Kaleido-X Version 6.32 Release Notes

Miranda KALEIDOX

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table of contents

1 Release Notes 1

Overview . . . 1
New Features and Enhancements . . . 2
New Features in Kaleido-X Version 6.30 . . . 2
New Features in Kaleido-X Version 6.20 . . . 4
New Features in Kaleido-X Version 6.02 . . . 7
New Features in Kaleido-X Version 6.00 . . . 8
New Features in Kaleido-X Version 5.30 . . . 9
Bug Fixes . . . 9
Bugs Fixed in Kaleido-X Version 6.32 . . . 9
Bugs Fixed in Kaleido-X Version 6.30 . . . 10
Bugs Fixed in Kaleido-X Version 6.21 . . . 11
Bugs Fixed in Kaleido-X Version 6.20 . . . 11
Bug Fixed in Kaleido-X Version 6.02 . . . 13
Bugs Fixed in Kaleido-X Version 5.32 . . . 13
Bugs Fixed in Kaleido-X Version 5.30 . . . 14
Known Issues and Limitations . . . 15
Installation, Upgrade, Downgrade, Live Update . . . 15
System . . . 17
Hardware . . . 24
Monitor Wall . . . 25
Mouse Operation and Kaleido-RCP2 . . . 31
Signal Formats . . . 33
Alarm Management and Actions . . . 34
SNMP . . . 35
Router Control . . . 36
Kaleido Remote Control Protocol (Gateway) . . . 38
XAdmin . . . 39
XEdit . . . 40
Documentation . . . 45
Supported Input/Output Formats . . . 46
Kaleido-IP . . . 46

KMV-3901/3911 47
Kaleido-X16 49
Kaleido-X (4RU), Kaleido-X (7RU) and Expansion Systems 51
Peripheral Device/System Support 54

2 System Requirements and Installation 59

Software and Firmware Versions 59
System Requirements 61
Client Platform 61
Component Compatibility 61
Ethernet Connection 62
Clusters 63
Kaleido-X Output/Expansion Cards 64
KMV-3901/3911 Time Reference 64
Upgrading 64
Upgrading Your Kaleido-IP Multi-Viewer to Kaleido-X Version 6.32 65
Upgrading a Kaleido-X/X16, or KMV-3901/3911 to Kaleido-X Version 6.32 69
Downgrading 76
Verifying the Amount of RAM Installed on Kaleido-X Output Cards 78
Replacing the Memory Module on KXO-Dual Output Cards 80

Contact Us! 83

1 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 6.32 is a minor release containing a few bug fixes (see page 9). Except for these Release Notes, no changes have been made to the earlier documentation, which remains valid for this release.

IMPORTANT: **Kaleido-X16 and KXO-Dual3 compatibility**

- As of version 5.22 of the Kaleido-X Software, all new Kaleido-X16 multi-viewers and KXO-Dual3 output cards have new hardware components not compatible with earlier versions of the software.
    - Kaleido-X or Kaleido-X16 multi-viewers shipped with version 5.22 (or later) 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 later), and might, in some cases, apply to older output cards and Kaleido-X16 multi-viewers, 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 multi-viewers 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.

- Please verify whether your output cards already have a 2-GB RAM module installed (see "Verifying the Amount of RAM Installed on Kaleido-X Output Cards" on page 78) before ordering memory upgrade options.
- Once you have identified how many (if any) of your KXO-Dual cards only have a 1-GB RAM module, make sure to order one memory upgrade option for every KXO-Dual card that must be upgraded. This 2-GB RAM module can easily be installed in the field (see "Replacing the Memory Module on KXO-Dual Output Cards" on page 80).

The "Internal router" logical router is not supported anymore

- As of version 5.20 of the Kaleido-X Software, configurations that involve controlling a multi-viewer's router outputs via the *Internal router* logical router are not supported anymore. See Ref. #31649 on page 7 for more information.

Notes

- In line with our commitment to environmental preservation, only the Release Notes, the Quick Start Guide for your multi-viewer model, and some ancillary documents (e.g. welcome letters, warranty cards) are distributed in printed form. All manuals are available on the Kaleido-X DVD. You can also obtain the latest version of the manuals and the Release Notes from the Software Downloads section of Miranda's Support portal. See "Documentation" on page 45 for details.
- To install and use XEdit, you must be connected to the multi-viewer over an Ethernet network, or have access to the Miranda Technical Support portal. Refer to "Installing XEdit" in the Quick Start Guide that shipped with your multi-viewer, for more information.
- iControl version 3.60 introduced a control panel for the Densité service associated with the KMV-3901/3911 multi-viewers. This control panel provides access to some multi-viewer features directly from iControl Navigator or from an iControl Web page, and is described in the KMV-3901/3911 Guide to Installation and Operation (see "Documentation" on page 45).

New Features and Enhancements

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.

New Features in Kaleido-X Version 6.30

- [Ref. F33234/#33281] **Kaleido-IP:** Support for source-specific multicast (SSM), and source-filtered multicast (SFM) transport streams (filtering limited to a single source IP in include mode only).
- [Ref. #30130] **Grass Valley Zodiak switchers:** Support for the serial contribution tally protocol used to obtain tally information from Grass Valley Zodiak switchers.

Enhancements in Kaleido-X Version 6.30

- [Ref. #31712] **Kaleido-IP:** Decoding of unencrypted Digicipher 2 (DCII) elementary streams.
- [Ref. #32052] **Kaleido-IP:** Support for dynamic H.264 video format changes.

> **Note:** 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. #34104/34070] **Kaleido-IP:** Improved handling and recovery of dynamic PSI table changes in transport streams.
- [Ref. #32455] **Kaleido-IP:** Text items (e.g. program and provider names) within DVB streams are now decoded using the character set specified in the associated DVB-SI data (as per ETSI EN 300 468 Annex A).
- [Ref. F33678] **Kaleido-IP:** Improved fluidity when decoding streams at progressive scan frame rates of 60 or 50 Hz. Better deinterlacing quality for interlaced video content.
- [Ref. F33953] **Kaleido-IP:** Support for the display rotation option.

> **Notes**
>
> - If two displays are connected to the Kaleido-IP, then they must both have the same orientation.
> - With the current version of the Kaleido-X Software for the Kaleido-IP, the display rotation option cannot yet be enabled or verified in XAdmin's Status and Options page. Contact your Miranda sales representative for more information.

- [Ref. #31228/32924] **Virtual alarms:** The internal representation of virtual alarms has been made more generic resulting in better portability of multi-viewer system databases, and clearer identification of alarms shared with iControl systems.

> **Note:** As a result of this change in the URI/path structure, it is now necessary to reassign any virtual alarms that were created on a multi-viewer before the change, and used in iControl Web pages. Virtual alarms created in iControl are not affected.

- [Ref. F33725/F26951] **Text rendering on monitor wall:** Improved readability of text elements on UMDs, clocks, audio level meters, time code monitors, timers, and XDS metadata monitors. The improvements are most noticeable on monitor wall displays associated with a KMV-3901/3911 multi-viewer.
- [Ref. #26263] **Text rendering of CC/subtitling on monitor wall:** Support for displaying CC/subtitling in a larger font size.

> **Note:** This feature applies to the Kaleido-X and Kaleido-X16 multi-viewer models only, and is in a beta stage.

New Features in Kaleido-X Version 6.20

- [Ref. #32516] **Kaleido-IP restart and shut down:** In the case of a Kaleido-IP multi-viewer, XAdmin features a new page from which you can shut down the multi-viewer, restart it, or only restart its operating system.
- [Ref. #30107/31807] **Kaleido-IP audio monitoring:** Version 6.20 of the Kaleido-X Software for the Kaleido-IP introduces support for audio monitoring at the DisplayPort/HDMI output. See Ref. #32512, in the Kaleido-IP limitations section, on page 18.

  Note: Before connecting a display or AV receiver to the Kaleido-IP multi-viewer, make sure the multi-viewer is powered off. In the advent that you have connected such a device while the multi-viewer was running, you must restart the multi-viewer for audio monitoring to be functional.

- [Ref. #30088] **Router control:** Support for importing NVISION router configurations from NV9000 systems that have version 6.0.24 or later of the NV9000 router control system.
- [Ref. F28883] **Router control:** The *KX Router* logical router configuration is now automatically shared between multi-viewers and iControl systems, and also between multi-viewers and RCP-200 devices with version 1.50 or later.

  Note: Although they are visible in iC Router Manager Configurator, Dynamic Control features are not supported for this specific logical router.

- [Ref. F23669] **Monitor wall destination names:** Support for showing destination names on the monitor wall by triggering a monitor wall action or a background action.
- [Ref. #26187] **Tally interface devices:** Support for the Kayenne serial tally protocol for production switchers.

  Note: In the case of a Kayenne system involving ISO recorders controlled via GPI, when a GPI command is used to take a recorder off air, related tallies may not be updated on the multi-viewer side. In addition, the following Kayenne features are not supported:
  - Pgm-Pst Look Ahead Preview (LAP) tallies (“Next On Air”)
  - Bus tallies
  - Tracing of upstream tally tributaries

- [Ref. #27094] **Kaleido-X16 Cascade:** Kaleido-X version 6.20 introduces support for cascade systems comprising up to three Kaleido-X16 multi-viewers, operated as a single system. The cascade makes it possible to monitor up to 48 video inputs on a single monitor wall display.

> **Note:** In the current version of the Kaleido-X Software, cascade systems are subject to a number of limitations. See "Cascade Limitations" on page 22, for details.

- [Ref. #23742] **Automated creation of logical sources:**[1] A set of logical sources based on external video router sources or on multi-viewer inputs can be added to the sources table, as a single operation, by clicking **Create logical sources** on the menu that appears when you right-click supported elements in the filtered system list. From the same menu, you can also enable automatic sources creation, which means that the logical sources associated with the selected element will be kept in sync with the corresponding external sources. For example, when sources are added or modified in a router's own configuration environment, logical sources will be added or updated automatically in the multi-viewer's sources table.
- [Ref. #29782] **Access control:**[2] XEdit supports an authentication mechanism to prevent unauthorized users from connecting or exporting to a multi-viewer.

Enhancements in Kaleido-X Version 6.20

- [Ref. #26318/29298] **Logical sources with dynamic names and categories:**[3] Source information such as the source ID, the source name and the associated category are managed as separate columns in the sources table, allowing you to configure dynamic source names and categories.

> **Notes**
>
> - When a logical source's name or category changes, the row header is updated accordingly.
> - When applying an *overall* incremental copy (from the row header), the Source Info columns and the Video levels are excluded. These columns must be incremented individually.
> - The overall incremental copy features relies on a video level having been populated first.

- [Ref. #31936/30414] **Kaleido-IP:** Support for automatic adjustment of a video monitor's aspect ratio based on the input signal type.

> **Note:** The Kaleido-IP does not yet support automatic decoding of a signal's aspect ratio from AFD or WSS metadata.

- [Ref. #32820] **Kaleido-IP:** Improved support for H.264 decoding, including support for signals with picture-adaptive frame-field coding (PAFF) and temporal scalability based on a dyadic hierarchical prediction structure.

1. This feature was introduced in version 6.00 for the Kaleido-IP multi-viewer models.
2. This feature was introduced in version 6.00 for the Kaleido-IP multi-viewer models.
3. This enhancement was introduced in version 6.00 for the Kaleido-IP multi-viewer models.

- [Ref. #31094] **Kaleido-IP upgrade interface:** XAdmin's Web interface for reinstalling, upgrading, or downgrading the Kaleido-X Software on a Kaleido-IP multi-viewer is more robust and provides better feedback.
- [Ref. #27931] **Kaleido-IP output resolution:** It is now possible to change the Kaleido-IP output resolution from the monitor wall, and from XEdit, to use display monitors with a resolution that is different from the default resolution of 1920 × 1080 @ 60 Hz. The Ctrl+Alt+R keyboard shortcut (to reset monitors to a fallback resolution of 1280 × 1024 @ 60 Hz) is also supported.

