Chapter 2 Working in X Windows

The X Window Environment

The NASIS software was developed using the X Window System, a network-based graphical windows system. Like the Microsoft Windows applications you may be familiar with, the X Window System uses a graphical user interface (GUI). In a GUI application, you manipulate the application by means of graphical objects, such as icons, buttons, menu selections, and so forth. A pointing device, typically a mouse, is used. Because NASIS works in a windows environment, you may have several processes operating at the same time, each appearing in a separate window on the screen. For example, from an X terminal or console, you could run NASIS in two separate windows and save an enormous amount of time when performing certain operations that require use of the copy and paste functions. Each window may be adjusted in size ("sized") and scrolled vertically or horizontally, independent of the other windows.

The screens shown in the following chapters reflect the use of *Motif Window Manager* on an X terminal. Screens published in this manual may differ slightly from those on your monitor, for example, if you are running NASIS on an MS-DOS computer running Windows and X-emulation software.

This chapter is a brief introduction to the parts of an X window (using *Motif Windows Manager*), how to use them, and the basic terminology of using an X windows application (shown in Table 2-3 on page 2.6). It also introduces you to the NASIS screen, including the toolbar and buttons, status indicators, and other functional screen parts. This chapter will not fully teach you to use the *X Window System*. The best tools for learning the *X Window System* are the *Solaris User's Guide*, the *X Window System* online help (only available on consoles), or *X Window System User's Guide* published by O'Reilly & Associates, Inc.

Learning the Parts of an X Window NASIS Screen

If you have not already done so, log on to the central server computer at Fort Collins. On the NASIS Secure Access window, click on "Open an Xterm" button. At a *UNIX* prompt open the tutorial database by typing:

```
nasistutor
```

If your preferences are set to display an initial picture when you start up NASIS, you can open the tutorial database without the initial picture by typing:

```
nasistutor –nobitmap
```

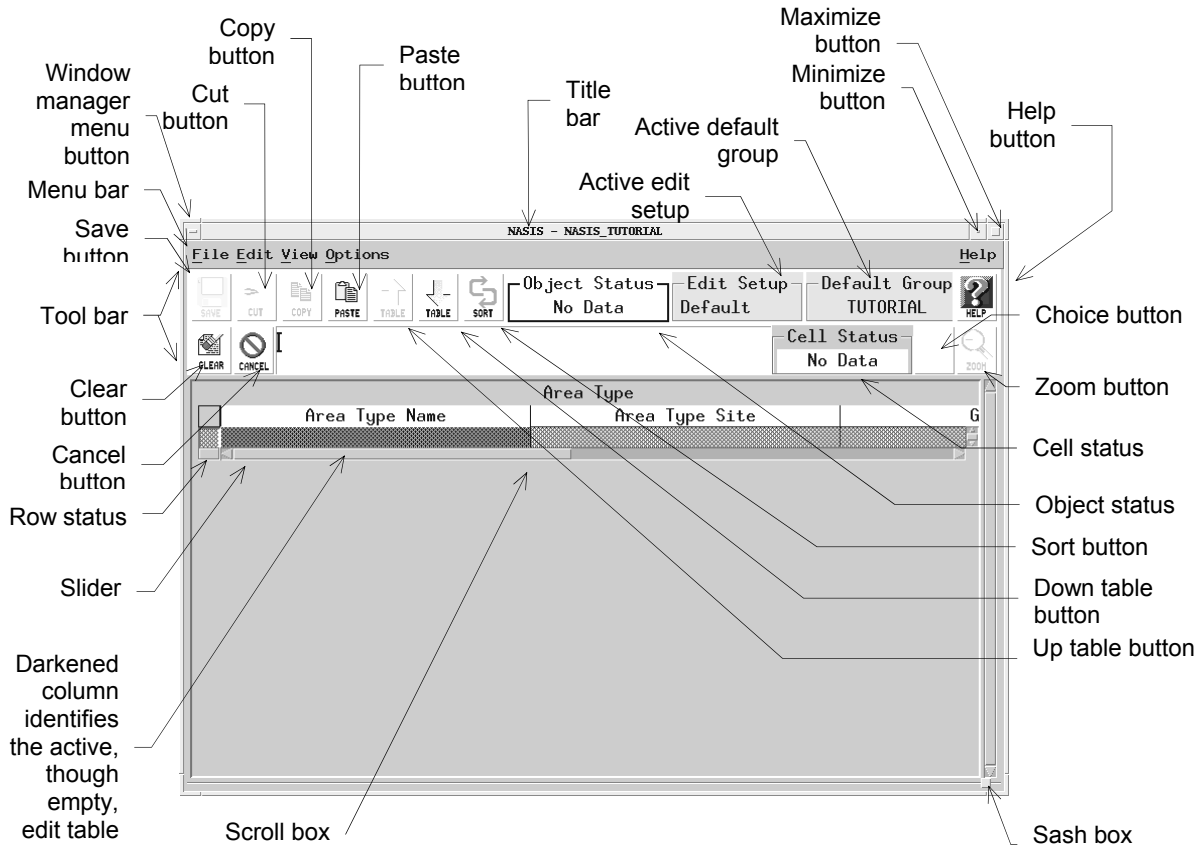
Note: In Chapter 3 you will learn about setting NASIS Preferences. It can be used to set NASIS to display or not display the startup bitmap. If your preferences are set to no bitmap, it will not be necessary to type –nobitmap when starting the program.

