from alternative actions. The object of an Evaluate step must be a logical expression and the control flow conditions are "true" and "false," "found" and "not found," or "ok" and "blocked."

For example, the process step below evaluates to an expression and using the binary operator (Boolean): (numerical) = (numerical).

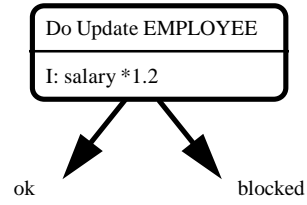


Modified Attribute

In an Initiation list, you can include an expression to modify an attribute. For example, if you want to update all employees salaries

Expressions

by 20 percent, the initiation list for a Do Update process step would look like the illustration below.



MODEL ANALYSIS CHECKLIST

Overview

Introduction This appendix documents each item checked during the Model Analysis operation, available through the Reports/Model Analysis command.

In This Appendix This appendix contains the following sections.

Section

Planning Analysis

Data Modeling Analysis

Process Modeling Analysis

Database Design Analysis

Planning Analysis

Introduction An encyclopedia's planning items are analyzed if Planning is selected in the Phase area of the Model Analysis Report dialog box.

Analysis Items The following items are analyzed during model analysis:

- Link planning statements to objects
- Link planning statements to supporting statement(s)

Data Modeling Analysis

Introduction An encyclopedia's data modeling items are analyzed if Data Modeling is selected in the Phase area of the Model Analysis Report dialog box.

You may further refine the data modeling analysis by selecting a modeling level (strategic, tactical, or operational) in the Data Modeling area.

Entity Analysis Items The table below explains each data modeling item analyzed during model analysis pertaining to entities, along with the requirement for each item at each modeling level:

Item	Strategic	Tactical	Operational
Define entity model view authority	Should be defined for all entities in strategic model	Should be defined for all entities in tactical model	Mandatory
Identify type entity control of secondary entity	Not necessary	Not necessary	Mandatory
Identify secondary entities for all entities associated with type entities	Identify where appropriate	Should identify where appropriate	Mandatory
Identify primary key for all entities	Should be defined prior to cluster analysis	Mandatory	Mandatory
Identify complete primary keys for each intersecting entity	Should be defined prior to cluster analysis	Mandatory	Mandatory
Define entity purpose	Should be defined for clarification	Mandatory	Mandatory
Create reason entities	Not necessary	Not necessary	Create where appropriate

Create structure entities	Not necessary	Not necessary	Create where appropriate
Create role entities	Not necessary	Not necessary	Create where appropriate
Identify entity category	Mandatory	Mandatory	Mandatory
Identify control of rule entities	Not necessary	Not necessary	Create where appropriate
Identify non-key attributes for all entities	Identify where appropriate	Identify where appropriate	Mandatory
Populate/validate static table	Identify where appropriate	Mandatory where necessary	Mandatory
Define entity nature (dynamic or static)	Not necessary	Mandatory	Mandatory
Verify many-to-one association for all role entities	Identify where appropriate	Identify where appropriate	Mandatory
Child model view authority must be valid for parent model view	Not necessary	Verify where appropriate	Mandatory
Entity in child model view must exist in parent model view (subset view only)	Verify for correctness	Verify where appropriate	Mandatory
Limit sole create/read/update/delete authority to one model view	Recommended	Recommended	Recommended
Identify model view purpose	Identify where appropriate	Identify where appropriate	Mandatory
Designate cluster end points	Designate where appropriate	Designate where necessary	Designate where necessary
Assign clusters	Assign clusters	Assign clusters	Cluster

to functional areas	to functional business areas (not necessarily formal business units)	to operational areas	analysis should be completed before the operational phase
Name each cluster	Assign names to functional (tactical) areas and clusters	Assign names to operational areas and clusters	Cluster analysis should be completed before the operational phase

Attribute Analysis Items

The table below explains each data modeling item analyzed during model analysis pertaining to attributes.

