Preface

The *KCMS Calibrator Tool Loadable Interface Guide* describes how to create a dynamically loadable device handler to be used in calibrating devices. Your colorimeter software interacts with the Kodak Color Management System (KCMS) Calibrator Tool to gather the color measurements needed to correct ICC format profiles. The measurement data is then used by the KCMS framework to achieve the device independent display of color images. Currently calibration of color monitor devices only is supported.

This guide is part of the software development kit (SDK) portion of the KCMS software product. It is located in the Solaris™ 2.5 KCMS AnswerBook.

Who Should Use This Book

This guide is intended to be used by programmers who are writing dynamically installable modules (for example, colorimeter device handlers) that provide KCMS Calibrator Tool with color measurement data. This guide assumes its readers are familiar with the KCMS color management software and the colorimeter hardware.

Before You Read This Book

Before reading this guide, you should

- Read the *KCMS Application Developer's Guide,* which is also located in the KCMS AnswerBook. The *KCMS Calibrator Tool Loadable Interface Guide* assumes you understand the color concepts (such as characterization, profiles, and calibration) described in the Developer's Guide. The Developer's Guide also describes the KCMS API library and provides background information on the interface between Calibrator Tool, the KCMS library, and color profiles.
- Check the following manuals for any corrections or updates to the information in this guide:
  - *Solaris 2.5 Software Developer Kit Introduction*
  - *Solaris 2.5 Software Developer Kit Installation Guide*
- See the on-line `SUNWrdm` packages for information on bugs and issues, engineering news, and patches. For Solaris™ installation bugs and for late-breaking bugs, news, and patch information, see the *Solaris Installation Notes* (SPARC™ or X86).
- (SPARC systems) Consult the updates your hardware manufacturer may have provided.

How This Book Is Organized

This guide is organized into the following chapters:

Chapter 1, "Overview," is an overview of color calibration. Read this chapter to understand the main software components involved in calibration. The chapter summarizes how Calibrator Tool (which is executed with the `kcms_calibrate(1)` command) interacts with the dynamically loadable module to obtain calibration data. (For details on `kcms_calibrate(1)`, see the man page description.)

Chapter 2, "Calibrating A Monitor," describes calibration from the end-user perspective and the action of the underlying sample software.

Chapter 3, "OWconfig Database," details how you edit the `OWconfig` file to add correctly formatted entries for dynamically loadable modules involved in calibration.

Chapter 4, "Measuring Monitor Response," touches on the rationale Calibrator Tool uses to gather measurement data.

Chapter 5, "Data Structures," describes the structures Calibrator Tool uses for measurement data.

Chapter 6, "Functions," alphabetically presents and describes the interfaces a loadable module uses to interact with Calibrator Tool.

Glossary defines words and phrases used in this guide.

Related Books

Sun Publications

For information using KCMS Calibrator Tool see the *Solaris Advanced User's Guide*. The section entitled "Calibrating Your Monitor," in Chapter 10, "Customizing Your Environment," contains information on how to calibrate your monitor with Calibrator Tool. The manual is located in the Solaris 2.5 User AnswerBook.

For basic information on color concepts and KCMS, see the first two white papers listed in Table P-1. The other two white papers provide background information on your viewing environment. These files are located online in the `/usr/openwin/demo/kcms/docs/` directory.

Table P-1 KCMS White Papers

File Name	Title
`kcms-wp.ps`	*An Introduction to the Kodak Color Management System*
`kcms-wp-solaris.ps`	*Kodak Color Management System*
`reducing eyestrain.ps`	*Reducing Eyestrain From Computer Monitors*
`video_mon_adj.ps`	*Video Monitor Adjustments:"BlackLevel" and "Picture"*

X Window System Information

The following X Window System™ manuals are available through SunExpress or your local bookstore. Contact your SunSoft™ representative for information on ordering.

- *Xlib Programming Manual*, O'Reilly & Associates, Inc.
- *Xlib Reference Manual*, O'Reilly & Associates, Inc.

- *X Window System, Third Edition*, Digital Press

What Typographic Changes Mean

Table P-2 describes the typographic changes used in this book.

Table P-2 Typographic Conventions

Typeface or Symbol	Meaning	Example
`AaBbCc123`	The names of commands, files, and directories; on-screen computer output	Edit your `.login` file. Use `ls -a` to list all files. `machine_name% You have mail.`
`AaBbCc123`	What you type, contrasted with on-screen computer output	`machine_name%` **`su`** `Password:`
AaBbCc123	Command-line placeholder: replace with a real name or value	To delete a file, type `rm` *filename*.
AaBbCc123	Book titles, new words or terms, or words to be emphasized	Read Chapter 10 in *User's Guide*. These are called *class* options. You *must* be root to do this.

Shell Prompts in Command Examples

Table P-3 shows the default system prompt and superuser prompt for the C shell, Bourne shell, and Korn shell.

Table P-3 Shell Prompts

Shell	Prompt
C shell prompt	`machine_name%`
C shell superuser prompt	`machine_name#`
Bourne shell and Korn shell prompt	`$`
Bourne shell and Korn shell superuser prompt	`#`

Naming Conventions

In this guide, *KCMS* refers to the Kodak Color Management System. The names of calibration functions and data structures consist of the prefix string 'KCMS' plus other significant words that suggest what the function or data structure does. To illustrate, `KCMSCMonInit()` is a function name consisting of four significant words:

- KCMS
- C
- Mon
- Init

Table P-4 describes each significant word.

Table P-4 Naming Conventions

Significant Word	Meaning
KCMS	Kodak Color Management System
C	Calibrator
Mon	Monitor device
Init	Initialization function

Note – The prefix strings '*KCS*' and '*kcs*' also are used to refer to the Kodak Color Management System product in related documentation.