KALEIDO SOFTWARE

Version 9.00

Release Notes

M770-2103-179

2017-10-17

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Title	Kaleido-X Version 9.00 Release Notes
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Release Notes

The Release Notes include a list of new features and improvements, as well as known issues and limitations associated with the latest version of the Kaleido-X software.

Overview

Kaleido-X version 9.00 is a major release to support the KMX-4921 multiviewer in the GV Node frame. This release also contains several new features, enhancements, and bug fixes (see) for all multiviewer models.

Note:

In line with our commitment to environmental preservation, only the *Kaleido Multiviewers Documentation Resource Guide*, and some related documents (e.g., welcome letters, warranty cards) are distributed in printed form. You can obtain the latest version of the Kaleido Software User's Manual and Installation & Service Manual for this multiviewer model, as well as the Release Notes, from the *Documentation Library* section of the Grass Valley website. Software, drivers, and sample databases are available from the *Downloads* section of the website.

Notes

• To install and use XEdit, you must be connected to the multiviewer over an Ethernet network, or have access to the Grass Valley website. Refer to *Installing XEdit* in the multiviewer's Installation & Service Manual for more information.

New Features, Enhancements, and Bugs Fixed

The following is a complete list of features and enhancements introduced over the course of the latest three major versions of the Kaleido-X software.

Kaleido Software Version 9.00

This release adds the following enhancement(s) and corrects the following issue(s).

Text added to the v9.00 Release notes:

New Features and Enhancements

★ Support for the KMX-4921 multiviewer in a GV Node frame.

Bugs Fixed

★ [Ref. #KX-12389] **Wrong Arabic teletext characters displayed:** Fixed incorrect Arabic teletext characters from being displayed.

★ [Ref. #KX-12217] **Kaleido-IP program name missing:** after joining a stream using the REST API the program name was unavailable.

★ [Ref. #KX-12366/KX-12326] **Kaleido-IP's audio becomes de-synchronized:** under some circumstances, the Kaleido-IP's audio may become out-of-sync after about 2 hours of playback time.

★ [Ref. #KX-12388] **Teletext characters are spaced too far apart:** The spacing of teletext characters were too far apart.

★ [Ref. #KX-12323] **Fixed UMD text (and status widget text) randomly resizing depending on what characters were being displayed:** note that this fix may cause the text to appear smaller after the upgrade. To minimize this side-effect, you can change the UMD or Status widget bevel setting to *none* instead of *raised*.

★ [Ref. #KX-11754] **Teletext display changes to Cyrillic characters:** the teletext display unexpectedly changes to use the Cyrillic character set. Only a reboot would fix the issue.

Kaleido Software Version 8.71

This release corrects the following issue(s).

Bugs Fixed

• [Ref. #KX-12205] **Kaleido-X video shakes inside widget (not the whole screen):** under certain circumstances, all videos on a display head would start shaking at a regular interval.

• [Ref. #KX-12386] **8.40 HDM SDI output jitter:** KXO-HDM and KXO-HDM-B mezzanine cards produce excessive jitter on the second SDI output (head 2).

Kaleido Software Version 8.70

This release adds the following enhancement(s) and corrects the following issue(s).

New Features and Enhancements

- [Ref. #PMV-1511, #PMV-1514, #PMV-1803] **KMX-49N1 Clusters:** if multiple KMX-49N1 multiviewer modules are to be part of a cluster, it is no longer necessary to physically locate all clustered multiviewers in a single GV Node frame.

  > **Note:** If a KMX-49N1 is to be used in a cluster with another Kaleido multiviewer, all multiviewers that are part of this cluster system must use the same Kaleido Software version 8.70 or higher.

- [Ref. PMV-2793] **KMX-49N1 Loudness measurement:** the KMX-49N1 multiviewer supports loudness measurement for up to four pairs audio programs per video source.
- [Ref. PMV-2793] **KMX-49N1 54 x 4 support:** the KMX-49N1 54 x 4 multiviewer capacity is supported by this release.
- **Kaleido-IP HVEC Metadata decoding:** the Kaleido-IP multiviewer can optionally decode HVEC metadata.
- [Ref. #KX-11278] **Kaleido Software restore factory default:** the factory-default configuration is a number of predefined rooms and layouts that are available on the multiviewer when you first receive your system. If after modifying the multiviewer's configuration, you are not satisfied with the results, there is a new menu item to restore the multiviewer to its factory default settings (room, layout, tables).
- [Ref. #KX-11046] **Kaleido Software auto-layout tool now auto-increments the channel number and monitor wall destination number:** when using the Auto-layout function in XEdit, if there is a channel number assigned to the reference widget, the assigned channel will automatically increment with each generated widget. The Monitor Wall Destination number will also automatically increment if it has been set.
- [Ref. #KX-12248] **All models:** you can now open a XML gateway session without providing the system name.

Bugs Fixed

- [Ref. #KX-12271] **Kaleido-X extraneous subtitle text:** fixed issue where teletext caption outside the box area would display on screen.
- [Ref. #EPSW-1440] **EdgeVision DB process stopped:** configuring multiple streaming with different multicast addresses and same port number would cause EdgeVision to run out of memory.
- [Ref. #KX-12291] **Kaleido-IP AC3 streaming audio:** fixed bad alignment of time stamps when streaming audio from an AC3 audio source.

Kaleido Software Version 8.61

This release corrects the following issue(s).

Bugs Fixed

- [Ref. #KX-11971] **KXO-DUAL or KXO-DUAL3 continuously reboots:** Fixed an issue that could cause a KXO-DUAL or KXO-DUAL3 rev 6 and older to reboot continuously after upgrading to KXS 8.00 or higher.
- [Ref. #KX-12089] **Multiviewer exceeds its 40 connect limit:** Under certain circumstances, the maximum connection limit between a multiviewer and an iControl application server could be exceeded, thereby causing iControl to crash.

Kaleido Software Version 8.60

This release adds the following enhancement(s) and corrects the following issue(s).

New Features and Enhancements

- [Ref. #KX-8882] **4K H.265 decoding support has been added to the Kaleido-IP:** Added support for 4K (UHD) H.265 decoding on the Kaleido-IP.
- [Ref. #KX-9614] **Support for Kaleido-IP X120 and X320 platforms:** This release supports the Kaleido-IP X120 and X320 platforms.
- [Ref. #KX-11851] **Kaleido-X and Kaleido-X16 added Source ID VANC metadata:** Added support for Source ID VANC metadata in SDI signals (DID/SDID 53/49).

> **Note:** In the case of a Kaleido-X multiviewer, first-generation input cards (KXI-16SV rev. 599 and earlier, KXI-16HS, and KXI-16HSV) do not support source ID VANC metadata.

- [Ref. #PMV-3073] **KMX-49N1 horizontal cropping is now supported:** Horizontal cropping (both left and right sides) is now supported.
- [Ref. #PMV-259/PMV-1723/PMV-3085] **KMX-49N1 display rotation:** display rotation is now supported with either HD or 4K displays.

Bugs Fixed

- [Ref. #PMV-2455/PMV-2548] **KMX-49N1 factory reset:** with the current version of the KMX-49N1 service panel available for iControl and iControl Solo, it is not possible to reset card settings to their factory-default values, for card C, or card D of a KMX-49N1 system that has three or four cards.
- [Ref. #KX-11833] **KMX-3901 video noise sometimes occurs once every several boots:** occasionally a widget that has an input with no signal will show noise instead of black after a multiviewer reboot.
- [Ref. #KX-11882] **KMX-3901 output card crash:** fixed an issue that would cause the KMX-3901 output card to crash and reboot under certain circumstances.

Prerequisites

Certain software versions have specific requirements shown below.

IMPORTANT

Kaleido-X may require new CompactFlash storage cards
As of Kaleido Software version 8, every KXO-Dual3 output card in a Kaleido-X multiviewer must have a 4 GB CompactFlash storage card on board. Output cards with a 2 GB CF card cannot be upgraded to version 8 (or higher). Contact Grass Valley to order the 4 GB CF cards you need (see Grass Valley Technical Support, on page 48).

Kaleido-IP X310, Kaleido-IP X110, and SNMP: as of Kaleido Software version 7.90, **Kaleido-IP X310** and **Kaleido-IP X110** multiviewers relay health-related status information via a new MIB module. The new module, `basebrd7_v5.mib`, replaces both of the earlier `basebrd5_v1.mib` and `basebrd5_v2.mib` MIBs.

Kaleido-MX and Kaleido-Modular-X may require new assignments
As of Kaleido Software version 7.51, URS time code information appears under the SYSTEM module, in a Kaleido-MX or Kaleido-Modular-X system. You may need to reassign text, alarm, and time code levels, in the sources table, after you upgraded from version 7.50 or earlier.

You may need to upgrade the Kaleido Software, on a Kaleido-MX or Kaleido-Modular-X multiviewer, BEFORE upgrading the Densité controller's CPU-ETH2 firmware to version 2.2.0 (or higher)
Kaleido-MX and Kaleido-Modular-X multiviewers, with a version of the Kaleido Software *earlier than 7.20* are not compatible with CPU-ETH2 version 2.2.0 (and later). Using these multiviewers with a Densité controller that has *version 2.2.0 or higher* of the CPU-ETH2 firmware may result in an inoperative multiviewer system, in which case you might need assistance from Grass Valley Technical Support.

Kaleido-MX and Kaleido-Modular-X may require a controller upgrade
To fully benefit from the auto recovery features introduced in Kaleido Software version 7.20, Kaleido-MX and Kaleido-Modular-X multiviewers require a controller with at least version 2.2.0 of the CPU-ETH2 firmware, and a 4 GB CompactFlash storage card. (With version 2.1.2 of the CPU-ETH2 firmware, or with less than 4 GB CompactFlash storage capacity, only IP address information, and frame configuration are recovered from the Densité CPU-ETH2 controller non-volatile memory.)

KMV-3901/3911, Kaleido-MX, and Kaleido-Modular-X require new restore points saved AFTER controller upgrade
After you have upgraded the CPU-ETH2 firmware *from version 2.1.2 (or earlier)* to version 2.2.0 (or higher), you must save restore points to the CPU-ETH2 controller's non-volatile memory, for all your multiviewer cards (see the multiviewer's *Installation & Service Manual*). Refer to the Densité CPU-ETH2 Release Notes for more information.

IMPORTANT *(continued)*

Alarm debouncing may need to be recalibrated
Before upgrading from version 6.50 (or earlier) to version 6.60 (or higher) of the Kaleido-X software, make sure to review your system's alarm debouncing calibrations, some of which you may have to modify if you want to maintain the same behavior.

Kaleido-X16 and KXO-Dual3 compatibility
As of version 5.22 of the Kaleido-X software, all new Kaleido-X16 multiviewers and KXO-Dual3 output cards have new hardware components not compatible with earlier versions of the software.

• Kaleido-X or Kaleido-X16 multiviewers shipped with version 5.22 (or higher) of the Kaleido-X software cannot be downgraded to a version earlier than 5.22.

• This also applies to new KXO-Dual3 output cards shipped with version 5.22 (or higher), and might, in some cases, apply to older output cards and Kaleido-X16 multiviewers, should they be refurbished or repaired.

Kaleido-X systems may require a RAM upgrade
As of version 5.00, the Kaleido-X software can be installed on all Kaleido-X multiviewers that have recent KXO-Dual3 output cards. To ensure optimal performance of the software, it is required to have all KXO-Dual output cards configured with a 2-GB RAM module. See the *Kaleido-X Installation & Service Manual* to identify an output card with 1 GB of RAM and for the upgrade procedure.

The "Internal router" logical router is not supported anymore
As of version 5.20 of the Kaleido-X software, configurations that involve controlling a multiviewer's router outputs via the *Internal router* logical router are not supported anymore. See Ref. #KX-4751 on for more information.

Known Issues and Limitations

> **Note:** The star (★) symbol indicates a new known issue or limitation found in Kaleido-X version 9.00.

Installation, Upgrade, Downgrade, Live Update

All Multiviewer Models

- [Ref. #KX-4520] **Cluster and cascade systems:** all members of a cascade or cluster must use the same Kaleido Software version.

    > **Note:** Although some Kaleido Software version combinations may prove to be compatible in the context of a cluster or cascade system, this is not supported.
    > If you upgrade any cluster or cascade member from Kaleido Software version 6.30 or earlier *to version 6.40 or higher* make sure you upgrade all members to the same version. Failure to do so may result in erratic mouse pointer behavior on the monitor wall.
    > For cluster systems, Kaleido Software versions 6.50 introduce a hard compatibility break with previous Kaleido Software versions.
    > Cluster backups you create with version 6.50 (or higher), cannot be restored by using an earlier version of XEdit. Grass Valley recommends you make a backup of the individual databases for every cluster member, *before upgrading* from a pre-6.50 version, to version 6.50 (or higher) respectively.

- [Ref. #KX-12431] If the IP address of one cluster member is changed then all cluster members must be restarted.

