

A link is a connection between a source card and a destination card. A link icon represents the link.



Figure 8-1. A link-icon image.

By clicking on the link icon, you can display the destination card. Links are the glue which holds together the relationships and conceptual structures represented in a notefile.

This chapter explains:

- What links and link types are.

- How links are accessed and used.

- How to create links.

- How to delete and undelete links.

- How to tailor links to your taste.

- What cross-file links are.

Links and Link Types

Link types specify the nature of the relationship between the source and destination cards. Some typical link types are Question, Answer, and Explanation.

Two groups of link types exist in the NoteCards system; one group is system-reserved, the other is user-specified. Some of the system-reserved links support the FileBox hierarchy that NoteCards helps you to create. The user-specified links add a relational dimension to information structuring. Here you can link cards together to form networks. These networks allow you to represent the interconnections between various ideas or pieces of information, independent of any categorization into topic areas. In contrast, the set of FileBoxes forms a strict hierarchy typically representing a breakdown of information into subtopics or subcategories. By strict hierarchy, we mean that you are not allowed to create circular lists of FileBoxes. Circular lists of other card types are allowed, however.

System-Reserved Link Types

SubBox	A link pointing to a FileBox from another FileBox.
FiledCard	A link pointing from a FileBox card to any non-FileBox card. Text, Sketch, Graph, Browser, Search, LinkIndex, and Document cards are non-FileBox cards.

BrowserContents	A link pointing to a card or box from a Browser card. This type of link is traversed when you bring up any of the cards or boxes represented as link icons in a Browser card.
ListContents	A link pointing to a card or box from a Search card, enabling you to bring up any of the cards or boxes found during the search process.
LinkIndexBackPtr	A link pointing to a card or box from a LinkIndex card. This type of link is built when you specify that a LinkIndex card should have back pointers to the cards and boxes being indexed, i.e., link icons should be included in the LinkIndex card.
DocBackPtr	A link pointing to a card or box from a Document card. This type of link is built when you specify that a Document card should include back pointers to each card and/or box used to build the document.

User-Specified Link Types

User-specified links indicate the logical relationships between cards. The system comes with three predefined user-specified link types, Comment, See, and Unspecified. However, the system allows you to create new link types as you need them. Typical link types users create include Explanation, Example, Question, Answer, Next, and Source. Choose your link types carefully as they determine the lines along which you will be able to extract information from your notefiles with Document cards.

Randy Trigg, one of the developers of the NoteCards prototype at Xerox PARC, proposed a long list of standard link types for users to follow in categorizing the relationships between their notes. A partial list is included here to give you some idea of the possibilities.

Citation

- C-source

- C-credit

- C-leads

Argument

- A-deduction

- A-induction

- A-analogy

- A-intuition

- Background/Future

- Refutation/Support

- Methodology/Data

- Solution

- Continuation

- Correction/Update

- Simplification/Complication

- Explanation

- Summarization/Detail

- Alternate-view

- Rewrite

- Generalization/Specification

- Abstraction/Example

- Formalization/Application

Note that some long-time users of the system use only one link type. NoteCards gives you a great deal of flexibility. Just because some functionality is there does not mean you should feel obligated to use it if it is not helpful to your task.

Link Directions and Link Ends

Links have a single start point and a single end point. However, whenever you create a link from one card to another, the system automatically builds a backwards link so that it is possible to traverse a linked sequence of cards in either direction. The result is that all cards are linked bidirectionally.

A link's start point is either the card itself or somewhere in the card's contents. In the case of a text card, this would be somewhere within the body of the card's text. A link's end point is always another card. Thus, there are three distinct link categories. There are also a few terms which refer to different groupings of these categories.

Link Categories

To-Links	Refer to links whose start point is in a card's contents and whose end point is another card. These links are represented as link icons in a card's body.
Global To-Links	Refer to links whose start point is a card itself and whose end point is another card. These links are not represented by link icons in a card's body. To see and access these link icons you must choose the Show Links option from a card's left-button title-bar menu.
From-Links	For every to-link and global to-link there is a corresponding from-link which points from the destination card to the source card. All from-links are global.

Other Link Terminology

Local Links	Links whose start point is somewhere in the contents of a card.
Global Links	Links whose start point is the card itself and not some point in the card's contents. These links are not represented by link icons in a card's body. To see and access these link icons, you must choose the Show Links option from a card's left-button title-bar menu.
Forward Links	Include both to-links and global to-links. This term is used when setting Browser and LinkIndex card parameters.
Backward Links	The same as from-links. This term is used when setting Browser and LinkIndex card parameters.
Back Links	System-generated to-links. These links point from a Document or LinkIndex card <i>back</i> to the source cards from which the Document or LinkIndex was built. Hence the name back link.

