Eclipse Data Technologies

EclipseSuite 1.22

Release Notes

August 1999

The following are the new enhancements and fixes that have been made in the new release of ImageSuite Version 1.22:

New Features/Enhancements

➤ **Support for New Devices**

◆ **UltraPlex 40max CD-ROM Drive**

EclipseSuite now supports Plextor's new 40X CD-ROM reader (PX-40TS). This drive supports minimum 17X and maximum 40X data transfers with an overall average of 27X. This drive allows the detection of CD-TEXT as well as the identification of CD-ReWritable discs.

Although this drive can be used with the EclipseSuite tools, support for this drive has not been fully implemented. There might be some problems when analyzing a CD-XA format or Track At Once CD-Rs. Full support for this drive is expected to be available this summer.

For more technical information about this drive refer to Plextor's web site at: http://www.plextor.com

◆ **Yamaha CRW4416SX CD-R Writer**

Since Yamaha has obsoleted the CDR400 and CDR4260 writers, new support has been added for the new Yamaha CDRW4416SX writer.

◆ **Pioneer 303s**

Support has been added for the new Pioneer 6X DVD-ROM drive model 303s.

➤ **DVD**

ImageCopy & DVD-9 Implementation:

ImageCopy allows the copying of a DVD-9 one layer at a time. Layer 0 must be copied first since it contains the Control data information that is required to perform a full analysis on Layer 1.

New behavior: Certain LBR's require the Control data to be on the tape for layer 1. The behavior "**Generate control data for OTP layer 1**" is a new behavior that allows the user to generate the Control data information for Layer 1 during an ImageCopy operation.

The EclipseSuite tools now report the number of Video Title Sets in a DVD. This information is displayed in the Analysis tab.

➢ **Over 100 New Rules**

- There are over 100 new rules that have been added to EclipseSuite. Most of the new rules were added for DVD analysis. The Rules dialog also includes a new tab that shows a sorted list of all the rules. The following is a list of most of the rules that have been added. All have been documented in the Help system.

All regions
BCA
Can't copy CSS encrypted disc
Can't determine RMA for Lead-in
Can't read encrypted DVD
Cannot compare CD-Text because source/target is not available
CD-Text
CD-Text - Error initializing data
CD-Text - Inappropriate Length
CD-Text comparison error
CD-Text contains an invalid pack (without CRC error)
CD-Text contains inconsistencies in number of packs/size record
CD-Text error in sequence field in block
CD-Text inconsistency found where items span multiple packs
CD-Text invalid char code in pack
CD-Text missing required pack(s)
CD-Text missing title or performer for track
Checksum file missing
Cleared scramble flag on Non-VOB sector
CMF level 1.00
Control data & DDP disc size disagree
Control data & DDP layer count disagree
Control data & DDP main data length disagree
Control data & DDP sector size disagree
Control data & DDP track path disagree
Control data & main data region code disagree
Control data checksum error
Control data CPS_TY & DDP SSCRST disagree
Control data End Sector in Layer 0 not 000000
CP_SEC & PES_scrambling control disagree
CP_SEC set - not allowed with this SSCRST (DDP)
CRC error in CD-Text pack
CSS
CSS descramble of sector failed
CSS file not in DDP VOB table
CSS is not installed or enabled
CSS keys could not be found
DDP checksum error
DDP data stream length exceeds drive maximum
DDP data stream length exceeds maximum
DDP level 1.00
DDP level 1.01
DDP level 2.00

