

To: Eclipse Support Agreement & Warranty Customers

Date: March 24, 2008

Subject: EclipseSuite 5.1 Release

Summary:

This TechFlash document is to notify all support agreement & warranty customers of the release of EclipseSuite 5.1. This version adds several fixes and enhancements since EclipseSuite 5.0 including support for the Plextor PX-800A drive. Below is a summary of the fixes and enhancements.

Copy Protections:

- **Added Support For The ProtectDisc DVD Copy Protection**

ProtectDisc DVD is a new copy protection for DVD-Video. In order to process an image that is protected with this copy protection, the EclipseSuite tools must be properly setup. This requires a purchased option that allows the EclipseSuite tools to recognize it. The option includes a copy-protection Plug-In that will identify the copy protection and instruct the EclipseSuite tools on how it should be handled.

Requirements:

- Dongle Option
- ProtectDisc DVD Plug-In
- EclipseSuite Custom Rules File

The EclipseSuite Installation includes the Plug-In and custom rule file. Contact Eclipse Customer Support for setup information.

- **Detection of SafeDisc DVD-ROM**

Previous versions of EclipseSuite did not detect a SafeDisc DVD-ROM on disc or hard disk image. This has been corrected but requires the new version 3.1 of the SafeDisc Plug-In. This new Plug-In is also included in the installation of EclipseSuite 5.1.

- **SafeDisc DVD Master Images Will Now Be Compressed When Archived**

In order to maintain the integrity of the SafeDisc copy protection on a DDP image, ImageCopy will compress any DVD image containing SafeDisc when it is archived to DVD-R.

CD-Text

- **CD-Text File Size Validation**

When CD-Text is specified in DDP, previous versions of EclipseSuite only checked that the CD-Text file was present. Now, the EclipseSuite tools also check to make sure that the length specified in the DDPMS file also matches the actual file size. If the size does not match, ImageCopy has the ability to correct the size in the DDPMS file. If this occurs, the rule "**CD-Text DSL Adjusted**" is triggered to let the user know that it is being corrected.

- **First And Last Track Number Validation**

CD-Text information includes 3 SIZEINFO Packs, one of which specifies the first and last track numbers. If these track numbers are not correct then a new rule "**CD-Text - Error in Size Information Pack**" is triggered.

- **Language Code Validation**

In certain cases, the Language Code for CD-Text information may be invalid. In previous versions, ImageCopy transferred the image as is. Since an invalid Language Code is known to cause playability problems, ImageCopy 5.1 will now trigger the new rule "**CD-Text - Bad Language Code**" during a transfer. This problem can be corrected by enabling the CD-Text Editor behavior and restarting the job. When the CD-Text Editor is enabled, the user will have an opportunity to set the appropriate Language Code.

- **Character Code Validation**

EclipseSuite 5.1 is able to detect and report an invalid Character Code. If an invalid Character Code is detected, the new rule "**CDText unknown character code**" will be triggered. The Character Code may be corrected by using the CD-Text Editor.

- **Fixed Issue Where Invalid CD-Text Was Causing The CD-Text Editor To Display Too Many Tracks**

There was a condition which caused the CD-Text Editor to display too many tracks. This has been corrected.

- **Fix the Character Position When it Is Greater Than 15**

The Character Position field of a CD-Text Pack must be set to '15' when the character position of the text stored in the Pack is greater than 15. In previous versions, if the Character Position was not being validated and was copied as is. ImageCopy 5.1 will correct this condition.

- **Enhance Support For Importing CD-Text From Floppy**

When importing CD-Text from floppy during a copy operation, ImageCopy will prompt to overwrite any existing CD-Text. Previous versions did not do this.

- **Fixed Issue That Caused the DDP Location To Change When The CD-Text Or RW Location Were Changed**

The Media Selection tab supports different locations for DDP files, image data files, RW files and CD-Text files. Each can be set individually. By default, when the DDP Location is set, all other locations are automatically set to the same Location. Most of the time this will be correct. However, in situations where RW or CD-Text data is to be imported from an alternate location, then the location for this data can be set individually. Previous versions of ImageCopy had a problem where if the CD-Text or RW Location was changed, it incorrectly changed the DDP Location. In this case, the DDP Location should have been left unchanged. This is now corrected in ImageCopy v5.1.

- **The Copy Protection Setting In CD-Text Editor Has Been Disabled**

ImageCopy currently does not handle a change in the Copy Protection setting. Therefore, this option has been disabled in the CD-Text Editor until this problem is corrected. This means that users cannot change the Copy Protection setting for CD-Text. Changing the CD-Text Copy Protection is rare and, therefore, this should not affect most users.