- [Ref. #KX-3607] if you try upgrading a KMV-3901/3911 multiviewer by using an operating system (`.os`) file meant for a Kaleido-X multiviewer model (or vice versa), then nothing happens, and no message appears at the bottom left corner of the monitor wall in the area where upgrade progress would normally be displayed. Likewise, attempting to upgrade a Kaleido-IP multiviewer by using files meant for the other multiviewer models (or vice versa) will result in the same behavior.
Workaround: Verify that you loaded your USB key with the correct operating system file (of the form "`kxos-9.00-build_xxxx.os`" for a Kaleido-X multiviewer, "`kmvos-9.00-build_xxxx.os`" for a KMV-3901/3911, or a `.run` file for a Kaleido-IP), and then insert the USB key again.

- [Ref. #KX-1528] When performing a system upgrade from a USB key, there is a 30-second countdown period during which you may expect that removing the USB key will cancel the upgrade. However, if you do so, the system will still report that it is updating the software, but the upgrade will fail after a minute or so.
Workaround: Insert the USB key again to properly update your system.

- [Ref. #KX-2850] **Changing monitors during upgrade causes dashboard display issues:** changing a monitor type during an update causes the upgrade dashboard to freeze, and to be hidden or displaced. If a KMV-3901/3911, a Kaleido-X16 or either head on a KXO card is set to **Use detected monitor resolution**, and, if you change the monitor connected to it while an upgrade is in progress, the dashboard may freeze, and have its position altered. If the new resolution is higher, the dashboard is repositioned on top of other monitor wall elements. If the new resolution is lower, the dashboard is hidden off-screen. Note that the upgrade process continues normally.
  Workaround: Restart the multiviewer or reset the KXO card after the upgrade is complete.

Kaleido-IP

- [Ref. #KX-12440] **Kaleido-IP streaming audio monitoring loss:** after several hours of mosaic viewing using VLC, audio program monitoring becomes silent.
  Workaround: in VLC, click *Stop* and then *Play* to restart audio program monitoring.

- [Ref. #KX-11858] **Kaleido-IP excessive pixelization with H.264 stream:** H.264 streams encoded using picture-adaptive frame-field and with very long sequences between I-frames can show excessive pixelization.

- [Ref. #KX-11815] **Restoring a pre-8.50 database might change the output scan format**: in a backup database made with a Kaleido-X software version earlier than V8.50, room displays are likely to have their *scan format* property set to interlaced by default. For a Kaleido-IP multiviewer using software versions prior to V8.50, the *scan format* property was ignored, which is now no longer the case. Restoring such a pre-8.50 database to a Kaleido-IP currently configured to output in 1080p might change the output format to 1080i instead. *Workaround*: in XEdit, set the monitoring output scan format back to progressive. Refer to *Configuring the SDI Monitoring Output Format*, in the Kaleido-X User's Manual, for more information.

- [Ref. #KX-7805] **Kaleido-IP X310, Kaleido-IP X110:** should you downgrade a Kaleido-IP X310, or Kaleido-IP X110 multiviewer, to a version of the Kaleido Software earlier than 7.30, this will result in a non-functional system, with the monitor wall not starting.
  Workaround: To recover from an unwanted downgrade, use XAdmin's Upgrade page to upgrade your multiviewer back to Kaleido Software version 7.30 or higher.

- [Ref. #KX-5579] **Upgrade button missing after uploading RUN file to a Kaleido-IP with a pre-6.20 version of the Kaleido Software:** in the case of Kaleido-IP systems with a Kaleido Software version earlier than 6.20, on rare occasions, after uploading the RUN package you want to install, the **Upgrade** button may be missing on the XAdmin's Upgrade page.
  Workaround: Clear your browser's cache and cookies before uploading the RUN package again. If this still does not resolve the issue, then using a different browser may help. See also: Ref. #KX-5433 on page 38.

- [Ref. #KX-5871] **Upgrade apparently incomplete:** when upgrading your Kaleido-IP system to Kaleido Software version 6.20 or higher, *from a version earlier than 6.20,* the **Reboot** button may fail to appear on the XAdmin's Upgrade page, at the end of the upgrade.
  Workaround: Restart the multiviewer by clicking the Reset button in the Status and Options page, and then refresh the Upgrade page.

Kaleido-MX, Kaleido-MX 4K, Kaleido-Modular-X

- [Ref. #KX-6676] **Video freeze during update:** when updating the Kaleido Software on a Kaleido-MX, Kaleido-MX 4K or Kaleido-Modular-X multiviewer, probing may momentarily stop, video may appear frozen on the monitor wall, while the dashboard reports that Head 1, and Head 2 are disconnected.

- [Ref. #KX-8449] **Input card live update:** in a Kaleido-MX, or Kaleido-Modular-X system that has a version of the Kaleido Software earlier than 7.40, if you replace an input card with a card that has *version 7.40,* the system will not automatically downgrade the new card.
  Workaround: Prepare a USB key with the Kaleido Software version you want to keep using, and reapply the upgrade. Refer to the upgrade instructions in the Release Notes that were published with this earlier version of the software.

- [Ref. #KX-8389] **Output card live update:** in a Kaleido-MX, or Kaleido-Modular-X system that has a version of the Kaleido Software earlier than 7.40, if you replace an output card with a card that shipped with version 7.40 (or higher), initially or after repairs, the system may not automatically downgrade the new card.
  Workaround: Upgrade the system to version 7.40 or higher.

  > **Note:** KMX-3901-OUT cards with the latest hardware are not compatible with versions of the Kaleido Software earlier than 7.40.

- [Ref. #KX-7281] **Input card live update:** in a Kaleido-MX or Kaleido-Modular-X system, replacing an input card that has the Kaleido Software version 7.01 (or earlier) with a card that has version 7.10 or higher results in the system failing to automatically downgrade the new card.
  Workaround: Upgrade the system to version 7.10 or higher, and then downgrade to the desired Kaleido Software version.

KMV-3901/3911

- [Ref. #KX-4384/KX-4509] **Altered video on monitor wall after upgrade:** after upgrading a KMV-3901/3911 multiviewer, video windows on the monitor wall may appear to be corrupted or lacking luminance.
  Workaround: Restart the multiviewer *once more.*

- [Ref. #KX-3490] **Monitor resolution unknown after upgrade:** after upgrading a KMV-3901/3911 multiviewer, with the **Use detected monitor resolution** option selected, it may happen that the monitor resolution is nevertheless not detected.
  Workaround: Reseat the KMV-3901/3911 card. Alternatively, if a DXF-200 is connected to the monitor, you can reset this device instead of reseating the multiviewer card.

Kaleido-X16

- [Ref. #X16-41] On rare occasions, after updating the Kaleido Software on a Kaleido-X16, the USB and serial ports may become inoperative.
  Workaround: Restart the Kaleido-X16 using its power switch.
- [Version 4.10] USB update takes up to 30 minutes on a Kaleido-X16.

Kaleido-X (4RU, 7RU, 14RU)

- [Ref. #KX-11565] The KXO-DUAL3-B and the KXO-HDM-B SDI output option cards are updated versions of the KXO-DUAL-3F and the KXO-HDM cards. The new cards are functionally equivalent; however, the new cards will only work on systems that are running Kaleido-X V8.00 or higher. A KXO-DUAL3-B card cannot be used together with a KXO-HDM card. Likewise, KXO-HDM-B card cannot be used together with a KXO-DUAL-3F card.
- [Ref. #KX-4227] Video activity on the monitor wall while a multiviewer equipped with KXO-HDM modules is being upgraded to version 5.30 (or higher), *from a version of the Kaleido Software earlier than 5.30,* may cause a permanent loss of functionality to some of the HD-SDI outputs. Precautions must be taken before upgrading such a system.
- [Ref. #KX-2732] A firmware update performed on an input card that has HD video signals on all its input ports may fail, resulting in the input card entering safe mode.
  Workaround: To recover from the update failure, power cycle the multiviewer. After the reboot, the system will start with the updated Kaleido Software version, and the auto-update process will then proceed with applying the latest firmware to any input card whose update had initially failed.
- [Ref. #KX-1739] USB Live Update takes about 20 minutes.
- [Ref. #KX-1439] If a firmware update begins upon insertion of an input card, inserting a second input card, or making a change to another card via XEdit, will cause the update to fail. The input card on which the update failed will enter safe mode.
- [Ref. #KX-953] After a Live Update using a USB key, displays associated with the output card where the USB key is inserted may turn black.
  Workaround: After the Live Update is complete, remove the USB key before the output card reboots.
- [Ref. #KX-2216] **Expansion systems:** if you downgrade a Kaleido-X (14RU) expansion system from version 3.00 (or higher) to version 2.20 without first splitting the frames as described in the documentation, neither frame will reboot properly or be accessible via XAdmin. For more information, refer to *Splitting an Expansion Frame*, and *Recovering from a failed downgrade,* in the Kaleido-X (7RU) Hardware Description & Installation Manual.
- [Ref. #K3-195] **Version-2.00 upgrades:** when upgrading from version 2.00 to version 2.10 or higher, the GPI/Genlock or KXO-24Router firmware upgrade may fail. When the multiviewer restarts, the Live Update process will automatically try to update the failed cards.

System

Kaleido-IP

- [Ref. #KX-5938] **Support for dynamic H.264 video format changes:** with the current version of the Kaleido-X software, it may take up to 1.5 s for the video decoding to resync during which time the video appears frozen on the monitor wall.

- [Ref. #KX-6066] **EdgeVision compatibility:** if you set the *high resolution* stream's encoder level to **Medium** in EdgeVision Configurator, the output stream resulting from a a 720p input signal to the EdgeVision is currently not compatible with the Kaleido-IP, and may result in noise (e.g., vertical lines, or stray dots) on the monitor wall.
  Workaround: In Edgevision Configurator, select a different encoder level for the high resolution stream.

- [Ref. #EV-855] **EdgeVision compatibility:** in the case of a Kaleido-IP multiviewer system with sources from an EdgeVision device, the Kaleido-IP must have version 6.40 (or higher) of the Kaleido Software, and the EdgeVision must have version 1.05 (or higher) of the EdgeVision software.

- [Ref. #KX-10338] **Renaming transport streams:** renaming a transport stream may result in blank text labels or disabled/non-existent alarm statuses on the monitor wall.
  Workaround: Restart the Kaleido-IP unit after changing a transport stream's name.

- [Ref. #KX-5357] **Kaleido-IP support for join and leave:** before creating or modifying a layout, for a Kaleido-IP system, review the guidelines shown in the Kaleido-IP Installation & Service Manual under *Networking Essentials*, "Kaleido-IP support for multicast join and leave".

Kaleido-IP Limitations

Kaleido-IP systems do not yet support the following:

- decoding of SMPTE ST 302 PCM audio
- audio sampling rate change without a PSI change (see Ref. #KX-5808 on page 32)
- decoding of a signal's aspect ratio from WSS metadata
- automatic output resolution detection (see Ref. #KX-5748 on page 25)
- cropping, and zooming (underscan/overscan)
- spanned monitors

KMX-49N1

- ★ [Ref. #PMV-3407] **KMX-49N1's "B" card is not detected by iControl:** Occasionally when booting a KMX-49N1 system, the "B" card is not detected by iControl.
  Workaround: Restart the Densité Manager. See the iControl manual for the procedure to do this. Alternatively, reboot the card by using XAdmin will also solve the problem.

- [Ref. #PMV-3403] **KMX-49N1 Densité service won't start when any of the following packages are installed:** IFM-2T v2.1.1, XIO-4901 v2.1.1, IPG-3901 v1.3.6 or IPG-3901 v2.2.0.

- [Ref. PMV-2935] **Dual reference mode is not supported:** The multiviewer output may become unstable when the REF-ETH3 is set to dual reference mode and the frame is connected to both 59 & 50 Hz references.
  Workaround: In the frame controller's local menu, set the reference input to either *reference-1* or *reference-2*.

- [Ref. #PMV-2417] **KMX-49N1 alarm contributions:** with the current version of the Kaleido Software, it is not possible to configure alarm contributions for the status LED on *card C,* or *card D* of a KMX-49N1 system that has three or four cards. Any changes to the default card LED alarm contribution configuration for these cards are ignored.

- [Ref. #PMV-2061] **KMX-4911-18X4-4DRP rev. 100:** with *revision 100* of the KMX-4911 18×4 dual rear panel, the mapping between the multiviewer's logical sources and the GV Node fabric module's outputs is discontinuous. For example, with a 18×4 rev. 100 rear covering a GV Node frame's slots 9 and 10, card A is in slot 10 (associated with the fabric module's outputs 82–90), and card B is in slot 9 (associated with the fabric module's outputs 73–81).

  > **Note:** With revision 200 (and later) of the 18×4 rear panel, the card in the leftmost slot (the slot with the lowest number) is considered *card A,* while the next card on the right is *card B,* which results in the more natural mapping sequence.

KMX-49N1 Limitations

The KMX-49N1 multiviewer supports a subset of the features offered by other Kaleido series models. The KMX-49N1 currently does not support the following Kaleido Software features:

- Sending alarms via SNMP
- Layout, and video display:
  - Duplicated/repeated video
  - Overlapping video monitors
  - Cropping, and zooming (underscan/overscan)
  - Automatic aspect ratio adjustment based on decoded AFD/WSS information
  - Video monitors larger than 1920×1080 pixels
  - Custom display resolutions

Kaleido-MX, Kaleido-MX 4K, Kaleido-Modular-X

- [Ref. #IC-17634/KX-7836] **Densité CPU-ETH2 service panel in iControl version 5.00:** the service panel available with iControl version 5.00 for the Densité CPU-ETH2 controller card may fail to report network configuration information. This problem applies to controller cards in Kaleido-MX (1RU) multiviewer systems, and in Densité 3+ FR1 housing frames. Contact Grass Valley Technical Support for more information (see Grass Valley Technical Support, on page 48).
  Workaround: Use the controller card's local control panel, or the Densité CPU-ETH2 Web client.

