EclipseSuite 4.1 Release Notes

The following are the fixes and updates implemented since the release of EclipseSuite version 4.0.

IMPORTANT!

In order to prevent DDP on Disc images from going through the pre-mastering and/or mastering process undetected and the possibility of producing bad product, EclipseSuite includes a new rule that will be triggered if a system is not configured for the detection of DDP on Disc images.

The detection of DDP on Disc images includes searching the input media for DDP files that make up an image. To do this, the EclipseSuite software requires that the CD-ROM or DVD-ROM drive where the input media is located be assigned a drive letter. If the drive does not have a drive letter assigned, the rule "**DDP on Disc detection disabled**" will be triggered as an error on any job where the CD-ROM or DVD-ROM drive is used as a source or target.

Eclipse recommends that you assign a drive letter to all CD-ROM and DVD-ROM drives that are used with the EclipseSuite software.

If you do not receive DDP on Disc images and/or you do not want to assign a drive letter to the CD-ROM or DVD-ROM drives, you can change this new rule to a lesser severity level. However, be aware that the EclipseSuite software will be unable to detect DDP on Disc images. If one of these images goes through undetected, it will result in bad product if it is copied or mastered.

Enhancements

Detection of SafeDisc Copy Protection on DDP Images

Previous versions of EclipseSuite did not detect the SafeDisc copy protection system if the image was stored on hard disk or tape. This was because older versions of SafeDisc were applied to a CD-R image and not a DDP image. With the introduction of SafeDisc v4.0, the copy protection is now applied to DDP images and, therefore, the EclipseSuite software was enhanced to support it.

Changed severity of rule "DDP on disc detected, but file set incomplete"

The severity of this rule has been changed since it is an indication that the source media contained a DDP image. The rule also indicates that a problem occurred in the proper detection of the DDP on Disc image and if the user chooses, the disc will be processed as though it was a normal image, which will result in a DDP image being present on the copies. The rule has been changed to an error so it draws more attention if the input media is being used in a copy or mastering operation.

ImageVerify now allows the use of a Signature File or Value to be used as either the source or target

ImageVerify 4.0 required that a Signature File or Value be set as the Source device. If it was set as the Target, this would result in an error if the Verify Summary was printed. ImageVerify has been enhanced to support a Signature File or Value as either the

Source or Target.

Abort when a CD-XA image is being written to CD-R using the Plextor PX-712/716 Writer

The Plextor PX-712 and PX-716 drives have a problem where they write pause areas in a mode which is different from what was intended. This causes comparison errors during a Verify After Copy process or ImageVerify job. Rather than outputting a bad copy, the EclipseSuite software is set to trigger the new rule "Output Device Writes Invalid Pregap 2" and abort when making a CD-R copy of a CD-XA image. A different drive should be used to output CD-XA images until this problem is corrected.

ImageArchive Support for Compressed Images Containing a Copy Protection

During an ImageArchive operation, if an image is too large to fit onto the recordable disc, ImageCopy automatically compresses the image. If the image is protected with a copy protection and the software is configured with a copy protection Plug-In, this would cause the copy protection not to be detected. The reason was that the Plug-In was trying to check the compressed image. The problem has been corrected by decompressing the image prior to passing control to the copy protection Plug-In.

ImageSignature filename is now set to the source image name not the log filename

During an ImageArchive operation that is performed in Disc At Once mode, ImageCopy first copies the source image to a temporary location before writing to DVD-R. When this copy operation is complete, ImageCopy generates a log file and an ImageSignature file if the ImageSignature Behavior is selected. In previous versions of ImageCopy, the ImageSignature file was named based on the temporary folder where the image was copied. ImageCopy version 4.1 will now name the ImageSignature file to match the name of the source image.