  Notes
  - The Kaleido-X Software for the Kaleido-IP does not yet support automatic output resolution detection (see Ref. #31924/33030 on page 18).
  - After configuring custom resolutions in XEdit, you must restart the Kaleido-IP for the new resolutions to become effective.

- [Ref. #31620] **Kaleido-IP network interface configuration:** In XAdmin's System Configuration page, it is now possible to disable unused *data* ports.
- [Ref. #30835] **Network interface configuration:** The Kaleido-X Software now supports automatic detection of the connection speeds and duplex modes available to a multi-viewer's network adapters (e.g. 100 Mbps half-duplex, 100 Mbps full-duplex, 1000 Mbps full-duplex), and allows related configuration to be performed from XAdmin's System Configuration page.[1]

  Note: As required by the IEEE-802.3 standard, section 28D.5, 1000 Mbps full-duplex communication is only supported via auto-negotiation.

- [Ref. #24437] **Kaleido-X, Kaleido-X16 Dolby E audio:** XEdit supports the selection of a second Dolby E program to be decoded from an input signal's embedded audio streams.
- [Ref. #31768/31110] **KMV-3911, Kaleido-X16 phase locking:** In the case of a KMV-3911 or Kaleido-X16 multi-viewer, you can enable phase-locking at the output head level, in XEdit, to support production switchers (or other equipment) connected to the multi-viewer's HD-SDI outputs.

  Note: Phase locking is disabled by default, to allow for a minimal processing delay. Leave it disabled for all other multi-viewer models, or if your system does not involve downstream equipment requiring phase-locked signals.

- [Ref. #30465/32232] **Kaleido-IP:** Support for the large pointer attribute that can be configured in XEdit for a room's monitor wall.

1. This feature was introduced in version 6.02 for the Kaleido-IP multi-viewer models.

- [Ref. #30370/30916] **Kaleido-IP router control:** Support for changing a monitor's source assignment by using a router control device or application has been implemented. The Kaleido-X Router Control applications (Matrix, Single Bus) are also supported.
- [Ref. #31649] **Kaleido-X (7RU), Kaleido-X16 router control:** The *Internal router* logical router, which was not supported anymore since version 5.20 of the Kaleido-X Software is now deprecated and no longer part of any system configuration.

  Note: Use the *KX Router* logical router, not only for controlling monitor wall destinations, but also for controlling your multi-viewer's router outputs. The KX Router approach allows you to assign a logical source to any router destination or monitor wall destination, consistently and transparently, from the same user interface (monitor wall menu, or router control panel or software). Sending sources from an upstream router to the multi-viewer's router outputs is also supported, once you have added the multi-viewer's router outputs to the KX Router configuration (otherwise the **Send to [router] output** menu will not be enabled).

- [Ref. #7093] **Router control:** Support was added for the *System Destination Lock* functionality in Miranda's implementation of Evertz's Quartz Type 1 protocol.
- [Ref. #30491] **XEdit:** Ability to remove multiple cards from a Kaleido-X system configuration, or multiple transport streams from a Kaleido-IP configuration, in a single operation, from the menu that appears when you right-click a selection in the System list. It is also possible to add the same card type to multiple Kaleido-X frame slots in a single operation, if the selected slots are of the same type.
- [Ref. #31729] **XEdit:** By default, audio monitors added to a layout by using the toolbar button have their Audio format assignment set to *Auto.* The former default assignment was PCM, which was not appropriate for Kaleido-IP multi-viewers.
- [Ref. #31731] **XEdit predefined widget libraries:** Corrections were made to some layout elements in the predefined widget libraries to address minor configuration issues.

  Note: Existing layouts *in your local workspace* that include *unmodified* elements from the predefined widget libraries will be automatically updated to the revised configuration when you open them in XEdit version 6.20. Existing layouts in a multi-viewer's online database will retain their original configuration.

New Features in Kaleido-X Version 6.02

- [Ref. #30833] **Support for the Kaleido-IP-4:** In addition to the initial Kaleido-IP multi-viewer model with two GigE ports, a Kaleido-IP model with four GigE ports is now supported.

  Note: In the current version of the Kaleido-X Software, Kaleido-IP systems are subject to a number of limitations. See "Kaleido-IP limitations" on page 18, for details.

- [Ref. #30909] **Kaleido-IP support of HE-AAC audio:** In addition to the AC-3, MPEG-1, MPEG-2, and MPEG-4 AAC LC compressed audio formats, the Kaleido-IP now supports MPEG-4 HE-AAC audio as well.

Enhancements in Kaleido-X Version 6.02

- [Ref. #30521] **Kaleido-IP:** Support for time synchronization against an NTP server.
- [Ref. #31138] **Kaleido-IP:** The factory-default databases for the Kaleido-IP multi-viewers include a room with a full screen zone; a sources table with more audio, text and alarm levels; new layouts; and more extensive RCP user configuration.
- [Ref. #30297/30834] **Kaleido-IP support for join and leave:** It is now possible to add and configure up to 1500 programs in a Kaleido-IP system without exceeding the network's bandwidth or the unit's decoding resources. The Kaleido-IP multi-viewer only joins a multicast group when it needs to decode a signal from a transport stream within this group (i.e. when the signal is to be monitored on the wall or subject to baseband probing that requires decoding). The Kaleido-IP leaves the multicast group once configuration is completed, or as soon as a change of layout implies that a different set of streams must be decoded.

  Note: Before making alarm-level source assignments, or before creating or modifying a layout, for a **Kaleido-IP** system, review the guidelines listed under "Ethernet Connection" on page 62.

- [Ref. #31625] **Kaleido-IP:** Ability to decode multicast streams originating from outside the subnet where a DATA port is configured.
- [Ref. #31054] **Kaleido-IP:** Support for audio signals with a sampling rate of 44.1 kHz.
- [Ref. #31435] **Kaleido-IP:** Improved support for H.264 decoding, including support for signals with picture-adaptive frame-field coding (PAFF), and signals with a field-based network abstraction layer (NAL).
- [Ref. #31841] **Kaleido-IP:** Better fluidity in decoding of H.264 sources.

New Features in Kaleido-X Version 6.00

- **Support for the Kaleido-IP multi-viewer:** The Kaleido-IP can monitor and display up to 24 HD or up 64 SD television programs distributed over IP, across two HDTV displays. It supports MPEG-2 and H.264/AVC compressed video, and the AAC, AC-3, MPEG-1, and MPEG-2 compressed audio formats.

  Note: In the current version of the Kaleido-X Software, Kaleido-IP systems are subject to a number of limitations. See "Kaleido-IP limitations" on page 18, for details.

New Features in Kaleido-X Version 5.30

- [Ref. F29834] **Support for the Kaleido-Modular KMV-3911 multi-viewer:** The KMV-3911 multi-viewer replaces the KMV-3901. In addition to the earlier model's existing features, the KMV-3911 supports up to two HD-SDI monitoring outputs (with embedded audio): one associated with Head 1, and one with Head 2 (if enabled). Compared to the Kaleido-X and Kaleido-X16 models, some limitations apply to the KMV-3901 and KMV-3911 models, and are listed in the Known Issues section (see page 19).

Enhancements in Kaleido-X Version 5.30

- [Ref. #29776] **Teletext/subtitling color:** Text color attributes are supported for teletext (WST, OP-47).

  Note: Other text formatting attributes specified in the OP-42 (WST) and OP-47 (HD teletext) standards (e.g. background colors, italic and bold type, font case) are not supported (see Ref. #24433 on page 30). On the monitor wall, closed captions (CC, DTVCC) appear in white against a black background.

- [Ref. #31048/29834] **Support for embedded audio at the HD-SDI monitoring output:** All Kaleido-X, Kaleido-X16, and KMV-3901/3911 multi-viewer models support monitoring of one audio pair, embedded on Group 1, at the HD-SDI output.

  Note: In the case of the Kaleido-X16, support for audio monitoring at the HD-SDI output requires version 5.30 (or later) of the Kaleido-X Software, and recent hardware. In the XAdmin Status and Options page, under SYSTEM, the value indicated for the **Card revision** attribute must be 0x4 or more.

- [Ref. #30009] **KMV-3901/3911:** Support for dynamic range calibration.
- [Ref. #30938] **Custom images:** The maximum size for a custom safe area image or layout background image has increased to 256 KB.

Bug Fixes

Bugs Fixed in Kaleido-X Version 6.32

★ [Ref. #34729/35148] **System performance:** Using virtual alarms or global alarms based on sub-alarms that are subject to frequent status changes may result in a performance degradation of the multi-viewer system, associated with warning messages "realConsumer is null" in the system logs.

★ [Ref. #34507] **Alarm scheduling:** On rare occasions, modifying an existing alarm schedule by using XEdit may affect some scheduled alarms, which may unexpectedly change state or miss their next scheduled transition.

★ [Ref. #29019] **Sharing alarms with iControl:** After an iControl application server has lost communication with a multi-viewer configured to publish alarms to this application server, the multi-viewer system may become unresponsive if the application server remains unavailable for several hours.

Bugs Fixed in Kaleido-X Version 6.30

- [Ref. #33065] **Kaleido-X multi-viewers:** After an output card restarted, following a Live Update or if you clicked the corresponding Reset button in XAdmin's Status and Options page, you may notice noise (e.g. vertical lines, or stray dots) on the associated monitor wall displays.
- [Ref. #34205] **KMV-3901/3911:** Downloading a system snapshot for a KMV-3901/3911 multi-viewer, or viewing the multi-viewer's memory snapshot, from XAdmin's Technical Support page, may result in all options becoming disabled, in which case some system information displayed on the Status and Options page would also have reverted to default values (e.g. serial number: 000000-00000000, firmware version: xCAFE).
- [Ref. #33721] **XAdmin:** In XAdmin's Status and Options page, the list of time zones applicable to Brazil does not reflect the latest changes to this country's daylight saving schedule and time zone regulations.
- [Ref. #33574] **NVISION alias sync:** In the case of a multi-viewer system with sources from an NV9000 router control system, after restarting your multi-viewer, or after changing the NVISION router configuration in XEdit, the first change made to the router configuration in NV9000-SE Utilities may not be reflected on the monitor wall (i.e. the corresponding text label may momentarily fail to be updated).
- [Ref. #30764] **Logical sources:** In XEdit, after changing the name of a level in the sources table, the **Save** button (and the corresponding element on the **File** menu) may remain unavailable.
- [Ref. #32805] **Kaleido-IP and EdgeVision:** Input signals with a resolution higher than 960 × 540, from an EdgeVision system, are not yet supported.
- [Ref. #31020/32129] **Kaleido-IP:** In the case of a Kaleido-IP, when monitoring a film-based signal (subjected to 3:2 pulldown deinterlacing) you may notice ghosting artifacts on the monitor wall.
- [Ref. #33257] **Kaleido-IP:** In the case of a Kaleido-IP, when using the incremental copy tool to populate a *video* level in XEdit's logical sources table, the auto-increment is momentarily limited to programs within the current transport stream.
- [Ref. #33279] **Kaleido-IP:** After a program was removed from a transport stream and then added back to it, corresponding video windows may remain blank on the monitor wall.
- [Ref. #33619] **Multi-program transport streams and Kaleido-IP:** In the case of multi-program transport streams (MPTS) sources where programs are added or removed dynamically (e.g. when re-grooming or channel-lineup changes are taking place), 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.

Note: If your Kaleido-IP multi-viewer shipped with a version of the Kaleido-X Software earlier than 6.30, you may still have the problem described above, even after upgrading your system to version 6.30 (or later), in which case please contact Technical Support for a solution.

