Release Notes

SME-1911

Release History

Release Version	Comprising:		Release Date	Version Details	User Manual for this release (Grass Valley document #)
	Firmware Version	Software Version			
1.3.0	1.3.0	1.3.0-RC-6	2016-01-11	(go)	M935-9900-130
1.2.0	1.2.0	1.2.0-RC-1	2015.04.01	(go)	M935-9900-120
1.1.0	1.1.0	1.1.0-RC-2	2014.11.21	(go)	M935-9900-110
1.0.2	1.0.2	1.0.2-RC-2	2014.08.21	(go)	M935-9900-102

Upgrade Package Release History

NOTES: The iControl compatibilities shown below are officially supported by Grass Valley. Earlier versions may also work, with bugs or limited features.

The Reference number (Ref#) given for each feature or bug in these Release Notes refers to internal Grass Valley documentation.

Release Notes

UPGRADE PACKAGE: 1.3.0

Firmware version: 1.3.0 build 3

Release date: 2016-01-11

iControl compatibility: 5.00+

iControl Solo compatibility: 6.00+

RCP-200 compatibility: Not supported

Custom software compatibility: NA

Hardware compatibility: This upgrade package applies to all existing hardware assemblies.

ENHANCEMENTS & NEW FEATURES

Ref#	Description
SME-774	**Added the HIGH BIT RATE and VERY HIGH presets** The HIGH BIT RATE preset is added to the Main 1080 stream. It allows a high quality stream with enough encoder resources left over to enable the Proxy 1080 VERY HIGH preset. The VERY HIGH preset is also added to 720 and SD streams. It maintains the HIGH preset resolution while increasing the bit rate.
SME-740	**Enhanced video quality** Enhanced the video quality during complex sequences. The "macroblocking" effect is reduced in the frames following a scene change.

BUGS FIXED IN THIS RELEASE

Ref #	Description
SME-760	**Some SME-1911 cards may not appear in the iControl Navigator or iControl Solo** When a Densite frame with the CPU-ETH2 v12x controller is powered-up, some SME-19x1 cards may not appear in the iControl Navigator or iControl Solo when there are more than ten SME-19x1 cards in the frame. See SME-749 in the v1.2.0 Known Bugs and Limitations section below.
SME-735	**AAC audio may not be decoded by certain IRDs or set-top boxes** The AAC audio generated by the SME-1911 may not have been decoded by certain equipment like the Grass Valley IRD-3802, IRD-3811 and the Amino A140. The stream was identified as AAC-Main instead of AAC-LC in the ADTS header.

SME-758 SME-748	**Streaming can be unstable.** Fixed an encoding instability. The streams could be randomly interrupted or be unstable.

KNOWN BUGS & LIMITATIONS

Ref #	Description
SME-702	**New SME-1911 hardware assembly.** Firmware v110 and later supports the SME-1911 hardware assembly 0935-0100-401 and later. Do not downgrade these assemblies to versions earlier than v110. The hardware assembly is written in black on a white rectangular sticker applied on the back of the card near the ejector.
SME-699	**After power-up, a card may fail to lock to the 3G input signal.** When a 3G signal is already present at the input and the card is powered-up, it may not lock to the signal. The front panel LED remains yellow after the card appears in iControl (or equivalently when the card's front-panel menu becomes available). This indicates that a carrier is present but the card is not locked to the signal. The front-panel menu STATUS > VIDEO INPUT will indicate NO LOCK. The iControl SME-1911 control panel's input status LED will be yellow. Possible workarounds: - Remove the input signal and send it again **OR** - Change the input to an SD or HD bitrate format and back to 3G **OR** - Reslot the card and check that it is locked to the input
SME-636	**Audio Video Lag may be perceived on Main or Proxy IP output when there are Capture Failures in the encoder.** This can be observed when the video source is always the same format but contains a glitch, for example after an upstream switch. Usually, resynchronization takes approximately 40 to 60 seconds. In the case of many consecutive glitches, resynchronization can take up to 4 minutes.
---	**Amino A130 compatibility with version 0.11.0 or later**
---	**Amino A140 compatibility with version 2.6.2 or later**
---	**VLC player compatibility with version VLC 0.8.6 or later** For input interlaced formats, "Force progressive mode encoding" in the

	"Codec Config" tab must be checked when using VLC 0.8.x as this version does not decode interlaced formats.