Corrected a problem where an incorrect filename was given to the signature file during a Dual-Output ImageArchive operation

When copying an image to hard disk, ImageCopy creates an ImageSignature and stores it into a file with a filename that matches the output image folder. However, during a Dual-Output ImageArchive operation in Disc At Once mode, the image is first copied into a temporary folder before being copied to a DVD-R. ImageCopy's default naming convention caused the ImageSignature filename to be named the same as the temporary folder, which does not match with the image being archived. ImageCopy has been enhanced so that in the case of an ImageArchive operation, the ImageSignature filename will match the name of the source image.

Abort During a Dual-Output ImageArchive Operation of a RipGuard Image

When archiving a RipGuard image, by default, ImageCopy will compress the image. If performing a dual-output operation where the first output destination is the hard disk, then the image on the hard disk is also compressed. The compressed image may not be supported by some mastering systems. Therefore, the process is aborted with the

message "RipGuard master detected, dual output not supported". To continue archiving or copying the image to hard disk, disable the dual-output option in the preferences (File | Preferences).

The EclipseSuite software Has Been Enhanced to Detect Multisession/Multi-Border DVD images.

The DVD Read-Only Specifications do not support the concept of Multisession or Multi-Border. These are only supported in Recordable media.

Recordable DVD±R media allows users to append information to a pre-recorded disc. Data is appended into a new session created by the DVD-Writer. Each session on the disc ends with a border zone which contains information that links it to previous sessions. This is so that the user can access all the data in all sessions that have been recorded. On a Multisession recordable disc, the drive reads the information from the last border zone at the end of the last session and with this it knows how to retrieve all data recorded on the disc.

Unfortunately, the border zone cannot be accessed directly. A special command is used to retrieve the information contained within it. Therefore, the border zone cannot be recreated during a copy operation.

When copying a Multisession recordable disc, ImageCopy can read the data from each of the sessions. However, the drive skips the border zones since there is no direct access to these. The end result is an image that contains all data from all sessions but no information that links them. This results in an image where only the contents of the first session are visible.

Since Multisession is not supported by the Read-Only File System specifications (i.e. a replicated disc), the EclipseSuite tools have been enhanced to trigger a new rule and abort when they detect a Multisession disc. Unfortunately, there are some drives that do not support Multisession media. If such a drive is used, then a Multisession disc may pass through the pre-mastering/mastering process undetected. The Plextor PX-716 and Pioneer 305 seem to be able to detect Multisession DVD±R media without problem.

There are two additional new rules that may be triggered depending on the file system used on the image. These are “Multiple ISO9660 sessions” and “Multiple UDF Sessions”. These can also help detect when a Multisession DVD±R may have gotten through and mastered. These two will get triggered on any type of DVD input media, whereas the “Multisession DVD” only gets triggered on DVD±R media.

NOTE: This enhancement resolves the multi-session issues addressed in the August 3rd TechFlash

Do Not Remove Incompatible Plug-Ins from the Registry

Copy protection Plug-Ins typically require a specific version of EclipseSuite to support it. In previous versions of EclipseSuite, if an incompatible version was run, the Plug-In was removed from the registry so that the software would not try to load it the next time. The EclipseSuite software has been enhanced so that if the software is not compatible with the Plug-In, it does not load the Plug-In and leaves the Plug-In in the registry. This is to allow customers to switch between different versions of the EclipseSuite, where some versions may be configured with Plug-Ins not compatible with other versions.

Support of Plextor ATAPI and USB drives as Output Devices

The EclipseSuite software now supports the Plextor PX-712 and PX-716 as output devices. Previously, these could only be used as input devices and output for archive operations only. Both drives can now be used to write to CD-Rs and DVD-Rs.

The ImageVerify Print Summary now Includes Subchannel Errors

Previously, the ImageVerify print summary only reported any Main Channel errors that occurred. If any Subchannel errors occurred, they would not be reported in the summary. Although the analysis results were considered failed, the summary report would report that it was successful with 0 comparison errors. The report now takes into account any error that occurs in the Subchannel.

The EclipseSuite Software has been Enhanced so That the Individual Bytes in a CD-XA Subheader are now Checked to make sure they Conform to the CD-XA Specifications

Previously, the EclipseSuite software only checked that the first four bytes in the Subheader matched the second four bytes. Now, the software will verify each individual byte as well. If a byte contains an invalid value, the new rule "Invalid field in CD-ROM XA Sub-header" will be triggered.