Bugs Fixed in Kaleido-X Version 6.21

- [Ref. #33988] **Expansion systems:** With version 6.20 of the Kaleido-X Software, it is not possible to select or clear the **Enable expansion** check box in XAdmin's System Configuration page, thus preventing you from converting two Kaleido-X (7RU) multi-viewers into one Kaleido-X (14RU) expansion system, and vice versa.

Bugs Fixed in Kaleido-X Version 6.20

- [Ref. #34161] **Kaleido-X16 chroma bleeding:** In the case of a Kaleido-X16 multi-viewer, chroma bleeding may be observed at the SDI output.
- [Ref. #32548] **Security vulnerabilities:** XAdmin could allow an attacker to inject code into URLs, or to read arbitrary files in the multi-viewer's file system or execute commands.
- [Ref. #31385] **Kaleido-IP:** Extended-ASCII or Unicode characters (such as accented letters, non-Latin characters, and other symbols) in the source name associated with a transport stream in XEdit are not supported.

  Note: As of version 6.20, the Kaleido-X Software supports UTF-8 encoded source names. The only characters, which cannot be used in a source name are: `@ / \ '` and `"`.

- [Ref. #32193/32549] **Kaleido-IP:** Very frequent layout changes (e.g. every few seconds) may result in blank video windows or video remaining from a previous layout, on the monitor wall.
- [Ref. #32612] **Kaleido-IP:** When monitoring SD NTSC signals with dynamic field ordering, you may notice ghosting artifacts on the monitor wall.
- [Ref. #33253] **Kaleido-IP:** If you add a transport stream to a Kaleido-IP system configuration after you exported the database to the multi-viewer, programs in the new transport stream may fail to be discovered.
- [Ref. #30348] **Kaleido-IP:** In the case of a Kaleido-IP multi-viewer, if you disconnect a monitor wall display while the system is running, the display may stay blank when you connect it again.
- [Ref. #29730/30204] **Closed captions:** On rare occasions, closed captions from an HD signal may not be decoded.

- [Ref. #30741] **Timers:** If you disabled on-screen control for a timer in a layout, creating a backup of your system's database from XEdit, and then retrieving the backup, may convert this timer into a time code monitor.
- [Ref. #31340] **Incomplete clearing of source assignments:** In XEdit version 5.20, the **Clear source/channel** feature may fail to clear some assignments in the selected monitor.
- [Ref. #24409/27111] **NVISION Ethernet protocol - Enterprise router:** The Kaleido-X Software does not fully support the *NVISION Ethernet protocol - Enterprise router* protocol.

  Note: To benefit from this protocol's full feature set in the context of Kaleido-X Router Control, your router controller must have NV9000 version 6.0.24 or later.

- [Ref. #29634] **Router Control:** Miranda's implementation of the PESA USP router protocol does not support multiple physical levels.
- [Ref. #30607/30643] **Kaleido-IP alarm logging:** In the case of a Kaleido-IP multi-viewer, the Kaleido-X Software does not support logging events to an iControl application server.
- [Ref. #25283] **KMV-3901/3911:** After switching from no input to a supported input format, vertical lines may appear in the associated video windows. The problem resolves itself after a few seconds.
- [Ref. #27185] **Cascade systems:** Static images set as a layout background, from a multi-viewer other than the one farthest from the monitor wall, are not visible on the monitor wall.

  Notes
  - As of version 6.20, it is no longer necessary for XEdit to be connected to the multi-viewer farthest from the monitor wall when you select a static image for a layout background.
  - In the case of a safe area image or clock logo, XEdit must be connected to the multi-viewer that will provide the source for the corresponding monitor. A clock that is not associated with a specific source is displayed by the system closest to the display.

- [Ref. #27186/28622] **Cascade systems:** Custom resolutions, and audio scales are not automatically propagated to all members of a cascade.

  Note: As of version 6.20, it is no longer necessary to manually replicate custom resolutions, or audio scales to the other members of a cascade by using the resolution backup, or audio scale backup features.

- [Ref. #27194] **Cascade systems:** Dashboard interaction is not supported.

  Note: As of version 6.20, it is no longer necessary to disable dashboard display in a cascade room.

- [Ref. #22513] **Booting a Kaleido-X16 with missing video inputs may cause gray flash:** If a Kaleido-X16 is booted with no signal on one or more video inputs, all of the video monitors on the

monitor wall may momentarily flash a gray background when a signal is later applied to one of these inputs.

- [Ref. #32048] **Loss of communication with TSL (network) device:** After a VSM control system lost its network connection, a multi-viewer that was connected to this VSM system via the TSL (network) protocol may not be able to connect to the VSM once the VSM's network connection is reestablished.

Bug Fixed in Kaleido-X Version 6.02

- [Ref. #31056] **Security vulnerabilities:** The system database, within a multi-viewer's file system, lacks password-protection, and viewing a memory snapshot from XAdmin's Technical Support page may allow an attacker to inject arbitrary cookies, or to cause arbitrary HTML and script code to be executed in your browser.
- **Kaleido-IP:**
  - [Ref. #32130] In the case of monophonic audio, audio level and peak meters on the monitor wall may show irrelevant values for the unused channels, instead of silence.
  - [Ref. #30528] If you add a multicast transport stream to NETWORK ADAPTER 1 (on the *management* network), the programs included in this stream may fail to appear in the System list.
  - [Ref. #31302] Once a transport stream is part of your system configuration, changing its source name attribute in XEdit may cause the list of programs not to appear any longer under the transport stream element in the System list.
  - [Ref. #31732] Some PAL video streams (e.g. video with fast-changing content) may lack fluidity on the monitor wall.
  - [Ref. #31576] Some MPEG-2 packetized elementary streams (e.g. streams whose packets contain complete groups of pictures as opposed to single frames) may lack fluidity on the monitor wall.
  - [Ref. #30855] The Kaleido-IP supports decoding of H.264 video with a maximum bit rate limited to 8 Mbps.

Bugs Fixed in Kaleido-X Version 5.32

- [Ref. #29178] **Aberrant monitor wall output following REF-1801 signal glitch:** If a glitch happens in the reference signal to a Densité frame housing KMV-3901/3911 multi-viewer cards, then monitor wall output from these cards may become garbled.
- [Ref. #31060] **Field inversion at the KMV-3911 HD-SDI output:** In the case of a KMV-3911 multi-viewer configured to obtain a reference signal from a Densité REF-1801 HD/SD Frame Reference Module, when the format selected for the HD-SDI monitoring output is 1080i, the monitoring output signal is not always properly genlocked to the REF-1801's reference signal.

- [Ref. #31419] **KMV-3901/3911 3D stereoscopic display option:** In the case of a KMV-3901 or KMV-3911 multi-viewer, when monitoring 3D signals, the multi-viewer's 3D stereoscopic display option could introduce a delay of up to 4 frames between the left and right eye sources.

Bugs Fixed in Kaleido-X Version 5.30

- [Ref. #20263/30639] **Actions:** When several actions are triggered at once, some of them may fail to complete.

  Note: Effective as of version 5.30 of the Kaleido-X Software, this bug fix involves changes to the JavaScript code associated with all predefined actions elements in XEdit. For the fix to be applied to actions created with an earlier version of XEdit, open them with version 5.30 or later, and view the underlying JavaScript code by selecting every action element in turn, and then clicking the **View source** button in the **Properties** pane. XEdit will automatically update the JavaScript code. Verify that the first lines in the code start with `var param_`<xxx> = <value>, before saving the action.

- [Ref. #28510/T104341] **Kaleido-X (4RU)/Kaleido-X (7RU):** When input feeds, such as camera signals, are interrupted for a period of time (e.g. cameras might be switched off during the night or between specific events), monitors that were displaying these signals on the monitor wall may remain blank once the equipment is switched on again.
- [Ref. #29238] **Expansion systems:** When restarting a Kaleido-X (14RU) expansion system that contains neither KXI-16HSV3 nor KXI-16HS3 input cards, Frame B may fail to restart.
- **KMV-3901/3911:**
  - [Ref. #28855] With some display models, monitoring of PCM audio pairs through the HDMI output may not be possible.
  - [Ref. #28823] On rare occasions, changing the monitor wall display resolution may reveal a colored vertical line along the right side of the screen.
  - [Ref. #30008] When monitoring HD and SD signals concurrently, you may notice that the colors are not exactly the same on the monitor wall.
- [Ref. #29213/30476] **Slow tally updates with TSL (network) device:** In the case of a complex configuration involving a control system (e.g. VSM) used with a TSL (network) UMD and tally system, a router, and a large number of virtual alarms, there may be a significant delay before the tallies and UMDs on the monitor wall reflect the latest crosspoint changes.
- [Ref. #29459/30808] **Display compatibility:** For some combinations of display models and multi-viewer models, the multi-viewer may not recognize a supported display resolution.

Known Issues and Limitations

Note: The star (★) symbol indicates a new known issue or limitation found in Kaleido-X version 6.32.

Installation, Upgrade, Downgrade, Live Update

All Multi-Viewer Models

- [Ref. #25666] If you try upgrading a KMV-3901/3911 multi-viewer by using an operating system (.os) file meant for a Kaleido-X multi-viewer 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 multi-viewer by using files meant for the other multi-viewer 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-6.32-build_xxxx.os`" for a Kaleido-X multi-viewer, "`kmvos-6.32-build_xxxx.os`" for a KMV-3901/3911, or a `.run` file for a Kaleido-IP), and then insert the USB key again.

- [Ref. #14861] 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. #22594] **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 multi-viewer or reset the KXO card after the upgrade is complete.

Kaleido-IP

- [Ref. #32001] **Upgrade button missing after uploading RUN file to a Kaleido-IP with a pre-6.20 version of the Kaleido-X Software:** In the case of Kaleido-IP systems with a Kaleido-X version earlier

than 6.20, on rare occasions, after uploading the RUN package you wish 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. #31094 on page 39.

- [Ref. #33687] **Upgrade apparently incomplete:** When upgrading your Kaleido-IP system to Kaleido-X version 6.20 or later, *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 multi-viewer by clicking the Reset button in the Status and Options page, and then refresh the page.

KMV-3901/3911

- [Ref. #32394/33553] **Altered video on monitor wall after upgrade:** After upgrading a KMV-3901/3911 multi-viewer, video windows on the monitor wall may appear to be corrupted or lacking luminance.

  Workaround: Restart the multi-viewer *once more.*

- [Ref. #25349] **Monitor resolution unknown after upgrade:** After upgrading a KMV-3901/3911 multi-viewer, 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 multi-viewer card.

Kaleido-X16

- [Ref. #22725] On rare occasions, after performing a Live Update on a Kaleido-X16, the USB and serial ports may become inoperative.

  Workaround: Restart the Kaleido-X16 using the power switch.

- [Version 4.10] USB Live Update takes up to 30 minutes on a Kaleido-X16.

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

- [Ref. #29668] Video activity on the monitor wall while a multi-viewer equipped with KXO-HDM modules is being upgraded from an earlier version *to version 5.30* of the Kaleido-X Software may cause a permanent loss of functionality to some of the HD-SDI outputs. Precautions must be taken before installing version 5.30 on such a system. See page 69 for details.

- [Ref. #22196] 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 multi-viewer. After the reboot, the system will start with the updated Kaleido-X 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. #16062] USB Live Update takes about 20 minutes.
- [Ref. #14662] 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. #12752] 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. #16641] After upgrading a Kaleido-X multi-viewer from a version prior to 3.00, the factory audio scales may not be available anymore.

