Introduction

Overview

This introduction provides an overview of CompositeTool capabilities on the Sun Workstation. The organization and use of this manual are described and notational conventions explained.

About CompositeTool

CompositeTool was written to bypass the need to write highly technical, inflexible programs in the SunView language in order to produce visual presentations of two-dimensional data.

CompositeTool provides a means to display and annotate two-dimensional data in a form suitable for generating presentation-quality slides. No technical knowledge is required beyond a passing familiarity with SunView. This software is targeted towards the occasional user of SunView (i.e., someone who uses the Sun windows).

CompositeTool can display three types of two-dimensional data:

- data images
- contour intervals of a two-dimensional data image
- vectors of two-dimensional data

A *vector* is defined by using two image files, one which represents a vector's x-component and the other its y-component. Vector magnitude and angle are thus defined in the usual manner.

Data annotations include data axes, data grids, and tick marks—all useful in labeling and reading the data. Layout annotations include text (titles, labels on the data, etc.), a user-defined palette, a colorbar (to display the range of the palette), and a canvas grid.

Utility features include the capability to store and retrieve CompositeTool sessions. You can develop a CompositeTool session to any degree of completion, store the session to a file, and return to the same session, picking up exactly where you left off.

Full support for the NCSA Hierarchical Data Format (HDF) is included. This means that a suitable HDF file may be used anywhere a file is required in CompositeTool.

New Features

CompositeTool 1.1 contains the following new features:

- ability to move a composite as a one level directory of files; the composite's movement is no longer dependent on an entered absolute pathname.
- upward compatibility with CompositeTool 1.0
- full NCSA HDF (Hierarchical Data Format) support with HDF routines included in this distribution
- simplified personal and system installation
- The Sun User Defaults Database mechanism now handles parameters that were once embedded in the source distribution.
- support for the full line of Sun Architectures, including Sun-3, Sun-4, and Sun386i
- support ONLY for SunOS 4.x

System Requirements

In order to run CompositeTool, you must have a Sun Workstation with color hardware capable of displaying 256 colors simultaneously. You must also have SunView installed on the machine.

Use of This Manual

This section describes the organization of this manual, and the conventions and nomenclature used in developing it. Before using CompositeTool, you should be familiar with the SunView user interface, know how to use menu bars and how to resize windows. If you have not used the Sun Workstation before, refer to the owner's guide that came with your Sun Workstation before using this package.

Organization of This Manual

This manual is organized into chapters. Each page of each chapter 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. Each chapter is divided into sections, and most sections are divided into subsections.

Manual Contents

This manual is organized into the following chapters:

Chapter 1, "CompositeTool Basics," describes how to set up a non-NCSA installation, use standard features, and interpret messages. A tutorial is included to familiarize users with the program.

Chapter 2, “Formatting Your Data Files,” outlines the ways you can format your data files.

Chapter 3, “CompositeTool Frames,” describes options available in the Base, Canvas, Grid, Palette, Colorbar, Text, Image, Contour, Vector, Feature, and Utility frames.

Appendix A, “Limitations of CompositeTool,” lists some Sun-related constraints on NCSA CompositeTool 1.1.

Appendix B, “CompositeTool Files,” lists the file contents of the NCSA CompositeTool directory.

Form of Presentation

The material in this manual is presented in text, screen displays, or command line 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 it is a significant term that should be noted and/or is being mentioned for the first time.

Portions of this manual refer to other portions of the manual where the other portions explain related topics. These cross references usually mention the title of sections or chapters enclosed in quotation marks, such as, See Chapter 1, “Using Composite Tool.”

Command Line Format Notation

Throughout this manual, many explanations instruct you to make entries by typing on the keyboard. These entry instructions are printed in **courier bold type** and appear within a paragraph or on a separate line. The command lines in this manual are normally shown in lowercase, except in rare instances where uppercase is required.

When it is necessary for you to press a key that is labeled with more than one character (such as the RETURN key), this manual identifies the key with all capital (uppercase) letters. Keys to be entered are printed in bold type. Keys that are pressed simultaneously or in succession are linked with a hyphen. For example, press CONTROL-A.

Further Reading

Detailed information about the basic HDF structure and its calling interface can be found in *NCSA HDF Specifications* and also *NCSA HDF Calling Interfaces and Utilities* which you may download via FTP or may request by writing NCSA at the addresses listed on the Bugs and Suggestions report form at the back of this manual.