- [Ref. #KX-7949] **KMX-3901-OUT control panel in iControl version 6.00:** the control panel available with *iControl version 6.00* for the Kaleido-MX and Kaleido-Modular-X output cards may prevent you from changing the card's or the system's network settings. *Workaround:* Use the local control panel in the Densité housing frame, or XAdmin's System Configuration page.

- [Ref. #KX-7405] **KMX-3901-IN control panel in iControl:** the services currently available with iControl do not yet recognize the 4K UHD prescaler mode. When the input card control panel reports a KMX-3901-IN-16-Q card type, there are no indications as to whether the prescaler mode is enabled or not. *Workaround:* Verify the SDI LEDs status, on the card itself. On a card configured as a prescaler, SDI LEDs 3, 4, 7, 8, 11, 12, 15, and 16 are always off.

- [Ref. #KX-6814] **Probing:** in the case of a Kaleido-MX or Kaleido-Modular-X system with *two output cards,* when you remove or restart one of the cards, the other stops probing for one second.

- **Phase locking:** the Kaleido-MX and Kaleido-Modular-X multiviewers' SDI outputs are not aligned with the reference.

Kaleido-MX, Kaleido-MX 4K, Kaleido-Modular-X Limitations

The Kaleido-MX, Kaleido-MX 4K, and Kaleido-Modular-X do not support the following Kaleido-X features:

- [Ref. #KX-7937] Removing more than one input card at a time from a system in operation.
- [Ref. #KX-6692] Loudness measurement
- Layout, and video display:
    - Overlapping video windows
    - Brightness/contrast/color saturation calibrations
- Other input/output signals:
    - DVI background inputs
    - Composite inputs
    - [Ref. #KX-6722] Stereoscopic 3D input formats
    - AES audio monitoring output (the WECO connector on the KMX-3901-OUT rear panel only supports analog audio)
    - The *Kaleido-MX (1RU) 16 x 4,* and the *Kaleido-MX 4K (1RU) 16 × 1* do not have analog audio outputs (they offer audio monitoring through their SDI, and HDMI outputs only)
    - Router outputs

KMV-3901/3911

- [Ref. #KX-6475] **KMV-3901/3911 timers:** in the case of a KMV-3901/3911 multiviewer, using an LTC count down time code as the reference for a count up timer is not yet supported.

- [Ref. #KX-4314] **KMV-3911 HD-SDI output activation:** in the case of a KMV-3911 multiviewer, after enabling the *SDI monitoring output* option in XAdmin, you may need to power cycle the multiviewer for the change to be effective.

- [Ref. #KX-3520] **KMV-3901/3911 networking setup:** if the Densité CPU-ETH2 controller associated with a KMV-3901/3911 multiviewer is configured to apply settings stored in its non-volatile memory whenever a Densité card is inserted or restarted, then it may not be possible to change the multiviewer's IP address and other networking parameters.
  Workaround: Before changing the multiviewer's networking parameters, make sure the Densité controller's *default action* is set to *keep card settings*. See the multiviewer's *Installation & Service Manual,* "Disabling the CPU-ETH2 Automatic Restore Feature".

- [Ref. #KX-3678] **KMV-3901/3911 auto-recovery not fully supported:** if you replace a KMV-3901 or KMV-3911 card with a new one (in the same Densité frame slot), the new card receives appropriate network settings from the Densité controller, but the multiviewer's database is not automatically restored.
  Workaround: Manually restore the database, either

  - by using XEdit to export a local copy of the database from your PC or laptop to the new card, or

  - by physically transferring the SD memory card from the old multiviewer card to the replacement card.

  > **Note:** The Densité controller cards do not yet have enough non-volatile memory to support full database backups from multiviewer cards.

KMV-3901/3911 Limitations

Designed to address production-type applications, the KMV-3901/3911 multiviewer models support a subset of the features offered by the other Kaleido-X series models, and thus may be lacking some of the advanced monitoring capabilities typical of master control, and playout environments. The following Kaleido-X features are *not supported* in the KMV-3901/3911:

- Alarm probing, and metadata extraction:
  - Detection of video freeze, black, luma too high conditions
  - Detection or extraction of closed captions, teletext or subtitles
  - Extraction of Dolby E metadata
  - Loudness measurement
  - Extraction of XDS metadata
- Layout, and video display:
  - More than eight video windows over two displays; duplicating video more than eight times
  - Overlapping video windows
  - Video signal repeated in more than 2 windows
  - Display rotation
  - HD-SDI monitoring output
  - Brightness/contrast/color saturation calibrations
  - Detail enhancer calibration

- Other input/output signals:
    - Discrete audio inputs (only embedded audio inputs are supported)
    - Router outputs
    - DVI background inputs
    - Composite inputs
- Graphical display elements:
    - Analog clocks (only digital clocks are supported)

Kaleido-X16

- [Ref. #KX-4459] **EdgeVision compatibility:** a Kaleido-X16 multiviewer configured to feed its HDMI output to an EdgeVision device must have version 5.30 (or higher) of the Kaleido Software.

- [Ref. #KX-3861] **Kaleido-X16 with two serial devices:** if there are two serial devices connected to a Kaleido-X16 multiviewer, and configured in XEdit, then swapping their port assignments may result in a nonfunctional system.
  Workaround: If you need to reconfigure the serial port assignments for two devices in XEdit, first disconnect both devices from the multiviewer as follows:

    1 In the **Interconnects** tab, click the link between the device and the multiviewer, and then, in the **Properties** pane, set the **RS-422 communication port** attribute to "Disconnected".

    2 Save the system.

      If you are using XEdit in offline mode, then export the database to the multiviewer.

    3 Set the new port assignment for each device, and then save the system again.

      If you are using XEdit in offline mode, then export the database to the multiviewer once more.

Kaleido-X (4RU, 7RU, 14RU)

- [Ref. #KX-2597] **Kaleido-X (14RU):** after changing the frame rate for an expansion system, it may happen that the GPI/Genlock card status information displayed in XAdmin does not reflect the new frame rate.
  Workaround: Reset the GPI/Genlock card (either by pressing the Reset button on the front of the card, or by clicking the **Reset** button at the end of the card heading row in XAdmin's Status and Options page). If there is no valid reference signal connected to the GPI/Genlock card input, then you may need to physically reseat the card.

- [Ref. #K3-234] **Kaleido-X (14RU):** if an expansion card is removed from, and then reinserted into Frame A, video output from a KXO card on Frame A may become corrupted if that KXO card is being fed by inputs from Frame B.
  Workaround: Press the reset button on the Frame A expansion card.

- [Ref. #KX-2127] **Kaleido-X (14RU):** on rare occasions, after an expansion card is inserted into a Kaleido-X frame, Dolby E audio embedded in a video signal is lost when routed to a monitoring output.
  Workaround: If the audio monitoring out for Dolby E stops working after inserting an expansion card, reseat both the associated input, and output cards. The audio should be restored.

- [Ref. #KX-2242] **Kaleido-X (14RU):** if the expansion card in Frame A is removed, an upgrade message appears in the dashboard: "Firmware upgrade cannot proceed until legacy KXO (<3.00) are removed from frame B".
  Workaround: Before removing an expansion card, power down the frame. Note that removing an expansion card will affect the behavior of the expansion system. Refer to the *Kaleido-X (7RU) Expansion* chapter in the Kaleido-X (7RU) Hardware Description & Installation Manual, for more information.

Multiple Multiviewer Models

- [Ref. #KX-3492] **Kaleido-MX, Kaleido-MX 4K, Kaleido-Modular-X, Kaleido-XQUAD, KMV-3901/3911 time reference:** the *URS time code loss* alarm (called *URS TC loss* in XEdit, and *URS TC - Time code loss* in XAdmin) reports an error condition only when the URS signal is absent. If the REF-1801 card is otherwise properly configured, then the absence of a time code source is not reported as an error.

- [Ref. #KX-6403] **Kaleido-MX, Kaleido-MX 4K, Kaleido-Modular-X, Kaleido-XQUAD, KMV-3901/3911 and Densité CPU-ETH2 date/time configuration:** a Densité CPU-ETH2 controller with an incorrect date may prevent multiviewer cards located in the same housing frame as the controller card from rotating their log files, which could result in the multiviewer systems becoming unstable, and eventually locking up.
  Workaround: Make sure the controller's internal clock is correctly set. Refer to the Densité CPU-ETH2 Enhanced Ethernet Controller Card Guide to Installation and Operation for details.

  > **Note:** Should you need to change the time on a Densité CPU-ETH2 controller, then make sure to restart all multiviewers located in the same housing frame as the controller card.

- [Ref. #KX-4275] **Kaleido-X, Kaleido-X16:** if your multiviewer is configured for half-duplex communication, and you want to set it back to auto-negotiation mode, you may need to power cycle the multiviewer, for the change to be effective.

- [Ref. #KX-4927] **NV9000 aliases:** the Kaleido-X software does not officially support aliases. If you want to include aliases from an NV9000 router configuration within your multiviewer configuration, contact Technical Support (see Grass Valley Technical Support, on page 48).

- [Ref. #KX-3900] **Swapping port assignments:** swapping the port assignments between two tally devices connected to a multiviewer over a TCP/IP or UDP/IP network, and configured in XEdit, may result in a nonfunctional system.
  Workaround: If you need to interchange the network port assignments between two devices in XEdit, first disconnect both devices from the multiviewer as follows:
  1. In the **Interconnects** tab, click the link between the device and the multiviewer, and then, in the **Properties** pane, set the **Transport type** attribute to "Disconnected".
  2. Save the system.
     If you are using XEdit in offline mode, then export the database to the multiviewer.
  3. Set the new port assignment for each device.
  4. Set the **Transport type** attribute back to the appropriate value.
  5. Save the system again.

If you are using XEdit in offline mode, then export the database to the multiviewer once more.

- [Ref. #X16-43] **EDID auto detection**: with EDID auto detection enabled, if a glitch occurs in the connection between a multiviewer and one of its monitor-wall displays, the display timings may be reset to incorrect values. The display image is compromised (e.g., green dots, misaligned graphics and/or video, or loss of display). This might happen, for example, after a power-up or a system reboot, during which an anomaly in the EDID detection would change the head resolution. It could also be triggered by the swap of a DXF-100 storing the wrong EDID information.
  Workaround: Reset the head resolution or reboot the system to have the proper resolution applied.

- [Ref. #KX-3109] **Clusters:** all members of a cluster must use the same Kaleido Software version.

- [Ref. #KX-2564] **Clusters:** after a multiviewer is removed from a cluster system, and reverted to a standalone system by reloading its individual database, errors or warnings may be recorded in `vroom.log`.
  Workaround: Make sure to restart any separated multiviewer once you have loaded it with the appropriate standalone database.

- [Ref. #KX-2213/T80883] Changing an input format may momentarily affect the entire screen.

- [Ref. #KX-2916] **HD-SDI monitoring output resolutions:** the current version of the Kaleido Software supports the following DVI/RGBHV resolutions only: 1920×1080 (for an HD-SDI output in the 1080i or 1080p format, configurable in XEdit), and 1280×720 (for an HD-SDI output in the 720p format). Any other DVI/RGBHV resolution will result in the HD-SDI output being disabled (you may see a color bar in some circumstances).

> **Note:** Make sure that the **Use detected monitor resolution** option is disabled. Refer to *Enabling EDID Auto-Detection from the Monitor Wall,* or *Enabling EDID Auto-Detection in XEdit,* in the Kaleido Software User's Manual, for details.

Hardware

- [Ref. #KX-3829] **Input cards:** it is possible to use legacy KXI-16HSV, KXI-16HS or KXI-16SV input cards with the latest KXI-16H3-R rear panels. However, in such a case, the return loss specification for the SDTI input is: > 15 dB up to 200 MHz, and > 12.5 dB up to 270 MHz.

- **KMV-3901/3911 does not support USB hubs:** only one USB device (USB key or mouse) can be connected at a time. If an externally powered USB hub is connected to the KMV-3901/3911, then a mouse connected to the hub will not work.

- [Ref. #KX-2463] **Kaleido-RCP2 does not support USB hubs:** if an externally powered USB hub is connected to the Kaleido-RCP2, then a mouse connected to the hub will not work. Similarly, multi-function keyboards or numeric keypads that have a built-in USB hub also do not work when connected to the Kaleido-RCP2.
  Workaround: Use a standard keyboard or keypad, and connect it to the Kaleido-RCP2 directly.

- [Ref. #MEDIT-990] **Kaleido-X (4RU) / Kaleido-X (7RU):** interconnect configurations are lost when you change frame type.

  > **Note:** Support for the Kaleido-X (4RU) was introduced with Kaleido Software version 2.10. Only cards of this version or later should be used in a 4 RU frame.

- [Ref. #KXOD-119] **Ethernet Switch:** when a KXO-Dual card is connected to an HP ProCurve 408 Ethernet switch, the switch may not recognize the output card.
  Workaround: Forcing the output card's link mode to 100 Mbps full duplex may help.

