CISCO

Cisco D9032 Encoder Software Version 03.04.09 Release Note

Overview

Introduction

This document describes the Cisco D9032 Encoder software version 03.04.09. It contains a detailed description of the release, including a list of known errors and limitations.

Release Overview

This release includes the following versions for each of the modules. The three last digits of the software number indicate the version of the module software.

Software to Download

Software Number	Software Date/Time	Hardware Stock Number	Module Name
7010184.V03.04.09	2011-10-07	4006640 4009743 4013809	D9032 main board MkI, MkII and MkIII including SDI-VBI module, ClearSight Composite module, dual audio option and Adv. Video Input module.
The application package (appl.pkg) contains software for the following modules:			
–	–	4009245	SDI VBI Input
–	–	4010240	ClearSight Composite Input
–	–	4006609	Dual Audio Board
–	–	4012794	Advanced Video Input

Software Programmed by JTAG During Manufacturing

Software Number	Software Date/Time	Hardware Stock Number	Module Name
7002295 Rev G, Boot Code V02.00.04	2006-06-14	4006640 4009743 4013809 4009743 4009743.100	D9032 main board MkI, MkII and MkIII D9022 main board Phase A D9022 main board Phase B

Note: The boot code is also part of the release and can be downloaded via the Ethernet interface.

Optional Licenses

Software Number	Software Date/Time	Hardware Stock Number	Module Name
7004172	N/A	N/A	Option License VBI
7004173	N/A	N/A	Option License Noise Reduction
7004174	N/A	N/A	Option License Pre Analysis
7004175	N/A	N/A	Option License 4:2:2 Encoding
7004151	N/A	N/A	Option License Dolby™ Digital CH1
7004152	N/A	N/A	Option License Dolby Digital CH2
7004153	N/A	N/A	Option License Dolby Digital CH3
7004154	N/A	N/A	Option License Dolby Digital CH4
7006258	N/A	N/A	Option License Stat.mux.
7006259	N/A	N/A	Option License DPI Signaling
7004706	N/A	N/A	Option License Auto-Concatenation
4015093	N/A	N/A	Option License Adv. Video Input SDI

New Settings with Front Panel Access

There are no new settings in the Cisco D9032 Encoder software version 03.04.09.

New Features

There are no new features in the Cisco D9032 Encoder software version 03.04.09.

Resolved Issues

The following issues with version 03.04.06 were resolved in version 03.04.09:

Issue	Description
VBI	
AVIB VBI stops after 2 years 3 months. #1524	This issue has been fixed. Error only occurs after 2+ years of continuous operation. A reset or power cycle restarts the 2+ year period.
AVIB Teletext PTS delta is too big. #1518	This issue has been fixed. Additionally, new persistent setting veVBIDelayAdjust is made. Default is 0, range is -999 to +999, units are milliseconds.
Aspect Ratio stuck at 4:3 when AFD=Auto. #1519	This issue has been fixed.
Video	
3:2 Pulldown fails with AspectRatio=Auto. #1515	This issue has been fixed.
System	
GUI needs About box with Cisco Copyright #1516	This issue has been fixed.

Operational Limitations and Errors

Note: #xxxx is an internal reference number.

