



Sega Dreamcast.

Release R8 SDK Documentation



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Getting Started with Dreamcast R7 and Mastering a GD-ROM

Book Description:

This document is designed to guide the developer through the R7 SDK Installation and set-up process as well as providing a tutorial of how to master a GD-ROM.

This is a new document for this release.

Included in this document are the following:

- Hardware and Software Requirements
- Dreamcast System Components
- Installing the Hardware and Drivers
- Flashing the DA and GD-M Firmware
- Using the CodeScape Debugger
- Using GD-ROM Workshop
- Testing the Development System
- Editing "SETPATHS.BAT"
- Compiling the Samples
- Burning a GD-ROM



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Dreamcast Roadmap and Overview

Book Description:

This document is designed to get developers acquainted with the process of Dreamcast development and serves as a foundation for getting started with a new project.

This document has not been updated for this release.

Included in this document are the following:

- The Sega Dreamcast Development System
- Sega Dreamcast Hardware
- Introducing Dreamcast Graphics
- Introducing Dreamcast Audio
- The SH4 and Memory Management



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Dreamcast Shinobi Library Specification and Dreamcast Menu Screens

Book Description: This book contains the Shinobi function descriptions as well as the Dreamcast Sound API. It has been heavily updated for the R8 Release.

Included in this document are the following sections:

Dreamcast Shinobi Library Specification

- System Functions
- File System Functions
- Memory Management Function
- Cache Functions
- Get Peripheral Data Function
- LCD Functions
- Timer Functions
- Real-time Clock Functions
- Backup Functions
- Get Video Cable Type Function
- Boot ROM Font Functions
- Configuration Functions
- Boot ROM Service Functions
- SHINOBI Memory Allocation
- Sound System API
- Global Sound Control API
- Sound Data Utility API
- Memory Block Transfer API
- Dreamcast Middleware Guide
- Dreamcast Middleware Outline
- ADX Playback Library Implementation Manual
- Gun Controller Appendix
- Peripheral Data Acquisition Function
- Group Gun Controller



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Dreamcast Shinobi Library Specification and Sound API... continued

Dreamcast Menu Screens

- Main Menu
- Memory Card Selection Screen
- Save Data
- Game Names and Sorting
- Format Settings
- CD Playback Screen
- Setting Screen



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Dreamcast Kamui Specification

Book Description: This book contains information on working with the Kamui Low-Level Graphics Library. It has not been updated for this release.

Sections covered are as follows...

- Overview
- Basic Processing Flow
- Kamui Functions
- Kamui Utility Library
- Structures
- Texture Format



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Dreamcast Kamui 2 Specification

Book Description: This book contains information on working with the Kamui 2 Low-Level Graphics Library. This is an early drop intended to familiarize potential users with the functionality of this API. It is new for the R8 release.

The contents of this documentation are in HTML format and contain some Japanese characters that translate in an illegible format. These problems will be fixed and the document will migrate into the PDF format in subsequent releases.

The link should launch your internet browser when clicked, however, you may need to target your browser if your system is not set to recognize .htm files.



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Dreamcast Codescape User Guide

Book Description: This book contains information on working with Dreamcast's (Cross Products) CodeScape Debugger software. It has not been updated for this release.

Sections covered are as follows...

- Before you begin
- Using and configuring the interface
- How windows and regions work
- Interacting with target processors
- Working with sessions
- Working with projects
- Debugging
- Simulating a target processor
- Profiling program files
- Writing scripts to automate tasks
- Using the Command-line
- Appendix A: Frequent operations
- Script commands in CodeScape Version 2.2.0 Build 111
- LibCross fileserver



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Dreamcast GD Workshop User Guide

Book Description: This book contains information on working with Dreamcast's (Cross Products) GD Workshop software, designed for CD/GD Authoring and Emulation. It has not been updated for this release.

Sections covered are as follows...

