FILM-TECH

THE INFORMATION CONTAINED IN THIS ADOBE ACROBAT PDF FILE IS PROVIDED AT YOUR OWN RISK AND GOOD JUDGMENT.

THESE MANUALS ARE DESIGNED TO FACILITATE THE EXCHANGE OF INFORMATION RELATED TO CINEMA PROJECTION AND FILM HANDLING, WITH NO WARRANTIES NOR OBLIGATIONS FROM THE AUTHORS, FOR QUALIFIED FIELD SERVICE ENGINEERS.

IF YOU ARE NOT A QUALIFIED TECHNICIAN, PLEASE MAKE NO ADJUSTMENTS TO ANYTHING YOU MAY READ ABOUT IN THESE ADOBE MANUAL DOWNLOADS.

WWW.FILM-TECH.COM



DIAGNOSTIC TOOL

User Manual

Version 1.0

Effective Date: March 2009 Document # 9301H29800V1.0

DTS Digital Cinema 9631 Topanga Canyon Place Chatsworth, CA 91311 USA



Table of Contents

1	INTRODUCTION		6
	1.1 1.2	Purpose Presentation	
	1.3	DIAGNOSTIC TOOL VERSION	
2	DI	AGNOSTIC TOOL USER INTERFACE	7
	2.1	OVERVIEW	7
	2.2	SYSTEM TAB	8
	2.3	STORAGE TAB	9
	2.3		
	2.3	,,, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
	2.4	HARDWARE TAB	
	2.5	DETAILED REPORT	10
3	DR	RIVE REPLACEMENT PROCEDURE	12
	3.1	REPLACEMENT NEEDED	12
	3.2	DRIVE REPLACEMENT – STEP 1/4	12
	3.3	DRIVE REPLACEMENT – STEP 2/4	
	3.4	DRIVE REPLACEMENT – STEP 3/4	
	3.5	DRIVE REPLACEMENT – STEP 4/4	14
	3.6	REBUILD PROCESS	15



Notices

This product contains software proprietary to DTS Digital Cinema and protected by US and International copyright law. Unauthorized reproduction or disclosure, in whole or in part, is strictly prohibited.

WARRANTY/LIMITATION OF LIABILITY

EXCEPT FOR THE LIMITED WARRANTY PROVIDED HEREIN, THIS PRODUCT IS PROVIDED "AS IS" AND WITHOUT WARRANTY OF ANY KIND. DTS DIGITAL CINEMA EXPRESSLY DISCLAIMS ALL OTHER WARRANTIES, EXPRESS AND IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. DTS DIGITAL CINEMA DOES NOT WARRANT THAT THIS PRODUCT WILL MEET USER'S REQUIREMENTS, OR THAT THE OPERATION OF THIS PRODUCT WILL BE UNINTERRUPTED OR ERROR-FREE, OR THAT DEFECTS IN THIS PRODUCT WILL BE CORRECTED. UNDER NO CIRCUMSTANCES, INCLUDING NEGLIGENCE, SHALL DTS DIGITAL CINEMA, OR ITS DIRECTORS, OFFICERS, EMPLOYEES OR AGENTS, BE LIABLE TO USER FOR ANY INCIDENTAL, INDIRECT, SPECIAL OR CONSEQUENTIAL DAMAGES (INCLUDING DAMAGES FOR LOSS OF BUSINESS PROFITS, BUSINESS INTERRUPTION, LOSS OF BUSINESS INFORMATION, AND THE LIKE) ARISING OUT OF THE USE, MISUSE OR INABILITY TO USE THIS PRODUCT OR RELATED DOCUMENTATION.

Copyright

SMS-2K-1 Diagnostic Tool Manual, Version 1.0

© 2009 DTS Digital Cinema. All rights reserved.

The SMS-2K-1 Digital Cinema Server is manufactured by Doremi Labs, Inc.

The content of this publication is subject to change without notice. DTS Digital Cinema assumes no obligation to notify you of any changes or updates. While DTS Digital Cinema believes this publication is accurate, due to ongoing improvements and revisions, DTS Digital Cinema cannot guarantee the accuracy of printed material, nor can it accept responsibility for errors or omissions. DTS Digital Cinema may periodically publish updates and revisions to this publication as it deems necessary.

