

## Tektronix 4014 and 4105 Emulation

This chapter describes the scope of NCSA Telnet for the Macintosh's® Tektronix 4014 and 4105 emulation capabilities and explains how to conduct Tektronix graphics emulation sessions and operations in graphics windows.

### Tektronix Graphics Emulation

NCSA Telnet for the Macintosh can emulate Tektronix 4014 and 4105 terminals. Emulated capabilities include text modes, Tektronix 4014 or 4105 text sizing, zoom, and pan. The use of Tektronix graphics with NCSA Telnet depends on host programs that can produce graphic images. When the host programs run and produce Tektronix 4014 or 4105 graphics commands, NCSA Telnet automatically switches into graphics mode, opens a graphics window, and does the drawing.

#### Getting Started

The type of Tektronix emulation, if any, done for a given session is determined by the TEK field in the session configuration record. See the section "Session Configuration Records" in Chapter 2, "Configuration" for more information.

A host program generates the Tektronix clear screen character sequence (ESC,-FF) over a currently open connection. When NCSA Telnet receives this command, a graphics window opens. All graphics output from the session is redirected into this graphics window until you either close the window or send the TEK end command.

### Tektronix related options in the Session menu

#### TEK Page

The **TEK Page** command in the **Session** menu provides a quick way to create a Tektronix emulation window without intervention from host software. Normally the emulation window appears automatically as soon as NCSA Telnet receives the clear screen command sequence from the host. You can, however, create the window immediately by selecting TEK Page from the **Session** menu.

Just as you would use the Page key on an actual Tektronix terminal to clear the window for the current session, you can select **TEK Page** to clear a graphics window.

#### TEK form feed clears screen

When this option is on, NCSA Telnet's Tektronix emulation will clear the current Tektronix window when a Tektronix clear screen command is received. If this option is off, NCSA Telnet will create a new window for the new Tektronix image. Each new screen created in this way has as its name the session name and time.

### Graphics Window Operations

NCSA Telnet lets you detach, delete, zoom, copy, resize, and print graphics windows, as described in the following sections.

#### Detaching a Graphics Window

To detach a graphics window, click on the text window for that graphic's connection. Pressing the OPTION key while you click on a window lets you click without detaching the corresponding graphics window. When a window is detached, its title no longer contains the bullet character (•) that identifies it as the active output window.

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The window can also be detached under the control of host software. When the CAN character (dec 24) is received, the terminal is reset to VT screen emulation.

### Deleting a Graphics Window

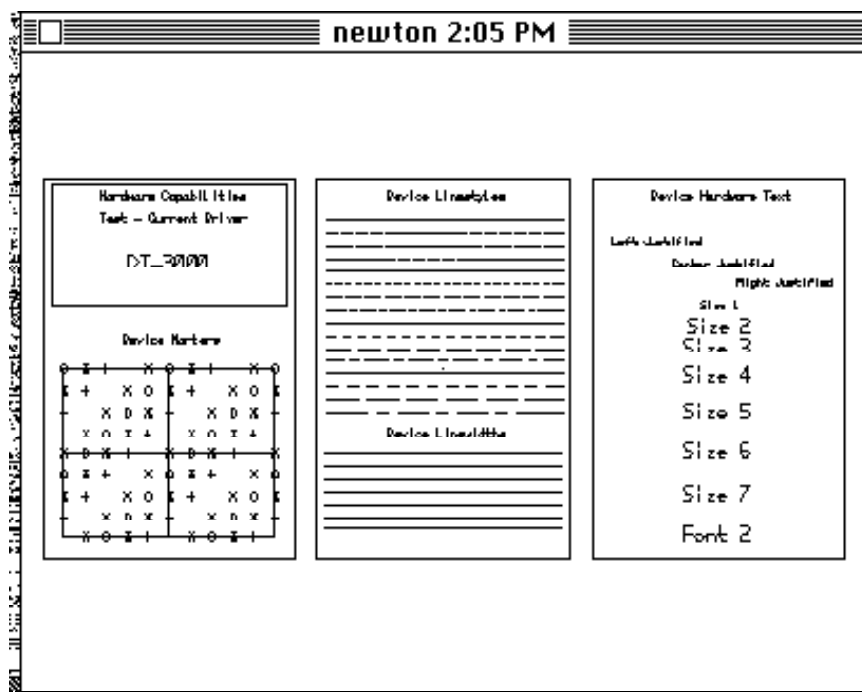
To delete a graphics window, click on its close box.