- [Ref. #KX-2367] **Redundancy:** the KXO and KXI cards in a Kaleido-X multiviewer have built-in redundancy that works like a RAID 3 or 5 disk array—when a faulty card is removed, the other cards automatically rebuild the software on its replacement. In order for this to work properly, when a faulty card must be replaced, the system must be allowed time to rebuild the software from the other cards present in the frame. Swapping cards around indiscriminately, without any consideration for keeping a master card in the system, or not waiting long enough for cards to have booted completely before swapping them, can lead to serious problems.
  Workaround: (1) Remove all KXO and KXI cards. (2) Insert a card that has the most recent software version. (3) Insert the remaining KXO cards one by one, allowing time for the software rebuild and a complete reboot. (4) Insert the KXI cards one by one, allowing time for the software rebuild and a complete reboot. See System Requirements on page 45, for more information.

- [Ref. #KX-2561] Restarting an expansion system with an expansion card missing or a disconnected expansion cable is not supported. If you reseat missing expansion cards or reconnect expansion cables, an IP address conflict will be reported.
  Workaround: Restart the expansion system after reseating any missing expansion card and making sure both expansion cables are connected.

  > **Note:** If you wished to convert your expansion system to two separate Kaleido-X (7RU) systems, refer to *Splitting an Expansion Frame* in the Kaleido-X (7RU) Hardware Description & Installation Manual.

- [Ref. #KX-1981/KXOD-142] **Audio monitoring:** audio playback is ~37 ms ahead of video, due to an inherent processing limitation.
  Workaround: It is possible to compensate for this delay using the audio monitoring delay calibration introduced in version 3.00.

- [Ref. #KX-2894] **Non-functional connection on Audio I/O TBA for the Kaleido-X16:** the PC In analog audio ports on the Kaleido-X16's Audio I/O terminal block adapter (TBA) are not functional in the current release of the Kaleido Software.

- **Non-functional connections on Kaleido-X16:** OPTION, PC In 1 Left, PC In 1 Right, PC In 2 Left, PC In 2 Right.

- **Non-functional connections on KXO-Dual/KXO-Dual3:** OPTION 1, OPTION 2.

- **Non-functional buttons on Kaleido-RCP2:** ALARM INHIBIT, SAVE.

- **Non-functional connections on KXI-DVI-Bridge:** ETH 10/100.

Monitor Wall

- [Ref. #KX-11456] **Kaleido-IP VM:** when upgrading a *virtual* Kaleido-IP system, you may notice video tearing and audio breaking up on the monitor wall.
  Workaround: Make sure your Kaleido-IP VM system is off air, before you start uploading the RUN package.

- [Ref. #KX-10808] **KMV-3901/3911 layout background:** layout background images in a PNG format that includes embedded metadata may fail to appear on the monitor wall.
  Workaround: Remove the metadata from the PNG image file, recreate the image without metadata, or convert the PNG file to another format such as JPEG.

- [Ref. #KX-10528] **Kaleido-IP:** changing the display resolution for *Head 2* of a Kaleido-IP multiviewer may result in frozen video (and audio) on the monitor wall.
  Workaround: Restart the multiviewer.

- [Ref. #KX-5811] **Kaleido-IP:** if you replace a monitor wall display with a different model while the multiviewer is running, you may notice unexpected behavior at the audio monitoring output.
  Workaround: Restart the multiviewer to obtain the audio support information from the new display.

- [Ref. #KX-7912] **Kaleido-IP:** if your Kaleido-IP multiviewer is connected to a single monitor wall display configured with a 50 Hz refresh rate, you may notice video tearing on the display.
  Workaround: Configure a separate room with the second, unused head, and select a default resolution that has a 50 Hz refresh rate.

- [Ref. #KX-8308] **KMV-3901/3911:** when monitoring a 1080p source in a video window larger than 960×540 (i.e., larger than ¼ of the signal resolution), you may notice that the bottom part of the image is shifted horizontally by a few pixels.

- [Ref. #KX-7397] **Virtual alarms:** a virtual alarm created by using XEdit *version 7.21 or earlier* with a name containing characters such as the ampersand (&), slash (/), dollar sign ($), question mark (?), pound sign (#), at sign (@), etc. may appear disabled when used to form a higher-level virtual alarm.
  Workaround: Use XEdit version 7.30 or higher to edit alarms whose name includes characters outside of [a-z], [A-Z], [0-9], period (.), asterisk (*), hyphen (-), underscore (_), percent sign (%), and space. Avoid renaming these alarms (see Ref. #KX-6159, on). Alternatively, recreate these alarms.

- [Ref. #KX-7537] **Audio monitors:** in the case of a source with embedded Dolby E audio in either of the two AES pairs that are selected for Dolby E metadata decoding, while the Dolby E option is not enabled for this source, VU and peak meters may appear *empty* (indicating silence) instead of *full* (0 dBFS), which indicate by convention that the option is not enabled. In addition, if an audio monitor explicitly configured to show PCM levels is assigned a source with embedded Dolby E audio, the monitor's VU and peak meters will appear *empty* (indicating silence) regardless of the actual PCM levels or Dolby E option status.
  Workaround: Setting the monitor's **Audio format** attribute to *Auto,* instead of PCM, may help with the second issue.

- [Ref. #KX-7278] **KMV-3901/3911 cascade:** on rare occasions, after a KMV-3901/3911 cascade system started, some video monitors in the current layout may remain blank.
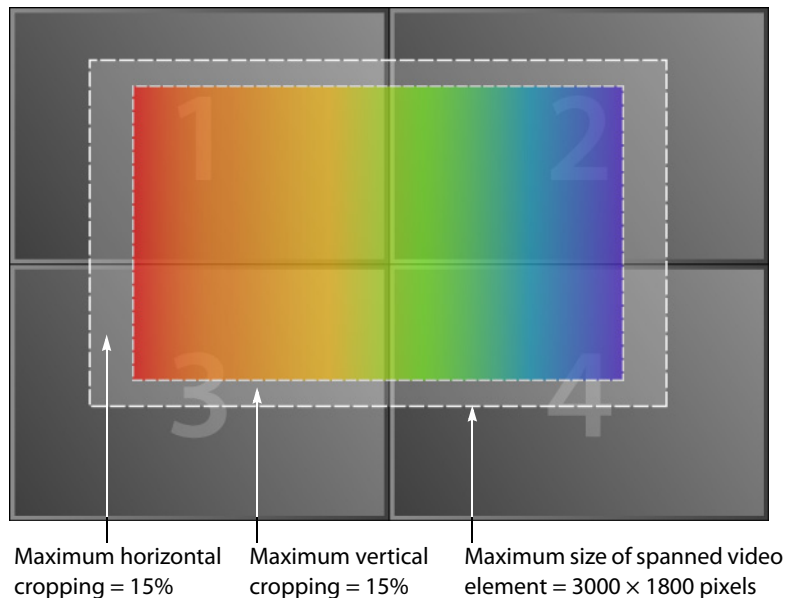 *Workaround:* Refresh the layout.

- [Ref. #KX-6793] **Kaleido-MX, Kaleido-MX 4K, Kaleido-Modular-X:** when loading a layout, or changing a video monitor's source assignment, on the monitor wall or by using a Gateway command, or when an input signal changes format, the corresponding display may exhibit a brief glitch.

- [Ref. #KX-6744] **Display resolutions:** although it is still possible to select and configure output resolutions as low as 800×600 in XEdit (and on the monitor wall, for some multiviewer models), this resolution is not supported. The lowest display resolution supported is 1024×768.

- [Ref. #KX-6974] **Kaleido-X with KXI-16HSV, KXI-16HS, or KXI-16SV (rev. 599 and earlier) input cards:** if a source becomes unavailable (or you switched to a source that does not include audio) while you were monitoring the associated audio, noise may persist at the audio monitoring outputs.
  Workaround: Momentarily enable audio monitoring for a different source.

- [Ref. #KX-6287] **Audio monitors:** although valid calibration values for out of phase sensitivity are between -1 and 1, XEdit lets you set the threshold for an audio monitor's phase meter to a value that is outside of the valid range, after which audio monitors may turn gray or unresponsive on the monitor wall.
  Workaround: To recover from such a situation, set the phase meter threshold back to a valid value (between -1 and 1), and then restart your multiviewer.

- [Ref. #KX-4934/KX-6337] **NV9000 source labels:** in the case of a multiviewer with sources from an upstream NV9000 router configuration, on rare occasions, after restarting the multiviewer, UMDs may fail to show the expected source labels on the monitor wall.
  Workaround: Refresh the layout on the monitor wall. If router source labels are still missing after refreshing the layout, then restart the multiviewer.

- [Ref. #KX-4907] **Polish teletext:** Kaleido-X multiviewers with first-generation input cards (KXI-16HSV, KXI-16HS, or KXI-16SV rev. 599 and earlier) may incorrectly display accented characters in Polish WST teletext, on the monitor wall.

- [Ref. #KX-5861] **Multi-program transport streams and Kaleido-IP:** Kaleido-IP that shipped with a version of the Kaleido-X software *earlier than 6.30* may incorrectly process multi-program transport stream (MPTS) sources where programs are added or removed dynamically (e.g., when re-grooming or channel-lineup changes take place). In such cases, it may happen that video and audio programs are shifted in the Kaleido-IP sources table, resulting in incorrect video and audio on the monitor wall. If you experience this problem after upgrading your system to version 6.30 or higher, contact Technical Support for a solution (see Grass Valley Technical Support, on page 48).

- [Ref. #KX-1054] **Closed captions:** closed captions may be fail to appear or they may be only partially visible, when a monitor — be it configured with transparency — overlaps the area where the captions are expected to be displayed.

- [Ref. #KX-4736] **Router crosspoint actions:** a monitor wall action configured to switch router crosspoints upon loading a specific layout may fail to produce the expected crosspoint changes when that layout happens to be loaded during the multiviewer startup process.
  Workaround: Refresh the layout.

- [Ref. #KX-4722] **Distorted monitors:** a system configuration that has displays in different rooms sharing conflicting head assignments may result in distorted layout elements on the monitor wall. This may happen, for example, if the same output head is assigned to two displays with different resolutions.
  Workaround: Review your room configurations in XEdit, look for red *Head* elements in the filtered System list that appears at the bottom of the **Tools** pane, and then remove the conflicting display or delete the conflicting room altogether (refer to *Managing Rooms* in the Kaleido-X User's Manual).

- [Ref. #KX-6008] **Kaleido-IP:** in the case of a Kaleido-IP system that has sources from an EdgeVision device, changing a stream's resolution at the EdgeVision output may result in UMDs failing to display text information decoded from the stream (e.g., the video format), on the monitor wall.
  Workaround: Restart the Kaleido-IP multiviewer.

- [Ref. #KX-6066] **EdgeVision compatibility:** if you set the *high resolution* stream's encoder level to **Medium** in EdgeVision Configurator, the output stream resulting from a a 720p input signal to the EdgeVision is currently not compatible with the Kaleido-IP, and may result in noise (e.g., vertical lines, or stray dots) on the monitor wall.
  Workaround: In EdgeVision Configurator, select a different encoder level for the high resolution stream.

- [Ref. #KX-6068] **Kaleido-IP:** when the Kaleido-IP is decoding streams that are subject to sustained corruption, it may happen that the decoding engine restarts causing all video windows on the monitor wall to momentarily freeze or black.

- [Ref. #KX-4192] **Expansion systems:** after inserting or removing an input card, you may notice video jitter on every monitor wall display that is connected to an output card's Head 2.
  Workaround: Refresh the layout on the monitor wall.

- [Ref. #KX-5744] **Incorrect assignments:** due to a limitation in XEdit's support for drag-and-drop operations (see Ref. #KX-5744 on), when you first load a new layout on the monitor wall, you may notice that a monitor's source or destination assignment is incorrect.
  Workaround: Open the layout in XEdit, click the corresponding monitor, verify the **Source** and **Monitor wall destination** attributes indicated in the **Properties** pane, and correct them as needed.

- [Ref. #KX-2493] **Glitch after changing assignment:** if two monitors of approximately the same size are displaying the same source on the same head, changing one monitor's assignment may cause glitches in the other.

- [Ref. #KX-5748] **Kaleido-IP output resolution:** in the case of a Kaleido-IP multiviewer, the value indicated for **Detected monitor resolution** in the **Display Resolution** window is always "unknown" since the Kaleido-IP does not yet support automatic resolution detection.

- [Ref. #KX-5865] **Kaleido-IP:** if your Kaleido-IP multiviewer is connected to displays that are configured with different resolutions and refresh rates (e.g., 1280 × 720 @ 50 Hz for Head 1 vs. 1920 × 1080 @ 60 Hz for Head 2), you may notice video tearing on one of the displays.

- [Ref. #KX-5103] **Kaleido-IP:** after losing communication with the data network, it may take up to one minute for all video signals to reappear on the monitor wall, once communication is reestablished.