Limitations and Errors	Workaround
Video	
Statmuxing using "Extended" delay with D9050 Encoders using "Extended" delay causes mis-alignment of the TS resulting in possible overflow. #1439	On D9032 Encoders, use statmux delay "Extended (D9050)", or use "Normal" delay on all encoders.
Statmuxing using "Extended" delay with AVC encoders using "Extended" delay in DCM causes misalignment of TS resulting in possible overflow. #1439	On DCM, use a software version higher than 7.1; or use "Normal" delay on the DCM and the D9032 encoder.
IP Statmuxing does not use the Target Video Quality setting. This issue is in the DCM, which disregards the Target Video Quality parameter. #1473	None.
No alarms from onboard composite input if set to PAL, and an NTSC signal is applied. #1094	Select the correct system.
At 544 pixels resolution, the picture is shifted 4 pixels horizontally.	Use another horizontal resolution for correct horizontal position of the picture.
The MPEG-2 Multiplex buffer can overflow in 4:2:0 mode if the video rate is 15 Mbit/s.	Select a video rate equal to or below 14.7 Mbit/s.
3:2 PDI can only run with GOPs 12,2, 15,2, 18,2, and 21,2, and in 4:2:0 mode.	None.
Pre-processing	
Picture artifacts occur when disabling/enabling pre-analysis while the adaptive filtering is enabled.	None. The artifacts appear for a few frames around the change of pre-analysis and then disappear.
Enabling the low-pass horizontal luminance filter severely reduces the performance of the auto-concatenation feature.	None. If the full advantage from the auto-concatenation feature must be obtained, you must disable the low-pass horizontal luminance filter.

Limitations and Errors	Workaround
SI/PSI	
The time reported in the TDT table is the system time and not the UTC time.	Set the system time in the unit manually to the UTC (coordinated universal time) time.
PMT shows random PIDs when being updated. #1522	None. This issue is transient, and the random PIDs are only mentioned in the PMT when it is being changed.
Audio	
Dolby AC-3 audio pass-through: After having set the audio encoding rate lower than the incoming rate and returning to an encoding rate equal to the incoming rate, no audio is passed through. #1087	After setting the encoding rate higher than the incoming rate, and then back to a rate equal to the incoming rate, the audio returns. Do not set the encoding rate lower than the incoming rate; this causes an error.
Defaulting enables Dolby audio channels 3+4 even if they do not exist, but the license exists. #1056	Either disable the Dolby license for (ch 3) and (ch 4) before defaulting, or in the web GUI, top audio tab, disable both audio 3 and 4 and click **Apply**.
If the audio is set to 64 kbit/s, mono and the video bit rate is above 11 Mbit/s, the audio stops if pre-processing is changed from enabled to disabled or vice versa.	Increase the audio rate or decrease the video rate. For typical D9032 encoder applications, this should not be an issue.
Dolby Surround Flag is set to "ON" when Dolby Surround Mode is set to "No Indication".	None.
Stand-alone audio channels are affected by the video delay. When the fixed video bit rate is changed, dropouts are experienced within the audio stream.	None.
Audio channels affect each other. When enabling audio ch. 1+2, dropouts are experienced on the audio ch. 3+4 stream.	None.
When no optional audio card is inserted within a D9032 encoder, the units do not support the external synchronization signal in Dolby digital pass-through mode.	Insert the optional audio card in the D9032 encoder or synchronize the audio and video sources externally.
Audio will permanently stop when you change an enabled audio program from stand-alone to being attached to a video program in the PSI setup.	Disable and then enable the specific audio channel to re-start the audio.

Limitations and Errors	Workaround
When disabling and then enabling an audio channel with test tones enabled all the time, the test tone will not re-appear after re-enabling the audio channel.	Disable and then re-enable the test tone for the specific channel.
The Audio test tones are scaled frequency-wise with the sample rate, i.e., the frequency values listed within the manual and the web GUI are only valid in 48 kHz sample mode.	None.
In 44.1 kHz mode, the PES frame length is not divisible by 8. This is an issue for the Stellar XT Decoder. #322	Use 48 kHz or 32 kHz mode.
Occasionally, the audio "Relative Delay" setting does not take effect, i.e., the audio is not adjusted with respect to timing compared to video when the audio "Relative Delay" is changed.	If the audio "Relative Delay" command does not take effect, disabling and then enabling the audio program will solve the issue.
Dolby Digital lip sync fails for 32 kHz sample rate, 640 kbit/s 2.0. #1352	Use a lower bit rate for 32 kHz sample rate.
Dolby E does not work in Audio standalone mode. #1374.	Attach audio program to video.
VBI	
No teletext support in PAL mode with on-board composite input.	Use a ClearSight or AVIB module instead. They support teletext and other VBI-signals.
CC disappears when switching Composite Source, when Frame Sync is on. #1527	Reboot or toggle Frame Sync.
GUI: No help text for AFD Mode Control #1513	"AFD Mode Control" is not mentioned in the help text. The text should be: AFD Mode Control: When the value is 0 (default), 3 bits from VII is used for AFD – this is the behavior of previous software releases. When the value is 1, 4 bits from VII is used for AFD.

