grass valley
A **BELDEN** BRAND

SME-1901 – Upgrade Package 1.1.0

Release Version	Comprising:		Release Date	Version Details	User Manual for this release (Grass Valley document #)
	Firmware Version	**Software Version**			
1.1.0	**1.1.0 build 9**	**N/A**	**2014.11.21**	(go)	**M935-9900-110**
1.0.2	**1.0.2 build 240**	**N/A**	**2014.08.21**	(go)	**M935-9900-102**
1.0.1	**1.0.1 build 235**	**N/A**	**2013.12.12**	(go)	**M935-9900-101**

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.

UPGRADE PACKAGE: 1.1.0

Release date: 2014-11-21

iControl compatibility: 4.43 (build 55) – 5.0 (build X) for upgrades

iControl Solo compatibility: 4.43 (build 55) – 6.0 (build 3) for upgrades

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-1901 hardware assembly.** Firmware v110 supports the SME-1901 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 Main 1080 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-362	**Supported video CODEC h.264 high profile up to level 4.0.**
SME-363	**High frame rate encoding, with encoded resolutions up to 1080i59.94/50 and bitrate up to 5 Mbps.**
SME-364	**Bandwidth management using frame rate reduction from 5 to 60 fps.** Planned in a later version.
SME-365	**Supported bitrate from 256 kbps up to 5 Mbps.**
SME-489	**CC extraction and encapsulation.** Planned in a later version.
SME-500	**AFD, VLI, WSS extraction and encapsulation.** Planned in a later version.
SME-528	**Audio/Video Fingerprint Generation.** Planned in a later version.
SME-534	**Audio and Video Probing.** Planned in a later version.
SME-617	**Output IP stream is currently incompatible with Miranda IRD**
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-679	**Time code extraction and encapsulation.**

	Planned in a later version.

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-1901 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-1901 control panel's input status LED will be yellow.
	
	The 3G signal sent to the DA output is valid, it is not affected by this problem. 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

ICONTROL-16757	**Save/Restore all User presets at once** Planned in a later version.
---	**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

Release date: 2014-08-21

iControl compatibility: 4.43 (build 55) – 5.0 (build X) for upgrades

iControl Solo compatibility: 4.43 (build 55) – 6.0 (build 3) for upgrades

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-362	**Supported video CODEC h.264 high profile up to level 4.0.**
SME-363	**High frame rate encoding, with encoded resolutions up to 1080i59.94/50.**
SME-364	**Bandwidth management using frame rate reduction from 5 to 60 fps.** Frame rate is not accessible through iControl. Planned in the next phase.
SME-382	**Supports TCP/IP, UDP and HTTP network protocols.** Only UDP protocol is supported.

SME-388	**RTP, RTSP, and MPEG-TS transport stream protocols.** Only MPEG-TS protocol is supported.
SME-489	**CC extraction and encapsulation.** Planned in the next phase.
SME-500	**AFD, VLI, WSS extraction and encapsulation.** Planned in the next phase.
SME-528	**Audio/Video Fingerprint Generation.** Planned in the next phase.
SME-534	**Audio and Video Probing.** Planned in the next phase.
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 Miranda IRD**
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-679	**Time code extraction and encapsulation.** Planned in the next phase.
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-1901 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
ICONTROL- 16757	**Add option to Save/Restore All User presets at once** This is linked to "Restore Point" operations which are planned in the next phase.
---	**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**

UPGRADE PACKAGE: 1.0.1

Release date: 2013-12-12

iControl compatibility: 4.43 (build 55) – 5.0 (build 17) for upgrades

iControl Solo compatibility: 4.43 (build 55) – 6.0 (build 3) for upgrades

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
---	**In the Codec Config, added the "MEDIUM 1440x800 @ 3 Mbps" Main preset for a 1080p/1080i video input format.** This preset offers a better quality Main streaming output compared to the "LOW 960x540 @ 1 Mbps" preset while still allowing a Proxy streaming output.

BUGS FIXED IN THIS RELEASE

Ref#	Description
SME-682	**SME-19x1 Streaming Output not working.** On rare occasions, the enabled streaming outputs may stop after a video input format change.
SME-683	**Loading factory default settings or loading user presets may not refresh the Electrical or Optical Input status.**
SME-677	**Test Pattern on the Streaming Output has colors inverted when input format is 1080p.**
ICONTROL-16961	**The encoder resolutions for some profile are not up to date.** HD 1080 Proxy stream, Medium profile is 480x288 instead of 480x272. HD 1080 Proxy stream, Very Low profile is 256x160 instead of 256x144. SD NTSC (480i) Proxy stream, Medium profile is 352x256 instead of 352x240.

ICONTROL-16977	**Electrical input status LED is red instead of yellow when a carrier is detected but the signal is unlocked.**

KNOWN BUGS & LIMITATIONS

Ref #	Description
SME-362	**Supported video CODEC h.264 high profile up to level 4.0.**
SME-363	**High frame rate encoding, with encoded resolutions up to 1080i59.94/50.**
SME-364	**Bandwidth management using frame rate reduction from 5 to 60 fps.** Frame rate is not accessible through iControl. Planned in the next phase.
SME-382	**Supports TCP/IP, UDP and HTTP network protocols.** Only UDP protocol is supported.
SME-388	**RTP, RTSP, and MPEG-TS transport stream protocols.** Only MPEG-TS protocol is supported.
SME-489	**CC Extraction and encapsulation.** Planned in the next phase.
SME-500	**AFD, VLI, WSS extraction & encapsulation.** Planned in the next phase.
SME-528	**Audio/Video Fingerprint Generation.** Planned in the next phase.
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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.
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SME-679	**Time code extraction and encapsulation.** Planned in the next phase.
ICONTROL-16757	**Add option to Save/Restore All User presets at once** This is linked to "Restore Point" operations which are planned in the next phase.
---	**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**