  Workaround: Restore the factory audio scales to the multi-viewer's database, by performing the following:

  1. Launch XEdit.
  2. On the **Configure** menu, point to **Database**, and then click **Import**, to import the current database from the Kaleido-X into your workspace.
  3. On the **Configure** menu, point to **Database**, point to **Restore**, and then click **Audio scales**.
  4. On the **Configure** menu, point to **Database**, and then click **Export**, to export the modified database back to the Kaleido-X.
- [Ref. #18212] **Expansion systems:** If you downgrade a Kaleido-X expansion system from version 3.00 (or later) 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, please refer to "Splitting an Expansion Frame", and "Recovering from a failed downgrade", in the *Kaleido-X (7RU) Hardware Description & Installation Manual*.
- [Ref. #14527] **Version-2.00 upgrades:** When upgrading from version 2.00 to version 2.10 or later, the GPI/Genlock or KXO-24Router firmware upgrade may fail. When the multi-viewer restarts, the Live Update process will automatically try to update the failed cards.

System

Kaleido-IP

- [Ref. #32805] **EdgeVision compatibility:** In the case of a Kaleido-IP multi-viewer system with sources from an EdgeVision device, the Kaleido-IP must have version 6.30 (or later) of the Kaleido-X Software, and the EdgeVision must have version 1.05 (or later) of the EdgeVision software.
- [Ref. #32416] **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. #30834] **Kaleido-IP support for join and leave:** Before making alarm-level source assignments, or before creating or modifying a layout, for a **Kaleido-IP** system, review the guidelines listed under "Ethernet Connection" on page 62.

Kaleido-IP Limitations

With the current version of the Kaleido-X Software, Kaleido-IP systems do not support the following:

- decoding of SMPTE 302M PCM audio
- listening to the same audio stream at both multi-viewer outputs
- audio sampling rate change without a PSI change (see Ref. #33320 on page 33)
- detection or extraction of closed captions, teletext or subtitles
- V-chip monitors or metadata display monitors in a layout
- automatic decoding of a signal's aspect ratio from AFD or WSS metadata
- changing the multi-viewer's network settings from the monitor wall (see Ref. #31429 on page 26)
- automatic output resolution detection (see Ref. #33030 on page 26)
- associating unicast transport streams to consecutive port numbers
- alarm-debouncing calibrations (see Ref. #27563 on page 34)
- publishing alarms to SNMP managers (see Ref. #27416 on page 35)
- encrypted stream indicator (see Ref. #29645 on page 27)
- cropping and zooming (underscan/overscan)
- spanned monitors

KMV-3901/3911

- [Ref. #30947] **KMV-3911 HD-SDI output activation:** In the case of a KMV-3911 multi-viewer, after enabling the *SDI monitoring output* option in XAdmin, you may need to power cycle the multi-viewer for the change to be effective.
- [Ref. #25435] **KMV-3901/3911 networking setup:** If the Densité CPU-ETH2 controller associated with a KMV-3901/3911 multi-viewer 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 multi-viewer's IP address and other networking parameters.

  Workaround: Before changing the multi-viewer's networking parameters, make sure the Densité controller's *default action* is set to *keep card settings*. Refer to "Step 2: Networking Setup" in the Kaleido-Modular Quick Start Guide, for detailed instructions.

- [Ref. #25909] **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 multi-viewer'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 KMV-3901/3911 to the replacement multi-viewer.

  Note: The current version of the Densité controller cards do not have enough non-volatile memory to support full database backups from up to ten multi-viewer cards.

KMV-3901/3911 Limitations

Designed to address production-type applications, the KMV-3901/3911 multi-viewer 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. #33131] **EdgeVision compatibility:** A Kaleido-X16 multi-viewer configured to feed its HDMI output to an EdgeVision device must have version 5.30 (or later) of the Kaleido-X Software.
- [Ref. #28752] **Audio monitoring:** When monitoring a discrete analog or AES audio source from an ABT through one of the multi-viewer's HDMI outputs, it may happen that the audio is lost for a second or two, intermittently.
- [Ref. #26636] **Kaleido-X16 with two serial devices:** If there are two serial devices connected to a Kaleido-X16 multi-viewer 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 multi-viewer as follows:

  1. In the **Interconnects** tab, click the link between the device and the multi-viewer, 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 multi-viewer.
  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 multi-viewer once more.

Kaleido-X (14RU) Expansion

- [Ref. #20766] 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. #17264] 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. #17844] 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. #18329] 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.

Kaleido-X (4RU, 7RU)

- [Ref. #25919/T100345] **Kaleido-X (4RU) networking setup:** When the *Output A* card has the master status in a Kaleido-X (4RU) system, it is not possible to change the IP address for both output cards at the same time in XAdmin.

  Workaround: Change the IP address for one output card, apply this change, and then change the IP address for the other card.

All Multi-Viewer Models

- [Ref. #30283] **Kaleido-X16, Kaleido-X (4RU), Kaleido-X (7RU):** If your multi-viewer is configured for half-duplex communication, and you wish to set it back to auto-negotiation mode, you may need to power cycle the multi-viewer, for the change to be effective.
- [Ref. #29019] **Sharing alarms with iControl:** After an iControl application server has lost communication with a multi-viewer configured to publish alarms to this application server, the multi-viewer system may become unresponsive if the application server remains unavailable for several hours.

  Workaround: If the application server is to remain unavailable for a long time, remove it from the system configuration.
- [Ref. #26874] **Swapping port assignments:** Swapping the port assignments between two tally devices connected to a multi-viewer 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 multi-viewer as follows:

  1. In the **Interconnects** tab, click the link between the device and the multi-viewer, 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 multi-viewer.
  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 multi-viewer once more.
- [Ref. #22765] With the **Monitor EDID Auto-detect** feature enabled, if a glitch occurs in the connection between a multi-viewer 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 info.

Workaround: Reset the head resolution or reboot the system to have the proper resolution applied.

> **Note:** The Monitor EDID Auto-detect feature is enabled by default in order to facilitate the initial setup of a Kaleido-X system. To avoid problems, Miranda recommends that you *disable the auto-detect feature once the initial setup is completed*.
> If you later wish to replace one of the displays, re-enable the Auto-detect feature beforehand (remember to disable it once the new display is up and running).

- [Ref. #24179] **Clusters:** All members of a cluster must have the same Kaleido-X Software version.
- [Ref. #20551] **Clusters:** After a multi-viewer 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 multi-viewer once you have loaded it with the appropriate standalone database.
- [Ref. #18204/T80883] Changing an input format may momentarily affect the entire screen.
- [Ref. #23392] **HD-SDI monitoring output resolutions:** The current version of the Kaleido-X 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-X User's Manual, for details.

Cascade Limitations

In the current version of the Kaleido-X Software, cascade systems are subject to the following limitations.

- **Kaleido-X16 cascade:** In the case of a Kaleido-X16 cascade, the following limitations apply:
  - Audio monitoring is not supported.
  - Router outputs are not cascaded.
- In the case of a KMV-3901/3911 cascade, XAdmin may fail to report the system's genlock source, reference format, and related statuses for the second- and third-layer cards (i.e. the ones that are not directly connected to a monitor wall display). iControl alarm browsers, and filtered system lists that display alarms in XEdit may also incorrectly report a reference input loss for these cards.

- **KMV-3901/3911 cascade:** Restarting one of the cards may result in a blank monitor wall display.

  Workaround: If you restart the card associated with the third layer of a cascade, then restart the card associated with the second layer. Once the card associated with the second layer has restarted, then restart the card associated with the first layer as well.
- In the case of a KMV-3901/3911 cascade, an output resolution of 1600 × 1200 is not supported.
- Full screen layouts are not supported.
- Changing a display resolution from the monitor wall menu is not supported. See Ref. #27193 on page 27 for more information.
- Changing the system name or IP address of a KMV-3901/3911 multi-viewer associated with a cascade, by using the card's control panel on the Densité housing frame, or by using the KMV-3901 control panel in iControl, is not supported. To maintain the integrity of the underlying cluster configuration, you must use XAdmin, or the monitor wall menu, to make any such changes. In the advent that such a change was made by mistake, or that is had to be forced for some reason, you will have to repair the broken cascade (see "Repairing a Cascade Configuration", in the KMV-3901/3911 Cascade Step-by-Step Configuration guide).
- **Some changes are not automatically propagated to all members of a cascade.** If you wish to have the same configuration for every multi-viewer in a cascade, then the following elements must be manually replicated:
  - system calibrations
  - sources/channels and router configuration
  - pointer size configuration (after changing the pointer size for a room, on all multi-viewers in a cascade, you must restart every multi-viewer, for the change to become effective across the cascade system)
  - audio monitoring output assignment (the audio monitoring output assignment configured for each RCP user must be replicated manually to every member of the cascade system)
- If two multi-viewers in a cascade are connected to the same router, then the router name should be the same in both configurations. Conversely, two different routers in the same cascade must not have the same name.
- Serial ports are not shared between cascade members. A serial device connected to one multi-viewer in a cascade is not known to the other cascade members.
- Working against the same cascade system in concurrent XEdit sessions is not supported.
- EDID auto-detection is not supported. When configuring a cascade room, make sure the **Use detected monitor resolution** check box is not selected for any of its displays. Refer to "Enabling EDID Auto-Detection from the Monitor Wall", or "Enabling EDID Auto-Detection in XEdit", in the Kaleido-X User's Manual, for details.

- In the case of a KMV-3901/3911 cascade room with two heads, spanning monitors across the two displays is not supported.
- Although nothing prevents you from configuring a **Kaleido-X** cascade system in XEdit, such a configuration is not supported.

Hardware

- [Ref. #26514] **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. #19765] **Kaleido-RCP2 does not support USB hubs:** If an externally powered USB hub is connected to the 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 RCP2.

  Workaround: Use a standard keyboard or keypad, and connect it to the Kaleido-RCP2 directly.
- [Ref. #14565] **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-X version 2.10. Only cards of this version or later should be used in a 4 RU frame.

- [Ref. #12186] **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. #19114] **Redundancy:** The KXO and KXI cards in a Kaleido-X multi-viewer 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, however, a faulty card must be replaced and the system must be allowed time to rebuild. 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. Please refer to “System Requirements and Installation” on page 59, for more information.

- [Ref. #20523] 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, please refer to "Splitting an Expansion Frame" in the *Kaleido-X (7RU) Hardware Description & Installation Manual*.

- [Ref. #17359/13528] **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. #22910] **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-X 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. #34256] **Kaleido-IP:** After modifying a stream name, related text information may stop being displayed in associated UMDs or alarm status monitors, on the monitor wall.

  Workaround: Restart the multi-viewer (refer to "Restarting a Kaleido-IP Multi-Viewer" in the Kaleido-X User's Manual).

- [Ref. #29241] **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. #33001] **Incorrect assignments:** Due to a limitation in XEdit's support for drag-and-drop operations (see Ref. #33001 on page 41), 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. #19978] **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. #33030] **Kaleido-IP output resolution:** In the case of a Kaleido-IP multi-viewer, 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. #33345] **Kaleido-IP:** If you replace a monitor wall display with a different model while the multi-viewer is running, you may notice unexpected behavior at the audio monitoring output.

  Workaround: Restart the multi-viewer to obtain the audio support information from the new display.
- [Ref. #33644] **Kaleido-IP:** If your Kaleido-IP multi-viewer 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. #33143/33144] **Kaleido-IP:** The current version of the Kaleido-X Software for the Kaleido-IP does not yet support V-chip monitors or metadata display monitors in a layout.
- [Ref. #27403] **Kaleido-IP:** The current version of the Kaleido-X Software for the Kaleido-IP does not yet support detection or extraction of closed captions, teletext or subtitles.
- [Ref. #28330] **Video corruption in full screen zone:** When a full screen layout is loaded in front of a particularly complex area on the monitor wall (e.g. against a layout with several video windows, audio level meters, graphically demanding alarm settings), video in the full screen zone may appear corrupted.
- [Ref. #31429] **Kaleido-IP networking configuration:** In the current version of the Kaleido-X Software, if you change the *management* IP address for a Kaleido-IP multi-viewer from the monitor wall, this changes the *data* IP address as well.