Limitations and Errors	Workaround
VBI packets error causing erroneous PIDs when enabling DVB AND EBU TTX. AVIB module occasionally makes bad VBI TS packets: When the error is provoked, the TS packets are not correctly aligned to the muxbus; ie the true VBI packet starts at a constant offset in the TS seen on ASI and IP. The error is seen about 1 out of 50 times when both TTX types are enabled. #1521	Disable and then re-enable TTX on the web GUI.
Network	
Spurious TS packets or block errors can be seen when switching between two asynchronous SDI video signals.	None.
Continuity counter errors in the TS from the ASI output are seen when the video input is interrupted.	None.
The 16 dummy bytes in 204RSOFF mode in all audio packages are not zero. Instead, the last 16 data bytes are repeated.	None.
IP streaming output is not valid when TS Output Format is set to "204 RS On." #1178	Set TS Output Format to "188", or "204 RS Off" when using IP streaming.
Control and management	
When changing the IP address, the front panel display shows the new address, but the actual address is the old one.	This only occurs if the user leaves the D9032 encoder display in the IP Address menu. When exiting the IP menu, a warning appears to reset or power-cycle the D9032 encoder for the IP change to take effect. This is also documented in the *D9032 Encoder Installation and Operation Guide, Software Version 3.4, part number 4033540*.
There could be some Ethernet communication problems when running 10 Mbit/s.	Use a 100 Mbit/s Ethernet instead.
System	
Alarms that are overruled are thrown away. The overruled alarm will not appear when the overruling alarm disappears again.	None.

Operational Limitations and Errors

Limitations and Errors	Workaround
ROSA & Web GUI	
When enabling a message in the ROSA GUI, the status of the message in the D9032 encoder is not automatically uploaded to ROSA.	None.
Message generation time in the "All Message" window is the same as the registration time.	Use the generation time in the message detail window.
If the "Row Status" in "Trap Destination" is set to "Not Ready", the status will revert to the previous state.	Do not use "Not Ready."
It is not possible to run the web GUI with a version of Internet Explorer earlier than 6.0.	Different issues in earlier versions of Internet Explorer prevented all web GUI functionality from running as specified – consequently it's strongly recommended to update to Internet Explorer version 6.0.
Due to a bug in Internet Explorer 6.0, the upload/download of files fails if the path name is more than approximately 50 characters in length. This causes issues for the application, settings, and license upgrades.	Upload works in Internet Explorer 7.0. When using Internet Explorer 6.0, locate your files in your root drive before downloading to the device(s).
If the community strings are changed from their defaults, the web GUI does not work. #1117	Do not change community strings to access the web GUI. For security purposes, use the IPsec feature.
Accessing the encoder through a router causes web GUI issues for Internet Explorer 8.0 and Firefox. #1512	Changes takes effect instantly, but "Reload" displays an old value. After five minutes, the new value is shown as OK.
GUI : Google Chrome has layout problems and times out. #1514	Google Chrome has layout issues on the "Summary" page and others, and times out after vigorous clicking.

Installation Guidelines

Limitations in Relation to Older Modules/Other Products

Please note that version 03.04 of the D9032 encoder MUST run together with DCM version 4.5 or later in an IP Statmux setup. However, DCM version 4.5 will support earlier versions of the D9032 encoder. To use combined statmux, you must run DCM version 6.0 or higher. To use remote statmux, you must run DCM version 6.5 or higher.

Please note that the Regulus Statistical Multiplexer must run software version 01.03.45 or later in order to work correctly with the encoder.