Before you open the NASIS window, notice the menu bar at the top of the opening screen: File, Edit, View, Options, and Help. These menus provide access to NASIS commands, tables, editors, and online help. While this lesson helps you identify the parts of an X window and the NASIS screen, the lesson in Chapter 3 explains the NASIS menus and menu options.

You can use the keyboard or a mouse device to navigate through the NASIS menus, windows, and dialog boxes. The following procedure refers to the mouse. A keyboard guide is located in the "References" section of online help.

1. A message appears explaining the constraints of the tutorial database. Click **OK**.
2. Choose the **View** menu by clicking it with the left mouse button.

   Choose Area Types from the menu, and then choose Area Type.
   Note: The empty Area Type table is displayed and will be explained in Chapter 11. For now, use the graphic (resized) to identify the parts of the NASIS window. Subsequent pages provide a detailed explanation of each button and screen part. The buttons that are "grayed out" are presently inactive because they are not available given the present editing context.



Note: For a detailed explanation of each button and screen part, see Tables 2-1 and 2-2 on the following pages.

Button	Action
Cancel	Cancels edits you make in the edit window. After you commit the edit to the data field by clicking in the table or pressing TAB or ENTER, you must use the Clear button in the edit window.
Choice	Activates a choice list for the current field. If the button is dimmed, no choice list exists for the current field.
Clear	Empties the value in the edit window and then empties the field once you click the field or press TAB or ENTER.
Copy	Copies the selected object(s) and places it on the clipboard so you can paste to a new location.
Cut	When you cut an object, row status becomes "D" for deleted (same as when you use the Delete command).
Down table	Displays the next table down in the table hierarchy. The Down table button initially follows a default path (shown as heavy arrows on your NASIS Database Structure diagrams). For example, the default path from the Horizon table is to the Horizon Texture Group table. However, if from the View menu you choose a different table path—for example, you choose Horizon then Horizon Fragments—the editor remembers this, and the Down table button follows the new path until you change it again.
Help	Converts the pointer to a ?. Place the ? cursor on the screen part, table name, or column about which you want information, and click to display a help topic. The Help button is the same as the On Context command on the NASIS Help menu and is referred to as context-sensitive help.
Maximize screen	Enlarges the NASIS window so it fills the entire monitor. Click it again to return the window to its previous size.
Minimize screen	Reduces the NASIS window to an icon. Double-click the icon to return the window to its previous size.
Paste	Inserts the item(s) from the clipboard into the active object(s).
Save	Commits modified records to the permanent database. In NASIS, you edit data in temporary edit tables and then save them to the permanent database. Commits changes made since the last save.
Sort	Arranges the rows of data in the current table according to a predetermined sort sequence. The same sort is accomplishe when you leave a table and then return. But, if you have added or deleted rows and want to sort it immediately, use this button. The sort sequence differs depending on the table. NASIS edit setup provides the capability of setting the sort sequence and ascending or descending order.
Up table	Displays the previous table in the table hierarchy. See Down table button for more information.
Zoom	Opens a special editor (text or graphical editor) where extended segments of text are typed and displayed or interpretations are graphically developed. For example, to view or enter text for Mapunit Text, highlight the "Text…" field and click the Zoom button.

Table 2-1. NASIS Toolbar Buttons

Screen Part	Action
Cell Status	Indicates whether the current data field contains data and whether it may be edited. If a dashed line appears, the field may be edited. If the field is "protected," it may not be edited. If "No Data" appears, the cell and its row have not yet been added to the selected set. Cell refers to the intersection between a column and a row.
Default Group	Indicates the default group to which the user is assigned.
Edit Setup	Indicates the edit setup currently active. Edit setups control the display and order of columns in selected tables.
Edit window	Displays the contents of the current (highlighted) field. Like a spreadsheet application, the edit window is where you actually enter data, rather than in the main table. Edits made in the edit window are committed to the main table when you click the mouse button in the table or press the ENTER or TAB key. The Clear button and Cancel button work in the Edit window.
Menu bar	Displays the NASIS menus—File, Edit, View, Options, and Help—and provides access to NASIS commands, tables, editors, and online help.
Object status	Indicates the state of the current owned object; for example, if any part of the owned object has been changed during the edit session, the object status reads "Modified." Objects that you do not own have "Protected" status. Those owned objects that have not been modified since data was last saved have "Unchanged" status. An object that you own but that is already in the selected set of another user has "Locked" status.
Row status	Indicates that an action has been taken on the row since the last time the data was saved to the permanent database. A dash indicates an existing unchanged data; P indicates a protected row; and D indicates that the row is marked for deletion.
Sash box	Splits the NASIS screen into two parts so you can display a Where Used report. Move the pointer over the Sash box. When the pointer converts to cross-hairs, click your mouse button, hold it down, and move the cross-hairs vertically. In a populated Data Mapunit, Property, Evaluation, or Rule table, the Update Report button becomes active. Click it to display a report of other objects that reference the highlighted object in the table.
Scroll box	Contains the slider. The position of the slider within the scroll box indicates your position within the table. For example, if you position the slider halfway into the horizontal scroll box, you see the columns of data halfway through the table.
Slider	Lets you look at table data that does not fit on the screen at one time. By moving the horizontal slider, you can see other columns in a table. By moving the vertical slider, you can see other tables in the hierarchy. The position of the slider within the scroll box indicates your position within the table. For example, if you position the slider halfway into the horizontal scroll box, you see the columns of data halfway through the table.
Title bar	Contains a window manager menu, the minimize and maximize buttons and the software name and database.
Tool bar	Contains graphical buttons that correspond to commands on the NASIS menus. A button provides a quick way to activate a command such as Save, Cut, Copy, or Paste.