DDP level 2.10
Density of scrambled sectors exceeds spec for VOBU number of sectors
Density of scrambled sectors exceeds spec for VOBU presentation time
Device error recovering Title Key from scrambled sector
Device error recovering Title Key from unscrambled sector
Dual Layer (Parallel Track Path)
Dual-Layer (Opposite Track Path)
End sector of Layer 0 & Start sector of Layer 1 disagree
Error when loading CSS keys - not transferred
Error when writing CD-Text file - not transferred
Error when writing CSS keys - not transferred
Error while scanning Postgap
Failed CSS authentication with the DVD-ROM drive
Failed initialization
Failed to build video object list
Failed to decrypt title key
Failed to recover disc key
File checksum error
Illegal use of reserved bytes in CPR_MAI in data area
Image Signature
Image signature error
Incompatible Lead-out Mode
Invalid CPM or CGMS for scrambled VTS
Invalid DSS for Control data
Invalid DSS for Main data
Invalid DVD Mode
Invalid sector
Invalid sector format
Invalid sector size in Control data
Invalid Title Key in scrambled sector
Invalid Title Key in unscrambled sector
Macrovision
Macrovision APS bits changed
Macrovision log file is getting big. Please perform cleanup
Main & ISO9660 CPM or CGMS disagree
Matching layer 0 info not found
Missing control data in DDP
Missing ISO9660
Missing key for sector
Missing key for Video Title Set
Missing Title Key for encrypting VTS
Missing Title Key in scrambled sector
Missing Title Key in unscrambled sector
Need keys for encoding
No Control data file found
No region defined
No Video Object list
Non-zero CP_SEC field found in non-CSS file
Number of Video Title Sets
PES_Scrambling_control comparison error
PES_Scrambling_control set - not allowed with this SSCRST (DDP)
Program Area length not a multiple of 16
Program Area length of OTP layer 0 not a multiple of 16
Recorder Identification Code (RID) detected
Region 1
Region 2
Region 3

Region 4
Region 5
Region 6
Region 7
Region 8
Removing CSS from VMG
RW Checksum error
SafeDisc
Scrambled data only permitted with Complete 2064
Scrambling not allowed for this sector
Scrambling possibly not allowed for this sector
Sector contains non-zero TK bytes on a non-CSS disc
Sector is tagged for scrambling on a non-CSS disc
SSCRST 0
SSCRST 1
SSCRST 2
SSCRST 3
SSCRST 4
SSCRST 5
TBD code detected
The TK changed within the same VTS
Unrecognized version of DDP
VOB file not present in VOB Location Table
VOB flag in sector header is invalid
VOB Location Table contains an entry for an unscrambled sector
VOB Location Table does not contain an entry for this sector
VOB Location Table not allowed
VOB Location Table required
VOBU length & number of sectors disagree
VTS id in DDP VOB does not match the real VTS id
VTS id in sector header is invalid

➢ Macrovision Detection

The Preferences screen in the EclipseSuite tools allow the user
to select the options for logging of Macrovision information when
analyzing, copying or verifying DVDs with the Macrovision copy-
protection system.

➢ ImageUtilities

The Subchannel Viewer now includes an Export feature that
allows the user to export the data to a text file similar to the Main
Channel Viewer.

➢ Miscellaneous Changes

The EclipseSuite tools verify that the UPC and ISRC numbers
are formatted correctly.

The Help system has been enhanced to support the new DVD
rules.

EclipseSuite now reports any errors during the Postgap scan that
would otherwise result in a short Postgap.

➢ Bug Fixes

◆ The EclipseSuite tools have better detection of problems caused by invalid RTIME in the Subchannel at a track transition. This would cause the Eclipse tools to misidentify the exact location of a track.

◆ The previous versions of EclipseSuite would label the session numbers in BCD format (e.g. session 10 would be labeled as 16 in the ETOC, 11 would be labeled as 17, etc.). This problem has been fixed in this version.

◆ XA problems at high speed - The Plextor CD readers would hang-up when analyzing a CD-XA disc at speeds higher than 8X. When an XA disc is detected, the EclipseSuite tool will automatically adjust the speed so that they do not run any faster than 8X.

◆ Problems with Pause longer than 65536 sectors - Previous versions of EclipseSuite would truncate the pause if the length exceeded 65536 sectors. That problem has been fixed in this version.