To use a Statmux Maximum Video Delay setting of "Extended" in a combined statmux setting, the DCM must have a software version higher than 7.1.

Upgrading

The software can be upgraded through the D9032 web GUI or with FTP. For information about how to upgrade through the D9032 web GUI, see the *Cisco D9032 Encoder Installation and Operation Guide, Software Version 3.4, part number 4033540*.

For upgrading with FTP, use the following instructions (a FTP program is required – in this example, the Windows system built-in FTP program is used):

1 From Windows, click **Start > Run**.
2 Type **cmd** to open a DOS command prompt.
3 In the command prompt, type `cd<newdir>` to change the directory to the location of the **appl.pkg** file.
4 Run FTP to transfer the file to the D9032 encoder. Type `ftp <ip address>`, where `<ip address>` is the IP address of the D9032 encoder.
   Answer the following questions:
   – User = `sa`
   – Password = `sa`
   – Type `bin` to prepare for binary data transfer.
   – Type `cd pkg` in order to set the target directory.
   – Type `del appl.pkg` to delete the old file.
   – Type `cd ../swupdate` in order to set the target directory.
   – Type `put appl.pkg` to transfer the file.
5 When the file transfer is complete, type `bye` to exit the ftp program. The encoder will now automatically reset itself after approximately two minutes and the reset process takes approximately two minutes.
   You may check the software version of the D9032 Encoder in the GUI.

License Installation

The license file can be installed through the D9032 web GUI or with FTP. For information about how to install through the D9032 web GUI, see *Cisco D9032 Encoder Installation and Operation Guide, Software Version 3.4, part number 4033540*. For installing with FTP, use the following instructions (an FTP program is required – in this example, the Windows system built-in FTP program is used):

1 From Windows, click **Start > Run**.

2 Type **cmd** to open a DOS command prompt.

3 In the command prompt, type `cd<newdir>` to change the directory to the location of the **license.dat** file.

4 Run FTP to transfer the file to the D9032 encoder. Type `ftp <ip address>`, where `<ip address>` is the encoder IP address.

   Answer the following questions:

   – User = `sa`
   – Password = `sa`
   – Type `bin` to prepare for binary data transfer.
   – Type `cd options/import` in order to set the target directory.
   – Type `put license.dat` to transfer the file.

5 When the file transfer is complete, type `bye` to exit the FTP program.

6 Wait five seconds and the license file will automatically be installed by the encoder.

   You may verify the installed licenses in the D9032 web GUI. In the D9032 web GUI, click **System > Option License**. The Option License page displays a list of installed options, allowing you to enable/disable installed licenses, and install new license files.

   For more information on how to install a license file, please contact Field Services.

Upgrading to Advanced Video Input Module – D9032 Encoder only

To upgrade your D9032 Encoder with an Advanced Video Input module, proceed as follows:

1 Upgrade the software and check that it is working.

2 Remove all old video input modules installed. The Advanced Video Input module will not work together with the ClearSight or SDI module.

3 Install the Advanced Video Input Module in the same slot as the ClearSight module.

For Information

Cisco provides its customers who have purchased support agreements with telephone support from anywhere in the world. If you require technical telephone assistance or product training support, or if you have any questions concerning the Cisco product, you may contact the appropriate Customer Support Center from those listed below. Charges may apply for customers without a current and applicable product support agreement.

Customers	Location	Phone Number
Programmers and Broadcasters	USA and Canada	Toll-Free: 1.888.949.4786 +1.770.236.4786 dmn_support@cisco.com
Telcos and Cable Service Providers	Cisco Services	Toll-Free: 1.800.722.2009 Local: 770.236.6900 (press 2 at the prompt) customer-service@cisco.com
All Customers	Europe	+32.56.445.155 or +32.56.445.197 saemea-support@cisco.com
All Customers	Asia	+852.2588.4746 saapac-support@cisco.com

Customers who call a Customer Support Center are asked specific questions in order to identify their needs. In this way, each call can be directed to the customer support representative most experienced with their Cisco product.