Item	Strategic	Tactical	Operational
Define attribute model view authority	Should be defined	Should be defined	Mandatory
Define attribute data type and length/precision	Not necessary	Identify where appropriate	Data types mandatory; add precision where necessary
Define attribute purpose	Identify to clarify	Mandatory	Mandatory
Develop formulas for derived attributes	Identify where appropriate	Identify where appropriate	Mandatory where appropriate
Normalize repeating attributes	Not necessary	Normalize tactical model	Mandatory
Normalize optional attributes	Normalize where appropriate	Normalize where appropriate	Mandatory
Define attribute edit rule	Not necessary	Define where appropriate	Mandatory
Define foreign key alias if	Not necessary	Identify where appropriate	Identify where appropriate

attribute appears in the entity more than once			
Identify foreign keys as mandatory or optional; define uniqueness and edit rule characteristics	Should be defined before cluster analysis	Mandatory	Mandatory

Association Analysis Items

The table below explains each data modeling item analyzed during model analysis pertaining to associations.

Item	Strategic	Tactical	Operational
Create association for all entities	Mandatory	Mandatory	Mandatory
Define correct degree and nature of associations	Define before cluster analysis	Mandatory	Mandatory
Ensure that all associations are supported by keys	Not necessary	Support all associations within tactical area	Mandatory
Define association purposes	Define where appropriate to clarify	Define where appropriate to clarify	Define where appropriate to clarify

Process Modeling Analysis

- Introduction** An encyclopedia's process modeling items are analyzed if Process Modeling is selected in the Phase area of the Model Analysis Report dialog box.
- Business Event Analysis** The following item is analyzed during model analysis pertaining to business events:
- q** Each business event must have at least one business process.
- Process Analysis** The following items are analyzed during model analysis pertaining to business and data access processes.
- q** A data access process must access one entity directly, but only when invoked by a business process or another data access process.
 - q** All add now attributes must be listed on the target list for the Do Create, add later attributes.
 - q** A business process must be initiated by a business event or another business process.
 - q** Within a model view, a business process may only use attributes and Do data access processes consistent with the model view authority for the attributes and entities.
 - q** A business process that does not respond directly to a business event should be invoked by more than one business process. If it is only invoked by one process, this is indicative of an unnecessary layer in the process model.
 - q** Attributes that are input from the user must be on the attribute list for the data access process called by the process or at a lower level, or be used in an Examine step.
 - q** A business process that invoked the same data access process(es) as another business process may be redundant, or nearly redundant and should be flagged with a warning message.
 - q** All attributes that are returned from a Read data access process must be output to the user, used in the attribute list for invoking another data access process or used as the basis for a decision.
 - q** Every entity must have a data access process consistent with its model view authority.
 - q** Every data access process must be invoked directly by a process.
 - q** Every business process must directly or indirectly invoke a data access process.

Process Step Analysis

The following items are analyzed during model analysis pertaining to process steps:

- q** Each step, except Start or Stop mechanisms, must have at least one incoming flow and one outgoing flow.
- q** Multiple conditions must account for all of the values of the attribute or both values of the state.
- q** A Next step is always a looping step.
- q** All Stop mechanisms must have a completion state.

Condition Analysis

When a step's parent step is a condition, the step must have a condition state.

Database Design Analysis

Introduction An encyclopedia's database design items are analyzed if Database Design is selected in the Phase area of the Model Analysis Report dialog box.

Database Design Analysis

The following items are analyzed during model analysis pertaining to database design objects:

- Data structure and data item names cannot be longer than the maximum number of characters specified for the applicable data structure manager through Visible Advantage Admin Utility Table Maintenance/Data Structure Managers command.
- There cannot be more data items per data structure than the maximum specified for the database design through the Data Structure Managers command.
- Number of data structures per database design cannot be more than the maximum specified for the database design through the Data Structure Managers command.
- Each data structure must have at least one data item.
- Each data structure must have at least one access mechanism.
- Each data structure must have at least one relationship.
- A data type must be defined for each data item.
- Each data structure, data item, and data structure relationship must have a purpose.
- Data model links must be defined for data structures.
- Static data structure tables must be populated.