Table 2-2. NASIS Screen Parts

Moving and Sizing the X Window

One advantage of using the X Window system is that you can run multiple applications simultaneously. For example, you can be working in NASIS, running the NASIS online help system (a separate window), and running an internet browser to read or download an item from the NASIS Home Page, all at the same time. To help you take advantage of this capability, these procedures explain how to move and size the windows on your monitor.

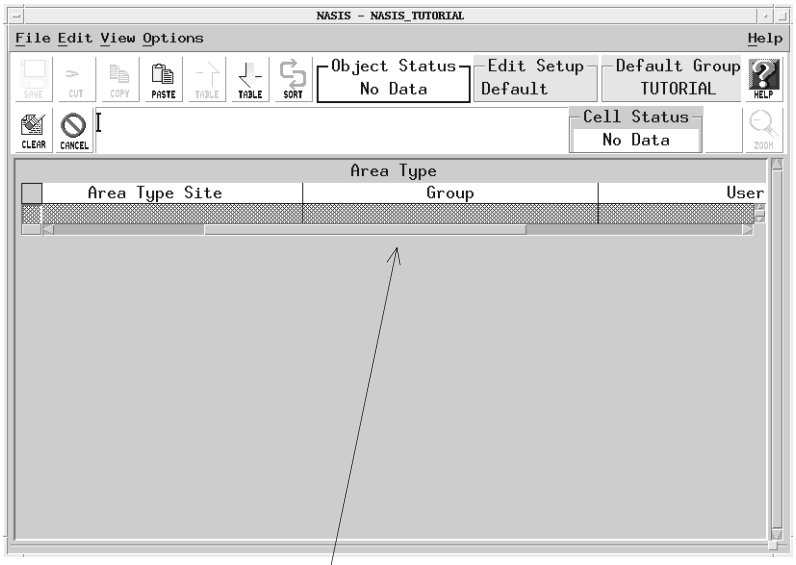
1. To move the NASIS window to another place on your screen (using an X terminal), place the cursor in the NASIS title bar then click and hold down the right mouse button. Select Move then release the mouse button. The cursor turns into cross-hairs; move the screen to the desired location. Click the left mouse button to anchor the screen.

   Note: Alternatively, use the left mouse button to click the title bar, drag the window to a new location, and release the mouse button.

2. Enlarge the NASIS window to a desired size by placing the cursor in the NASIS title bar; then click and hold down the far right mouse button. Select **Size**, and then release the mouse button. The cursor turns into a sizing tool. Enlarge the screen to the desired size.

3. Turn the window into an icon (minimize it) by placing the cursor in the NASIS title bar, then click and hold down the right mouse button. Select Minimize then release the mouse button. (Restore the window by double clicking the icon that appears on your monitor, usually at the bottom.

4. Scrolling lets you look at table data that does not fit on the screen at one time:
   - To scroll horizontally one screen at a time to look at other table columns, click in the horizontal scroll bar to the right or left of the slider.
   - To scroll to any position, point to the slider, click and hold down the left mouse button (called "dragging") and move the slider. (A sample screen is shown on the following page.) Release the mouse button when you can see the desired column. The position of the slider within the scroll box indicates your position within the table. For example, if the slider is in the middle of the horizontal scroll bar, you see the columns of data halfway through the table.)



Drag the slider to see columns that don't fit on the screen at one time

Note: You have completed this lesson.

X Windows Terminology	
Click Quickly press and release the left mouse button. **Double click** Quickly press and release the left mouse button twice. **Drag** Press the left mouse button and hold it down as you move the cursor to the desired position, then release. **Icon** A graphical representation of a minimized NASIS window. **Maximize** Enlarge the window to its maximum size. **Minimize** Reduce the window to an icon.	**Mouse** A pointing device whose movement is represented on screen by a cursor. The mouse lets you make selections, scroll and change the size of windows, and select data to edit. **Point** Place the mouse cursor (pointer) on a part of the window. **Scroll box** A scroll box appears at the bottom and right side of NASIS windows. The scroll box indicates that additional information can be viewed in either the horizontal or vertical direction. **Slider** The solid bar within a scroll box. The slider shows the position and size of the window displayed on the screen relative to the full extent of the window.

Table 2-3. X Windows Terminology