- **Do Not Trigger Warning if Performer Is Not Specified**

Previous versions of EclipseSuite required that the Performer be specified in CD-Text. The original implementation of CD-Text support was based on a specification that required the Performer to be specified. The official CD-Text Specifications do not have this requirement and, therefore, EclipseSuite will no longer trigger a warning if one is not specified.

- Fixed A Problem That Caused the "Delete All" Function In The CD-Text Editor Not To Work**

An option was added via the CD-Text Editor to allow users to remove any CD-Text information from a CD. The first implementation of this did not work. This has been corrected. To remove CD-Text from a CD image, enable the CD-Text Editor and click the "Delete All" button. The output image will not include the CD-Text.
- Remove The Behavior "CD-Text - Auto Correct Size Info (IC Only)"**

ImageCopy 5.1 automatically corrects or generates the SIZEINFO Packs if necessary. Therefore, users no longer need to set this behavior manually. This behavior has been removed from the EclipseSuite tools as ImageCopy will always correct the CD-Text SIZEINFO when required.
- Display The Source Device Or Directory In The CD-Text Editor Title Bar**

When multiple instances of ImageCopy are run and the CD-Text Editor is enabled, it was difficult to identify which CD-Text Editor window belonged to each ImageCopy. In EclipseSuite 5.1, the CD-Text Editor title bar will now show the input device or directory. This allows the operator to easily identify the instance of ImageCopy that is running the CD-Text Editor.

UDF Analysis:

- Do Not Abort If Unreadable Sector Errors Are Encountered During The UDF Analysis**

In previous versions, a job would abort if an unreadable sector was encountered during the pre-scanning of the UDF file system. Now, the job is allowed to continue and any unreadable sector errors found during the analysis will be reported.
- Corrected A Problem Where No UDF Information Was Being Displayed**

If the filename of an EclipseSuite program was changed, this had the effect of disabling the UDF analysis. The UDF tab wouldn't show any information, no UDF rules would get triggered and no UDF information got stored in the log file. This is now corrected.
- Corrected A Problem Where An Invalid UDF String Caused The EclipseSuite Tools To Crash**

There are various fields in the UDF file system that contain character strings that are checked by the EclipseSuite tools during the UDF Analysis. If any of these fields contained an invalid character, such as a non-printable character, it would cause the program to crash. This is now corrected.
- Do Not Trigger The Rule That Requires The First Sector After Volume Recognition Sequence To Contain Zeros**

There is a rule that checks to make sure that the sector after the Volume Recognition Sequence to be unrecorded or contain all zeros. However, this requirement only applies to UDF versions 2.01 or later. In previous EclipseSuite versions, this rule was being triggered regardless of the UDF version. This is now corrected and will only be triggered if the UDF versions 2.01 or later.

ImageSignatures:

- ImageVerify Will No Longer Continue If Comparing To An Invalid Signature File**

If the signature file is not in the proper format or is corrupt, ImageVerify will abort the job and report an error.

- ImageSignature Versions Have Been Reverted to Version 1.0 For CD And DVD**

ImageSignatures were upgraded to version 1.01 with the release of EclipseSuite 5.0. This was primarily to support the HD DVD and Blu-ray formats. However, since support for these formats has been moved to EclipseSuite 6.0, it has been decided to revert to ImageSignatures version 1.0 for CD and DVD images in EclipseSuite 5.1.
- Fixed A Problem With The Signature File Extension**

If the signature file name extension was changed to uppercase, the EclipseSuite tools could not find the signature file. This has been corrected so that character casing has no effect.
- Fixed A Problem Where ImageVerify Used The First Signature File In The Specified Directory Instead Of The Signature File Specified By The User**

A problem existed when comparing to a signature file. Instead of comparing to the signature file that the user specified, ImageVerify would compare to the first signature file that it found in the directory specified by the user. This resulted in a signature comparison error. This is now corrected.

ImageDecoder:

- Handle Case Of Multiple Instances Of The Same Subcode Frame In The Buffers**

This condition can occur during the Lead-in to Program Area transition and can lead Subchannel errors.
- Set The Correct DVD Disc Size In The DDP For 8cm Discs**

ImageDecoder was incorrectly setting the Disc Size to 12cm on an 8cm DVD image. This resulted in signature errors. This is now corrected.
- Fixed ImageDecoder Problem For OTP Layer 1 And CSS**

If the first sector of program area was not tagged for CSS, then the internal CSS flag for the entire image was not set, leading to encrypted sectors on unencrypted media errors.