IDEF1X DATA MAP NOTATION

Overview

Background Visible Advantage has the ability to display and print data maps in both Information Engineering (IE) and IDEF1X formats. This appendix documents the differences between the IE and IDEF1X notation.

In This Appendix This appendix contains the following sections.

Section

IDEF1X Entity Notation

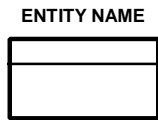
IDEF1X Attribute Notation

IDEF1X Association Notation

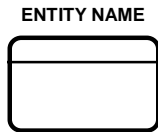
IDEF1X Entity Notation

Introduction This section shows the way entities are depicted in data maps displayed or printed in IDEF1X format.

Independent Entities In IDEF1X format, a square-cornered rectangle is used when all of an entity's primary keys originate in the entity. In addition, the name of the entity appears above the entity rectangle:



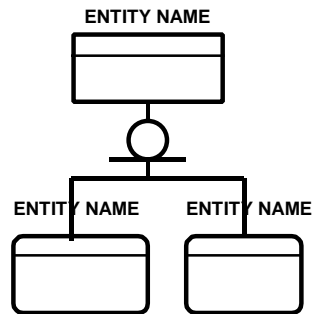
Dependent Entities In IDEF1X format, a round-cornered rectangle indicates that at least one primary key originates in another entity:



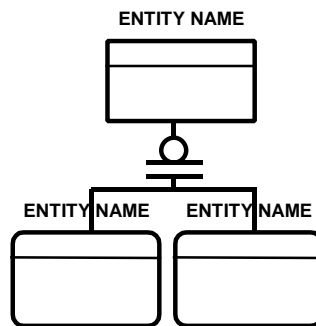
Visible advantage will automatically round the corners of the entity when a primary key is cascaded from another entity through an identifying association.

Type/Secondary Entities In IDEF1X format, secondary entities are indicated by a hollow circle above one or two parallel lines:

One line indicates a complete discriminator.



Two lines indicate an incomplete discriminator.



Visible Advantage will group together category entities based on a common controlling entity or attribute. This means that all categorizing entities for a given generic entity are grouped below a common discriminator based on the fact that they are all controlled by the same entity or the same attribute.

The discriminator will automatically show as complete or incomplete based on the following rules:

If the category entities are controlled by a type entity, the complete versus incomplete designation is derived by counting the number of static values for the controlling entity (essentially all possible categories) and counting

the number of category entities actually shown in the view. If they are equal, then all categories are shown and the discriminator is shown as complete (i.e., one line). IF there are more static values than there are category entities, then all categories are not shown and the discriminator is shown as incomplete (i.e., two lines).

Similarly, if the category entities are controlled by an attribute, the complete versus incomplete designation is derived by counting the number of domain values populated in the domain for the controlling attribute (essentially all possible categories) and counting the number of category entities actually shown in the view. If they are equal, then all categories are shown and the discriminator is shown as complete (i.e., one line). if there are more static values than there are category entities, then all categories are not shown and the discriminator is shown as incomplete (i.e., two lines).

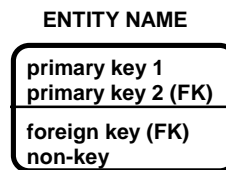
In this manner, the category discriminator is always shown correctly as complete or incomplete in all views that the category entities are shown in.

IDEF1X Attribute Notation

Introduction This section shows the way attributes are depicted in data maps displayed or printed in IDEF1X format.

Placement All attributes above the entity's horizontal line make up the primary key. If an attribute is cascaded from another entity, '(FK)' appears after the key name, regardless of whether it is a primary or foreign key in the dependent entity. Non-keys and foreign keys appear below the horizontal line.