Document No. TM-H298

March 2009

Record of Changes

Manual Version / Date	Description
1.0/March 2009	Release Version



Limited Warranty

DTS Digital Cinema software is warranted against defects for a period of 90 days from the date of the original purchase. Hardware is warranted against defects in material and workmanship for a period of one year from the date of the original purchase. This warranty includes parts and labor. THIS WARRANTY EXCLUDES UNITS THAT HAVE BEEN MODIFIED, REPAIRED BY UNAUTHORIZED PERSONNEL, OR DAMAGED BY ABUSE, IMPROPER OPERATION, DIRT, MOISTURE OR STATIC ELECTRICITY.

Products being returned under warranty should be sent to DTS Digital Cinema freight prepaid in the original or equivalent packaging. Please contact DTS Digital Cinema prior to shipping any parts or merchandise to receive a Return Merchandise Authorization number. DTS Digital Cinema's shipping address is:

DTS Digital Cinema
Attn: RMA #
9631 Topanga Canyon Place
Chatsworth, CA 91311
U.S.A.

Contact Information

To contact DTS Digital Cinema's Technical Support staff:

- - toll free telephone within USA and Canada (888)-428-2268
- telephone worldwide +1-818-401-4253
- - fax +1-866-448-6802
- - email techsupport@dtsdcinema.com

Product Improvements and Upgrades

DTS Digital Cinema reserves the right to make changes and/or improvements to its products, without notification and without incurring any obligation to incorporate such changes or improvements in products previously sold or shipped.

To receive notification about upgrades or bulletins that may become available from time to time, please complete the enclosed Warranty Card and mail or fax it to DTS Digital Cinema.



Software License Agreement

IMPORTANT: READ THIS SOFTWARE LICENSE ("LICENSE") CAREFULLY BEFORE USING THE DTS DIGITAL CINEMA SOFTWARE. THE SOFTWARE RESIDING ON THE SMS-2K-1 DIGITAL CINEMA SERVER AND ANY ACCOMPANYING MATERIALS (COLLECTIVELY, THE "SOFTWARE") ARE LICENSED, NOT SOLD. BY USING THE SMS-2K-1 DIGITAL CINEMA SERVER, YOU ARE ACCEPTING AND AGREEING TO THE TERMS OF THIS LICENSE. IF YOU DO NOT AGREE TO THE TERMS OF THIS LICENSE, DO NOT USE THE SMS-2K-1 DIGITAL CINEMA SERVER.