  Workaround: Restore the appropriate IP settings for network adapter connected to the data network from XAdmin's System Configuration page.
- [Ref. #29505] **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. #30993] **Kaleido-IP and DXF-200:** In the case of a Kaleido-IP, stringing DisplayPort-to-DVI and DVI-to-HDMI adapters together between the multi-viewer and a DXF-200 device is not a supported configuration, and could result in an output head becoming momentarily disabled.

  Workaround: Use a proper DisplayPort-to-HDMI cable between the Kaleido-IP and the DXF-200-TX module.
- [Ref. #30409] **Kaleido-IP:** The Kaleido-IP does not yet support spanned monitors.
- [Ref. #30403] **Kaleido-IP:** The Kaleido-IP does not yet support cropping and zooming (underscan/overscan) modes.

- [Ref. #29645] **Kaleido-IP:** With the current version of the Kaleido-X Software for the Kaleido-IP, if you attempt to monitor a program that belongs to an encrypted stream, then the corresponding video window displays a black signal on the monitor wall.
- [Ref. #30184] **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. #28316] **Kaleido-X and Kaleido-X16 3D stereoscopic display option:** The current version of the Kaleido-X Software does not support detail enhancement for a 3D source. Calibrating detail enhancement for a multi-viewer input may result in overly bright 3D signals on the monitor wall.

  Workaround: When you need to monitor 3D signals, make sure the corresponding multi-viewer inputs are calibrated with the **Detail Enhancer** parameter set to 0. (This is the default value.)
- [Ref. #28330] **Video corruption in full screen zone:** When a full screen layout is loaded in front of a particularly complex area on the monitor wall (e.g. against a layout with several video windows, audio level meters, graphically demanding alarm settings), video in the full screen zone may appear corrupted.
- [Ref. #31406] **KMV-3901/3911:** When restarting a standalone KMV-3901 or KMV-3911 multi-viewer that was set to lock on a URS signal, you may notice a transient glitch on the monitor wall before the graphic elements appear.
- [Ref. #24819] **KMV-3901/3911:** In cases where the two heads from the same KMV-3901/3911 multi-viewer 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. #27193] **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 multi-viewer associated with the display whose resolution was changed by mistake, and open the corresponding room.
     - If you wish to *restore the previous resolution*, then set this display to its previous resolution.
     - If you wish 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. #28243] **KMV-3901/3911 cascade:** Upon startup of a KMV-3901/3911 cascade system, video from upstream multi-viewers may appear later than video from the card that is connected directly to the monitor wall displays.
- [Ref. #26736] **Kaleido-X multi-viewer cards:** After replacing a card in a Kaleido-X multi-viewer, with another card that has yet to be updated to version 5.20 of the Kaleido-X 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 later.

- [Ref. #15188] **Sony production switchers:** The 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. #27105] **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. #13533] **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. #12992] **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. #25593] **Monitor wall irresponsive after date/time change:** After changing the date or time on a KMV-3901/3911 multi-viewer by using the Densité controller's time management features, the monitor wall may freeze.

  Workaround: Restart the multi-viewer.
- [Ref. #25589] **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. #13388] **Send to [router] output menu available while no router outputs are enabled:** In the case of a multi-viewer model for which there is no *SDI Router Output* option, or a multi-viewer 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. #24014] **Input method selector not available with KMV-3901/3911:** In the case of a KMV-3901/3911 multi-viewer, the current version of the Kaleido-X 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 wish to modify (e.g. static UMD text), and use the appropriate input method from your client PC or laptop.

- [Ref. #24706] **Blank screen after KMV-3901/3911 restart:** After restarting a KMV-3901/3911 multi-viewer, it may happen that a Dell monitor connected to Head 1 remains blank.

  Workaround: Restart the multi-viewer again.

- [Ref. #26053] **Blank screen after KMV-3901/3911 restart:** When a KMV-3901/3911 multi-viewer is powered down shortly after a layout change on the monitor wall, it may happen that the multi-viewer 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 multi-viewer again.

- [Ref. #13287/24424] **Video visible through UI elements:** On rare occasions, video may appear through user interface elements in some windows or on the shortcut menu, in which case the window or menu does not have the expected look and feel.

  Workaround: Restart the multi-viewer (in the case of a Kaleido-X16 or KMV-3901/3911), or reseat the output card associated with the affected display.

- [Ref. #25461] **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. #16135/25547] **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. #17586] **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. #16717] **Spanning monitors:** In XEdit, if you modify the positions of displays (heads) inside a room, then layouts that contain spanning monitors (i.e. monitors that are spanned over two or more heads) may be affected. Specifically, the positions of spanning monitors may be changed.

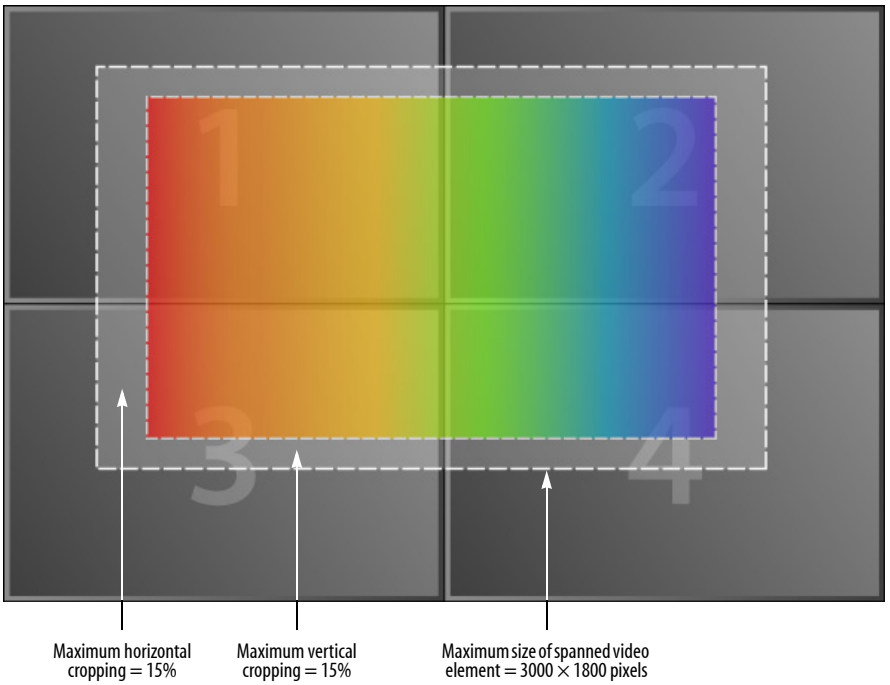
  Workaround: (1) Open the affected layout in XEdit. (2) Reposition any displaced monitors. (3) Move all other layout elements a single pixel in one direction, and then back one pixel. (4) Save the layout. When it is loaded on the wall, all monitors should appear in their designated positions.

- [Ref. #13849] 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. #17088/18433/18425] 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.



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. #17857] **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. #24433/T99474] **Teletext/subtitling:** The current version of the Kaleido-X Software supports foreground colors for teletext (WST, OP-47) only. Other text formatting attributes (e.g. background color, italic and bold type, font case) specified in the OP-42 (WST) and OP-47 (HD teletext) standards are not supported. On the monitor wall, closed captions (CC, DTVCC) appear in white against a black background.

Note: The current version of the Kaleido-X Software for the Kaleido-IP does not yet support extraction of subtitles and closed captions.

- [Ref. #13478] **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. #22063] **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. #9863/9891] The system performance is affected by a database import/export or system snapshot.

- [Ref. #19574] **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. #12650] **Kaleido-X multi-viewers:** 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 Operation and Kaleido-RCP2

- [Ref. #26559] **Keyboard configuration not immediately effective:** 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. #20323] 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 multi-viewer systems that are currently available on the network.

- [Ref. #25642] 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. #25497/25500] **Use large mouse pointer option not immediately effective:** 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 KMV-3901/3911, restart the multi-viewer; for other multi-viewer models, refresh the current layout or load a different layout.

- If you connect a mouse directly to your multi-viewer (as opposed to connecting the mouse to a Kaleido-RCP2, for instance), the pointer can travel between two displays with the following limitations:

Multi-Viewer Model	Behavior
Kaleido-X	The pointer travels **horizontally**, between the right side of the display connected to Head 1 and the left side of the display connected to Head 2, of the output card to which you connected the mouse.
Kaleido-X16	The pointer travels **horizontally**, between the right side of the display connected to MV OUT 1 and the left side of the display connected to MV OUT 2.
KMV-3901/3911	The pointer travels **vertically**, between the bottom side of the display connected to MV OUT 1 and the top side of the display connected to MV OUT 2.
Kaleido-IP	The pointer travels **horizontally**, between the right side of the first display (Head 1) and the left side of the second display (Head 2).

- [Ref. #24780] **KMV-3901/3911:** When connecting a mouse to the USB port directly on the KMV-3901/3911 card, it may happen that the multi-viewer does not detect the mouse.

  Workaround: Disconnect the mouse, and then connect it again.

- [Ref. #31048/22871] **Audio monitoring:** With the current version of the Kaleido-X Software, the Kaleido-RCP2's volume control, Mute, and -20dB buttons only apply to analog audio monitoring outputs (available on the Kaleido-X and Kaleido-X16 models). They do not affect the audio signal at AES, HDMI or SDI monitoring outputs.

- [Ref. #18257] Mouse and RCP2 operations are not supported on monitors spanned over two or more displays.

- [Ref. #10843] It is not possible to enter a value of "10" from the RCP2 keyboard when using an input method. As soon as you type "1", the selection is made.

  Workaround: To enter "10", type "0".

- [Ref. #14200] 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. F33873] **Kaleido-IP:** The current version of the Kaleido-X Software for the Kaleido-IP does not support decoding of SMPTE 302M PCM audio.
- [Ref. #33320] **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. #27403] **Kaleido-IP:** The current version of the Kaleido-X Software for the Kaleido-IP does not support detection or extraction of closed captions, teletext or subtitles.
- [Ref. #27759] **KMV-3901/3911 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: Miranda'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. #26964] **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. #22950] **SD video in SDTI input:** If you were to feed a multi-viewer'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. #15487/12376] **NTSC-J:** Video alarm levels set in XEdit do not work with NTSC-J. When NTSC is decoded, the 7.5 to 100IRE range is mapped from 40h to 3ACh in the digital realm. When NTSC-J is decoded, the 0 to 100IRE range is mapped from 40h to 3ACh in the digital realm. This difference in mapping causes the same incoming analog level to be mapped to a different digital level based on the standard used. This results in alarms being incorrectly reported for *Luma too high* and *Black*.

Alarm Management and Actions

- [Ref. #34516] **Alarm scheduling:** Settings related with alarm scheduling and alarm inversion (snooze duration, grace period duration, etc.) set in iControl from the GSM Alarm Browser for a multi-viewer with Kaleido-X *version 6.20 or later* are not persisted after you restart the multi-viewer.

  Workaround: If your system requires non-default values for the settings that appear in the **Configuration** secondary tab, under the GSM Alarm Browser's **Admin** tab (Acknowledgement snooze duration, Scheduled grace period duration, Manual grace period duration), note the new values so that you can restore them as needed.

- [Ref. #34507] **Alarm scheduling:** On rare occasions, modifying an existing alarm schedule by using XEdit may affect some scheduled alarms, which may unexpectedly change state or miss their next scheduled transition.

  Workaround: Instead of modifying an existing schedule, replace it or supplement it with a new schedule.

- [Ref. #34720] **Virtual alarms:** In the current version of XEdit, it is momentarily not possible to base a virtual alarm on a router destination crosspoint status.

- [Ref. #33057] **Virtual alarms:** When building a virtual alarm based on the current multi-viewer, 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. #21940/32585] **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. #27563] **Kaleido-IP alarm debouncing:** In the case of a Kaleido-IP multi-viewer, the current version of the Kaleido-X Software does not support alarm-debouncing calibrations. The default debouncing parameters of three occurrences of a five-second error state over a detection window of one minute apply to most alarms.