Attribute placement within entity rectangles is shown below:



**Aliases/
Attribute
Role Names** If an attribute has an alias—or attribute role name—it is indicated before the attribute name, separated by a period:
alias.attribute name (FK).

**Unique
Attributes/
Alternate Keys** A unique attribute—or alternate key—is indicated by the alternate number in parentheses after the attribute name:
attribute (AKn), where n is the number of the alternate key.



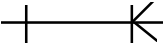


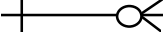


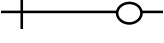


**Group
Attributes** Group attributes are indicated by the group attribute name followed by the attribute members in parentheses:
*group attribute name
(member attribute 1
member attribute 2,
member attribute 3)*

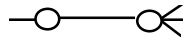
IDEF1X Association Notation

Introduction This section compares the way associations are represented in data maps displayed in IE and IDEF1X formats.

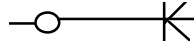
Graphic Depiction The table below compares the symbolism of IE and IDEF1X associations in data maps.

2 Note There are no allowances in IDEF1X for optional-becoming-mandatory associations. Therefore, the optional association notation is used in the IE-IDEF1X association notation table below.

<u>IE Format</u>	<u>IDEF1X Format</u>
Association with key cascading as primary key	
Association with key cascading as foreign key	
	  (p=positive) p
	 
	  (z=zero) z



The diamond represents optional on the owning entity end of the association.



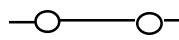
(p=positive) p

Association with a maximum number of occurrences (min = 1)

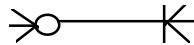
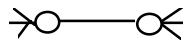
(m=maximum) m

Association with a maximum number of occurrences (min > 1)

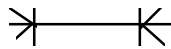
(n=min m=maximum) n-m



(z=zero) z



(p=positive) p



p p
(p=positive)

VSC FILE FORMATS

Overview

Background The Visible Advantage Import/Export functions enable you to build custom interfaces between Visible Advantage and both commercially available and internally developed tools.

Two functions, import and export, are provided to move meta data between the Visible Advantage encyclopedia database and VSC file and Access interface platforms.

The platform consists of the following files:

Import:	VSC	import.ad
	Access	imp-exp.mdb
Export:	VSC	export.ad
	Access	imp-exp.mdb

In This Appendix This appendix contains the following sections.

Section

General Rules

VSC File Specifications

General Rules

- Overview** Several general rules govern how files are imported to or exported from Visible Advantage. These rules are documented below.
- Visible Advantage requires that all IDs be unique across the whole encyclopedia. Valid IDs must also be positive numbers greater than 2.
- Model Views** Visible Advantage links all model views into a view tree with a single root model view. The root model view will always be assigned the ID value of 2. All other model views must be linked through the view tree to the root view to be accessible by the tool.
- Tables** The export function exports all static tables referenced by other objects contained in the interface platform. The import function will only import the following tables:
- Attribute Data Type Table
 - Statement Type Table
 - Model View Type Table
 - Person Type Table
- All other tables in the file will be ignored. In addition, entry number 0 in the Model View Type Table will be ignored. This entry is reserved for the root model view type.

Import/Export VSC Format

Overview When you select import from VSC or export to VSC, Advantage puts the encyclopedia data in an ASCII file named import.ad or export.ad. The format of this file is shown below. All fields except those that describe the number of description, notes, location, etc., field records are enclosed in quotation marks.

The import/export file is a variable record length file divided into three sections. The first section is the header, a single record containing basic information about the file contents. The next section defines user attributes and objects. The third section is defined as the Object Block and contains the Object Header followed by zero or more Field Blocks and an Object Footer. The order of the Field Blocks is not important; however, the KEYS, CHECK, and TRIGGER fields must be present after the COMPOSITION or CLASS COMPOSITION Field Block.