- 1. Grant. Subject to your compliance with the terms of this License, DTS Digital Cinema hereby grants you a non-exclusive, non-transferable, revocable, limited license to use the Software solely for your internal business purposes and solely in connection with the SMS-2K-1 Digital Cinema Server. All rights not expressly granted to you are reserved by DTS Digital Cinema.
- 2. Ownership. All right, title and interest in and to the Software, all physical copies thereof and all intellectual property embodied therein are and shall remain vested in DTS Digital Cinema. You do not own the Software, physical copies thereof or any intellectual property embodied therein.
- 3. Restrictions. You may not (i) copy, distribute, sublicense, lease, transfer or use for external purposes the Software; (ii) reverse engineer, decompile, disassemble, translate, modify, attempt to reveal the source code of the Software, or (iii) create derivative works from the Software.
- 4. Termination. DTS Digital Cinema may terminate this license at any time if you violate the terms of this license. Upon termination, you must destroy the Software and related documentation.
- 5. LIMITATION ON WARRANTY. YOU EXPRESSLY ACKNOWLEDGE AND AGREE THAT USE OF DTS DIGITAL CINEMA SOFTWARE AND HARDWARE IS AT YOUR SOLE RISK. DTS DIGITAL CINEMA DOES NOT WARRANT THAT THE OPERATION OF THE SOFTWARE OR THE HARDWARE WILL BE UNINTERRUPTED OR ERROR FREE. EXCEPT FOR THE LIMITED WARRANTY PROVIDED HEREIN, AND TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, THE DTS DIGITAL CINEMA SOFTWARE AND HARDWARE PROVIDED "AS IS," WITH ALL FAULTS AND WITHOUT WARRANTY OF ANY KIND, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSES, AND NON-INFRINGEMENT OF THIRD PARTY RIGHTS, ALL OF WHICH ARE HEREBY EXPRESSLY DISCLAIMED.
- 6. LIMITATION OF LIABILITY. UNDER NO CIRCUMSTANCES, INCLUDING, WITHOUT LIMITATION, NEGLIGENCE, SHALL DTS DIGITAL CINEMA OR ITS DIRECTORS, OFFICERS, EMPLOYEES OR AGENTS BE LIABLE FOR PERSONAL INJURY, OR ANY INCIDENTAL, SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES WHATSOEVER, INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF PROFITS, LOSS OF DATA, BUSINESS INTERRUPTION OR ANY OTHER COMMERCIAL DAMAGES OR LOSSES, ARISING OUT OF OR RELATED TO YOUR USE OF THE DTS DIGITAL CINEMA SOFTWARE OR HARDWARE, HOWEVER CAUSED, REGARDLESS OF THE THEORY OF LIABILITY AND EVEN IF DTS DIGITAL CINEMA HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. IN NO EVENT SHALL DTS DIGITAL CINEMA'S LIABILITY EXCEED THE AMOUNT PAID BY YOU TO DTS DIGITAL CINEMA. SOME STATES DO NOT ALLOW THE LIMITATION AND/OR EXCLUSION OF LIABILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.
- 7. General. This License shall be governed by the laws of the State of California as applied to contracts performed wholly therein. In any action brought by either party arising out of this License, the prevailing party shall be entitled to recover its reasonable attorney's fees and costs. If any provision of this License is held by a court of competent jurisdiction to be unenforceable or if a provision of this License is waived by either party, the remainder of this License shall remain in full force and effect. You may not assign this License without the prior, express written consent of DTS Digital Cinema.



1 Introduction

1.1 Purpose

The purpose of this document is to provide a full guidance on how to use Diagnostic Tool. Diagnostic Tool is based on a graphical user interface. It allows to obtain information related to the D-Cinema server, detailed reports and it can also be used to replace a drive.

1.2 Presentation

This document is structured according to the following sections:

- **Section 1**: Introduction Overall presentation of the document
- Section 2: Diagnostic Tool User Interface Usage of the three tabs of Diagnostic Tool
- Section 3: Drive Replacement Procedure Detailed procedure for drive replacement
- Section 4: Document Revision History

1.3 Diagnostic Tool Version

This document complies with Diagnostic Tool included in the Digital Cinema Server software version 0.5.1-10 and above.



2 Diagnostic Tool User Interface

2.1 Overview

In order to run Diagnostic Tool, go to the "Start Menu" of the server, then to "Doremi Labs, Inc." and choose the item "Diagnostic Tool".

The graphical user interface (GUI) should appear on the screen as presented below:



Figure 1: Diagnostic Tool Graphical User Interface (GUI)

The GUI presented above is composed of three different tabs:

- **System Tab**, providing overall information concerning the system itself,
- **Storage Tab**, providing information concerning the storage and allowing to replace a drive,
- **Hardware Tab**, providing information related to the hardware.

The "Quit" button is used to close the Diagnostic Tool user interface.

At any time you can ask for a detailed report by hitting "Detailed report" on the bottom of the interface – see paragraph **2.5** for details related to this procedure.



2.2 System Tab

The "System" tab looks like presented below:

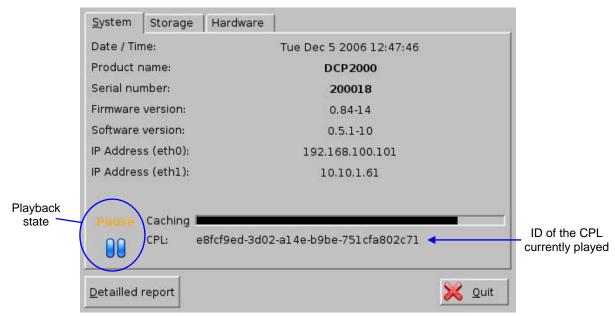


Figure 2: System Tab - Playback in Pause Mode

This tab will provide you information related to the product and its software/firmware version numbers as presented above.