### Zooming/Unzooming a Graphics Window

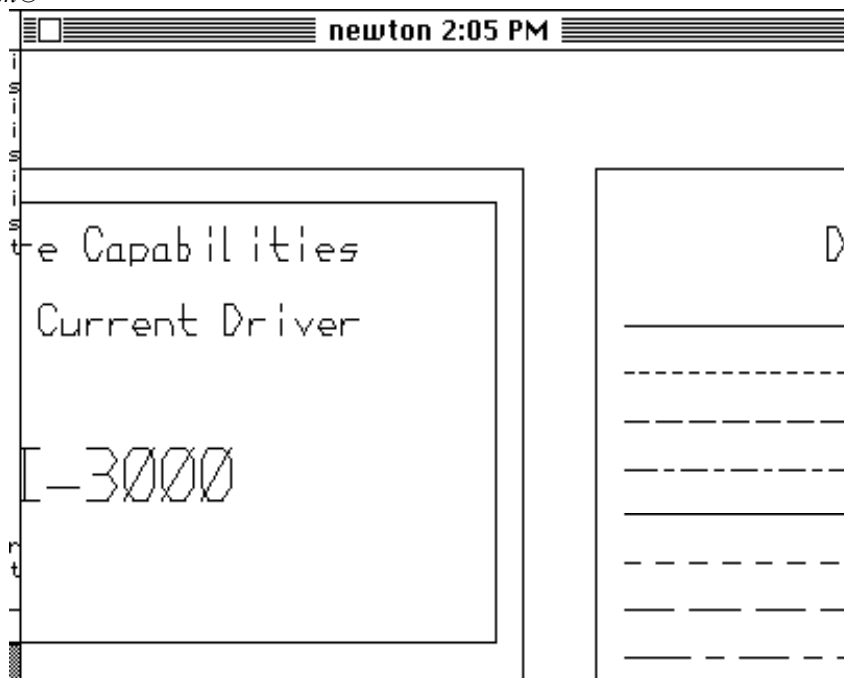
To magnify (zoom in on) a portion of a drawing in a graphics window, drag a selection rectangle around the area you want to view more closely. When you release the mouse button, the selected section of the drawing expands to fill the entire window. To prevent distortion or stretching of the TEK image, the magnified selection always maintains the same aspect ratio as the TEK window.

To unzoom (and see the entire drawing once again), doubleclick anywhere in the window.

The screen image below shows a Tektronix emulation window at normal size (i.e., at zero magnification):



The following screen image shows a portion of the same drawing in zoomed magnification:



You can copy and print the contents of both zoomed or unzoomed windows. When you copy or print a zoomed window, only the visible portion of the window is copied or printed.

## Copying a Graphics Window

To copy the contents of a graphics window onto the Macintosh Clipboard, activate the window by clicking on it, then choose **Copy** from the **Edit** menu. Now you can paste the graphic into another Macintosh application.

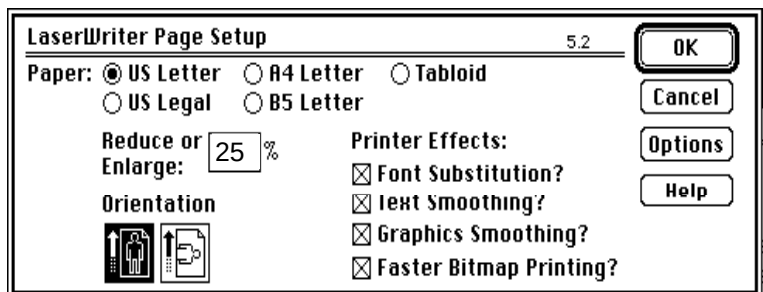
## Resizing a Graphics Window

Although no grow icon is drawn in the Tektronix emulation window, clicking and dragging the lower right corner of the window will resize it as if it did have a grow icon.

## Printing a Graphics Window

To print the contents of a graphics window on a local printer or a printer on the AppleTalk network, activate the window by clicking on it and choose **Print Selection** from the **File** menu.

NCSA Telnet centers and scales all graphics to fit the page. To achieve the best possible resolution on a LaserWriter, enter 25 percent as the **Reduce or Enlarge** option in the Page Setup dialog box, as shown in the sample below.



The 25 percent setting does not change the size of the image but makes the lines thinner.

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For more information about the Page Setup dialog box, refer to your Macintosh user's guide.