- [Ref. #KX-5234] **Kaleido-IP:** the Kaleido-IP does not yet support spanned monitors.
- [Ref. #KX-5232/KX-10905] **Kaleido-IP:** the Kaleido-IP does not yet support cropping and zooming (underscan/overscan) modes.
- [Ref. #KX-5110] **Kaleido-IP:** when monitoring a program that belongs to an encrypted stream, the corresponding video window displays a black signal on the monitor wall.
- [Ref. #KX-5188] **Kaleido-IP:** in the case of a Kaleido-IP, the physical input information (**Phy**) on the monitor wall's **Info** menu is not relevant.
- [Ref. #KX-4075] **Kaleido-X, Kaleido-X16 and 3D stereoscopic display option:** the current version of the Kaleido Software does not support detail enhancement for a 3D source. Calibrating detail enhancement for a multiviewer input may result in overly bright 3D signals on the monitor wall.
  Workaround: When you need to monitor 3D signals, make sure the corresponding multiviewer inputs are calibrated with the **Detail Enhancer** parameter set to 0. (This is the default value.)
- [Ref. #KX-4343] **KMV-3901/3911:** when restarting a standalone KMV-3901 or KMV-3911 multiviewer that was set to lock on a URS signal, you may notice a transient glitch on the monitor wall before the graphical elements appear.
- [Ref. #KX-3312] **KMV-3901/3911:** in cases where the two heads from the same KMV-3901/3911 multiviewer are associated with displays in separate rooms, loading a layout in one room may result in the other room's layout being unresponsive for a few seconds.
- [Ref. #KX-3956] **Cascade:** in the case of a cascade system, changing a display resolution from the monitor wall menu is not supported. To maintain the integrity of the underlying cluster configuration, you must use XEdit to configure the display resolution (see *Changing Room Display Resolutions* in the Kaleido-X User's Manual).
  Workaround: In the advent that such a change was made by mistake, you will have to repair the broken cascade, by using XEdit as follows:
  1. Connect to the multiviewer associated with the display whose resolution was changed by mistake, and open the corresponding room.
     - If you want to *restore the previous resolution*, then set this display to its previous resolution.
     - If you want to *apply the new resolution*, then change something in the room to enable the **Save** button (e.g., move a display, and then bring it back to its initial position).
  2. On the **File** menu, click **Save**.
- [Ref. #KX-4063] **KMV-3901/3911 cascade:** upon startup of a KMV-3901/3911 cascade system, video from upstream multiviewers may appear later than video from the card that is connected directly to the monitor wall displays.
- [Ref. #KX-3884] **Kaleido-X multiviewer cards:** after replacing a card in a Kaleido-X multiviewer, with another card that has yet to be updated to version 5.20 of the Kaleido Software, momentary jitter may be observed in some video windows on the monitor wall while the Live Update is in progress. This will only happen when a card is updated from a version earlier than 5.20 to version 5.20 or higher.

- [Ref. #KX-1592] **Sony production switchers:** the Kaleido Software's current implementation of the Sony Serial Tally protocol does not provide the name of the selected source for the Program and Preview outputs, on Sony production switchers. This prevents UMD labels associated with these switcher outputs from being dynamically updated on the monitor wall.

- [Ref. #KX-3944] **Full screen layouts:** if you attempt to load a full screen layout while pointing a tally element from a composite monitor on the monitor wall, then the full screen layout may load without the expected logical source assignments.
  Workaround: When pointing a composite monitor on the monitor wall, make sure the pointer is positioned over the video window area within the composite before loading the full screen layout.

- [Ref. #DVR-60] **KXI-DVI-Bridge**: on some units an unconnected DVI input may be detected as active, in which case the unit would report an unstable DVI input.
  Workaround: Always connect valid signals to both DVI inputs. If only one signal is available, then connect it to DVI-D IN A, and loop DVI-D OUT A back to DVI-D IN B.

- [Ref. #DVR-49] **KXI-DVI-Bridge**: when both DVI inputs are in use, connecting or disconnecting one of the inputs may cause momentary glitches on the other signal path. For example, disconnecting DVI input B would cause glitches on all outputs A (HD-SDI OUT A 1, HD-SDI OUT A 2, and DVI-D OUT A).

- [Ref. #KX-3574] **Monitor wall irresponsive after date/time change:** after changing the date or time on a KMV-3901/3911 multiviewer by using the Densité controller's time management features, the monitor wall may freeze.
  Workaround: Restart the multiviewer.

- [Ref. #KX-3573] **Display resolution and analog clocks:** it is sometimes not possible to change a display's resolution from the monitor wall. This may occur if the current layout includes an analog clock.
  Workaround: If the issue does not resolve itself after a few attempts, then load a layout that does not include analog clocks, before changing the resolution.

- [Ref. #KX-1138] **Send to [router] output menu available while no router outputs are enabled:** in the case of a multiviewer model for which there is no *SDI Router Output* option, or a multiviewer where this option is not enabled, the **Send to [router] output** menu may still be available on the monitor wall. This typically results from having configured an internal router in XEdit.

- [Ref. #KX-3066] **Input method selector not available with KMV-3901/3911:** in the case of a KMV-3901/3911 multiviewer, the current version of the Kaleido Software does not support input methods on the monitor wall. Pressing Alt+Shift+1 on a keyboard connected to the Kaleido-RCP2 does not bring up the input method selector.
  Workaround: In XEdit, open the layout that contains the text you want to modify (e.g., static UMD text), and use the appropriate input method from your client PC or laptop.

- [Ref. #KX-3265] **Blank screen after KMV-3901/3911 restart:** after restarting a KMV-3901/3911 multiviewer, it may happen that a Dell monitor connected to Head 1 remains blank.
  Workaround: Restart the multiviewer again.

- [Ref. #KX-3709] **Blank screen after KMV-3901/3911 restart:** when a KMV-3901/3911 multiviewer is powered down shortly after a layout change on the monitor wall, it may happen that the multiviewer cannot load the layout upon restart. This results in at least one monitor-wall display remaining blank.
  Workaround: If the layout does not appear after three minutes, restart the multiviewer again.

- [Ref. #KX-1100/KX-3175] **Video visible through UI elements:** on rare occasions, video may appear through user interface elements in some windows or on the menu, in which case the window or menu does not have the expected look and feel.
  Workaround: Restart the multiviewer (in the case of a Kaleido-X16 or KMV-3901/3911), or reseat the output card associated with the affected display.

- [Ref. #KX-3530] **Timers:** once you have stopped a timer that was configured in Overrun mode, you cannot start it again.
  Workaround: Reset the timer, and then start it again.

- [Ref. #KX-1770/KX-3561] **Timers:** if you modify a timer in XEdit while a timer monitor associated with this timer is shown on the monitor wall, your changes are not automatically reflected on the monitor wall. This may lead to unpredictable behavior (e.g., timer not starting, or starting at an unexpected time).
  Workaround: Refresh the layout on the monitor wall.

- [Ref. #KX-2053] **Timers:** on the monitor wall, if you change the logical source (channel) associated with a timer monitor, the timer monitor will appear to have stopped (even though the system has actually implemented the timer change).
  Workaround: Refresh the layout on the monitor wall to observe the change.

- [Ref. #KXI16HSV-171] **Kaleido-X, Kaleido-X16:** when a layout with a lot a overlap among the video monitors is loaded on the monitor wall, the video may appear corrupted in the video windows.
  Workaround: Reduce the amount of overlap in the layout.

- [Ref. #KX-2270] **Kaleido-X, Kaleido-X16:** excessive scaling of video elements results in a loss of video image on a monitor wall. This can be caused by loading a complex layout with a video monitor or full screen zone spanning two or more displays. The problem can be made worse by overlapping elements.
  Workaround: Keep full screen zones within a single display. Do not span a monitor beyond a maximum of 3000 × 1800 pixels. When spanning or scaling video monitors in a layout, avoid heavy cropping settings (generally avoid exceeding 15% in any direction). If the problem persists in full screen layouts, try reducing the scaling settings further.

Maximum horizontal
cropping = 15%

Maximum vertical
cropping = 15%

Maximum size of spanned video
element = 3000 × 1800 pixels

Note: Even if a spanned video monitor does not exceed the recommended maximum size, the problem could occur if it is set to follow AFD/WSS with a custom cropping of (15, 15, 15, 15).

- [Ref. #K3-252] **Teletext:** when WST teletext information from a SECAM video input is displayed on the monitor wall, spaces may appear in place of certain characters.
- [Ref. #KX-3180/T99474] **Teletext/subtitling:** the current version of the Kaleido Software supports foreground colors for teletext (WST, RDD 8/OP-47) only. Other text formatting attributes (e.g., background color, italic and bold type, font case) specified in the OP-42 (WST) and RDD 8/OP-47 (HD teletext) standards are not supported. On the monitor wall, closed captions (CC, DTVCC) appear in white against a black background.
- [Ref. #KX-1160] **Embedded audio and time code alarms** are sometimes not reported correctly on the monitor wall. When the active layout does not include any audio monitor assigned to a specific audio signal, then tallies or alarm monitors assigned to audio alarms for this signal may report an incorrect state.
  Workaround: Refresh the layout on the monitor wall.
- [Ref. #KX-2712] **Keying Mode and UMDs:** a UMD with the same background color as the layout background may not be displayed properly when the DVI Input Keying Mode on the video output is set to **Background**.
  Workaround: In XEdit, set the UMD transparency to a value between 75% and 80% (in the **Properties** tab, under **Appearance**, click the **UMD transparency** box, and then enter the value).
- [Ref. #KX-634/KX-641] The system performance is affected by a database import/export or system snapshot.
- [Ref. #KX-2422] **Kaleido-X (4RU):** after the Output B card is inserted in a Kaleido-X (4RU) frame, the dashboard associated with Output A will briefly report PSU-related alarms, while output B is rebooting.
- [Ref. #K3-147] **Kaleido-X multiviewers:** inserting a KXA-GPI-GEN card may generate a momentary flash on the monitor wall.

- **Kaleido-X, Kaleido-X16, KMV-3901/3911 startup:**
  - It takes approximately 15 seconds to display the videos of the last configuration after a power-on reboot.
  - It can take up to three minutes to load the graphical monitors (i.e., clocks, UMDs, tallies, audio monitors, timers, etc.) after a power-on reboot. This depends on the system configuration, and the number of monitors to be displayed. It may take a little longer for time codes, closed captions, and audio monitors to become fluid in a heavy layout.

Mouse and RCP Operation

- [Ref. #KX-2891] **Audio monitoring:** the Kaleido-RCP2's volume control, and -20dB buttons, their equivalent on the RCP-200, and the corresponding Gateway commands apply to *analog* audio monitoring outputs only. They do not affect the audio signal at digital (i.e., AES, HDMI, or SDI) monitoring outputs. The Kaleido-RCP2's Mute button (and its equivalents), is also limited to analog audio outputs, with the exception of Kaleido-X and Kaleido-X16 where it applies to digital audio outputs as well.

  > **Note:** Kaleido-MX 16 × 4, Kaleido-MX 4K 16 × 1, Kaleido-IP, and KMV-3901/3911 do not have *analog* audio monitoring outputs.

- [Ref. #KX-4750] **Cascade:** in the case of a cascade system, monitor wall functions performed via the associated buttons on a Kaleido-RCP2 or RCP-200 (ASPECT RATIO, UNDERSCAN, FULL SCREEN, etc.) only work in parts of the layout associated with the multiviewer that is directly connected to the displays.
  Workaround: Use the monitor wall menu.

- [Ref. #KX-4710] **Spanned monitors:** mouse and Kaleido-RCP2 operations are not fully supported on monitors spanning two or more displays.
  Workaround: In XEdit, configure the spanned monitor you want to control, as a monitor wall destination. You will then be able to use a mouse connected to the Kaleido-RCP2 to interact with the spanned monitor. Configuring your multiviewer as a router also allows you to interact with spanned monitors by using the RCP-200, or other router control devices or software (for example, the Router Control Matrix and Single Bus applications available from the Kaleido Web page).

- [Ref. #KX-3843] **Keyboard configuration:** if you change the external keyboard configuration for a currently active RCP user, the user must log on to the room again for the change to be effective.

- [Ref. #KX-2542] **Kaleido-RCP2:** it may happen that the list of rooms discovered on the network by the Kaleido-RCP2 is incomplete.
  Workaround: Try to obtain the room list again. On the Kaleido-RCP2, press the ESC button to return to the Configuration menu, and then press ENTER to select ROOM SELECTION, and obtain the room list from all multiviewer systems that are currently available on the network.

- [Ref. #KX-3594] **Blinking pointer:** in cases where the two heads from the same dual-head output are associated with displays in separate rooms, the RCP user in each room may notice that the mouse pointer is blinking.

- [Ref. #KX-3543/KX-3544] **Large mouse pointer option:** when using XEdit in online mode, after you select or clear the **Use large mouse pointer** option and save your change, the pointer size may not be immediately adjusted on the monitor wall.
  Workaround: In the case of a Kaleido-MX, Kaleido-MX 4K, Kaleido-Modular-X, Kaleido-XQUAD or KMV-3901/3911, restart the multiviewer; for other multiviewer models, refresh the current layout or load a different layout.

- For troubleshooting purposes, if you connect a mouse directly to your multiviewer (as opposed to connecting the mouse to a Kaleido-RCP2, for instance), the pointer can only travel between the displays supported by that card.

  When more than one display is connected to the card, the required mouse movement to go between displays does not always follow the wall layout set in XEdit. For example, you will have to move the mouse pointer horizontally or vertically (depending on the multiviewer model) in order to go from one display to the next.