It will also allow you to view the status of the playback (e.g.: play, pause, etc ...) and the Composition Playlist (CPL) UUID being played.



2.3 Storage Tab

2.3.1 Overview

The "Storage" tab looks like presented below – when the RAID is properly working. In case a drive needs to be replaced, this tab will be modified as presented in section **3**.



Figure 3: Storage Tab

2.3.2 Drive Information

To view all the information available concerning a drive, click on the "Edit" button related to the concerned drive on the "Storage" tab – see **Figure 3**. The following window will display all the available information related to the drive.

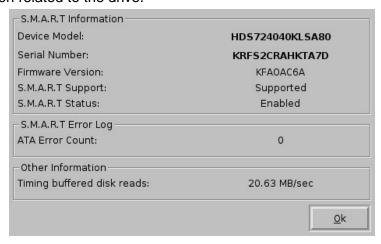


Figure 4: Drive Information

Hit "Ok" to go back to the "Storage" tab.



2.4 Hardware Tab

The "Hardware" tab will provide you information concerning the hardware itself as presented in the figure below:

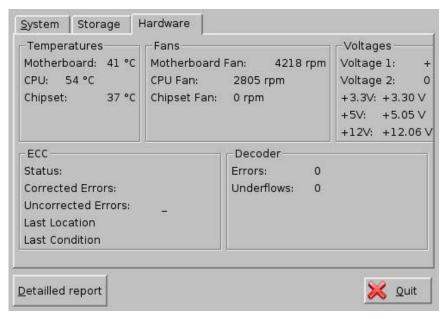


Figure 5: Hardware Tab

2.5 Detailed Report

To obtain a detailed report, hit "Detailed report" on the bottom of the GUI. The following window, asking you where the report should be saved, will be displayed:

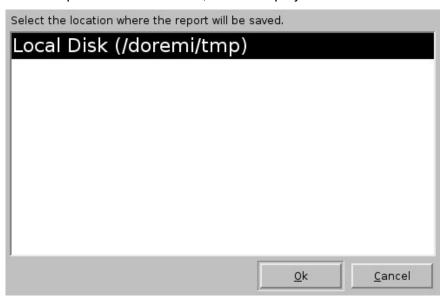


Figure 6: Hardware Tab



Select the appropriate location and hit "Ok". You should be informed of the report generation as presented below:



Figure 7: Detailed Report Generation

When the generation will be completed, a confirmation message reminding you the complete report file path will be displayed on the screen as presented below:

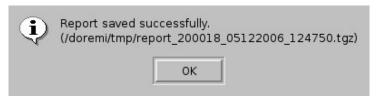


Figure 8: Confirmation Message

Hit "Ok" to go back to the Diagnostic Tool main window.



3 Drive Replacement Procedure

This section presents the procedure to be applied when a drive needs to be replaced.

3.1 Replacement Needed

When a drive replacement is needed, the "Storage" tab will be modified in order to provide a "Replace" button to be used to initiate the replacement procedure as presented below:

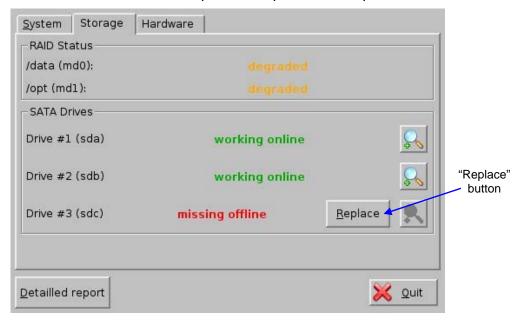


Figure 9: Modified Storage Tab - Replace Button

3.2 Drive Replacement - Step 1/4

Hit "Replace" to start the replacement procedure. The following warning window will appear:

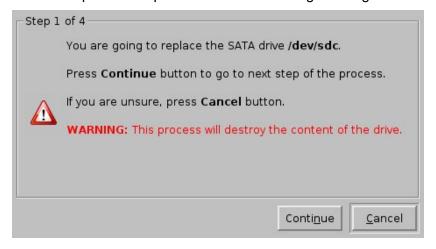


Figure 10: Drive Replacement – Step 1/4

In case you agree to start the replacement, hit "Continue". If you are unsure, hit "Cancel".