- About GD Workshop
- Installing GD Workshop
- A quick tour of GD Workshop
- Building a GD project
- Editing a GD project
- Emulating and testing a GD project
- Writing a GD-R
- GD-ROM data format and technical information
- Using the tab controls
- Reference documents
- Keyboard shortcuts
- Troubleshooting and error messages
- Appendix A Working with CD Craft
- Appendix B JScript and VBScript



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Dreamcast Ninja Guide

Book Description:

This book contains information on working with the Ninja Graphics Library.

The materials presented are in Guide form and are intended as a supplement to the Ninja Library Specification. This book has not been revised for this release.

Sections covered are as follows...

- View Function
- Ninja Motion
- Strips
- Basic Model Specification
- Motion Specification
- Ninja Light
- Scroll Guide
- Texture Guide
- Chunk Model Specifications
- Nindows Tutorial



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Dreamcast Ninja Library Specification

Book Description:

This book contains information on working with the Ninja Graphics Library. The materials presented are in Reference form and are intended as a supplement to the Ninja Guide.

This book has not been updated for this release.

Sections covered are as follows...

- System Functions
- Matrix Functions
- Collision Functions
- Mathematical Functions
- 2D Graphics Functions
- 3D Graphics Functions
- Light Functions
- Scroll Functions
- Modeling Functions
- View Functions
- Texture Functions
- Sprite Functions
- Debugging Functions
- Special Effects Functions
- Motion Functions
- Memory Functions
- Drawing Functions
- Input Functions



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Dreamcast SH4 Program Manual

Book Description:

This book contains Programming information for Dreamcast's (Hitachi) SH-4 Processor.

This book has been updated for this release. The section on pipelining has been corrected by adding some missing steps to Figure 8.2, and resolving some Figure number reference errors.

Sections covered are as follows...

- Overview
- Programming Model
- Memory Management Unit (MMU)
- Caches
- Exceptions
- Floating-Point Unit
- Instruction Set
- Pipelining
- Power-Down Modes
- Instruction Descriptions
- Address List
- Instruction Prefetch Side Effects



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Dreamcast SH4 Cross Assembler

Book Description: This book contains reference materials for Dreamcast's (Hitachi) SH-4 Assembler.

This book has not been updated for this release.

Sections covered are as follows...

- Programmer's Guide
 - Overview
 - Program Elements
 - Executable Instructions
 - Assembler Directives
 - File Inclusion Function
 - Macro Function
 - Automatic Literal Pool Generation Function
 - SH-DSP Instructions
 - Executing the Assembler
- User's Guide
 - Executing the Assembler
 - Command Line Options
- Appendixes
 - Limitations and Notes on Programming
 - Assemble Listing Output Example
 - Error Messages
 - Differences from Former Version
 - ASCII Code Table



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Dreamcast SH4 Linkage Editor, Librarian, Object Converter User's Manual

Book Description: This book contains reference materials for Dreamcast's (Hitachi) SH-4 Linker and Librarian.

This book has not been updated for this release.

Sections covered are as follows...

- Linkage Editor Options and Sub-commands
- Librarian Options and Sub-commands
- Object Converter Guide



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Dreamcast SH4 C Compiler

Book Description: This book contains reference materials for Dreamcast's (Hitachi) SH-4 C-Compiler.

This book has not been updated for this release.

Sections covered are as follows...

- Overview and Operations
- C Programming
- System Installation
- Error Messages
- A Language and Standard Library Function Specifications of the C Compiler
- Parameter Allocation Example
- Usage of Registers and Stack Area
- Creating Termination Functions
- Examples of Low-Level Interface Routine
- ASCII Codes
- Index



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Dreamcast Sound Tools

Book Description: This book contains reference and guide materials for Dreamcast's Sound Tools.

This book has not been updated for this release.

Sections covered are as follows...