Release Notes

UPGRADE PACKAGE: 1.2.0

Firmware version: 1.2.0 build 3

Release date: 2015-04-01

iControl compatibility: 5.00+

iControl Solo compatibility: 6.00+

RCP-200 compatibility: Not supported

Custom software compatibility: NA

Hardware compatibility: This upgrade package applies to all existing hardware assemblies.

ENHANCEMENTS & NEW FEATURES

Ref#	Description
SME-750	**Improved streaming performance** The streaming output performance was improved to allow decoding by the Grass Valley IRD-3802 and IRD-3811.
SME-708	**Higher MPEG 1 Layer 2 audio bitrate** The bitrate of the MPEG 1 Layer 2 audio was changed from 128 kbps to 256 kbps. The SME-1911 iControl interface was not updated to reflect this change because it still indicates "MPEG 1 L2 @ 128 kbps".
SME-700	**Update using the Miranda Interface Updater** Once the SME-1911 is updated with this version, the next updates can use the Miranda Interface Updater (MIU) stand-alone application instead of the Densite Upgrade Manager (DUM) available in iControl Solo 5 and later and iControl 6 and later. Consult the User Manual M935-9900-120 for more details.

BUGS FIXED IN THIS RELEASE

Ref #	Description
SME-729	**Video input status indicates 1080i59 or 1080i60 after switching from a 3G input signal to no lock** When switching from a valid 3G input signal to no lock (i.e. with a carrier present), the card can indicate no lock (OK), 1080i59 (not OK) or 1080i60 (not OK).

SME-724	**SME-1911 iControl panel may disappear when Ethernet port is physically disconnected or reconnected** Physically disconnecting and reconnecting the Ethernet port on the card's rear panel may ultimately affect communication with the Densite frame controller. Turning off and on the LAN Ethernet switch to which the card is connected can cause the same problem. The SME-1911 front panel and iControl panel will no longer be accessible until the card is reinserted.
SME-715	**Streaming may not start when switching input from an invalid signal to a 3G signal.** If the input status is "No Lock" in the iControl interface (a carrier exists but the signal is invalid), switching to a valid 3G signal may send invalid data to the encoder thereby preventing it to initiate a stream. The front-panel menu STATUS > VIDEO INPUT will indicate NO LOCK. The iControl SME-1911 control panel's input status LED will be yellow. If the input status is "No Carrier", switching to a 3G signal does not cause the problem. Workarounds: - Remove the input signal and send it again **OR** - Change the input to an SD or HD bitrate format and back to 3G
SME-704	**Streaming stops if the card's IP address is modified.** If the gateway IP address is already set to 0.0.0.0, changing the card's IP address causes the streaming to stop. Workaround: set the gateway to an IP address other than 0.0.0.0 and then change the card's IP address.
SME-694	**Stream may have a very high bitrate after an input format change.** After a format change, the stream's bitrate could be 4 or 5 times the preset's target bitrate.
SME-617	**Output IP stream is currently incompatible with the Grass Valley IRD-3802 and IRD-3811** The streaming performance was improved as described in SME-750 above.

KNOWN BUGS & LIMITATIONS

Ref #	Description
SME-749	**Card update or frame power-on can cause "card not ready" in iControl** After updating a card, "card not ready" may appear in the iControl

	navigator instead of "SME-1911". This can also happen when a Densité frame containing the SME-1911 is powered-up. This state is permanent unless the workaround is applied. Workaround: Reset the frame controller. This can be done using one of the following methods: - Remove and reinsert the controller from the frame **OR** - Use the controller's web interface and click on the "Reset" button in the Tools > Reset Controller menu.
SME-748	**720p Main "Low" preset may cause unstable streaming** In the "Codec Config" tab, selecting the 720p Main "Low (960x540 @ 1Mbps)" preset for a 720p59.94 input may cause interruptions in the output stream. Workaround: Use the "Medium high (1280x720 @ 3Mbps)" preset.
SME-735	**AAC audio may not be decoded by certain IRDs or set-top boxes** The AAC audio generated by the SME-1911 may not be decoded by certain equipment like the Grass Valley IRD-3802, IRD-3811 and the Amino A140. Workaround: Instead of AAC, select MPEG 1 Layer 2. The bitrate of MPEG 1 Layer 2 was augmented in this version to allow similar audio quality with respect to AAC. The interface shows "MPEG 1 L2 @ 128 kbps" but in reality is it 256 kbps as described in SME-708 above.
SME-702	**New SME-1911 hardware assembly.** Firmware v110 and later supports the SME-1911 hardware assembly 0935-0100-401 and later. Do not downgrade these assemblies to versions earlier than v110. The hardware assembly is written in black on a white rectangular sticker applied on the back of the card near the ejector.
SME-699	**After power-up, a card may fail to lock to the 3G input signal.** When a 3G signal is already present at the input and the card is powered-up, it may not lock to the signal. The front panel LED remains yellow after the card appears in iControl (or equivalently when the card's front-panel menu becomes available). This indicates that a carrier is present but the card is not locked to the signal. The front-panel menu STATUS > VIDEO INPUT will indicate NO LOCK. The iControl SME-1911 control panel's input status LED will be yellow. Possible workarounds: - Remove the input signal and send it again **OR** - Change the input to an SD or HD bitrate format and back to 3G **OR** - Reslot the card and check that it is locked to the input