ImageCopy has been enhanced so that it does not fail an ImageArchive operation if only the log file is not archived

Previously, ImageCopy would report an error indicating that the ImageArchive operation had failed if the log file was not able to be archived with the rest of the image. Since the log file is written on a separate session from the rest of the image, it is not considered a severe error since the archived image is still good. Only the log file will be missing from it. When this problem occurs, ImageCopy will now trigger the new rule "Appending log file failed" as a warning but will not consider the job as failed. If a log file is absolutely necessary, customers can set this rule to an error.

The EclipseSuite software has been enhanced to detect corruption at the Leadout transition of an audio CD

Due to the audio skew differences between drives, it is possible that corruption at the lead-out transition may cause a pop or click at the end of the last track during playback. If a source disc with this problem is copied or mastered, it is possible that the pop or click may be transferred over to the copies or replicas. Since running at a lower speed appears to help get around this problem, the EclipseSuite software has been changed to limit the drives speed to 4X when processing an audio CD.

Previous versions of EclipseSuite did not report any errors in the lead-out. Since this condition is now known to cause problems, the software has been enhanced to detect it and report it to the user. The new rule “CU at lead-out transition” will be triggered if corruption in the lead-out is detected. Also, since the problem appears to happen on audio CDs where the last track has no fadeout before lead-out, the rule “No audio fadeout before lead-out” will be triggered is such a disc is detected.

NOTE: This problem only affects the PlexWriter 40/12/40 and 12/10/32 drives.

The EclipseSuite software has been enhanced to properly identify masters recorded on DVD+R media

Recordable media is normally identified through flags that are recorded in the media's control data information during lead-in. However, in order to increase compatibility across different drives, DVD+R media sets one of the flags to indicate that the disc is Read-Only. In previous versions of EclipseSuite, this caused the software to think that the media was a replica and treated it as such.

On a replicated disc, the end of user data is identified by a field in the control data. On recordable media, the field where the end of user data is recorded contains the capacity of the media and not the length of the actual data that is recorded. Therefore, there is no way of knowing exactly how much user data has been recorded on recordable media. When the EclipseSuite software identify that a source disc is recordable, it uses other methods for determining the length of user data. In the case of DVD+R, the software assumed that the disc was a replica and tried to read past the end of user data. This resulted in read errors. The EclipseSuite software now properly identifies DVD+R media.

Corrected a problem in which the "Prompt for Layer Info File" window was hidden behind other windows.

When the behavior "Prompt for Layer Info" is used, it causes a prompt window to appear so that the user can select the location for the layer info. If other applications were being run concurrently, it was possible that this prompt window may be hidden from the user behind other program windows. The software has been enhanced so that when the prompt window appears, it will be display on top of all windows.

Detection of DVD-Audio and DVD-Video Files That are Recorded With Multiple Allocation Descriptors

The EclipseSuite software has been enhanced to detect when a DVD-Audio or DVD-Video file is recorded in more than one allocation descriptor. According to the UDF specifications, each file should be recorded contiguously and therefore should only require a single allocation descriptor. When the software detects more than one allocation descriptor for a file, it triggers the new rule "More than 1 Allocation Descriptor".

In DVD-ROM applications, this should not be a problem. However, in DVD-Audio and DVD-Video, all files should be recorded in a single allocation descriptor.

Fixes

Corrected a Problem in Which the Rule "ISO & DVD File locations disagree" Was Being Incorrectly Triggered

If the file VTS_nn_0.IFO (where: nn = 01~99) crossed a layer boundary, previous versions of EclipseSuite would incorrectly trigger this rule. Since this file is allowed to cross a layer boundary, the software has been enhanced so that it no longer triggers this rule when this happens.

