

Devices

COLLABORATORS

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Chapter 1

Devices

1.1 Amiga® RKM Devices: Preface

The Amiga® Technical Reference Series is the official guide to programming Commodore's Amiga computers. This revised edition of the Amiga ROM Kernel Reference Manual: Devices provides detailed information about the Amiga's I/O subsystems. It has been updated for Release 2 (Kickstart V36 and up) of the Amiga operating system, however, most of the material and example programs are also compatible with version 1.3.

This book is intended for the following audiences:

- * Novice Amiga programmers who want to try out features of the Amiga devices without writing full-blown applications.
- * Experienced programmers new to the Amiga.
- * Amiga programmers and developers who want to use the devices in an application.

It is assumed that the reader can program in C or at least understand it.

Here is a brief overview of the contents:

Chapter 1, Introduction to Amiga System Devices An introduction to the concept of an Amiga system device, the device interface, and how to perform I/O using the devices.

Chapter 2, Audio Device The Amiga audio device allows you to play music and make sounds. Two example programs are included.

Chapter 3, Clipboard Device The clipboard device is a central facility for sharing information between applications. The chapter covers the types of clipboard data and the proper ways to use the clipboard. Two example programs are included plus an extensively commented module of support functions for the programs.

Chapter 4, Console Device The console device is the text-oriented interface for Amiga windows. The chapter lists the escape sequences used for console windows and the types of console windows. An example program is included.

Chapter 5, Gameport Device The gameport device manages the various pointing devices you plug into the mouse/joystick connectors. The chapter discusses the types of pointing devices, the protocol for using the device and includes an example program.

Chapter 6, Input Device The input device collects input event information and passes this on to the operating system. The chapter covers this interaction between the various input sources of the system, tells how to create your own input events and includes two example programs.

Chapter 7, Keyboard Device The keyboard device is the Amiga keyboard manager. The chapter covers how to read the keyboard at a low level and also how to program system reset (Ctrl-Amiga-Amiga) handlers. Three example programs are included.

Chapter 8, Narrator Device The narrator device is the voice of the Amiga. This chapter explains how to use the narrator device and the translator library, how to write phonetic strings for the device, and discusses the technical aspects of computer generated speech in thorough, but understandable terms. Two example programs are included.

Chapter 9, Parallel Device The parallel device manages the Amiga parallel port. Two example programs are included.

Chapter 10, Printer Device The printer device translates character streams into printer specific sequences. The chapter covers how to use the printer device and how to write your own printer driver. It contains two example programs and two complete printer drivers.

Chapter 11, SCSI Device The SCSI device provides the Small Computer System Interface for the Amiga. The chapter covers how to send Amiga specific and SCSI specific commands to SCSI devices. An example program is included.

Chapter 12, Serial Device The serial device manages the Amiga serial port. Three example programs are included.

Chapter 13, Timer Device The timer device an interface to the Amiga's internal clocks. The chapter explains the types of clocks and clock units. Four example programs are included.

Chapter 14, Trackdisk Device The trackdisk device controls the Amiga disk drives. The chapter covers how to use the drives at a high-level (formatted reads and writes) and low-level (raw reads and writes). An example program is included.

Chapter 15, Resources The Amiga resources are a collection of low-level interfaces to special Amiga hardware. The chapter covers the general resource interface and how to use all seven resources. Example code is included for all but one of the resources.

Appendix A, IFF, Interchange File Format IFF is the standardized file format of the Amiga. This appendix introduces IFF, covers five of the IFF types, lists the official FORM and Chunk names that are reserved and in use and how to register new ones. IFF include files, link modules,

example programs and utilities are included.

Appendix B, Example Device This appendix contains the assembly code for an Amiga device for all those who want to create their own custom software I/O device.

Appendix C, Amiga Floppy Boot Process and Physical Layout This appendix lists the method used to read the boot block of a floppy and how the data is arranged in the boot block.

The other manuals in this series are the Amiga User Interface Style Guide, an application design specification and reference work for Amiga programmers, the Amiga ROM Kernel Reference Manual: Includes and Autodocs, an alphabetically organized reference of ROM function summaries and Amiga system include files, the Amiga ROM Kernel Reference Manual: Libraries, a work consisting of tutorial-style chapters on the use of each Amiga system library, and the Amiga Hardware Reference Manual, a detailed description of the Amiga's hardware components.