SME-636	**Audio Video Lag may be perceived on Main or Proxy IP output when there are Capture Failures in the encoder.** This can be observed when the video source is always the same format but contains a glitch, for example after an upstream switch. Usually, resynchronization takes approximately 40 to 60 seconds. In the case of many consecutive glitches, resynchronization can take up to 4 minutes.
---	**Amino A130 compatibility with version 0.11.0 or later**
---	**Amino A140 compatibility with version 2.6.2 or later**
---	**VLC player compatibility with version VLC 0.8.6 or later** For input interlaced formats, "Force progressive mode encoding" in the "Codec Config" tab must be checked when using VLC 0.8.x as this version does not decode interlaced formats.

UPGRADE PACKAGE: 1.1.0

Firmware version: 1.1.0 build 9

Release date: 2014-11-21

iControl compatibility: 5.00+

iControl Solo compatibility: 6.00+

RCP-200 compatibility: Not supported

Custom software compatibility: NA

Hardware compatibility: This upgrade package applies to all existing hardware assemblies.

ENHANCEMENTS & NEW FEATURES

Ref#	Description
SME-388	**RTP, RTSP, and MPEG-TS transport stream protocols.** The following protocols are supported: - Unicast TS-over-UDP - Multicast TS-over-UDP - Unicast TS-over-UDP/RTP - Multicast TS-over-UDP/RTP - RTSP/TS-over-UDP/RTP - RTSP/TS-over-TCP
SME-616	**Encapsulation of Dolby Digital into the streaming transport.** When the audio channels selected for the audio encoder contain a Dolby Digital signal, it will be encapsulated in the output stream.
SME-702	**New SME-1911 hardware assembly.** Firmware v110 supports the SME-1911 hardware assembly 0935-0100-401 and later. Do not downgrade these assemblies to versions earlier than v110. The hardware assembly is written in black on a white rectangular sticker applied on the back of the card near the ejector.
SME-708	**MPEG 1 Layer 2 audio bitrate.** The bitrate of the MPEG 1 Layer 2 audio was changed from 96 kbps to 128 kbps.
SME-711	**Main 1080 Medium preset resolution.** The resolution of the 1080p/i Main "Medium" preset was changed from 1440x800 to 1440x1080.

BUGS FIXED IN THIS RELEASE

Ref #	Description
SME-694	**Stream may have a very high bitrate after an input format change.** After a format change, the stream's bitrate could be 4 or 5 times the preset's target bitrate.
SME-695	**No streaming output at power-up when input signal is absent.** After card insertion, streaming is not initiated when an internal test pattern generator is activated while the input signal is absent.
SME-705	**"Shellshock" bug.** The corrective patches were applied to the bash shell.
SME-707	**Encoder may not handle 3:2 frame sequence correctly.** The encoder will now use interlaced mode for input interlaced formats and progressive mode for progressive formats. Some decoders, e.g. VLC 0.8.6, cannot decode a stream encoded in interlaced mode. If this is the case, "Force progressive mode encoding" in the "Codec Config" tab should be checked. Forcing progressive mode for interlaced formats may cause artifacts in moving content.

KNOWN BUGS & LIMITATIONS

Ref #	Description
SME-617	**Output IP stream is currently incompatible with the Grass Valley IRD-3802 and IRD-3811**
SME-636	**Audio Video Lag may be perceived on Main or Proxy IP output when there are Capture Failures in the encoder.** This can be observed when the video source is always the same format but contains a glitch, for example after an upstream switch. Usually, resynchronization takes approximately 40 to 60 seconds. In the case of many consecutive glitches, resynchronization can take up to 4 minutes.
SME-699	**After power-up, a card may fail to lock to the 3G input signal.** When a 3G signal is already present at the input and the card is powered-up, it may not lock to the signal. The front panel LED remains yellow after the card appears in iControl (or equivalently when the card's front-panel menu becomes available). This indicates that a carrier is present but the card is not locked to the signal.