Video Attributes and CSS Information is no Longer Overwritten

Previous versions of EclipseSuite were limited in the amount of information that could be displayed in the Video Attributes and CSS information of a DVD-Video image. When the limit was reached, the EclipseSuite tools would wrap-around and start overwriting information. The EclipseSuite software no longer overwrites the information.

Corrected a problem in which ImageCopy would crash and cause ImageSend to abort when saving large log files

There are certain problems with source media that may cause ImageCopy to generate a large log file. Previous versions would cause ImageSend to crash if the log file grew too large. This has now been corrected.

Corrected a problem in which the error "VOBU length & number of sectors disagree" was being triggered when Jacket Pictures were appended at the end of a DVD-Video image

Previous versions of EclipseSuite were incorrectly reporting this error if Jacket Pictures were appended to the end of a DVD-Video image. This has been corrected.

Corrected a Problem in Which ImageCopy Would Crash During the Verify After Copy Process

When Copy Protection Plug-Ins are running, they update their status in the Progress and Analysis tabs of the EclipseSuite software. In previous versions, ImageCopy would crash if the Plug-In was updating its status during the Verify After Copy process. This is now corrected. This problem only occurred when copying from tape to hard disk.

Corrected a problem that triggered the error "SSCRST type mismatch"

When a Partner Location is set for a replica disc, previous versions of ImageVerify would incorrectly set the discs security scrambling status (SSCRST) to 99. Since valid SSCRST values range from 0 to 5, this triggered the rule “SSCRST type mismatch” when the replica was compared to the original image. This problem has been corrected.

Corrected a problem in which the Plextor PX-712 and PX-716 would copy corrupt data if a read authentication error occurred when reading a DVD image.

This problem has been observed with certain media even when no copy protection system is present. There is something in the data that makes the drive think it is copy-protected and fails with an authentication error.

The EclipseSuite software previously ignored authentication errors in certain cases to allow the analysis of unencrypted sectors. Ignoring the authentication error using these drives will cause the transfer of corrupt data if a disc with this problem is used as a source to ImageCopy or ImageEncoder. Depending on the location of the authentication error, it is possible that it will cause other errors to occur. Therefore, it is likely that this failure will not go un-noticed.

The EclipseSuite software has been enhanced so that it no longer ignores the

authentication error. When it is detected, the software will trigger the new rule "Failed drive authentication" and aborts instead. Unfortunately, this means that the master disc cannot be used with these drives. The Pioneer SCSI drives seem to be unaffected by this type of media and can process the disc without problem. Customers should use the Pioneer drives instead until this problem is corrected with the Plextor drives.

NOTE: This resolves all issues addressed in June 24th's Plextor 712 & 716 TechFlash.

Removed "Destination Output Partner Device" from the Run-Time Information.

Corrected a problem where the Destination Output Partner Device was listed in the Run-time information even though the Partner Location was not specified. This caused confusion as users were made to believe that a Partner Location had been set.

Corrected a Problem in Which ImageCopy Was Incorrectly Generating a Signature File for Pre-encrypted DVD-Video Images on DLT tape.

ImageSignatures are not supported on pre-encrypted images (i.e. SSCRST 2). Previous versions of ImageCopy were incorrectly generating an invalid signature for pre-encrypted images. This resulted in signature mismatch errors during the Verify After Copy process and ImageVerify. However, this only occurred if the image was stored on DLT. This has now been corrected.

Added a Workaround For a CD TOC Read Problem in the Plextor PX-712 and PX-716.

When running on a Windows XP system, the Plextor drives have a problem reading the Table of Contents from a CD. This problem triggers the error "Index 1 ATIME & TOC disagree" in the EclipseSuite software. The EclipseSuite software has been enhanced to detect this problem and make the necessary corrections.

New Rules

Appending log file failed
CU at leadout transition
DDP on Disc detection disabled
Failed drive authentication
Hexalock VDH dongle counts have expired
Invalid Field in CD-ROM XA Sub-header
No digital silence before leadout
More than 1 Allocation Descriptor
Multiple ISO9660 sessions
Multiple UDF sessions
Multisession DVD
Output device writes invalid pregap 2