2 Note A number of fields contain multiple pieces of information separated by hex 01 characters (they appear on your screen as a “smiley face” when using DOS utilities); <crLf> indicates a carriage return line field sequence.

File Format The following format is not used for importing or exporting data flow diagrams. It is used only for importing or exporting database designs.

Record 1 – Header Record “project root”, “File creation date”, File creation time”[,User Attribute Count [,User Entry Type Count }]<crLf>

User Attribute Information: “user defined name”, type, length, description<crLf>

Note: The number of records is indicated by the User Defined Count in the header record

User Entry Type Information “user entry type name”, Link Support, “LinkToType”, LinkToCardinality,” “LinkDisplayName”, “CompSupport”, “CompType”, “CompDisplayName”<crLf>

LinkSupport=digit 0 – no support, 1 – supported

LinkToType=VRE standard or aggregate type

LinkToCardinality=digit 0 – 1:1, 1 – 1:m, 2 – m:1, 3 – m:m

LinkDisplayName=Text name for the define dialog box

CompSupport=digit 0 – no support, 1 – supported

CompType = VRE standard or aggregate type
CompDisplayName=Text name for the define dialog box

Note: The number of records is indicated by the User Entry Type Count in the header record

Subsequent Records	ENTRY "Entry Key", "Entry Type User Defined Name",
Object Header Item ID	"additional Information" [, " [Time Stamp] "]
record	
Entry Key	[Class Name ::] Entry Name [:: [Parameter Key]]

This is the 'ENTRY LABEL' in the encyclopedia. Class Name is the name of the class that owns the object. This is an optional field. Entry Name is the key field that is used in the Define dialog box as the primary name. Both Class Name and Entry Name are ASCII fields up to 40 characters in length. Parameter Key is used for Module types to define the argument types that uniquely identify an instance of a function. Each argument type is an object in the repository of type Class, Data Element, or Data Structure, and is followed by either an ampersand (&) if the parameter is passed by value or reference, or an asterisk (*) if it is passed by address. There is no limit to the number of parameters a function may contain. The colons are required even if there are no parameters.

Note: It is possible for there to be duplicate keys (this can happen if there are files and data flows with the same name).

Entry Type	This is a number that indicates the type of entry as follows: 0=Data Element 1=Process 2=File, Data Store 3=Source/Sink, External Entity 4=Data Flow 5=Miscellaneous 6=Alias 7=Data Structure 9=Domain 14=Function 15=Module 16=Library Module 17=Macro
------------	--

18=Library Macro
19=Data Only Module
20=Inf Cluster
21=Data Couple
22=Control Couple
23=Generic Couple
24=Data Interface Table Row
25=Control Interface Table Row
26=Generic Interface Table Row
28=Program
34=Entity
35=Associative Entity
36=Attributive Entity
37=Relationship Name
38=Cluster
40=Relationship Line
43=Member Name
45=Class
46=State
47=Event
48=Tablespace

SubType

If entry type is greater than 65535, then the low order word contains the entry type as described above, and the high order word contains the subtype. This optional field applies only to module types and classes and is used to denote the following special cases.

Module Subtypes

0=Standard
1=Stored Procedure
2=Check Constraint
3=Trigger

Class Subtypes

0=Standard
5=Structure
6=Union
7=Element
8=Entity
9=Associative Entity
10=Attributive Entity