- [Ref. #25730] **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. #25338] **KMV-3901/3911 card LED configuration:** With the current version of the KMV-3901/3911 multi-viewer, changes made to alarm contributions affecting the card LED behavior revert to default settings when the multi-viewer restarts.

> **Note:** The alarm configuration interface for the KMV-3901/3911 multi-viewer is available from the KMV-3901/3911 control panel included with iControl version 3.60 and later.

- [Ref. #23882] **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 the iControl 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 iControl Alarm Browser, connect to the Kaleido-X multi-viewer 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-X version 5.00, every legacy KXO-Dual card that does not have a 2-GB memory module must be upgraded to 2 GB (see "Kaleido-X systems may require a RAM upgrade" on page 1).

- [Ref. #24418] **Background actions based on router sources:** With the current version of the Kaleido-X 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. #25569] **Dialnorm alarms:** After a multi-viewer 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.

- [Ref. #20570/20702] **False video freeze alarms:** Using a duration of less than 3 seconds for video freeze debouncing may result in false alarms being generated.

  Workaround: Set the video freeze duration parameter to 3 seconds (or more).

SNMP

- [Ref. #27416] **Kaleido-IP and SNMP managers:** In the case of a Kaleido-IP, publishing alarms to SNMP managers is not yet supported.

  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 "Sharing Alarm Status Information Between Multi-Viewers and iControl" in the Kaleido-X User's Manual, and to "iControl and SNMP" in the iControl User Guide, for more information.

- [Ref. #19862] **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. #14635] 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. #14848] The Kaleido-X 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. #33815] **Aliases from NVISION router configurations:** Although the NV9000 router control system supports 16 *name sets,* any router configuration you wish to import from the NV9000 system into your multi-viewer configuration should not have more than 5 name sets. The current version of the Kaleido-X Software may fail to reflect alias changes initiated from NV9000-SE Utilities, when there are more than 5 sets of aliases to manage.

  Note: In the context of the NV9000 router control system, a *name set* is the equivalent of a set of source aliases in XEdit's representation of a physical router.)

- [Ref. #25473/27240] **KMV-3901/3911 vs. VikinX Compact panels:** The Kaleido-X Software does not support using the *Network Compact* protocol for controlling logical routers within a KMV-3901/3911 multi-viewer configuration. For example, a VikinX Compact panel connected to the KMV-3901/3911 multi-viewer's serial port is not a supported configuration.

- **KMV-3901/3911 vs. upstream router control:** In the case of a KMV-3901/3911 multi-viewer system, changing crosspoints by using the **Assign [router] input** option on the monitor wall menu—where [router] is the name of a logical router whose outputs are connected to the multi-viewer inputs—, is not supported.

  Workaround: Configure logical sources (in XEdit's **Channels/Sources** tab) for all your upstream router inputs, and use the **Assign source to [component]** option on the monitor wall menu, or the CHANNEL button on the Kaleido-RCP2, to make your source assignments.

IMPORTANT:	**Managing physical sources from upstream routers as logical sources within the multi-viewer system is the preferred solution for all multi-viewer models.** With logical sources defined not only for source feeds that are connected directly to the multi-viewer's inputs, but also for physical sources that are connected to an upstream router's inputs, source assignment becomes a completely transparent operation on the monitor wall.

- [Ref. #26809/26860] **Ineffective Lock/Unlock features in Matrix and Single Bus:** With the current version of the Kaleido-X Software, all Lock and Unlock features available from the Matrix and Single Bus user interface are momentarily ineffective.
- [Ref. #27112] **KX Router source mapping:** Although the multi-viewer'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. #19920] **"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. #23867] **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. #22107] **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-X system, 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-X.

  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. #23585] When an NV9000 system controller is controlling a multi-viewer's *KX Router* logical router and the multi-viewer is controlling the NV9000, the NV9000 may indicate that the multi-viewer is offline.

  Workaround: Change the timeout period on the NV9000 system controller. The recommended timeout value is 2000 milliseconds.
- [Ref. #20873] Configuring two multi-viewers so that they control each other's internal router is not supported in Kaleido-X version 4.00 and later. Do not upgrade existing systems that were previously configured in this way. If you already upgraded your system, please contact Miranda Technical Support

before downgrading to an earlier version, to verify whether a new release addressing this issue has been made available.

- [Ref. #20141] After launching the Single Bus or Matrix View Router Control applications from the Kaleido-X home page, it is possible to create salvos, change settings, etc. However, when the Kaleido-X system 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-X 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. #20448] **Documentation:** In the Router Control Matrix and Single Bus applications, the related documentation is not available from the **Help** menu.

  Workaround: Refer to the *iRouter User Guide*, available on the DVD that shipped with your system.

- [Ref. #18955] **Backward compatibility:** As of Kaleido-X 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-X version 4.00 or later will be lost during the downgrade. After downgrading, any router configuration will have reverted to what it was before the last upgrade.

- [Ref. #17554] **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-X version 3.00 (or later) system, will appear to have lost settings.

- [Ref. #15847] **Background actions:** If a background action is configured to change an external router crosspoint, then, when the action is triggered, the Kaleido-X XML 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. #23341] If the name of a Kaleido-X system contains a space or a special character, opening a remote control session (gateway) 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. #17997] 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. #31094] **Kaleido-IP:** When reinstalling, upgrading, or downgrading the Kaleido-X Software on a Kaleido-IP multi-viewer 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 later, you will benefit from a more robust interface.

- [Ref. #30291] **100 Mbps half-duplex data interface configuration:** Kaleido-X (7RU, 4RU, and 14RU) multi-viewers with output cards that shipped with version 5.22 (or later), initially or after repairs, and Kaleido-X16 multi-viewers that shipped with version 5.22 (or later), initially or after repairs, do not support 100 Mbps half-duplex communications.
- [Ref. #18927] **Kaleido-X (4RU) PSU alarms:** When PSU A or B is absent, or turned off, XAdmin reports a normal status for the associated "AC status", "DC status", "temperature status", and "vendor ID unknown" alarms, in the **Status and options** page.
- [Ref. #25577] **KMV-3901/3911 3Gbps signal decoding option:** If you enable the 3Gbps signal decoding option for a KMV-3901/3911 multi-viewer in XAdmin, while a 3Gbps source is already connected to your multi-viewer, the option will not be immediately effective.

  Workaround: Disconnect the 3Gbps source, and then connect it to your multi-viewer again.
- [Ref. #19451] **Kaleido-X input options:** In the case of a Kaleido-X (4RU, 7RU, or 14RU) multi-viewer, 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. #25752] **XAdmin momentarily unavailable:** When configuring IP addresses for the output cards in a Kaleido-X (4RU, 7RU, or 14RU) multi-viewer, if a slave output card is assigned an invalid IP address, XAdmin may remain unavailable for several minutes after the multi-viewer has restarted.
- [Ref. #25309] **Kaleido-X16 status and options:** In the case of a Kaleido-X16 multi-viewer, 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. #18331/18028] 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. #17602] **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. #34177] **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. #33780] **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: Click the **Channels/Sources** tab, and then go back to the **System** tab.

- [Ref. #33728] **Source names:** If your sources table includes dynamic names based on router source labels or on Kaleido-IP stream names, and assigned to the **Cat.** or **Name** levels under **Source info**, these specific levels may not always reflect a name change.

  Workaround: When you notice a name that failed to be updated in the **Cat.** or **Name** column of the sources table, click the cell, notice that, in the **Tools** pane, the filtered System list is automatically expanded to the appropriate element, and then drag this element back to the cell.

- [Ref. #33200] **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. #33703] **Source names:** In the sources table, the dynamic or static names under **Source info** are limited to 48 characters. If you try saving the table after manually adding a source whose name is longer, an error message appears. If automatic source creation is used, then sources whose name is longer than 48 characters are not added to the table.

  Workaround: Shorten the source name (or the name of the elements on which dynamic source names will be based).

- [Ref. #33499] **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 wish 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. #25781] **Incorrect multi-viewer model:** On rare occasions, if you use XEdit with different models of multi-viewer, you may notice that the model indicated in a system configuration does not match the actual multi-viewer anymore, and that the system's logical sources have assignments marked in red.

  Workaround: If you have a recent backup of your system configuration, retrieve this backup to your local workspace, and then export it to the multi-viewer. Alternatively, drag the appropriate multi-viewer model to the root of the System list, making sure to reply **No** when XEdit prompts you to confirm whether you want to restore the database factory defaults based on the selected multi-viewer model.

- [Ref. #33001] **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. #31307] **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. #30282] **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. #30884] **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. #26408] **TSL (network) devices port number:** XEdit does not prevent adding multiple TSL (network) devices configured to the same Kaleido-X 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. #26889] 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 multi-viewer, and then switch back to offline mode.

  - If you just switched to **online** mode, close the connection to the multi-viewer, and then switch back to online mode.

  Alternatively, close XEdit and then open it again.

- [Ref. #25692/26582] **Cannot retrieve backup:** XEdit cannot retrieve a database backup 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-X system from version 5.00 (or earlier) to version 5.10 or later.

- [Ref. #25545] **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. #24910] **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. #24921/26351] **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 multi-viewer'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. #24820] **Online mode:** When connected to a KMV-3901/3911 multi-viewer from XEdit (in online mode), if you modify the layout that is currently shown on the monitor wall and then save it, the graphic elements on the monitor wall may freeze for several seconds until the layout is fully loaded again.

- [Ref. #24258] **Resetting calibrations to factory defaults:** With the current version of the Kaleido-X Software, the calibration reset feature (see "Restoring Factory Defaults", in the Kaleido-X User's Manual) is not immediately effective on the multi-viewer.

  Workaround: Restart the multi-viewer, close XEdit, and then open it again, for the calibrations to be applied.

- [Ref. #23763] **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. #17289] **Concurrent sessions:** If two or more XEdit sessions are open and connected to the same multi-viewer in online mode, changes made under the **System** tab and applied from one XEdit session are not reflected in the others.

- [Ref. #20108] **Cluster composition not automatically updated across concurrent XEdit sessions:** if user A adds a multi-viewer 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. #23057] **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. #22685/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 multi-viewer, the changes will not appear on the monitor wall, even if the layout is refreshed.

  Workaround: After the database export is completed, create and load an empty layout (i.e. a layout that does not contain any monitors) 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. #14316] **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 multi-viewer).

- [Ref. #22318] **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 multi-viewer 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. #15732] In the **Actions** tab, the **Undo** and **Redo** commands are not available.

- [Ref. #15867] 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 wish to define a background action, point to **Set action**, and then click the appropriate action type on the shortcut 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. #17853] **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. #15626] **Router configuration:** The process of configuring external routers has significantly changed between Kaleido-X versions 2.20 and 3.00 (see the Kaleido-X 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 later should not be exported to a pre-3.00 system.

  If a frame has been upgraded to 3.00 or later, you can only downgrade it to 2.20 if the database was **not** opened in XEdit 3.00 (or later). If the database is opened in XEdit 3.00 (or later) 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 later), and becomes incompatible with pre-3.00 systems even if you don't modify the database or save it.

- [Ref. #14444] **Toolbar:** When the XEdit window is resized, the monitor toolbar may disappear.
  Workaround: Resize the XEdit window again until this toolbar ( ) reappears.

- [Ref. #13579] 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. #13119] **Pointer properties:** Online changes made to mouse pointer properties require a refresh of the layout so they can take effect.

- [Ref. #8175] **Widget libraries:** Monitors from widget libraries may change in appearance (compared to the original) when used in a layout.

- [Ref. #9375] **Video window size:** You should not create video windows that are smaller than 91 pixels in height.
- [Ref. #9863] **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.
- [Ref. #19045] If you try downloading XEdit from a system that does not have the same version of the software as the last one used on the current client PC or laptop, you may see an error message ("Unable to launch application") and XEdit will not start.