Link Types vs. Card Types

Link types and card types are frequently confused but they are totally independent of each other.

Link types classify the assigned relationship between two cards. Link types frequently include Explanation, Question, Answer, and Citation.

A card's type specifies the functional capabilities of that card and is associated with a text or graphics editor. The eight card types are Text, FileBox, Search, LinkIndex, Document, Sketch, Graph, and Browser. The Text, FileBox, Search, LinkIndex, and Document cards are all based on the text editor TEdit. The Sketch card is based on the Sketch editor and the Graph, and Browser cards are based on the graph editor Grapher.

Link Access and Use

Link Icon Functionality

A link icon is an active region with an associated menu and four functions. The most frequently used functionality is to click the left mouse button in the body of the link icon to traverse the link to the destination card. The middle mouse button brings up a menu which allows you to traverse the link, change the link type, change the card title and change the link display mode.

Active Regions of Link Icons

The entire link icon except for 10 pixels at the left edge and 10 pixels at the right edge responds to mouse clicks by carrying out a NoteCards action.

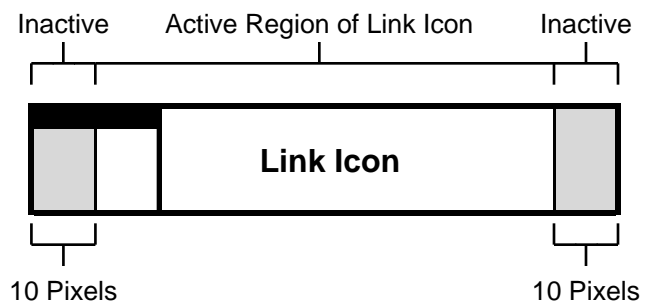


Figure 8-2. Link icon active and inactive regions.

Clicking in the "inactive" 10-pixel strips at the left and right edges of the link icon selects the link icon, in text-based cards (Text, FileBox, Search, LinkIndex, and Document cards), for delete, copy, and move operations, without traversing the link. This region does not exist on sketch- and graph-based cards (Sketch, Graph, and Browser cards).

The inactive area can be somewhat difficult to access without touching the active region of the card. One way to access it is to hold the left or middle mouse button down and slide into the link icon's inactive region. You have selected the link icon when it appears underlined.

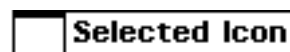


Figure 8-3. A selected icon

If you go too far and the card redisplay in reverse video, simply slide the mouse cursor out to the edge of the link icon and watch for it to underline again. Once the icon appears underlined release the mouse button.

If a link icon is so narrow that its active region would be less than 10 pixels wide, the active region is set to the middle 50% of the link icon width, with 25% at left and 25% at the right being the inactive strips. If the link icon is less than 10 pixels in width altogether, then the link icon will have no inactive strips. Its entire area will be active.

Mouse-Button Actions in Link Icons

The exact response to a mouse click in the active region of a link icon varies depending on a number of conditions. For more general mouse button behaviors, see Chapter 7, *The User Interface*, as well as the *User's Guide to TEdit* and the *User's Guide to Sketch*.

Left Button	Brings up the destination card represented by the link icon.
Middle Button	Brings up the link icon menu which allows you to change the link type, title, and display mode.
Right Button	Following a left- or middle-button click elsewhere in a TEdit-based card, selects a region of the window for moving, copying, or deletion which can include link icons.

Copy/Shift or Move/Shift-Control key plus mouse-button operations are three-step operations. First, you specify the destination window by clicking the left mouse button to position the flashing cursor in the window. Second, hold the appropriate keyboard key down. Third, while still holding the key down, use the mouse to select the piece of text/graphics to be operated on. Once you have completed your selection, release the keyboard key and what you have selected will be copied or moved to the destination window.

Link icons should only be copied or moved to NoteCards windows. TEdit and Sketch, when used outside of NoteCards text-based and sketch-based cards, will not understand link icons.

Copy/Shift key + Left Button	<p>This operation is frequently referred to as a shift-select, occasionally as a copy-select. This operation copies a link icon, or link-icon name and link, to another card.</p> <p>If the flashing cursor is in the body of a card, holding the SHIFT or COPY key down and clicking the left mouse button on a link icon copies the link icon and the link it represents to the position of the caret cursor in the destination card.</p>
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If the flashing cursor is a crosshairs and is in a "Selecting cards to file" prompt window, holding the SHIFT or COPY key down and clicking the left mouse button on a link icon will copy the link icon name and link to the select-card prompt window. This operation is used when you are inserting links in cards or filing cards in a FileBox card.