This is the name of the user-defined entry types and it

	replaces the Entry Type.
Additional Information	<p>For aliases, this field will contain the owner entry key and the owner entry type separated by hex 01 characters.</p> <p>For relationship name and relationship line entries, this field will contain the From Entity name, To Entity name, From-To Relationship name and To-From Relationship name, separated by hex 01 characters.</p> <p>For structure chart items appearing on a virtual diagram: For Invocation Lines, special compound type of all information necessary to create a virtual diagram location, as follows:</p> <p style="padding-left: 40px;">Type, bounding box, source module, destination module (separated by hex 01 characters). type=Invocation_Normal[0x01], Invocation_Data[0x02], Invocation_Lex[0x03] bounding box = 1sx, 1sy, 1ex, 1ey</p> <p>Note: The modules referenced in this record must also be included in the same import file.</p> <p>In all other cases, this field will be empty.</p>
Time Stamp	<p>This optional field holds the Create and Modify dates for the object. It is used for import only. The format is Create Date followed by Modify Date, separated by hex 01 characters, as follows: yyyy-mm-dd, yyyy-mm-dd (separated by hex 01 characters).</p>
Object Footer	END ENTRY <crLf>
Object Fields	<p>FIELD "Field Type Name", Number of Records <crLf></p> <p>The basic format for all object fields is a header that specifies the name of the field and the number of lines in the body of the field. Many types use 'plain text' that is defined as a list of lines each with a single quoted string with a maximum line length of 254 characters after processing. Standard Advantage Text means that the field uses the same format per line as the Advantage define screen field bearing</p>

	the same name. Entry names can be up to 40 characters in length. Names in fields use Entry Key format unless the entry key information is redundant; i.e., Member names listed in a class composition must be part of that class.
ADM DATA	Type, min, max, average <crLf> Type is the ASCII number for K (key), M (multiple), or G (group).
ALIAS	“Standard Advantage Text” <crLf> There may be up to 10 aliases per entry.
ASSOCIATOR	“Standard Advantage Text” <crLf> A relationship can have one associator and can be up to 40 characters in length.
ATTR:	“Standard Advantage Text” <crLf> User-defined attribute entries. The actual Field Type is “ATTR:User Attribute Name”. There is one of these for each user attribute used on the object.
CHECK	“Column Name”, “Check Constraint Name” <crLf>
CLASS COMPOSITION	“Member Name”, “Type Name”, Array Limit, Flags <crLf> The Type Name is an object in the repository of type Class, Data Element, or Data Structure. Both Member Name and Type Name can be up to 40 characters in length. Three pieces of information are in the flags field. One item from each of the following categories is ORed together.
	Reference
	Address [0x80]
	Reference [0x100]
	Value [0x00]
	Visibility
	Implementation [0x18]
	Private [0x00]

Protected	[0x08]
Public	[0x00]
Qualification	
Constant	[0x400]
None	[0x000]
Static	[0x800]
Volatile	[0x200]

CLASS DATA Cardinality, “Cardinality Text”, Flags <crLf>

Cardinality can be one of the following values:

One	[0x01]
One or Many	[0x02]
Many	[0x03]
Zero or One	[0x04]
Zero or Many	[0x05]

Cardinality text can be up to 20 characters in length.

Three pieces of information are stored in the flags field. One item from each of the following categories is ORed together (Persistent and Abstract are optional):

Currency	
Active	[0x60]
Guarded	[0x20]
Sequential	[0x00]
Synchronous	[0x40]
Persistent	[0x4000]
Abstract	[0x8000]

COMPOSITION “Standard Advantage Text” <crLf>

This field can be used with any object that supports a composition, such as data structures, entities, and data stores.

DATA ONLY
MODULE “Standard Advantage Text” <crLf>

This field is used with an information cluster entry, and can be up to 40 characters in length.