- [Ref. #KX-3299] **KMV-3901/3911:** when connecting a mouse to the USB port directly on the KMV-3901/3911 card, the multiviewer may not detect the mouse.
  Workaround: Disconnect the mouse, and then connect it again.

- [Ref. #KX-740] It is not possible to enter a value of "10" from the Kaleido-RCP2 keyboard when using an input method. As soon as you type "1", the selection is made.
  Workaround: To enter "10", type "0".

- [Ref. #KX-1324] Two RCP users in the same room cannot use the monitor wall menu at the same time.

- [Version 2.00] If two RCP users use the same head, the mouse pointer is shared. However, because the pointer position of each user is preserved, the pointer behavior looks natural.

- [Version 2.00] Connecting the keyboard affects the mouse pointer fluidity.

- [Version 2.00] Mouse pointer movements are not as fluid as on a standard PC.

Signal Formats

- [Ref. #KX-6750] **Kaleido-MX, Kaleido-MX 4K, Kaleido-Modular-X and KXI-DVI-Bridge:** in the case of a Kaleido-MX, Kaleido-MX 4K, or Kaleido-Modular-X multiviewer, support for graphics converted to HD-SDI from KXI-DVI-Bridge is currently limited to 1080p60.

- [Ref. #KX-6975] **Kaleido-X with KXI-16HSV, KXI-16HS, or KXI-16SV (rev. 599 and earlier) input cards:** when monitoring AC-3 audio channels 15 or 16, on a source's embedded audio stream number 8, the detected audio format may be reported as OTHER instead of AC-3.

- [Ref. #KX-4843] **Kaleido-X vs. embedded audio:** in the case of a KXI-16HSV, KXI-16HS, or KXI-16SV (rev. 599 and earlier) input card, if Dolby E is available in an input signal's embedded audio streams number 1, 2, 3 or 4, then audio monitors associated with streams number 5, 6, 7 or 8 may fail to reflect some of the channels' actual level.

- [Ref. #KX-6357] **Kaleido-X, Kaleido-X16 closed captions:** in the case of SDI-625 signals, a monitor configured with its CC/subtitling text mode set to **Auto sense** may fail to show CEA-608 closed captions on the monitor wall.
  Workaround: Set the monitor's text mode to **CC (608)**.

- [Ref. #KX-6356] **Kaleido-X, Kaleido-X16 closed captions:** with the current version of the Kaleido-X software, when monitoring PAL or SDI-625 video signals with CEA-608 closed captioning on line 18, related CC presence alarms are reported as *Line 21 loss* and *CC1 loss*.

- [Ref. #KX-7480/KX-7481] **Kaleido-IP encrypted signal detection:** with the current version of the Kaleido Software, when a monitored source becomes encrypted, the last non-encrypted video image may remain visible on the monitor wall, and related status texts may keep the last decoded values. In the case of a scrambled audio signal, when the *Audio scrambled* alarm is raised, other audio alarms may keep the last status they had before the audio signal became encrypted, instead of being disabled.

- [Ref. #KX-5900/F33873] **Kaleido-IP:** the current version of the Kaleido Software for the Kaleido-IP does not support decoding of ST 302 PCM audio.

- [Ref. #KX-5808] **Kaleido-IP:** audio sampling rate changes without a PSI change are not supported. Should this occur, the audio will not be decoded, and the audio loss alarm will be raised.

- [Ref. #KX-4019] **Kaleido-MX, Kaleido-Modular-X, KMV-3901/3911, Kaleido-XQUAD, and Kaleido-X16 support for audio monitoring over HDMI:** if AC-3 audio from an SDI source is routed for monitoring, to a monitor wall display that does not support this format, the display's loudspeakers may emit a constant frying noise or become silent.
  Workaround: To troubleshoot or confirm the situation, you may want to configure UMDs in your layout to display the audio format associated with the current source, for each video window on the monitor wall.

  > **Note:** Grass Valley's current implementation of the HDMI standard does not include detection of the audio formats supported by a specific display. Most display models support compressed audio.

- [Ref. #KXO24R-33] **KXO-24Router cards do not support 3Gbps signals:** in the case of a Kaleido-X (7RU) with the 3G input option enabled, if you try routing a 3 Gbps source to a KXO-24Router destination, the internal router will not let the video signal through, resulting in a black output.

- [Ref. #KX-2895] **SD video in SDTI input:** if you were to feed a multiviewer's SDTI input port with SD video signals (instead of audio signals from an Audio Bridge Terminal), then no status or alarm indicator in XAdmin will report any problem with the signal format. In addition, the IP address of the last ABT that was connected to this port will be shown. *Workaround:* Do not feed the SDTI input port with a video signal.

- **KXI-DVI-Bridge:** the KXI-DVI-Bridge does not support dual-link DVI.

- **KXI-DVI-Bridge:** a KXI-DVI-Bridge used *without dongle* skips every second input frame when converting a DVI signal (60 fps) to HD-SDI (30 fps).

- [Ref. #KX-1627] **NTSC-J:** video alarm levels set in IRE do not work with NTSC-J, because the calibrations are based on a 7.5 IRE setup. This results in alarms being incorrectly reported for *Luma too high,* and *Black*.
  Workaround: Use the mV scale instead.

Alarm Management and Actions

- [Ref. #PMV-2417] **KMX-49N1 alarm contributions:** with the current version of the Kaleido Software, it is not possible to configure alarm contributions for the status LED on *card C,* or *card D* of a KMX-49N1 system that has three or four cards. Any changes to the default card LED alarm contribution configuration for these cards are ignored.

- [Ref. #KX-9384] **Virtual alarms:** if you include the text *GlobalAlarm* in the name of a virtual alarm, the virtual alarm may eventually disappear from your system configuration.
  Workaround: Create the virtual alarm again, making sure not to include the reserved text *GlobalAlarm* in its name.

- Ref. #KX-6568] **Folder status in iControl's GSM alarm browser:** when navigating a multiviewer's GSM, by using the alarm browser in iControl, some alarm folders may be black, until you expand them to reveal the alarms they contain, at which point the folder color will be updated to reflect the status of the alarms.
  Workaround: Create a virtual alarm, based on the alarms whose status you want to be able to monitor in real time.

  > **Note:** An alarm status is only visible in iControl's GSM alarm browser when at least one of the following conditions apply.
  > - The alarm is already monitored on the monitor wall.
  > - Someone navigated to this alarm by expanding the System list in iControl or XEdit.
  > - The alarm is associated with a background action.
  > - The alarm contributes to a virtual alarm.

- [[Ref. #KX-6159] **Virtual alarms:** changing a virtual alarm's name in XEdit may result in its status becoming unavailable on the monitor wall.
  Workaround: Refresh the layout on the monitor wall.

- [Ref. #KX-6248] **Global alarm metadata:** editing of global alarm metadata from a multiviewer's GSM, in iControl, is not yet supported.

- [Ref. #KX-4948] **Inverted alarms:** in the case of a Kaleido-X (4RU, 7RU, or 14RU) multiviewer with more than one output card, some monitor wall displays may fail to report the expected status for *manually* inverted alarms.

  > **Note:** Manual alarm inversions are performed in iControl. Refer to the iControl User Guide for more information.

- [Ref. #KX-4655] **Alarm scheduling:** if non-recurring schedules were in progress before a multiviewer restarted, the associated actions (alarm inversion or suppression) may fail to be applied once the system has restarted.
  Workaround: For every schedule you need to resume, open the **Schedule Entry Details** window, and then click **OK**: (1) On the **Tools** menu, click **Edit schedules**. (2) In **Edit Schedule**, select a schedule you want to resume (to locate them, notice that they have nothing indicated under **Recurrence**, and are reported as *In progress* under **Status)**, click **Edit** to open **Schedule Entry Details,** and then click **OK** to close the window.

- [Ref. #KX-4725] **Background actions:** a background action triggered by an alarm is executed, regardless of the alarm's operational mode.

- [Ref. #KX-6067] **Kaleido-IP alarms:** in the case of the Kaleido-IP, video alarms are only supported for signals whose video resolution's horizontal dimension is a multiple of 16.

- [Ref. #KX-2695/KX-4394] **Background actions:** background actions created from the main System list in the **Description/Calibrations** tab, or from the filtered System list associated with the current level in the sources table, cannot be saved from these tabs.
  Workaround: To save background actions created from the **Description/Calibrations** tab, or from the **Channels/Sources** tab, switch to the **Actions** tab, and then click **Save** on the toolbar.

- [Ref. #KX-5752] **Virtual alarms:** when building a virtual alarm based on the current multiviewer, clicking **Use selected folder as path** in the **Build Virtual Alarm** window may have no effect.
  Workaround: Manually enter the desired path in the **Path** box.

- [Ref. #KX-3632] **Virtual alarms:** when a virtual alarm associated with a router source becomes pending (for example after the router source was disconnected), then background action items based on this alarm's status may not be executed.

- [Ref. #KX-3032] **GSM alarm browser:** Kaleido-X systems that have legacy KXO-Dual cards with only 1 GB RAM are subject to the following limitation. An alarm that is not published (i.e., most alarms) is only visible in iControl's GSM alarm browser if the alarm is already monitored on the monitor wall, or by a background action, or otherwise (e.g., in iControl or XEdit).
  Workaround: To force an alarm to appear in the GSM alarm browser, connect to the Kaleido-X multiviewer by using XEdit, and then navigate to the desired alarm in the System hierarchical list.

  > IMPORTANT
  > To fully benefit from all new features introduced in Kaleido Software version 5.00, every legacy KXO-Dual card that does not have a 2-GB memory module must be upgraded to 2 GB of RAM (see the *Kaleido-X Installation & Service Manual* to identify an output card with 1 GB of RAM and for the upgrade procedure).

- [Ref. #KX-3172] **Background actions based on router sources:** with the current version of the Kaleido Software, a background action based on a router source can only be triggered when the same router source is used on the monitor wall.
Workaround: Add a hidden component (e.g., a UMD) to your layouts, and assign the required router source to this component.

- [Ref. #KX-3567] **Dialnorm alarms:** after a multiviewer input has switched from a signal with dialnorm information to a signal format that does not include this information, the *Dialnorm - Expected* and *Dialnorm - Loudness* alarm indicators may report irrelevant status information, whereas they should be disabled.

SNMP

- [Ref. #KX-4998/KX-6071] **Kaleido-IP and SNMP managers:** in the case of a Kaleido-IP, publishing signal/service probing alarms to SNMP managers is not fully supported. This partial support for `KALEIDO-KX-MIB` allows the Kaleido-IP to report service/signal status to an SNMP manager via the MIB file's `kxVirtualAlarmTable`. This table includes entries for all virtual alarms and logical sources created in XEdit for your multiviewer. For each logical source, the global alarm and associated text information is available. Refer to the MIB-embedded descriptions for exceptions.
Workaround: If an iControl Application Server is available to your system, configure it to relay your Kaleido-IP alarm status information to the target devices. Refer to *General Status Manager (GSM)* in the Kaleido Software User's Manual, and to *iControl and SNMP* in the iControl User Guide, for more information.

- [Ref. #KX-2477] **SNMP managers:** some text status data (e.g., AFD/WSS format, Dolby E or Dolby VANC encoded dialnorm or program config, etc.) only become available to SNMP managers once they have been displayed on the monitor wall.
Workaround: (1) In XEdit, add the text status element from the appropriate source signal to a logical source (channel). (2) Assign the logical source to a UMD. (3) Load the layout that includes this monitor on the monitor wall. The text status will then be available to SNMP managers.

- [Ref. #KX-1431] **Kaleido-X:** the performance of a Kaleido-X system can be degraded by enabling a large number of SNMP traps. By default, traps are automatically configured for a logical source's global alarm, and for health-related statuses. Each trap contains a cause, and the name of the logical source. Traps for individual physical inputs are disabled by default. These traps only provide physical input information, with no correlation to a logical source.
Workaround: Avoid setting alarm thresholds to short durations—for example, 1 second for a freeze detection is too low; 10 seconds is adequate.

- [Ref. #KX-1521] The Kaleido Software does not support the SNMP v2 `GetBulk` command. Performing a `GetBulk` on `kxVideoTable` returns "There is no such instance in this MIB" instead of the data for the table.

Router Control

- [Ref. #KX-11130] **Upstream router control:** the **Assign Router Input** category/index panel does not support duplicate names for the router sources. When using the panel to assign a router source to a monitor, if multiple router sources have the same name, only the source with the highest index number is available.
Workaround: Update the configuration of your router, or router control system, so that every router source has a unique name. Alternatively, override the source labels for the appropriate physical router level in XEdit's **Router Configurations** tab.

- [Ref. #KX-4751] **Internal router control:** in the case of a Kaleido-X or Kaleido-X16 system whose internal router is controlled from an external router control device or application, and was configured *before* version 5.20 of the Kaleido Software, after upgrading your system to version 5.20 or higher, you may need to:

    - add the internal router's physical levels to the first level (i.e. [0] Video) of the KX Router logical router, if you were previously using the now deprecated *Internal router* logical router, and,

    - if your external router control device or application uses the SAM (Snell/Pro-Bel) SW-P-08 protocol, then adjust its configuration so that it refers to KX Router's logical router matrix ID.