  Workaround: Clear the Java plug-in cache. To clear the cache: (1) Close all Java applications you may have open. (2) Open the Java Control Panel (on the **Start** menu, point to **Control Panels**, and then click **Java**). (3) In the **General** tab, click **Settings**. (4) In **Temporary Files Settings**, click **Delete Files**. (5) In **Delete Temporary Files** select all the check boxes, and then click **OK**. (6) Optionally, clear your Web browser's cache.

Documentation

The table below details the documentation included with Kaleido-X version 6.32. In line with our commitment to environmental preservation, only the Release Notes, the Quick Start Guide for your multi-viewer model, and some ancillary documents (e.g. welcome letters, warranty cards) are distributed in printed form. All manuals are available on the Kaleido-X DVD. You can also obtain the latest version of the manuals and the Release Notes from the *Software Downloads* section of Miranda's Support portal.

Part Number	Title
M926-9905-103	Kaleido-IP Quick Start Guide
M866-9905-106	Kaleido-Modular Quick Start Guide
M866-9900-107	KMV-3901/3911 Guide to Installation and Operation
M866-9904-104	KMV-3901/3911 Cascade Step-by-Step Configuration
M869-9905-108	Kaleido-X16 Quick Start Guide
M869-9902-109	Kaleido-X16 Hardware Description & Installation Manual
M869-9904-100	Kaleido-X16 Cascade Step-by-Step Configuration
M809-9905-107	Kaleido-X (4RU) Quick Start Guide
M809-9900-113	Kaleido-X (4RU) Hardware Description & Installation Manual

Part Number	Title
M808-9905-107	Kaleido-X (7RU) Quick Start Guide
M808-9902-106	Kaleido-X (7RU) Hardware Description & Installation Manual
M770-2800-114	Kaleido-X User's Manual
M860-9900-101	KXO-HDM Dual Channel HD-SDI Monitoring Output Mezzanine Installation Instructions
M735-9902-102	Kaleido-RCP2 Guide to Installation and Operation
M876-9900-103	RCP-200 Guide to Installation and Operation
M796-9902-101	Audio Bridge Terminal Guide to Installation and Operation
M807-9700-102	KXI-DVI-Bridge User's Manual
M807-4103-102	KXI-DVI-Bridge Firmware Version 8.3.1 Release Notes
M770-0900-115	Kaleido Remote Control Protocol (Gateway) User's Guide
M819-0300-104	Serial to TCP/IP Dispatcher Protocol Version 1.04
M407-9900-212	iRouter Version 2.12 User's Manual

Supported Input/Output Formats

Kaleido-IP

Video Inputs

The Kaleido-IP multi-viewer supports concurrent decoding of video programs from multi-program and single-program MPEG transport streams, over UDP or RTP Multicast/Unicast.

	HD	SD
MPEG-2	24	64
H.264	16	32

Audio Inputs

The Kaleido-IP supports decoding of elementary streams in the AC-3, MPEG-1, MPEG-2, MPEG-4 AAC LC, and MPEG-4 HE-AAC compressed audio formats.

Video Outputs

The Kaleido-IP multi-viewer supports two HDMI outputs. The following table lists some (but not all) output formats supported at the DisplayPort connections. You can customize your own timing rates through the XEdit software for resolutions ranging from 1280 × 1024 pixels up to 1920 × 1200 pixels.

> **Note:** After configuring custom resolutions in XEdit, you must restart the Kaleido-IP for the new resolutions to become effective.

Kaleido-IP HDMI Output Formats

Resolution	Format name	Refresh rates (Hz)
1280 × 1024	SXGA	50.00, 59.94
1280 × 1024	BARCO	59.94
1360 × 768	NEC	50.00, 59.94
1480 × 1200	Christie	50.00, 59.94
1600 × 1200	UXGA	50.00, 59.94
1920 × 1080	Baycat	50.00, 59.94
1920 × 1200	WUXGA	50.00, 59.94

KMV-3901/3911

Video Inputs

The KMV-3901/3911 multi-viewer supports 8 signal inputs. The supported input types include SD-SDI, HD-SDI, and 3G-SDI (auto-detected).

KMV-3901/3911 Input Formats

3G-SDI inputs	1080p 59.94 Hz (Level A)	1080p 50 Hz (Level A)

KMV-3901/3911 Input Formats

HD-SDI inputs	720p 59.94 Hz	720p 50 Hz
	1080i 59.94 Hz	1080i 50 Hz
	1080p 29.97 Hz	
SD-SDI inputs	525	625
Graphic converted to HD-SDI from KXI-DVI-Bridge[1]	1024 × 768 @ 60 (XGA)	1280 × 1024 @ 60 (SXGA)
	1366 × 768 or 1368 × 768 @ 60 (WXGA)	1680 × 1050 @ 60 (WSXGA+)
	1600 × 1200 @ 60 (UXGA)	

1. A *Dual Channel DVI to HD Bridge* must be connected between the multi-viewer and the PC or laptop that provides the graphics to the multi-viewer. The highest supported resolution is 1600 × 1200 in 4:3 and 1680 × 1050 in 16:9. To order this optional device (Part No. KXI-DVI-BRIDGE), contact your Miranda sales representative.

Video Outputs

The KMV-3901/3911 multi-viewer supports two HDMI outputs. The following table lists some (but not all) output formats supported on the MV OUT connections. You can customize your own timing rates through the XEdit software for resolutions ranging from 1280 × 1024 pixels up to 1920 × 1200 pixels.

KMV-3901/3911 HDMI Output Formats

Resolution	Format name	Refresh rates (Hz)
1280 × 1024	SXGA	50.00, 59.94
1280 × 1024	BARCO	59.94
1360 × 768	NEC	50.00, 59.94
1480 × 1200	Christie	50.00, 59.94
1600 × 1200[1]	UXGA	50.00, 59.94
1920 × 1080	Baycat	50.00, 59.94
1920 × 1200	WUXGA	50.00, 59.94

1. In the case of a KMV-3901/3911 cascaded system, an output resolution of 1600 × 1200 is not supported.

In addition to the HDMI outputs, the KMV-3911 supports two HD-SDI monitoring outputs (with embedded audio).

KMV-3911 HD-SDI Output Formats

Resolution	Refresh rates (Hz)
720p	50.00, 59.94
1080i	50.00, 59.94
1080p (level A)	50.00, 59.94

Kaleido-X16

The Kaleido-X16 frame supports 16 signal inputs. The supported input types include Composite, SD-SDI, HD-SDI, and 3G-SDI (auto-detected). The processing delay is two fields if the video inputs are genlocked. Signal inputs require BNC connectors.

Kaleido-X16 Signal Input Formats

3G-SDI inputs	1080p 60 Hz	1080p 59.94 Hz	1080p 50 Hz
HD-SDI inputs	720p 24 Hz	720p 25 Hz	720p 29.97 Hz
	720p 59.94 Hz	720p 50 Hz	1080i 59.94 Hz / 29.97PsF
	1080p 29.97 Hz	1080i 50 Hz / 25PsF	1080p 25 Hz
	1080p 23.98 Hz / 24 Hz	1080p 23.98PsF / 24PsF	1080i 50 Hz
SD-SDI inputs	525	625	
Composite inputs	NTSC-M	NTSC-J	PAL-BGDHI
	PAL-N	PAL-M	SECAM
Graphic converted to HD-SDI from KXI-DVI-Bridge[1]	1024 × 768 @ 60 (XGA)	1280 × 1024 @ 60 (SXGA)	1366 × 768 or 1368 × 768 @ 60 (WXGA)
	1680 × 1050 @ 60 (WSXGA+)	1600 × 1200 @ 60 (UXGA)	

1. A *Dual Channel DVI to HD Bridge* must be connected between the multi-viewer and the PC or laptop that provides the graphics to the multi-viewer. The highest supported resolution is 1600 × 1200 in 4:3 and 1680 × 1050 in 16:9. To order this optional device (Part No. KXI-DVI-BRIDGE), contact your Miranda sales representative.

The Kaleido-X16 supports two DVI inputs, one for each output head. Since the DVI input cannot be resized, the resolution on the PC that feeds this input is best set to match the selected display's (head) resolution.

The DVI background is always positioned from the top-left corner of the display and is drawn pixel for pixel. If the resolutions do not match, some part of the DVI input might be missing or noise might be displayed.

Kaleido-X16 DVI Input Formats

Resolutions	Refresh rates (Hz)
From 800 × 600 to 1920 × 1200 NI	50.00, 59.94

The Kaleido-X16 frame supports two HDMI outputs. The following table lists some (but not all) output formats supported on the MV OUT connections. You can customize your own timing rates through the XEdit software for resolutions ranging from 1024 × 768 pixels up to 1920 × 1200 pixels.

Kaleido-X16 Default HDMI Output Resolutions

Resolution	Format name	Refresh rates (Hz)
1024 × 768	XGA	50.00, 59.94
1280 × 720	Margay	50.00, 59.94
1280 × 768	WXGA	50.00, 59.94
1280 × 1024	SXGA	50.00, 59.94
1280 × 1024	BARCO	59.94
1360 × 768	NEC	50.00, 59.94
1480 × 1200	Christie	50.00, 59.94
1600 × 1200	UXGA	50.00, 59.94
1920 × 1080	Baycat	50.00, 59.94
1920 × 1200	WUXGA	50.00, 59.94

The Kaleido-X16 supports two HD-SDI monitoring outputs (with embedded audio).

Kaleido-X16 HD-SDI Output Formats

Resolution	Refresh rates (Hz)
720p	50.00, 59.94
1080i	50.00, 59.94
1080p (level A)	50.00, 59.94

Kaleido-X (4RU), Kaleido-X (7RU) and Expansion Systems

KXI-16HSV3 Input Formats

1080p 60 Hz	1080p 59.94 Hz	1080p 50 Hz
720p 24 Hz	720p 25 Hz	720p 29.97 Hz
720p 59.94 Hz	720p 50 Hz	1080i 59.94 Hz / 29.97PsF
1080p 29.97 Hz	1080i 50 Hz / 25PsF	1080p 25 Hz
1080p 23.98 Hz / 24 Hz	1080p 23.98PsF / 24PsF	1080i 50 Hz
SDI-525	SDI-625	SECAM
PAL-M	PAL-N	PAL-BGDHI
NTSC-M	NTSC-J	

KXI-16HSV Input Formats

720p 24 Hz	720p 25 Hz	720p 29.97 Hz
720p 59.94 Hz	720p 50 Hz	1080i 59.94 Hz / 29.97PsF
1080p 29.97 Hz	1080i 50 Hz / 25PsF	1080p 25 Hz
1080p 23.98 Hz / 24 Hz	1080p 23.98PsF / 24PsF	1080i 50 Hz
SDI-525	SDI-625	SECAM
PAL-M	PAL-N	PAL-BGDHI
NTSC-M	NTSC-J	

KXI-16HS3 Input Formats

1080p 60 Hz	1080p 59.94 Hz	1080p 50 Hz
720p 24 Hz	720p 25 Hz	720p 29.97 Hz
720p 59.94 Hz	720p 50 Hz	1080i 59.94 Hz / 29.97PsF
1080p 29.97 Hz	1080i 50 Hz / 25PsF	1080p 25 Hz

KXI-16HS3 Input Formats

1080p 23.98 Hz / 24 Hz	1080p 23.98PsF / 24PsF	1080i 50 Hz
SDI-525	SDI-625	

KXI-16HS Input Formats

720p 24 Hz	720p 25 Hz	720p 29.97 Hz
720p 59.94 Hz	720p 50 Hz	1080i 59.94 Hz / 29.97PsF
1080p 29.97 Hz	1080i 50 Hz / 25PsF	1080p 25 Hz
1080p 23.98 Hz / 24 Hz	1080p 23.98PsF / 24PsF	1080i 50 Hz
SDI-525	SDI-625	

KXI-16SV Input Formats

SDI-525	SDI-625	SECAM
PAL-M	PAL-N	PAL-BGDHI
NTSC-M	NTSC-J	

Graphic converted to HD-SDI from KXI-DVI-Bridge[1]

1024 × 768 @ 60 (XGA)	1280 × 1024 @ 60 (SXGA)	1600 × 1200 @ 60 (UXGA)
1366 × 768 or 1368 × 768 @ 60 (WXGA)	1680 × 1050 @ 60 (WSXGA+)	

1. A *Dual Channel DVI to HD Bridge* must be connected between the multi-viewer and the PC or laptop that provides the graphics to the multi-viewer. The highest supported resolution is 1600 × 1200 in 4:3 and 1680 × 1050 in 16:9. To order this optional device (Part No. KXI-DVI-BRIDGE), contact your Miranda sales representative.