DBFILES Database Type, “File Name”, Size, Reuse <crLf>

DBPHYSINFO	<p>This field is used with a tablespace entry to specify either the data files that comprise the tablespace or the logical device name. Database Type is 1 for Oracle and 2 for SQL Server.</p> <p>“Tablespace name”, Database Type, Sequence, Index Type, Additional Information <crLf></p> <p>This field is used with either an entity or a tablespace entry to specify physical storage information. There can be one DBPHYSINFO object for each entity, unique key, and performance index defined.</p> <p>Tablespace Name should be blank (“”) if the current entry is a tablespace.</p> <p>Database Type is 1 for Oracle and 2 for SQL Server.</p> <p>Sequence is 0 to define physical information for the table, 100 + key number for unique keys, and 200 + index number for performance indexes. (Key number for the primary key is zero.)</p> <p>Index type can be one of the following values.</p> <table border="0" style="margin-left: 20px;"> <tr> <td>Sorted</td> <td>[0x00]</td> </tr> <tr> <td>Hashed Ordered</td> <td>[0x10]</td> </tr> <tr> <td>Hashed Scattered</td> <td>[0x20]</td> </tr> </table> <p>Additional Information for Oracle: No Sort, PCTFREE, PCTUsed, INITrans, MAXTrans, InitialExtent, NextExtent, PCTIncrease, MINExtents, MAXExtents, FreeLists, FreeListGroup, Offline</p> <p>Additional Information for SQL Server indexes: SortedData, FillFactor, IgnoreDupKey, DupRow</p>	Sorted	[0x00]	Hashed Ordered	[0x10]	Hashed Scattered	[0x20]
Sorted	[0x00]						
Hashed Ordered	[0x10]						
Hashed Scattered	[0x20]						
DESCRIPTION	<p>“Standard Advantage Text” <crLf></p> <p>This is a short description for the entry. Up to two lines of information can be specified.</p>						
FRIEND	<p>“Friend Name” <crLf></p>						

	This field is used with classes to specify either classes or functions that are friends of the current object. See the description for Entry Key for the format.
FUNCTION	“Standard Advantage Text” <crLf>
DESCRIPTION	Key Type, Key Number, “Key Name”, Column Count <ccrLf>
KEYS	“Column Name”, Order <crLf>
	Key Type is either 21 for unique keys or 22 for performance indexes.
	Key Number is either zero for the primary key or non-zero for alternate keys and performance indexes.
	Column Count indicates the number of columns in the key.
	Order indicates the sort order of the column and is either zero for ascending or one for descending.
LINK:	“Standard Advantage Text” <crLf>
	User-defined object link references. The actual Field Type is “LINK:User Object”. There is one of these for each user object referenced by the object.
LOCATION	Diagram Type, “Diagram Name”, Upper Left X, Upper Left Y, Lower Right X, Lower Right Y, Associated Line Count <crLf>
	“Associated Line Name Parent Flow Name”, Start X, Start Y, End X, End Y, Direction <crLf>
	This field is a list of all diagram locations for the object. Each diagram location consists of a header line followed optionally by either a parent flow name record for data flows or list of associated lines for other objects.
	Diagram Type can be one of the following values:
	Data Flow 1

Structure Chart	2
Entity Relationship	3
Unstructured	4
Decomposition	5
Class	6
State Transition	7

Diagram Name can be up to 40 characters in length. Each diagram within a diagram type must have a unique name. If the name is prefixed by hex 9B, the diagram is a Virtual diagram imported from Application Browser.

Associated Line Count is the number of lines attached to the object on the indicated diagram.

Associated Line Name is the name of the attached line, which can be up to 40 characters in length.

Direction can be one of the following values:

Input	49
Output	48
or	
Couple Down	48
Couple Up	49
Couple Bidirectional	50

MODULE DESCRIPTION	“Standard Advantage Text” <crLf>
MODULES CONTAINED	“Standard Advantage Text” <crLf> This field is used with an information cluster entry. There can be up to seven modules each up to 40 characters in length.
NOTES	“Standard Advantage Text” <crLf>
PARAMETER	“Name”, “Type Name”, Array Limit, Flags The Type Name is an object in the encyclopedia of type Class, Data Element, or Data Structure. Both Name and Type Name can be up to 40 characters in length.

Two pieces of information are stored in the flags field. One item from each of the following categories is ORed together.