- Preparation
- Types of Sound
- Creating Sound Data (GD-DA)
- Creating Sound Data (GD-DA: Use FX)
- Playing Sound Data (GD-DA)
- Delivering Data (GD-DA)
- Delivering Data (GD-DA: Use FX, Merged)
- Delivering Data (GD-DA: Use FX, Individual)
- Creating Sound Data (PCM Stream)
- Creating Sound Data (PCM Stream: Use FX)
- Playing Sound Data (PCM Stream)
- Delivering Data (PCM Stream)
- Delivering Data (PCM Stream: Use FX, Merged)
- Delivering Data (PCM Stream: Use FX, Individual)
- Creating Sound Data (One Shot)
- Creating Sound Data (One Shot: Use FX)
- Playing Sound Data (One Shot)
- Delivering Data (One Shot: Merged)
- Delivering Data (One Shot: Individual, Do Not Use FX)
- Delivering Data (One Shot: Individual, Use FX)3
- Creating Sound Data (MIDI)
- Creating Sound Data (MIDI): Use FX
- Playing Sound Data (MIDI)
- Delivering Data (MIDI: Merged)
- Delivering Data (MIDI: Individual, Do Not Use FX)
- Delivering Data (MIDI: Individual), Use FX



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Dreamcast (VMU) Visual Memory Unit

Book Description: This book contains reference and guide materials for Dreamcast's Visual Memory Unit (VMU).

This book has not been updated for this release.

Sections covered are as follows...

- VMS Specifications
- VMS Hardware Manual
- VMS Programming Manual
- VMS Sound Development Specifications
- VMS-BIOS Specifications



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Dreamcast CodeWarrior MSL C++ Reference

Book Description: This book contains reference and guide materials for Dreamcast's Metrowerks CodeWarrior C++ library.

This book has not been revised for this release.

Sections covered are as follows...

- MSL C++ Reference Introduction
- Language Support Library
- Diagnostics Library
- General Utilities Libraries
- 21 Strings Library
- Localization Library
- Containers Library
- Iterators Library
- Algorithms Library
- Numerics Library
- Complex Class
- Input and Output Library
- Forward Declarations
- Standard Iostream Objects
- Iostreams Base Classes
- Stream Buffers
- Formatting And Manipulators
- String Based Streams
- File Based Streams
- C Library files
- Annex D Strstream
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Dreamcast CodeWarrior Debugger User's Guide

Book Description: This book contains guide materials for Dreamcast's Metrowerks CodeWarrior Debugger.

This book has not been revised for this release.

Sections covered are as follows...

- Introduction
- Getting Started
- What You See
- Basic Debugging
- Expressions
- Debugger Preferences
- Debugger Menus
- Troubleshooting
- Index



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Dreamcast CodeWarrior Error Reference

Book Description: This book contains reference and guide materials for Dreamcast's Metrowerks CodeWarrior Error Reference.

This book has not been revised for this release. It appears in online form, but is not printed in the R7 Release.

Sections covered are as follows...

- Introduction
- C/C++ Compiler Error Messages
- Pascal Compiler Error Messages
- Java Error Messages
- Linker Error Messages



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Dreamcast CodeWarrior IDE User's Guide

Book Description: This book contains reference and guide materials for Dreamcast's Metrowerks CodeWarrior IDE.

This book has not been revised for this release. It contains some extraneous information that does not apply to Dreamcast, but is a useful document.

Sections covered are as follows...

- Introduction
- Getting Started
- Working with Projects
- Working with Files
- Editing Source Code
- Searching and Replacing Text
- Browsing Source Code
- Configuring IDE Options
- Configuring Target Options
- Compiling and Linking
- Configuring Version Control Software
- IDE Menu Reference
- Default CodeWarrior Key Bindings
- Mac OS CodeWarrior Scripting
- Mac OS CodeWarrior and MPW ToolServer
- Solaris Utilities



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Dreamcast CodeWarrior C Compilers Reference

Book Description: This book contains reference materials for Dreamcast's Metrowerks CodeWarrior C Compiler suite.

This book has not been revised for this release.

Sections covered are as follows...

- Introduction
- Setting C/C++ Compiler Options
- C Compiler
- C++ Compiler
- C++ and Embedded Systems
- Pragmas and Symbols
- Index



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Dreamcast CodeWarrior SH Assembler Reference

Book Description: This book contains reference materials for Dreamcast's Metrowerks CodeWarrior SH Assembler.

This book has not been revised for this release.

Sections covered are as follows...