Figure 8-4. A select card prompt window.

Copy/Shift key+ Middle Button

Same as left button.

Copy/Shift key + Right Button

Holding the COPY or SHIFT key down and pressing the right mouse button following a left- or middle-button click elsewhere in a text-based card, selects a region of the window for copying which can include link icons.

Move/Shift-Control + Left Button

Moves a link and link icon from one card to another card by deleting the link in the first card and inserting it into the second. To move a link, position the caret cursor in the destination window where you want the link to appear and, holding the MOVE key down or holding the CONTROL and SHIFT keys down simultaneously, select the link icon you want to move with the left mouse button. When you release the key or keys you are holding down, the link icon will move to its new position.

Move/Shift-Control + Middle Button

Same as left button.

Move/Shift-Control + Right Button

Holding the MOVE key or SHIFT and CONTROL keys down and pressing the right mouse button following a left- or middle-button click elsewhere in a text-based card, selects a region of the window to be moved which can include link icons.

CONTROL key plus mouse button operations are two-step operations. First, hold the CONTROL key down. Second, while still holding the key down, use the mouse to select the piece of text/graphics to be deleted. Once you have completed your selection, release the CONTROL key and what you have selected will be deleted.

Control key+ Left Button

Deletes a link and link icon from a card. Holding the CONTROL key down and pressing the left mouse button on a link icon will select the link icon for deletion. This is shown by displaying the link icon in reverse video.



Figure 8-5. A selected link icon.

The link icon and the link it represents are deleted when you release the CONTROL key. You can cancel this operation before you release the CONTROL key by clicking elsewhere in the window to deselect the link icon.

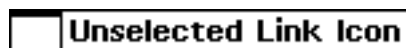


Figure 8-6. An unselected link icon.

You can undo this operation, after you have released the control key, by hitting the UNDO key.

Control key + Middle Button

Same as left button.

Control key + Right Button

Holding the CONTROL key down and pressing the right mouse button following a left- or middle-button click elsewhere in a text-based card, selects a region of the window for deletion which can include link icons.

It is also possible to just backspace over a link icon or to select it and then hit the DELETE key. Note that on some Sun keyboards, the backspace key has the word "Delete" printed on it and that the NoteCards DELETE key is one of the function keys, usually the key labeled "L10."

Viewing Local and Global Links

All links are stored in three places.

- 1) as a to-link on a source card
- 2) as a from-link on a destination card

and either

- 3a) for local to-links, in the card's contents as a link icon
- 3b) for global to-links, in the card's global links list

Only the local to-links, the links in a card's contents, are immediately visible.

To see all of the links to and from a card, hold the left mouse button down in the card's title bar and select the **Show Links** option.



Figure 8-7. The card menu with the **Show Links** option selected.

This will open a window titled: "List of Links". This window always opens with the same initial height. If the list of links is longer than three or four, you will need to scroll or reshape the window to see

the rest of the links. The link icons in this window have the standard left-button functionality, you can traverse links, but no middle-button functionality. Links can also be copied, moved, and deleted from this window.

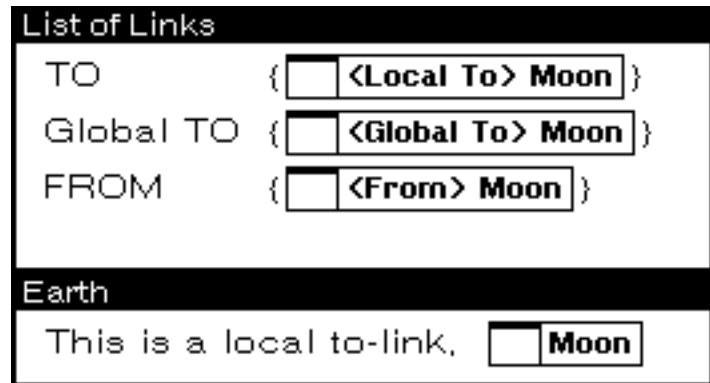


Figure 8-8. A "List of Links" window showing links to and from the "Earth" and "Moon" cards.

The headings to the left of the links are active but have no operations associated with them.

You can close the "List of Links" window by holding down the left or middle mouse button in the window title bar and selecting **Quit** from the single-option menu, or by pressing the right mouse button in the title bar and selecting the **Close** option from the standard window menu.

