Introduction

Overview

This introduction presents an overview of the capabilities and features of NCSA Layout. The organization and use of this manual are described and notational conventions explained.

About NCSA Layout

NCSA Layout was developed to eliminate dependence upon highly technical, inflexible programs for the production of visual presentations of two-dimensional data images.

NCSA Layout helps you convey the results of your investigations and analyses to your colleagues in a professional form. It allows you to display and annotate 2D data images so that you can photograph your Macintosh screen display with a 35mm camera and generate presentation-quality slides. Your layout may include several images annotated with grid lines and tick marks, text, color bars that display the range of the current palette, frame counters, and transparent or colored canvas. By loading user-defined color palettes into NCSA Layout, you can vary the appearance of the images, and the color of your text and canvas. To view or eventually transfer a layout to other machines or programs for photographing, animation, or display, you may save it in the following ways: as an HDF Layout file that may be edited at a later date; as an HDF Image file that may be directly opened in other applications; or as a PICT file (drawing or pixels). You may also save the layout as a batch file to be transferred to a remote system, like the Cray, for animation purposes.

Special Features

The new features of NCSA Layout Version 1.2 allow you to:

- create a batch mask in Layout, transport the animation template to the Cray, use the UNIX tool Laybat to create an animation sequence, and download that resulting sequence to the Macintosh for viewing
- choose transparent background for displays and text background
- choose a color from the palette color table for the text background
- cut, copy, and paste between Layout and Microsoft Word
- save an image as a Layout, Batch Mask file, HDF Image, or as a PICT file, either in drawing commands or in pixels.
- generate a contour plot within the application to overlay on a raster image
- open multiple windows during a Layout session
- print half-tone images

- save an entire canvas
- scroll windows
- specify canvas size

System Requirements

In order to run NCSA Layout, you need a Macintosh with color hardware capable of displaying 256 colors simultaneously. Your System software should be version 6.0.2 or later. If you plan to run NCSA Layout under MultiFinder and to use multiple images or images that have been generated from large datasets, it is suggested that you have more than one megabyte of RAM.

Use of This Manual

This section describes the organization of this manual, and the conventions and nomenclature used in developing it. Before using NCSA Layout, you should be familiar with the Macintosh user interface, and know how to use the mouse and menu bars. If you have not used the Macintosh before, you may wish to refer to your Macintosh user's guide before using this package.

Organization of This Manual

This manual is organized into chapters. Each page is given a unique number that consists of the chapter number, a period, and the number of that individual page (beginning with the first page of the chapter). For example, page 2.3 is the third page of the second chapter.

Manual Contents

This manual is organized into the following chapters:

Chapter 1, "NCSA Layout Tutorial," introduces and describes the basic steps involved in a Layout session, including invoking the program, loading images and palettes from files, saving a display or part of a display as a raster image, saving a Layout file, using the program's online help facility, and exiting the program.

Chapter 2, "Laybat Tool," presents the Unix tool, Laybat, and outlines the process of creating a batch mask, uploading an animation template to a remote machine, animating the frame sequence, and then downloading the animation sequence back to your Macintosh.

Chapter 3, "Formatting Your Data Files," explains how NCSA Layout reads and displays data files, and describes the procedures you should follow to enable NCSA Layout to read your raw files.

Chapter 4, "Creating a Display," describes in detail the various commands and procedures that NCSA Layout provides for the creation of a display. For example, this chapter explains how to alter the canvas color, insert grids or ticks on your image, determine characteristics of your text, and edit text that you have inserted.

Chapter 5, “NCSA Layout Menus,” reviews the menus contained in the NCSA Layout menu bar and briefly describes the commands contained in each.

Form of Presentation

The material in this manual is presented in text, screen displays, or entry format notation.

Text

In explaining various features and commands, this manual often presents a word within a paragraph in *italics* to indicate that the word is defined within the paragraph or that the word is of particular importance and should be noted.

Portions of this manual refer to other sections or chapters of the manual where related topics are discussed. These cross references usually indicate the title of sections or chapters enclosed in quotation marks, such as, See Chapter 1, “NCSA Layout Tutorial.”

Screen Displays

Screen displays in this manual are presented in `courier type`.

Entry Format Notation

Throughout this manual, several explanations instruct you to make entries by typing on the keyboard. These entry instructions are printed in **`courier bold type`** and appear within a screen display, paragraph, or on a separate line.

Keys that are labeled with more than one character (such as the RETURN key) are identified with all uppercase letters. Keys meant to be pressed simultaneously or in succession are linked with a hyphen. For example, press -A.