Pass By
Address [0x80]
Reference [0x100]
Value [0x00]
Qualification
Constant [0x400]
None [0x000]
Volatile [0x200]

PHYSINFO Data Type, Length, Decimal, "Default Value", "Picture",
"Owner", Allow Null <crLf>
or
Data Type, "Domain Name", "Owner", Allow Null <crLf>

This field is used with data elements or classes with an elemental subtype. The first version is used if the entry does NOT reference a domain.

Default Value can be up to 20 characters in length.

Picture can be up to 18 characters in length.

Owner can be up to 8 characters in length.

Allow Null is either ASCII 89 (Y) or 78 (N).

PROCESS DESCRIPTION "Standard Advantage Text" <crLf>

PROCESS NUMBER "Standard Advantage Text" <crLf>

RELATED TO "Standard Advantage Text" <crLf>

This field is used with structure chart items to create an association with data flow diagram items. For modules, there can be up to 10 processes listed, for couples there can be one data element listed, and for data only modules there can be one data store, data structure, data element, or data flow listed. Each related to item can be up to 40 characters

in length.

RELATIONSHIP

Header

Controlling Key, Flags, From-To Cardinality, To-From Cardinality, On Delete, On Update, "From-To Cardinality Text", "To-From Cardinality Text", "From Role Name", "To Role Name", From Qualifier Name", "To Qualifier Name"
<crLf>

or

Controlling Key, Flags, from-To cardinality, To-From Cardinality, On Delete, On Update, "From-To Cardinality Text", "To-From Cardinality Text", "Discriminator Name"
<crLf>

Group/Prefix

Group Number, "Prefix 1", "Prefix 1",...<crLf>

Foreign keys "Foreign Key Column Name", <crLf>

This field is used with a relationship line entry to supply information used during SQL Generation. A relationship field consists of one header, one group/prefix line, and one line for each column of the foreign key. The second form of the header is used with supertype/subtype and inheritance relationships, while the first form is used with all other relationship types.

Controlling key is zero to indicate the primary key is used in the owner entity, while any other number indicates an alternate key number.

Four pieces of information are stored in the flags field. One item from each of the following categories is ORed together.

Relationship Type

Normal	[0x0]
Inheritance	[0x01]
Aggregation	[0x03]

Denormalization Option

None	[0x0]
Collapse Child	[0x80000]

Duplicate Parent	[0x10000]
Duplicate Parent and Retain	[0x180000]
Identifying	[0x2000]
Use suffix	[0x200000]

Cardinality can be one of the following values.

One	[0x01]
One or Many	[0x02]
Many	[0x03]
Zero or One	[0x04]
Zero or Many	[0x05]

On Delete and On Update can be one of the following.

Cascade	[0x01]
Restrict	[0x00]
Set Default	[0x03]
Set Null	[0x02]

Cardinality text can be up to 20 characters in length.

Discriminator, Roles, and Qualifier names can be up to 40 characters in length.

Group Number is used with supertype / subtype relationships to indicate how relationships are grouped together. Relationships drawn with the same start point on the supertype should have identical group numbers.

TRIGGER

“Trigger Name”, Operations, Fire time, Scope, # of associated columns <crLf>

The values to use are:

Operation – Note that some dialects allow you to specify more than one operation.

Update	[0x01]
Insert	[0x02]
Delete	[0x04]
Fire Time	
Before	[0x00]
After	[0x08]

Scope	
Table	[0x10]
Row	[0x10]

For TRIGGER field records, the above structure is used. For each associated column there is one associated column record, as follows:

“Column Name” <crLf>

VALUES AND
MEANINGS

“Standard Advantage Text” <crLf>

- 2 Note** Bounding boxes for structure chart types refer to “virtual diagram” positions. The virtual diagram is a temporary object created by import so that invocation lines can exist in the encyclopedia without an associated diagram. Virtual locations disappear when the associated objects are added to real diagrams. Virtual locations are not visible when editing repository items.

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