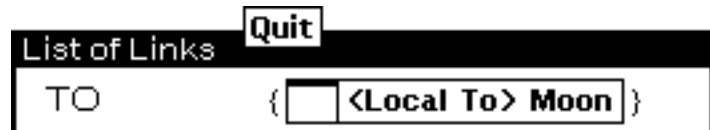


Figure 8-9. The "List of Links" left button menu.

Unfiled and Lost Cards

All cards, including FileBox cards, must be filed in at least one FileBox. This assures that you will have a pointer to your information and helps to remind you to hierarchically organize your information in addition to specifying other types of relationships. When you close a card without linking it to a FileBox card, the closed card is placed in the "To Be Filed" FileBox. You can access this FileBox card by holding the middle mouse button down on the notefile-banner **Special Cards** menu option and selecting the **To Be Filed** option from the menu which appears.

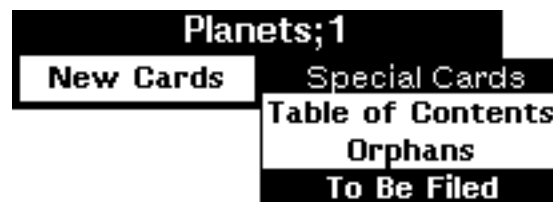


Figure 8-10. The **To Be Filed** option on the "Special Cards" menu.

From this FileBox all "unfiled" cards are accessible. It is possible to force yourself to file cards in a FileBox by setting the **Force Filing**

Edit Parameter. See Chapter 13, System Parameters, for a complete explanation.

You can remove all FileBox links to a card by accident or by design. When you do this, the following message is displayed in the System Prompt Window. "You have just unfiled *card name* from its last filebox. It is being filed in the Orphan FileBox." You can access this FileBox card by holding the middle mouse button down on the notefile-banner **Special Cards** menu option and selecting the **Orphans** option from the menu which appears.

Finally, you can delete card links from the "Orphans" FileBox. When you do this the following message is displayed in the card's prompt window. "You have just deleted the last filing link to *card name*. The Search operation can be used to find it." At this point, if there are no other cards with links to this card, it becomes a lost card and there is no simple way to access the card even though it still exists. As the message says, though, you can retrieve lost cards by building new links to them with a Search card. However, unless you remember some fragment of the card's name, using a Search card to find lost cards can be a time consuming task in a large notefile.

Creating Links

The links you create always run from a source card to a destination card. References to the source card refer to the card with the link icon. References to the destination card refer to the card which opens, or flashes if already open, when you click on the link icon.



Figure 8-11. An illustration of a link icon pointing to its destination card.

Creating Links in Text Cards

The procedures for creating links are basically the same for all cards. We will use Text cards as the model, and then discuss the differences between Text cards and other cards.

Insert Link

You use the **Insert Link** command to create a link originating in the source card's contents and terminating at another card. This is a multi-step process. First, you place the caret cursor in the card at the position where you want the link to appear by clicking in the source card's window. If the type-in process belongs to another card or window this usually takes two mouse clicks, one to make the card the active card and one to position the mouse cursor. Once you have established the location for the link icon in the

source card, you hold the left mouse button down in the source card's title bar and select the **Insert Link** option.

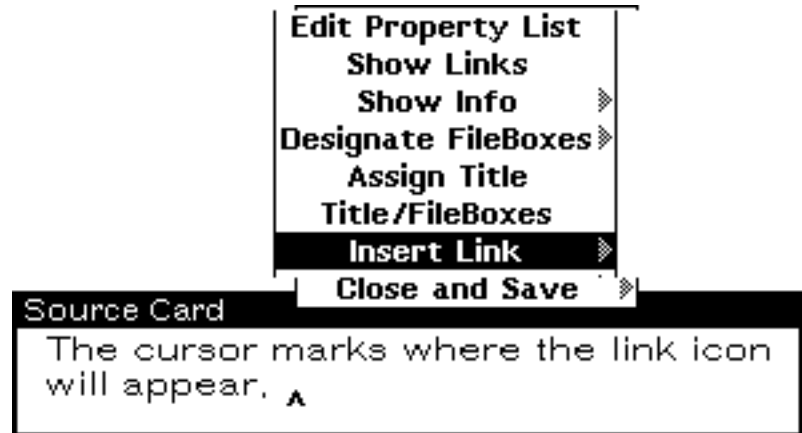


Figure 8-12. The card menu with the **Insert Link** option selected.

At this point the "Link Type" menu will open, asking you to specify the link type.



Figure 8-13. The "Link Type" menu with the **--New Link Type--** option selected.