3.3 Drive Replacement - Step 2/4

Hitting "Continue" on the previous window will lead to the next window:

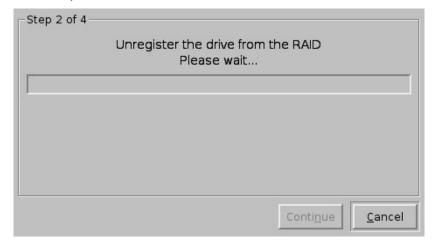


Figure 11: Drive Replacement - Start of Step 2/4

At the end of the unregistering process, you will be prompted to continue as presented below:

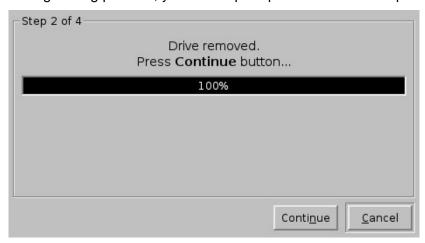


Figure 12: Drive Replacement – End of Step 2/4

Click on "Continue" to go to the next step.



3.4 Drive Replacement – Step 3/4

In this step, you will be prompted to insert a new drive in the bay as presented in the following window:

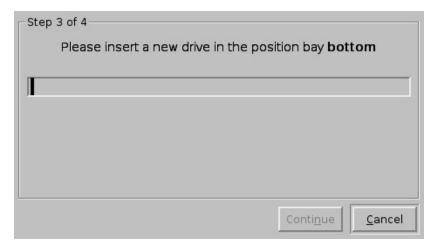


Figure 13: Drive Replacement - Step 3/4

3.5 Drive Replacement - Step 4/4

After inserting a drive, you should receive a confirmation message indicating that the SATA Drive Replacement has successfully been completed as illustrated below:



Figure 14: Drive Replacement – Step 4/4

Hit "Close" to go back to the "Storage" tab.



3.6 Rebuild Process

Back to the "Storage" tab, you will be able to view the rebuild progress in the "RAID Status" windows:

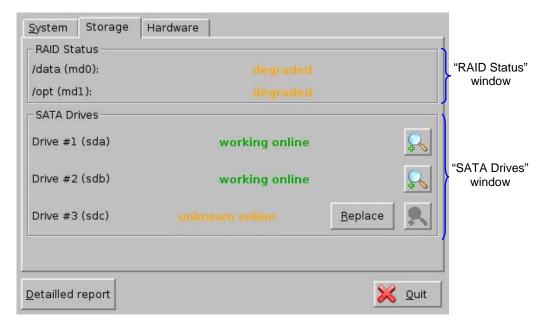


Figure 15: Storage Tab - Drive Replaced

After a few seconds, the "Storage" tab should reflect the RAID rebuilding process in the "RAID Status" window as presented below:

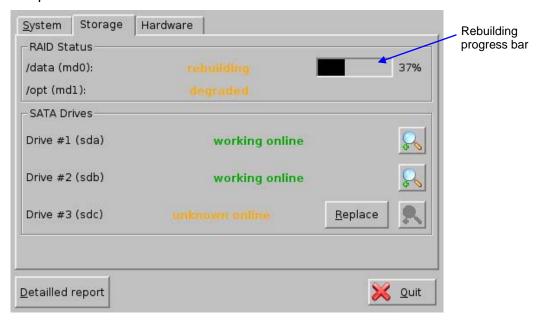


Figure 16: Storage Tab - RAID Rebuilding

As mentioned in the message displayed during step 4/4 – see **Figure 14** – the process should take time and you will be able to check the process status using the progress bar.