- Introduction
- Assembler Syntax
- Using Macros
- Using Directives
- SH Assembler Settings
- Index



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CodeWarrior Targeting Dreamcast

Book Description: This manual describes how to use CodeWarrior to develop code targeted at the Dreamcast platform. This includes stand-alone application programs and static libraries.

This book has not been revised for this release.

Sections covered are as follows...

- Introduction
- Getting Started
- The Dreamcast Tools
- Creating Applications
- Creating Static Libraries
- Converting SH Projects
- Debugging For Dreamcast
- Debugging With Codescape
- Target Settings for Dreamcast
- C and C++ for Dreamcast
- Inline Assembler and Intrinsics for Dreamcast
- Libraries and Runtime Code for Dreamcast
- Troubleshooting for Dreamcast



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The Dreamcast TrueMotion SDK

Book Description: This manual contains guide and reference materials for using the TrueMotion SDK.

This book has not been revised for this release.

Sections covered are as follows...

- An Introduction to the TM2X Encoding
- The TrueMotion SDK
- Function and Data Reference



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The Dreamcast Audio 64 API

Book Description: This manual contains guide and reference materials for using the Dreamcast Audio 64 API.

This book has been updated significantly for this release.

Sections covered are as follows...

- The AICA Control Layer API
- The AICA Manager API
- The Redbook Playback API



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The Dreamcast Ginsu Sampler Disk API

Book Description: This manual contains guide and reference materials for using the Dreamcast Ginsu Sampler Disk API.

This book has been heavily revised for this release.

Sections covered are as follows...

- Overview
- Ginsu Component Definitions
- Ginsu Technical Operation
- Using Ginsu in Applications
- API Reference – Basic Functions
- API Reference – Extended Functions
- INI Files
- Notes



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Dreamcast GNUPro Toolkit Getting Started

Book Description: This manual contains introductory and installation information for using the Dreamcast GNUPro compiler chain.

This book is new for this release.

Sections covered are as follows...

- Introduction
- Installation



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Dreamcast GNUPro Toolkit Debugging Tool

Book Description: This manual contains guide information for using the Dreamcast GNUPro compiler chain debugger.

This book is new for this release.

Sections covered are as follows...

- Debugging with GDB
- GDB GUI
- GDBtk



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Dreamcast GNUPro Toolkit Compiler Tools

Book Description: This manual contains guide information for using the Dreamcast GNUPro compiler.

This book is new for this release.

Sections covered are as follows...

- Using GNU CC
- The C Preprocessor



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Dreamcast GNUPro Toolkit Libraries

Book Description: This manual contains reference information for using the Dreamcast GNUPro compiler chain libraries.

This book is new for this release.

Sections covered are as follows...

- GNUPro C Library
- GNUPro Math Library
- GNU C++ lostream library



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Dreamcast GNUPro Toolkit Embedded Systems

Book Description:

This manual contains guide information for using the Dreamcast GNUPro compiler chain embedded systems.

This book is new for this release. Some of the information in this manual does directly pertain to Dreamcast development, however, it may be useful.

Sections covered are as follows...

- Using GNU tools on embedded systems
- Overview of supported targets for cross-development
- Hitachi H8/300, H8S, H8/300H development
- Hitachi SH development
- MIPS development
- Motorola m68k development
- PowerPC development
- SPARC, SPARClite development
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Dreamcast GNUPro Toolkit Utilities

Book Description: This manual contains guide information for using the Dreamcast GNUPro compiler chain utilities.

This book is new for this release.

Sections covered are as follows...

- Using AS
- Using LD
- The GNU Binary Utilities
- GNU Make



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Dreamcast GNUPro Toolkit Advanced Topics

Book Description: This manual contains guide information for using the Dreamcast GNUPro compiler chain in practical conversion and creation situations.

Please note that the section regarding Reporting Problems does not apply to Dreamcast development. Sega Technical Support is able to field questions and problems related to Dreamcast development.

This book is new for this release.

Sections covered are as follows...

- Rebuilding from Source
- GNU Online Documentation
- Reporting Problems
- Legal Notices
- Comparing & Merging Differences



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