Choosing appropriate link types is important as they will determine the ways you will be able to extract information from your notefiles. For more information on link types see the section User-Specified Link Types in this chapter and the section on Document cards in Chapter 12, System Cards. You can create new link types as you need them by selecting the **--New Link Type--** option and typing the name of the new link type into the prompt window which will appear above the source card. When you type a carriage return to this prompt window, without defining a new link type, the system assigns the link type the value "Unspecified."

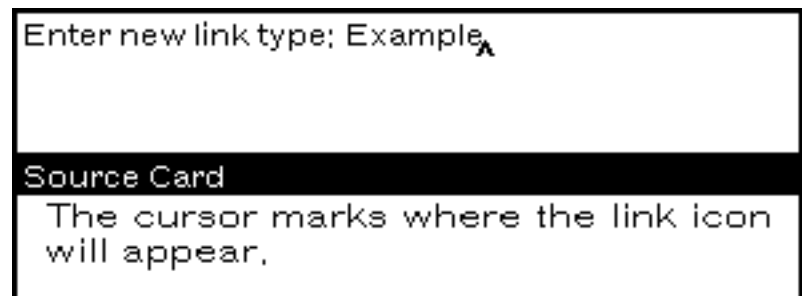


Figure 8-14. A note card prompt window requesting a new link type.

After you have selected an existing link type or defined a new one, the system opens a "Selecting Note Card" window and prompts you to shift-select the card UID from the destination card.

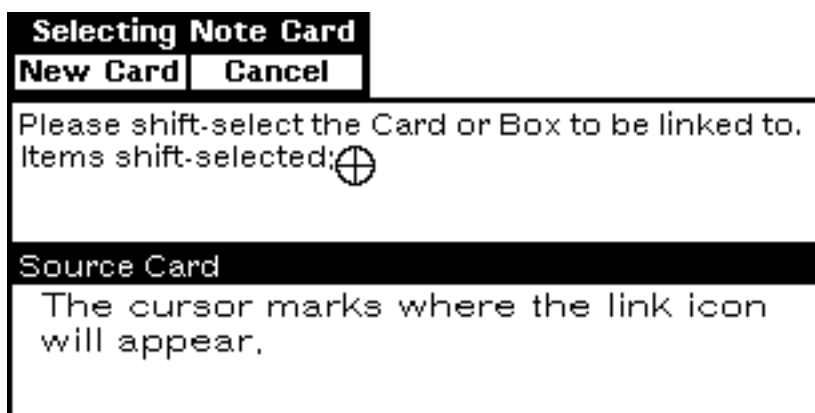


Figure 8-15. A "Selecting Note Card" window prompting the user to shift-select a card ID from the destination card's title bar.

A card UID is shift-selectable from three locations,



When shift-selecting the card UID, there are two distinct behaviors. From the link icon, it is necessary to lift the Shift or Copy key after each selection. This is the expected behavior when shift-selecting anything from an edit window. From the title bar and shrink icon, it is not necessary to lift the Shift key. The transfer happens immediately.

What you see transferred is the destination card's title, but NoteCards also maintains an identifier for each card which is unique across all cards and notefiles. This is what you are really shift-selecting from one card to another. And this is also the reason why it is not possible to shift-select or type text into this window.

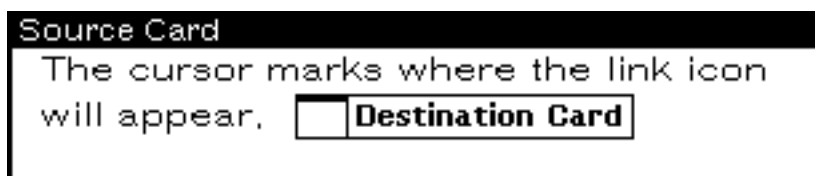


Figure 8-16. A link icon to a destination card as it appears in a source card.

At this point, the new link icon will appear in the source card. From now on, when you click on this link icon, it will open the destination card, or flash the destination card if it is already open.

Selecting **New Card** from the menu on top of the "Selecting Note Card" prompt window will bring up a menu allowing you to create a new card, of any type, which will be the destination card.

Selecting **Cancel** from this menu, cancels the entire **Insert Link** operation.

At any point in this process, it is possible to transfer the type-in process from a prompt window to some other window by clicking in the window you want to use. The prompt window will stay open waiting for you to complete the operation. When you are ready to finish inserting the link, simply click in the prompt window to make it the active window, shown by the flashing crosshairs, and continue where you left off.

Insert Links

If you need to insert multiple links of the same link type at the same location in a source card, **Insert Links** will save you from inserting each link individually.