    Refer to *Configuring a Multiviewer's Internal Router,* in the Kaleido Software User's Manual, for more information.

- [Ref. #KX-3536/KX-3964] **KMV-3901/3911 vs. VikinX Compact panels:** the Kaleido Software does not support using the *Network Compact* protocol for controlling logical routers within a KMV-3901/3911 multiviewer configuration. For example, a VikinX Compact panel connected to the KMV-3901/3911 multiviewer's serial port is not a supported configuration.

- [Ref. #KX-3886/KX-3895] **Ineffective Lock/Unlock features in Matrix and Single Bus:** with the current version of the Kaleido Software, all Lock and Unlock features available from the Matrix and Single Bus user interface are ineffective.

- [Ref. #KX-3946] **KX Router source mapping:** although the multiviewer's physical inputs appear in the list of sources that can be selected when configuring source mapping for the *KX Router* logical router, they should *not* be used. Only logical sources (channels) should be used in this context.

- [Ref. #KX-2482] **"Monitor wall" physical level:** although it appears in the list of physical levels that can be added to any logical router configuration, the "Monitor wall" physical level should only be used when configuring the *KX Router* logical router.

- [Ref. #IC-13430] **Matrix and Single Bus support up to 8 levels:** the Matrix and Single Bus client applications can display and control up to 8 levels in a logical router. When the *All follow* mode is enabled, it applies to the levels that are visible in the application window only.
Workaround: To control a logical router with more than 8 levels, use a router-control device or application that supports the required number of levels.

- [Ref. #IC-13335] **Level offset required for commands to Network Modular devices from third-party router controllers:** if a third-party router controller sends a command (using the Network Modular protocol) to Level 1 of a router connected to a Kaleido multiviewer, the command is sent to Level 0 instead. This is due to the particular way in which the Network Modular protocol is handled by the NDC component of the Kaleido Software.
  Workaround: On the third-party router controller, increment the target Level (or Frame ID) by one. For example, to change a crosspoint on Level 1, send the instruction to Level 2.

- [Ref. #IC-13242] When an NV9000 system controller is controlling a multiviewer's *KX Router* logical router, and the multiviewer is controlling the NV9000, the NV9000 may indicate that the multiviewer is offline.
  Workaround: Change the timeout period on the NV9000 system controller. The recommended timeout value is 2000 milliseconds.

- [Ref. #KX-2614] Configuring two multiviewers so that they control each other's internal router is not supported in Kaleido Software version 4.00 and later. Do not upgrade existing systems that were previously configured in this way. If you already upgraded your system, contact Grass Valley Technical Support before downgrading to an earlier version, to verify whether a new release addressing this issue has been made available. See Grass Valley Technical Support, on page 48

- [Ref. #KX-2513] After launching the Single Bus or Matrix View Router Control applications from the multiviewer's home page, it is possible to create salvos, change settings, etc. However, when the multiviewer is restarted, such changes will be lost.
  Workaround: Use a standalone version of the iControl Router Control software, or the one that is part of the iControl suite, to configure your Kaleido routers. Your salvos and other settings will then be visible, when you next open the Single Bus and Matrix applications from the Kaleido-X home page.

- [Ref. #IC-13346] **Backward compatibility:** as of Kaleido Software version 4.00, router configuration changes made in Router Manager Configurator are not compatible with earlier versions of the software. Downgrading is supported but any change to the router configuration made in Kaleido Software version 4.00 or higher will be lost during the downgrade. After downgrading, any router configuration will have reverted to what it was before the last upgrade.

- [Ref. #KX-2043] **Version 2.20 compatibility:** if you delete one or more routers from an XEdit version 2.20 database, and then create new router entries using the same KXI inputs but connected to a new router, the new entries are not saved. This has the result that the 2.20 database, if imported on a Kaleido Software version 3.00 or higher system, will appear to have lost settings.

- [Ref. #KX-1697] **Background actions:** if a background action is configured to change an external router crosspoint, then, when the action is triggered, the Kaleido Gateway will return `<ack/>` even if the crosspoint change could not be made. Note that in such a case, the crosspoint failure will cause the action to stop, and the event will be properly recorded in `vroom.log`.

Kaleido Remote Control Protocol (Gateway)

- [Ref. #KX-7639] **Kaleido-MX, Kaleido-MX 4K, Kaleido-Modular-X audio monitoring:** sending a `<setKAudioOut>` command with the `Type="AUDIOCARD"` option to a Kaleido-MX, Kaleido-MX 4K or Kaleido-Modular-X system may fail to set the specified ABT source for audio monitoring.

- [Ref. #KX-2913] If the name of a Kaleido multiviewer contains a space or a special character, opening a remote control Gateway session with user context may not be possible.
  Workaround: Remove any space or special character from the system name. Alternatively, if editing the Gateway command is an option, you may try percent-encoding the unsafe characters in the system name.

- [Ref. #KX-2167] If a single `<setKTimer2>` command is used to change both `PresetTime` and either `TimerMode` or `EndMode` for a timer monitor, the `PresetTime` change is ignored.
  Workaround: Send separate `<setKTimer2>` Gateway commands for each parameter that is to be changed.

XAdmin

- [Ref. #KX-6555] **XAdmin compatibility with Internet Explorer 10:** if you use Internet Explorer 10 to access the multiviewer's home page, a blank page may appear instead of the expected application after you clicked the XAdmin button.
  Workaround: Click the Compatibility View ⬚ button at the end of your browser's address bar. Alternatively, use a different browser.

- [Ref. #KX-5433] **Kaleido-IP:** when reinstalling, upgrading, or downgrading the Kaleido Software on a Kaleido-IP multiviewer that has version 6.02 or earlier, once you have uploaded the RUN package to the unit, clicking the **Upgrade** button more than once may cause the installation to be repeated, which could result in a defective installation.

  > **Note:** Once you have upgraded to version 6.20 or higher, you will benefit from a more robust interface.

- [Ref. #KX-4276] **100 Mbps half-duplex data interface configuration:** Kaleido-X (7RU, 4RU, and 14RU) multiviewers with output cards that shipped with version 5.22 or higher, initially or after repairs, and Kaleido-X16 multiviewers that shipped with version 5.22 or higher, initially or after repairs, do not support 100 Mbps half-duplex communications.

- [Ref. #KX-3569] **KMV-3901/3911 3Gbps signal decoding option:** if you enable the 3Gbps signal decoding option for a KMV-3901/3911 multiviewer in XAdmin, while a 3Gbps source is already connected to your multiviewer, the option will not be immediately effective.
  Workaround: Disconnect the 3Gbps source, and then connect it to your multiviewer again.

- [Ref. #KX-2393] **Kaleido-X input options:** in the case of a Kaleido-X (4RU, 7RU, or 14RU) multiviewer, if you try enabling or disabling more than one option on the same input card, once the card has restarted only the first change will persist.
  Workaround: Enable or disable input options one at a time, making sure to reset the card after each change.

- [Ref. #KX-3638] **XAdmin momentarily unavailable:** when configuring IP addresses for the output cards in a Kaleido-X (4RU, 7RU, or 14RU) multiviewer, if a slave output card is assigned an invalid IP address, XAdmin may remain unavailable for several minutes after the multiviewer has restarted.

- [Ref. #KX-3478] **Kaleido-X16 status and options:** in the case of a Kaleido-X16 multiviewer, you may notice strange values (e.g., serial numbers, voltage or current values reported as zeroes; aberrant *Mezz, PP,* and *PS* temperatures) on the Status and Options page.

- [Ref. #KX-2244/KX-2173] If one or more cards in a Kaleido-X frame is being upgraded (i.e., if a Live Update is in progress), then it is not possible to apply any changes made in XAdmin. If you click the **Apply settings** link in the XAdmin sidebar, an error message will appear. This restriction also occurs during the first 10 to 20 seconds after a card is inserted into or removed from the frame.
  Workaround: Wait until the upgrade has finished, then click **Apply settings** again.

- [Ref. #KX-6529] **Kaleido-X expansion systems:** xAdmin always reports a normal status for "KXO-EXP - Link: Cable crossed", in the Status and Options page, regardless of whether the expansion cables are physically crossed or not.

XEdit

- [Ref. #KX-7463] **Saving layouts:** when you first save a new layout (or rename an existing layout by using **Save as**), XEdit may fail to prevent you from including invalid characters (e.g., * \ / 〈 〉 | ? " & :) in the layout name. However, any further attempts at saving such a layout result in a error message preventing you from saving your changes.
  Workaround: Use **Save as**, to save the layout under a new name that does not include offending characters, and then delete the version of the layout with the invalid name.

- [Ref. #KX-4901] **Saving layout changes:** saving a layout may fail, when the zoom factor XEdit uses to display it is higher than 50%.
  Workaround: Zoom out (e.g. all the way down to 2%) before saving your changes.

- [Ref. #KX-7447] **Peripheral device alarms:** in XEdit, when you disconnect a device (e.g., a router, or a tally interface device) in the **Interconnections** tab, and then switch to the **Channels/Sources** tab, you may notice that alarm status indicators, in the filtered System list associated with the sources table, do not immediately reflect the connection loss.
  Workaround: Expand or collapse a node in the System list, or move the scroll bar (if present), to update the alarm status indicators.

- [Ref. #KX-6261] **Global alarms:** in the sources table, the ability to include or exclude a level's contribution to the global alarms is only relevant for alarm levels although the properties are also available for other levels such as text and time code.

- [Ref. #KX-3646] **Incorrect multiviewer model:** on rare occasions, if you use XEdit with different models of multiviewer, you may notice that the model indicated in a system configuration does not match the actual multiviewer anymore, and that the system's logical sources have assignments marked in red.
  Workaround: If you have a recent backup of your system configuration, restore this backup to your local workspace, and then export it to the multiviewer. Alternatively, right-click the multiviewer in the System list, click the "replace with..." option that matches your actual multiviewer model, and then make sure to reply **No** when XEdit prompts you to confirm whether you want to restore the database factory defaults.

- [Ref. #KX-4696] **Import NVISION config:** on rare occasions, when configuring physical routers in XEdit's **Router configurations** tab, the **Import NVISION config** button is not available.
  Workaround: Disconnect XEdit from the multiviewer, and then connect again.

- [Ref. #KX-6308] **Kaleido-IP:** in the case of a Kaleido-IP system configuration with a very large number of transport streams, connecting to the multiviewer or accessing a local copy of its database with the current version of XEdit may take more than one minute.

- [Ref. #KX-5883] **Kaleido-IP:** after changing the name of a transport stream, related alarm indicators in the System list may turn white (meaning that their status is pending or unknown).
  Workaround: Restore the transport stream's original name.

- [Ref. #KX-5936] **Kaleido-IP:** after adding a transport stream to your Kaleido-IP system configuration, it may happen that the transport stream that appears at the bottom of the filtered System list associated with the sources table cannot be expanded.
  Workaround: Click a different cell in the sources table, or collapse the filtered System list, and then expand it again.

- [Ref. #KX-5774] **Kaleido-IP source names:** if your sources table includes dynamic assignments from Kaleido-IP transport streams in the **Name** level under **Source info**, using the incremental copy tool to quickly populate the source name column for a range of logical sources results in clearing assignments in this column instead.

- [Ref. #KX-5483] **Kaleido-IP:** in the case of transport streams for which **Activate automatic sources creation** was selected, new logical sources created automatically for these streams may not follow the current template.

- [Ref. #KX-5210] **Kaleido-IP:** in the logical sources table, if you manually remove sources associated with a transport stream for which **Activate automatic sources creation** was selected, these sources are not automatically created again.
  Workaround: Right-click the appropriate transport stream element in the filtered System list associated with the sources table, and then click **Create logical sources**.

- [Ref. #KX-5379] **Kaleido-IP:** on rare occasions, when navigating the System list in XEdit, the first time you expand an elementary stream, an audio or video presence alarm may briefly indicate a signal loss before turning green.

- [Ref. #KX-5744] **Source assignments:** when assigning logical sources or monitor wall destinations to monitors in a layout, it may happen that the selection migrates to an adjacent element from the **Channels/Sources** or **Monitor wall destinations** list during the drag-and-drop operation.
  Workaround: Once you selected a logical source or monitor wall destination from the corresponding list, dragging the selected element horizontally until the pointer exits the **Tools** pane, or performing a slower drag-and-drop may help.

- [Ref. #KX-4708] **Logical source names:** if your configuration includes logical sources with names based on router source labels that are set locally in XEdit (i.e. in the Source/Destination mapping configuration for the corresponding router, you cleared the option **Get labels from physical level**, and either typed the labels manually or imported them from a CSV file), then further changes to these router source labels in the router configuration are not reflected in the sources table (under **Source info**).
  Workaround: In the sources table, right-click the name you want to refresh, click **Copy assignment** on the menu, right-click again, and then click **Paste assignment**.

- [Ref. #KX-4505] **Monitor wall destinations:** after switching to the **Layouts** tab in XEdit, the set of destinations listed in the **Monitor wall destinations** pane may momentarily not belong to the current system's KX Router, or fail to reflect the latest changes to this logical router's destinations. This is more noticeable if you work with different systems during the same XEdit session, if you modify your KX Router configuration while managing a specific layout's assignments, or if you want to assign monitor wall destinations to monitors in a *full screen* layout when a room layout has yet to be opened.
  Workaround: Open a *room* layout to update the set of destinations listed in the **Monitor wall destinations** pane.