Miscellaneous:

- Corrected A Problem Where The Layer 0 Information Was Being Reset When Analyzing Layer 1**

When analyzing layer 0 of a DVD-Video image, the EclipseSuite tools save information to a temporary file called 'layer0.layerinfo'. This information can be used when analyzing layer 1. In addition, the EclipseSuite tools will append to this file during the analysis of layer 1. In previous versions, the EclipseSuite tools were incorrectly resetting some of the information from layer 0. When displayed in the Info|CSS tab, it appeared as though the analysis of layer 0 never took place. This is now corrected.
- Corrected A Problem Where ImageCopy Was Hanging When It Was Unable To Get Exclusive Use Of A Device**

When running a job on a CD/DVD drive, the EclipseSuite tools require exclusive use of that device. A problem existed where ImageCopy would hang if it was unable to get exclusive use. Now, ImageCopy will display a message to the user and abort the operation.

- **Automatically Save An HTML Log When The Auto-save Option Is Enabled**

When the Auto-save option is enabled in the Preferences of the EclipseSuite programs, a log file is automatically saved. This has been enhanced so that an HTML version of the log is also saved in the same location.

- **Support Has Been Added For A Multi-Level Scan For DDP On Discs File Sets**

When checking input CD/DVD media for a DDP image, previous versions of the EclipseSuite tools only checked the root directory and one subdirectory level. In EclipseSuite 5.1, users can specify the number of subdirectory levels that the EclipseSuite tools should check. This is done via a registry setting.

Key: HKEY_CURRENT_USER\Software\Eclipse\ISCP\IsControlSettings

Name: DdpOnDiscMaxLevels

Type: DWORD Value

- **Enhanced Detection Of DVD+R Media**

DVD+R media have the Layer Type and Book Type set to Read-Only. This causes the EclipseSuite tools to treat the media as a replica. Because of this, the EclipseSuite tools assume that the last sector of user data specified by the Control Data is correct. Unfortunately, on recordable media, the last sector of user data indicates the capacity of the media, not the user data length. This results in unreadable sectors when attempting to read past the 'true' end of user data. EclipseSuite 5.1 adds better detection of this media type to determine the correct user data length.

- **ImageVerify Summary Report Has Been Updated**

In EclipseSuite 5.1, the ImageVerify summary page is limited to print one page only now. Normally the summary report should include a single entry for each rule that is triggered in the verify analysis summary. There were certain cases where the analysis summary included many entries for the same rule caused by different conditions. This caused several entries for the same rule in the verify summary report resulting in several pages. The report has been enhanced to only include a single entry for each rule. This should minimize the summary print out to a single page.

- **Fixed A Problem Where Verify After Copy Could Not Be Disabled On DLT Tape Drives**

Previous versions of EclipseSuite had a problem that prevented users from disabling the Verify After Copy behavior on DLT tape drives. Although users were able to de-select the Verify After Copy behavior, ImageCopy still performed it. This is now corrected.

- **Split Rule "Seamless playback flag not set correctly at layer break"**

This rule was triggered on two conditions, only one of which is known to cause playability problems. Therefore, a new rule has been created only for the condition that is known to cause playability problems. The new rule is "Layer break not on cell boundary". This new rule will be triggered if layer 1 does not start with a new Cell, which is the condition known to cause playability problems.

New Devices:

- **Quantum DLT Tape Drive DLT-V4**

- **Plextor CD/DVD Drive PX-800A***

**Plextor PX-800 does not support writing of RW data to CD-R. The error "Output device does not support RW" will be displayed when RW data is present on a source image and writing to CD-R. Another limitation with the PX-800 drive is that it is unable to read lead-out. In some formats, such as Enhanced CD, this may cause the EclipseSuite pre-scanning to appear to be hung when scanning leadout. This can be corrected by enabling the behavior "Do not scan leadout".*

New Rules:

- **CD-Text – Bad Language Code**
- **CD-Text DSL Adjusted**
- **CDText unknown character code**
- **CD-Text - Error in Size Information pack**
- **Layer break not on cell boundary**
- **XA Pregap2 form changed to mode 2 form 2**

System Requirements:

EclipseSuite 5.1 is available to all warranty and support agreement customers. Customers who are already running EclipseSuite 5.0 or a previous beta version of EclipseSuite 5.1 only need to install the software. Customers who are running versions prior to EclipseSuite 5.0 will need a dongle activation. Please submit a dongle number and system code to Eclipse Customer Support and an activation code will be emailed back to you.

Customers running ImageVerify CSS will need to upgrade this application as well. The ImageVerify CSS installation set is typically provided via email. However, a CD-R can be shipped if necessary. Please make your request to Eclipse Customer Support and specify the method you would like to receive ImageVerify CSS.

Download Instructions:

The EclipseSuite 5.1 release software is available from the following link. Note that there are two different installations, the second one (es51a.exe) is for customers that have the ImageArchive option.

`ftp://ftp.eclipsedata.com/es51/es51.exe`

`ftp://ftp.eclipsedata.com/es51/es51a.exe`

Password: ECL8es51ReL