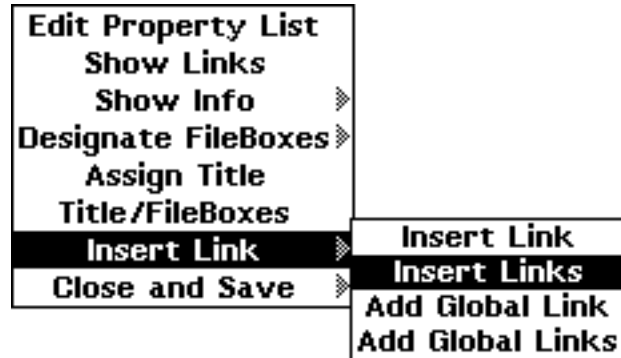


Figure 8-17. The card menu with the **Insert Links** option on the **Insert Link** submenu selected.

Insert Links works exactly as **Insert Link** except you will be allowed to select multiple destination cards. It is possible to shift-select a mixture of text and link icons from a card. In this case, the source card's prompt window will ignore all the extraneous text. To complete the insert operation, either type a carriage return or select the **Done** menu option.

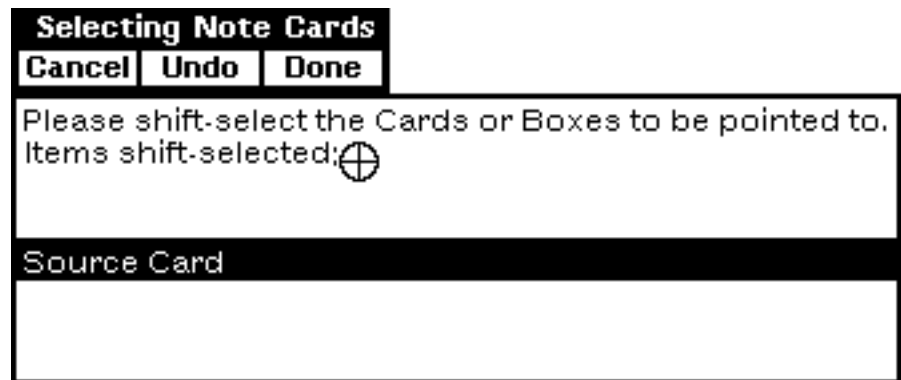


Figure 8-18. A "Selecting Note Cards" prompt window.

The **Cancel** option terminates the entire link insertion operation.

Undo allows you to remove the last item from the list. You can select **Undo** until you have removed all the items from the list.

Add Global Link

Global links are not rooted in a card's contents. For this reason we draw the contrast between *inserting* a link into a card's contents and *adding* a global link to a card.

A second result of this difference is that the procedure for **Add Global Link** is somewhat different from that for **Insert Link**. To add a global link, hold the left mouse button down on the card's title bar and slide off **Insert Link** to access the submenu and select the **Add Global Link** option.

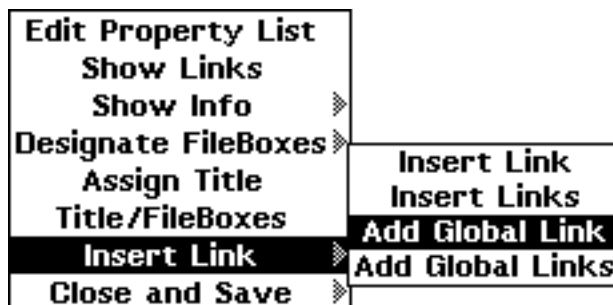


Figure 8-19. The card menu with the **Add Global Links** option on the **Insert Link** submenu selected.

Because you are adding a link to a card itself and not inserting a link into a card's contents, it is not necessary to first position the caret cursor to select the link icon's insertion point. Note that the link will not be visible unless you use the **Show Links** option to show the links to and from that card. Aside from these few minor differences the procedure is exactly the same as that for **Insert Link**.

Add Global Links

Add Global Links functions just like a combination of **Add Global Link** and **Insert Links**. It allows you to add multiple global links of the same link type to a source card without adding each link individually. If you want the global links to have different link types, they must be added one by one using **Add Global Link**.

Creating Links in Other Card Types

There are three basic card types in NoteCards, text-based, sketch-based and graph-based cards.

Text-Based Cards

Text-based cards are based on the TEdit editor and can contain the output from sketch-based and graph-based cards. Text-based cards include Text, FileBox, Search, LinkIndex, and Document cards. The link creation procedure for all text-based cards is the same as for Text cards.

Sketch-Based Cards

Sketch-based cards are based on the Sketch editor. There is only one sketch-based card and it is the Sketch card.