- [Ref. #KX-3797] **TSL (network) devices port number:** xEdit does not prevent adding multiple TSL (network) devices configured to the same multiviewer port number (8901 by default). If you must configure more than one TSL (network) device make sure to specify different port numbers (in the 1023–65,535 range) to avoid conflicts.

- [Ref. #KX-3903] On rare occasions, switching from online to offline mode, or vice versa, while the **System** tab is active may result in most of the panels in XEdit displaying a *"Loading…"* message indefinitely.
  Workaround: Click a tab other than **System**, in the main tab bar (e.g., **Rooms**, **Layouts**, etc.), and then:
    - If you just switched to **offline** mode, connect to the multiviewer, and then switch back to offline mode.
    - If you just switched to **online** mode, close the connection to the multiviewer, and then switch back to online mode.

  Alternatively, close XEdit, and then open it again.

- [Ref. #KX-3616/KX-3850] **Cannot retrieve backup:** xEdit cannot retrieve a database backup created in XEdit version 5.00 (or earlier), if the original system from which this backup was made included elements (e.g., actions, virtual alarms, logical sources, levels) with an ampersand ("&") in their name. When you attempt to retrieve such a backup, XEdit becomes unresponsive, and you must use Windows Task Manager to close it. An "Uncaught exception" will appear in `xedit.log`.

  > **Note:** Database backups created in XEdit version 5.10 and later can be retrieved without problem. Make sure to create a fresh backup once you have updated a Kaleido multiviewer from version 5.00 (or earlier) to version 5.10 or higher.

- [Ref. #KX-3560] **Cannot add input cards:** when configuring a Kaleido-X (7RU) or Kaleido-X (14RU) system, if all input slots are empty while one or more router cards are present in the System hierarchical list, then it may not be possible to add input cards (or more router cards) to the system.
  Workaround: Close XEdit, and open it again.

- [Ref. #KX-3336] **Logical Sources:** if you do not click **Save** after deleting a level from the sources table, then adding a new level may cause unwanted data from the deleted level to reappear in the table.
  Workaround: After deleting a level from the sources table, click **Save**.

- [Ref. #KX-3340/KX-3780] **Internal router port aliases not available to logical sources:** aliases defined for the physical sources or destinations of a Kaleido-X (7RU) or Kaleido-X16 multiviewer's internal router may not be available in the filtered System list associated with the sources table. Specifically, in the case of the *KX Router* logical router, neither source nor destination aliases from the physical internal router are available. Source and destination aliases defined for an external router are always available (regardless of the logical router).

- [Ref. #KX-3313] **Online mode:** when connected to a KMV-3901/3911 multiviewer from XEdit (in online mode), if you modify the layout that is currently shown on the monitor wall, and then save it, the graphical elements on the monitor wall may freeze for several seconds until the layout is fully loaded again.

- [Ref. #KX-3124] **Resetting calibrations to factory defaults:** with the current version of the Kaleido Software, the calibration reset feature (see *Restoring Factory Defaults,* in the Kaleido-X User's Manual) is not immediately effective on the multiviewer.
  Workaround: Restart the multiviewer, close XEdit, and then open it again, for the calibrations to be applied.

- [Ref. #KX-3000] **Alarm status not updated:** when using XEdit in online mode, having a firewall enabled on your client PC or laptop may prevent alarm status indicators from being dynamically updated in XEdit.
  Workaround: Disable the firewall.

- [Ref. #KX-1965] **Concurrent sessions:** if two or more XEdit sessions are open, and connected to the same multiviewer in online mode, changes made under the **System** tab and applied from one XEdit session are not reflected in the others.

- [Ref. #KX-2506] **Cluster composition not automatically updated across concurrent XEdit sessions:** if user A adds a multiviewer to a cluster while user B is connected to a different member of the same cluster, then the addition is not automatically reflected in XEdit for user B.
  Workaround: Other concurrent users must close XEdit, and open it again to view the updated cluster composition.

- [Ref. #KX-2903] **Database location:** if the XEdit database is located in a directory whose name contains an IP address, then attempting to export the database will cause a system error, and XEdit will close.
  Workaround: Rename the directory without using an IP address.

- [Ref. #KX-2860/T94343] **Offline changes to logical sources (channels) are not reflected on the monitor wall after a database export:** if changes are made (in XEdit) to a logical source currently in use, and if the modified database is then exported to the multiviewer, the changes will not appear on the monitor wall, even if the layout is refreshed.
  Workaround: After the database export is completed, create an empty layout (i.e., a layout that does not contain any monitors), and load it on the monitor wall. This will cause the logical source cache to be emptied. You can then load the layout with recent logical source changes.

- [Ref. #KX-1348] **Custom resolutions:** custom resolutions created in XEdit must have the same active width and active height as one of the default resolutions, otherwise the new resolution will not be applied. When creating a new resolution, it is recommended to start from an existing resolution (i.e., one whose active height and width parameters match your display), and update the timing parameters as needed. You may have to reboot twice after adding an unknown resolution (i.e., a resolution whose geometry [width × height] is not already known by the multiviewer).

- [Ref. #KX-2761] **Layout preview missing:** in XEdit version 4.00 and later, if you click **Open layout** on the **File** menu, you will not see preview images for layouts created prior to version 4.00. In addition, if you replace the multiviewer in the System hierarchical list, then any existing layout previews may become unavailable.
Workaround: To generate a preview for a layout, open the layout in XEdit, and then save it.

- [Ref. #KX-1666] In the **Actions** tab, the **Undo** and **Redo** commands are not available.

- [Ref. #KX-1702] The **Set action** menu is not available when you right-click a GPI line element in the System hierarchical list in the **System** tab.
Workaround: (1) Click the **Actions** tab, and expand the GPI/GENLOCK card in the filtered System list that appears in the **Tools** pane. (2) Right-click the GPI In or GPI Out element under the GPI line for which you want to define a background action, point to **Set action**, and then click the appropriate action type on the menu.
Alternatively, click the **Channels/Sources** tab, and then click anywhere under an alarm heading. You can then expand the GPI/GENLOCK card in the filtered System list, and proceed as described above.

- [Ref. #KX-2131] **Expansion systems and router configuration:** when two standalone Kaleido-X (7RU) frames are joined in an expansion system, third-party device configurations are not preserved. After such a conversion, however, external router icons and settings may still appear in XEdit under the **Interconnects** tab.
Workaround: Delete the external routers from the System list, restart XEdit, and then recreate all external router configurations.

- [Ref. #KX-1641] **Router configuration:** the process of configuring external routers has significantly changed between Kaleido Software versions 2.20 and 3.00 (see the Kaleido Software User's Manual for details). This has had an impact on the backward compatibility of XEdit databases. A router configuration opened in XEdit 3.00 or higher should not be exported to a pre-3.00 system.

  If a frame has been upgraded to 3.00 or higher, you can only downgrade it to 2.20 if the database was **not** opened in XEdit 3.00 or higher. If the database is opened in XEdit 3.00 or higher and then exported to a pre-3.00 system, the router configuration will have to be redone.

  > **Note:** An older database is converted as soon as it is loaded in XEdit 3.00 or higher, and becomes incompatible with pre-3.00 systems, even if you don't modify the database or save it.

- [Ref. #KX-1376] **Toolbar:** when the XEdit window is resized, the monitor toolbar may disappear.
Workaround: Resize the window again until the toolbar reappears ().

- [Ref. #KX-1192] In the **Rooms** tab, the **Maximize horizontally** and **Maximize vertically** toolbar buttons are not relevant, and have the unwanted effect of resizing the selected heads.
  Workaround: Do not use these buttons when configuring rooms: they are only relevant in the **Layouts** tab.
- [Ref. #KX-1037] **Pointer properties:** online changes made to mouse pointer properties require a refresh of the layout so they can take effect.
- [Ref. #KX-330] **Widget libraries:** monitors from widget libraries may change in appearance (compared to the original) when used in a layout.
- [Ref. #KX-634] **Database export:** exporting a database from XEdit may take up to a minute, during which time there is no user feedback. System Performance may also be slightly degraded.
  Workaround: Delete any unused layouts or logical sources prior to exporting a database.

Documentation

You can download the latest product documentation. See the *Kaleido Multiviewers Documentation Resource Guide* for more information.

Multiviewer Specifications

Refer to the multiviewer's *Installation & Service Manual* for the multiviewer's specifications and its list of supported input and output formats.

2 System Requirements

This section details the requirements that must be met prior to installing or upgrading the Kaleido-X software, and describes how to upgrade (or downgrade) a multiviewer system.

System Requirements

Component Compatibility

Kaleido Software version 9.00 is compatible with the products listed below. For some products, a minimum version and a recommended version may be indicated. For a specific multiviewer model, the minimum version indicated for a product is typically what was the latest version of the product at the time this multiviewer model was introduced. This version of the product was tested and found to be compatible with the first version of the Kaleido Software that supported the multiviewer model. It may not have been tested against every subsequent release of the Kaleido Software or other products. The recommended version of a product has been tested and found to comply with the current version of the Kaleido Software.

Grass Valley system component compatibility

Product	Kaleido-IP	Kaleido-X, Kaleido-X16	KMV-3911[a]	KMX-3901[b]	KMX-49N1
XUpdate (Kaleido Upgrade Manager application)	Minimum: 8.00 or higher				
RCP-200 remote control panel	Minimum: 2.00 or higher.				
Kaleido-RCP2 control panel	Recommended: 165 or higher Minimum: 160				
ABT Audio Bridge Terminal (CPU firmware version)	Minimum: 1.0.9 or higher				
ABT Audio Bridge Terminal (FPGA firmware version)	Minimum: 1.0.3 or higher				
KXI-DVI-Bridge firmware	Minimum: 8.3.1 or higher				
NV9000 router control system	Recommended: 6.4.0 or higher Minimum: 6.0.0				
EdgeVision	Recommended: 1.46 or higher Minimum: 1.05				

Grass Valley system component compatibility *(continued)*

Product	Kaleido-IP	Kaleido-X, Kaleido-X16	KMV-3911[a]	KMX-3901[b]	KMX-49N1
CPU-ETH2	N/A		Recommended: 2.2.2 or higher Minimum: 2.0.4	Recommended: 2.2.5 or higher[c] Minimum: 2.1.2	*Not supported*
CPU-ETH3	N/A		Recommended: 1.0.3 or higher Minimum: 1.0.3		
CPU-ETH3-REF[d]	N/A		Recommended firmware: 1.1.0 (upgrade package 1.1.2-RC-1) or higher		
Densité REF-1801	N/A		Recommended firmware: 1.1.0 (upgrade package 1.1.0-RC-6) or higher		N/A
Densité GPI-1501	Recommended firmware: 1.0.0 (upgrade package 1.0.0-RC-1) or higher				
Densité VDA-1002	N/A		Recommended firmware: 1.1.1 or higher		
IPG-3901[e]	N/A			Upgrade package 1.3.4	N/A
iControl	Recommended: 6.00 or higher Minimum: 4.14	Recommended: 6.00 or higher Minimum: 3.60	Recommended: 6.00 or higher Minimum: 3.60	Recommended: 7.10 or higher[f] Minimum: 4.43	Recommended: 7.20 or higher Minimum: 7.20
Multiviewer service panel (iControl 5 and later)	N/A		Recommended upgrade package: 1.0.1-RC-1 or higher	Recommended KMX-3901-IN upgrade package: 1.0.1-RC-1 or higher Recommended KMX-3901-OUT upgrade package: 1.0.1-RC-1 or higher	*Use the KMX-49N1 upgrade package that contains the current version of the Kaleido Software*
iControl Web	iControl Web is not yet compatible with Kaleido-X version 8.20 and later. Refer to the iControl Release Notes for updates.				

a. Applies to KMV-3901/3911, Kaleido-XQUAD.

b. Applies to Kaleido-MX, Kaleido-MX 4K, Kaleido-Modular-X.

c. Versions 2.2.0 and later of the CPU-ETH2 firmware are not compatible with Kaleido-MX and Kaleido-Modular-X systems that have a version the Kaleido Software *earlier than 7.20*. Using a Kaleido-MX or Kaleido-Modular-X multiviewer that has a version of the Kaleido Software earlier than 7.20, with a Densité controller that has version 2.2.0 or higher of the CPU-ETH2 firmware, may result in an inoperative multiviewer system, in which case you might need assistance from Grass Valley Technical Support.

d. Frame reference module included with CPU-ETH3.

e. SDI/IP gateway module of the KMX-3901-IN-IP input/output card. The current IPG-3901 upgrade packages update the service panel only. Firmware is upgraded separately, directly on the module's CF card.

f. The KMX-3901-IN-IP input/output modules are compatible with iControl version 7.10 and later.

IMPORTANT
Keeping your Grass Valley software products up to date ensures optimal interoperability between all system components.

Contact Us

Grass Valley Technical Support

For technical assistance, contact our international support center, at 1-800-547-8949 (US and Canada) or +1 530 478 4148.

To obtain a local phone number for the support center nearest you, consult the Contact Us section of Grass Valley's website (www.grassvalley.com).

An online form for e-mail contact is also available from the website.

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