	The front-panel menu STATUS > VIDEO INPUT will indicate NO LOCK. The iControl SME-1911 control panel's input status LED will be yellow. Possible workarounds: - Remove the input signal and send it again **OR** - Change the input to an SD or HD bitrate format and back to 3G **OR** - Reslot the card and check that it is locked to the input
SME-704	**Streaming stops if the card's IP address is modified.** If the gateway IP address is already set to 0.0.0.0, changing the card's IP address causes the streaming to stop. Workaround: set the gateway to an IP address other than 0.0.0.0 and then change the card's IP address.
SME-715	**Streaming may not start when switching input from an invalid signal to a 3G signal.** If the input status is "No Lock" in the iControl interface (a carrier exists but the signal is invalid), switching to a valid 3G signal may send invalid data to the encoder thereby preventing it to initiate a stream. The front-panel menu STATUS > VIDEO INPUT will indicate NO LOCK. The iControl SME-1911 control panel's input status LED will be yellow. If the input status is "No Carrier", switching to a 3G signal does not cause the problem. Workarounds: - Remove the input signal and send it again **OR** - Change the input to an SD or HD bitrate format and back to 3G
---	**Amino A130 compatibility with version 0.11.0 or later**
---	**Amino A140 compatibility with version 2.6.2 or later**
---	**VLC player compatibility with version VLC 0.8.6 or later** For input interlaced formats, "Force progressive mode encoding" in the "Codec Config" tab must be checked when using VLC 0.8.x as this version does not decode interlaced formats.

UPGRADE PACKAGE: 1.0.2

Firmware version: 1.0.2 build 240

Release date: 2014-08-21

iControl compatibility: 5.00+

iControl Solo compatibility: 6.00+

RCP-200 compatibility: Not supported

Custom software compatibility: NA

Hardware compatibility: This upgrade package applies to all existing hardware assemblies.

ENHANCEMENTS & NEW FEATURES

Ref#	Description
---	**Upgrade procedure revised.** Please use the procedure described in Annex 2 of the current user manual, M935-9900-102.

BUGS FIXED IN THIS RELEASE

Ref #	Description
SME-697	**Densite frame filled with up to 20 SME-19x1 cards – some cards may not boot.**

KNOWN BUGS & LIMITATIONS

Ref #	Description
SME-388	**RTP, RTSP, and MPEG-TS transport stream protocols.** Only MPEG-TS protocol is supported.
SME-616	**Re-encapsulation of AC3 into the streaming transport.** An AC-3 signal is muted in the card. It will be passed or decoded in the next phase.
SME-617	**Output IP stream is incompatible with the Grass Valley IRD-3802 and IRD-3811**

SME-636	**Audio Video Lag may be perceived on Main or Proxy IP output when there are Audio Video Lag may be perceived on Main or Proxy IP output when there are Capture Failures in the encoder.** This can be observed when the video source is always the same format but contains a glitch, for example after an upstream switch. Usually, resynchronization takes approximately 40 to 60 seconds. In the case of many consecutive glitches, resynchronization can take up to 4 minutes.
SME-699	**After power-up, a card may fail to lock to the 3G input signal.** When a 3G signal is already present at the input and the card is powered-up, it may not lock to the signal. The front panel LED remains yellow after the card appears in iControl (or equivalently when the card's front-panel menu becomes available). This indicates that a carrier is present but the card is not locked to the signal. The front-panel menu STATUS > VIDEO INPUT will indicate NO LOCK. The iControl SME-1911 control panel's input status LED will be yellow. After performing one of the following workarounds, the card will always lock to a 3G input signal until it is powered-down. - Remove the input signal and send it again **OR** - Change the input to an SD or HD bitrate format and back to 3G **OR** - Reslot the card and check that it is locked to the input
---	**Amino A130 compatibility with minimum version 0.11.0**
---	**Amino A140 compatibility with minimum version 2.6.2**
---	**VLC player compatibility with minimum version VLC 0.8.6** For input interlaced formats, "Force progressive mode encoding" in the "Codec Config" tab must be checked when using VLC 0.8.x as this version does not decode interlaced formats.