The link icon insertion procedure differs from that for text-based cards only concerning *when* the new link icon is positioned in the card. For text-based cards, the cursor is positioned where you want the link to appear and then one of the link insertion options is selected. For sketch-based cards, the order is reversed. The

menu option is selected first and then, after you have indicated which card you want to link to, you move the cursor into the Sketch card and position the link icon.

Graph-Based Cards

Graph-based cards are based on the graph editor. Graph and Browser cards are graph-based cards.

As with sketch-based cards, the link icon position is selected after the card you are linking to.

Deleting Links

When you delete a link icon you are deleting the to-link that points from the source card to the destination card and also the from-link which points from the destination card back to the source card.

To understand what happens when you delete a link, create a Source Card and a Destination Card. Next insert a link from the Source Card to the Destination Card, and open the "List of Links" windows on each card by selecting the **Show Links** option from the left-button title-bar menu. When you delete one link, all the links will be deleted.

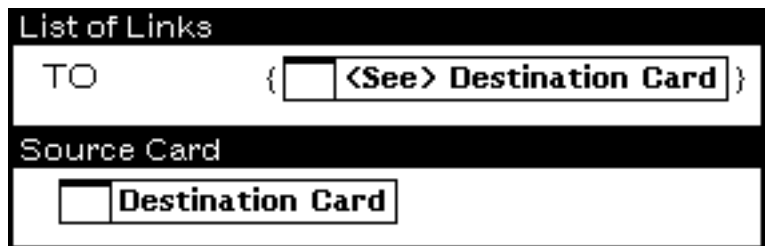


Figure 8-20. A "List of Links" window showing a to-link to a destination card.

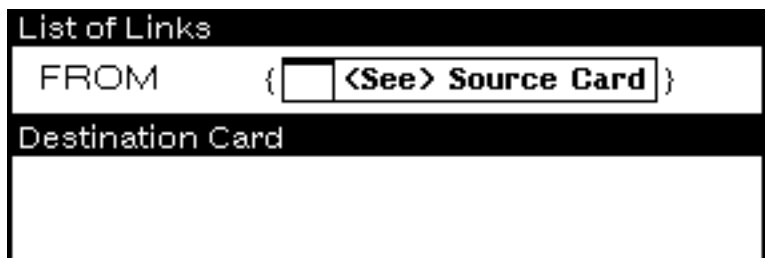


Figure 8-21. A "List of Links" window showing a from-link pointing back to a source card.

The delete procedure for links depends on where you are accessing the link and the card type you are deleting the link from.

Deleting Links from Card Contents

Text-Based Cards

Link icons in the body of text-based cards can be deleted in several ways.

You can select the link icon with the mouse by clicking in the *inactive* region of the link icon and hitting the delete key. Also, you can select a region of text in a text-base card with a sequence of left+right or middle+right mouse buttons and hit the delete key to delete the selected region which can include a mixture of text and link icons.

You can also hold the control key down and select the link icon by pressing the left or middle mouse button in the link icon active region, when you release the control key, the link icon will be deleted.

Finally, you can simply backspace over a link to delete it.

All of these operations can be undone by hitting the Undo key.

For more detail on inactive regions of link icons and coordinated keyboard-plus-mouse operations, see the Link Access and Use section above and as well as the TEdit documentation.

Sketch-Based Cards

You can delete link icons in the body of sketch-based cards by bringing up the sketch menu, if it is not permanently attached to the right side of the sketch window, and selecting the delete option. Next, click in the link icons control point which is the small box attached to one corner of the link icon.



Figure 8-22. A selected link icon in a Sketch card.

This operation can be undone by hitting the Undo key.

For more detail on this and other Sketch operations see the Sketch documentation.

Graph-Based Cards

To delete a link from a Graph card, hold the right mouse button down in the Graph card window, select the **Delete Node** option, and then click on the card you want to delete. When you confirm, the link will be deleted.

Note, this operation cannot be undone.

Because a Browser card is an overview of a link network in addition to being a member of that network, the meanings of delete operations in Browser cards is not straightforward. Please turn to the section on Browser cards in Chapter 11, System Cards, for a detailed explanation of links in Browser cards.

Deleting Links from the Show Links Display

Deleting links from the show links display is very similar to deleting links from text-based cards.

You select the link icon with the mouse by clicking in the inactive region of the link icon and hitting the delete or backspace key.

You can also hold the control key down and select the link icon with the mouse by pressing the left- or middle-mouse button in the link-icon active region, when you release the control key, the link icon will be deleted. This second way is frequently the easier of the two, as it does not require you to access the narrow inactive regions on either end of the link icon.

Note, this delete operation cannot be undone.

Tailoring Links

It is possible to modify the appearance of links to suit your personal tastes and the task at hand. Links can be modified using the middle-button icon menu and the NoteCards "System Parameters" menu.

Link Ops Menu

You bring up the "LinkOps" menu by holding the middle mouse button down in the active region of the link icon.



Figure 8-23. The "Link Ops" menu.

Bring Up Card/Box

Performs the same function as clicking the left mouse button in the link icon's active region. It traverses the link to the destination card and opens it, or flashes it if it is already open.

Change Link Type

Allows you to choose a different link type for the link you select.

Change Card Title

Changes the title of the card the link points to and the titles shown in all the link icons pointing to that card. The one exception to this statement is when you have created one-way cross-file links. These links update only when you access the link icon which points to the changed card.

Change Display Mode

Selecting **Change Display Mode** brings up the "Display Mode?" menu. This menu allows you to override the display mode defaults for the individual link icon you have selected.

Display Mode?			
Title?	LinkType?	AttachBitmap?	
Yes	Yes	Yes	DONE RESET ABORT
No	No	No	
System Defaults	System Defaults	System Defaults	

Figure 8-24. The "Display Mode?" menu.

There are two levels of defaults for link icon display modes. Each card defined in the NoteCards system sets how links will be displayed in its contents. This is the first level of defaults and you have no control over them. These defaults can be set to three values, "Yes," "No" and "System Defaults." These are the values which appear in the "Display Mode?" menu shown above. If the value is set to "System Defaults," NoteCards consults the System Parameters to determine whether or not to display that particular attribute. See Chapter 13, System Parameters for how to set link default display modes.

With all the values set to "No," the link appears as a small rectangular box.



Figure 8-25. A link icon with all display mode values set to "No."

With all the values set to "yes," the links have the following appearance.



Figure 8-26. A link icon with all display mode values set to "Yes."

The link type is shown in angled brackets and the card title is to the right of the link type. The card-type bitmap is the square piece on the left of the link icon and varies in design depending on the card type.



Represents Text cards.



Represents FileBox cards.
The image is a stylized file drawer.



Represents Sketch cards.
The image is a stylized sketch.



Represents Graph cards.
The image is a stylized letter "G."



Represents Browser cards.
The image is a stylized Browser.



Represents Search cards.
The image is a stylized eye.



Represents LinkIndex cards.
The image is a stylized list of link icons.



Represents Document cards.
The image is a stylized linear list of note cards.



Represents cards for which the type is unknown occurs with cross-file links.

System Parameters for Links

There are nine system parameters to enable you to customize the appearance of links. They are **Link Icon Font**, **Link Icon Border Width**, **Link Icon Multi Line Mode**, **Cross File Link Mode**, **Link Icon Max Width in Pixels**, **Link Icon Show Title Default**, **Link Icon Attach Bitmap Default**, **Link Icon Show Link Type Default**, and **Use Deleted Link Icon Indicators**. For a complete discussion of these parameters, see Chapter 13, System Parameters.

Cross-File Links

The NoteCards system allows you to have links from one notefile that point to cards in another notefile. These types of links are known as cross-file links. See also Chapter 13, System Parameters for how to set the cross-file link mode.

Appearance

Cross-file links are indicated by an arrow bitmap on the right-hand side of the link icon.



Figure 8-27. A cross-file link indicated by an arrow bitmap on the right-hand side of the link icon.

It is also possible to cross-file cards. This is to say that you can file a card from one notefile in the FileBox of another notefile. Note that this is only possible after you have first filed it in its origin notefile. This is, in effect, just another way of creating a cross-file link. Cards are always physically filed in their origin notefiles.

When a cross-file link is displayed, and the notefile the link points to is closed, then the link can have the following form.



Figure 8-28. A cross-file link to a closed notefile. The question-mark bitmap indicates that the card cannot be accessed to determine its card type.

The card-type bitmap on the left of the link icon is a question mark because the card type is stored on the card and this link has no access to the card because the notefile is closed. As a result, the

link cannot display the appropriate card-type link. When you click on the cross-file link the system will ask you if you want to open the corresponding notefile. At this point, if you redisplay the card, by selecting the **Redisplay** option on the window menu, the link will be shown with its appropriate card-type bitmap.

Missing Notefiles

If you rename or delete a notefile which has cross-file links pointing to it, the system will try to open the notefile by its original name. When it cannot find the notefile under its original name, it will ask you which notefile to look in. You cannot give a name with wild card characters like "*" or "?." You must give actual notefile names. The system will continue to prompt you for new notefiles to search until you give up.

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