The KXO-DUAL/KXO-DUAL3 output cards support two DVI inputs, one for each output head. Since the DVI input cannot be resized, the resolution on the PC that feeds this input is best set to match the selected display's (head) resolution. The DVI background is always positioned from the top-left corner of the display and is drawn pixel for pixel. If the resolutions do not match, some part of the DVI input might be missing or noise might be displayed.

KXO-DUAL/KXO-DUAL3 DVI Input Formats

Resolutions	Refresh rates (Hz)
From 800 × 600 to 1920 × 1200 NI	50.00, 59.94

KXO-24Router Input Formats

720p 24 Hz	720p 25 Hz	720p 29.97 Hz
720p 59.94 Hz	720p 50 Hz	1080i 59.94 Hz / 29.97PsF
1080p 29.97 Hz	1080i 50 Hz / 25PsF	1080p 25 Hz
1080p 23.98 Hz / 24 Hz	1080p 23.98PsF / 24PsF	1080i 50 Hz
SDI-525	SDI-625	

KXA-GPI-GEN Reference Input Formats

NTSC	PAL	720p 59.94 Hz
720p 50 Hz	1080p 59.94 Hz	1080p 50 Hz
1080i 59.94 Hz	1080i 50 Hz	

KXO-DUAL/KXO-DUAL3 Default Output Resolutions

1280 × 768 @ 50 Hz	1280 × 768 @ 60 Hz	1360 × 768 @ 50 Hz
1360 × 768 @ 60 Hz	1366 × 768 @ 50 Hz	1366 × 768 @ 60 Hz
1680 × 1050 @ 50 Hz	1680 × 1050 @ 60 Hz	1920 × 1080 @ 50 Hz Baycat4
1920 × 1080 @ 50 Hz Negative	1920 × 1200 @ 50 Hz	1920 × 1200 @ 60 Hz
VESA 1024 × 768 @ 50 Hz	VESA 1024 × 768 @ 60 Hz	VESA 1280 × 1024 @ 50 Hz
VESA 1280 × 1024 @ 60 Hz	VESA 1600 × 1200 @ 50 Hz	VESA 1600 × 1200 @ 60 Hz
VESA 800 × 600 @ 50 Hz	VESA 800 × 600 @ 60 Hz	BARCO 1400 × 1050 @ 50 Hz
BARCO 1400 × 1050 @ 60 Hz	CLARITY 1920 × 1080 @ 50 Hz	CLARITY 1920 × 1080 @ 60 Hz

KXO-DUAL/KXO-DUAL3 Default Output Resolutions

1920 × 1080 @ 50 Hz (HDTV)	1920 × 1080 @ 60 Hz (HDTV)	1280 × 720 @ 50 Hz (HDTV)
1280 × 720 @ 60 Hz (HDTV)		

Note: Reading of the actual output timing from the display is supported. Custom resolutions can be created in XEdit to drive a display in its native resolution. Supported resolutions: 1024 × 768 to 1920 × 1200 (all progressive scan).

KXO-DUAL/KXO-DUAL3 cards equipped with the optional KXO-HDM module support two HD-SDI monitoring outputs (with embedded audio).

KXO-HDM HD-SDI Output Formats

Resolution	Refresh rates (Hz)
720p	50.00, 59.94
1080i	50.00, 59.94
1080p (level A)	50.00, 59.94

Peripheral Device/System Support

A number of configurable services are available to establish communications between the Kaleido-X and a wide variety of devices.

Optional Drivers for Controlling Routing Devices from the Multi-Viewer

Optional drivers are available to extend your Kaleido-X system with the ability to control routing devices that comply with the protocols listed in the following table. Contact your sales representative for details.

Company	Protocol	Routers/Controllers	Text database download
Datatek	D-2815 Control Module Protocol		No
ETL	ETL Matrix	ETL Matrix	Yes
Evertz	Quartz Type 1	EQX	Yes

Company	Protocol	Routers/Controllers	Text database download
Harris (Leitch)	Harris XY Passthrough Protocol	Platinum, Xplus, Integrator, Via-32, Panacea, Xpress	No
Lantronix	(Lightwave) Matrix-Hub Protocol	Matrix-Hub 1000	No
Miranda	Densité	HRS-1801	Yes
		HCO-1801	No
Miranda (NVISION)	NVISION Ethernet protocol - Enterprise router	NV9000 system controllers	Yes
	NVISION Ethernet protocol - Compact router	Compact router series	No
Nevion (Network Electronics)	Network Compact (serial)	VikinX Compact	No
	Network Modular (Ethernet)	VikinX Modular	No
PESA	USP (Unsolicited Status Protocol)	Cheetah, Tiger, Jaguar, Cougar, Ocelot, Bobcat, TDM3000, PERC2000 system controller	No
	CPU Link Protocol No.1 (serial)		No
Quintech	XRM/SRM/MRF/MRM Series Protocol (serial)	SRM 2150 Matrix Switching Systems	No
Snell (Pro-Bel)	General Switcher Protocol (SW-P-02)		No
	General Remote Protocol (SW-P-08)	Halo, Aurora and Sirius Controller (serial control)	Yes
Sony	GVG-NP Emulation	Sony routers (requires HKSPC card); GVG routers (Ethernet)	No
Thomson/Grass Valley	GVG 7000 Native Protocol (serial)	Concerto-series routers, Encore-series control panels	Yes
Thomson/Grass Valley (Philips)	Jupiter VM-3000 ASCIII Protocol	Venus-series and Trinix-series routers	No

Company	Protocol	Routers/Controllers	Text database download
Utah Scientific	PL-160/PL-320	AVS-1B	No
	RCP-1	SC-1, SC-2, SC-3 series	No
	RCP-3	SC-4 series (Ethernet only)	Yes

Optional Drivers for Controlling Tally Interface Devices from the Multi-Viewer

Optional drivers are available to extend your Kaleido-X system with the ability to control tally interface devices such as the ones listed in the tables below. Contact your sales representative for details.

Production Switchers

Company	Device/System
Thomson/Grass Valley	Kayenne, Kalypso, Zodiak, KayakDD, Kayak SD/HD, DD35, XtenDD HD/SD series
Ross	Synergy series
Snell & Wilcox	Kahuna
Sony	DVS-9000, MVS-8000, MFS-2000

UMD Controllers

Company	Device/System
TSL	UMD Controller (serial, TCP/IP or UDP/IP)
Thomson/Grass Valley	Andromeda UMD Controller
Image Video	TSI-1000 Tally System Interface (requires option from Image Video)

Automation Systems

Company	Device/System
Encoda (Harris)	D-Series Playout Automation
Sundance Digital	Fastbreak NXT Automation (requires option from Sundance Digital)

Built-in Communications Protocols

The multi-viewer itself can be controlled by external devices (e.g. Kaleido-RCP2, router control panels) or applications (e.g. router control software application, Remote Control Gateway) via built-in communications protocols. Such devices or applications can be used to command monitor wall operations (e.g. source assignment) or routing operations.

A router control device or application can control a Kaleido-X (7RU) or Kaleido-X16 multi-viewer's internal router module, or any multi-viewer's logical sources and monitor wall destinations, via the *KX Router* logical router. It can also control other logical routers configured within your multi-viewer system. In the case of the *KX Router* logical router, the device or application must support the *NVISION Ethernet protocol - Compact router* protocol.

The supported communications protocols are listed in the following table, with an indication of the supported connection types (TCP/IP or serial), and the dedicated port number on the multi-viewer, in the case of a TCP/IP protocol.

Company	Protocol	TCP/IP (port)	Serial
Miranda	Kaleido Remote Control Protocol	Yes (13000)	Yes
Miranda (NVISION)	NVISION Ethernet protocol - Compact router	Yes (5194)	No
Nevion (Network Electronics)	Network Compact	N.A.	Yes
	Network Modular	Yes (4381)	No
Snell (Pro-Bel)	SW-P-08	Yes (14000)	Yes
	SW-P-02	Yes (2000)	Yes

2 System Requirements and Installation

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 multi-viewer system.

Software and Firmware Versions

Kaleido-X version 6.32 includes the following:

Software/Firmware Component	Version
Kaleido-X software	6.32
XEdit application	6.32
XUpdate (Kaleido-X Upgrade Manager application)	5.00
Kaleido-RCP2	164
ABT Audio Bridge Terminal (CPU firmware version)	1.0.8
ABT Audio Bridge Terminal (FPGA firmware version)	1.0.3
KXI-DVI-Bridge firmware	8.3.1

- For the **Kaleido-X16**, this release contains the following in addition to the above:

Software/Firmware Component	Version
System (firmware)	0x79
Safe mode	0x2

- For the **Kaleido-X (4RU)** and **Kaleido-X (7RU)**, this release contains the following in addition to the above:

Firmware Package	Version
KXO-Dual output module firmware	0xD7
KXI-16HS3 input module firmware	0x28
KXI-16HS input module firmware	0x95
KXI-16HSV3 input module firmware	0x3D
KXI-16HSV input module firmware	0xD0
KXI-16SV (rev. 600 and later) input module firmware	0x25
KXI-16SV (rev. 599 and earlier) input module firmware	0x97
KXO-24ROUTER router output module firmware	0x40
KXA-GPI-GEN firmware	0x35
KXO-EXP firmware	0x2B

Safe Mode Package	Version
KXO-Dual output module safe mode	0x60
KXI-16HS3 input module safe mode	0x03
KXI-16HS input module safe mode	0x37
KXI-16HSV3 input module safe mode	0x0F
KXI-16HSV input module safe mode	0x6F
KXI-16SV (rev. 600 and later) input module safe mode	0x03

Safe Mode Package	Version
KXI-16SV (rev. 599 and earlier) input module safe mode	0x38
KXO-24ROUTER router output module safe mode	0x43
KXA-GPI-GEN safe mode	0x36
KXO-EXP safe mode	0xC

System Requirements

Client Platform

The client PC or laptop must meet the following system requirements:

Processor	P4 2 GHz
Memory	2 GB RAM
Operating system	Windows XP Professional, or Windows 7
Java Runtime Environment	JRE version 1.6.0_21 (32-bit[1])

1. Running a 64-bit JVM is not supported.

Component Compatibility

Kaleido-X version 6.32 is compatible with the following Miranda components:

Product	Minimum version	Recommended version
Densité CPU-ETH2 enhanced Ethernet controller	2.0.4	2.0.4 or later
iControl	3.60	3.60 or later
RCP-200 remote control panel	1.40	1.50 or later
Kaleido-RCP2 control panel	160	164 or later

Product	Minimum version	Recommended version
NV9000 router control system	6.0.0	6.0.24 or later
EdgeVision quality-of-experience monitoring system	1.05 if connected to a Kaleido-IP (see Ref. #32805 on page 17); 1.04 if connected to any other multi-viewer model	1.05 or later

Note: Keeping your Miranda software products up to date ensures optimal interoperability between all system components.

Ethernet Connection

- All output (KXO) cards in a Kaleido-X multi-viewer must be connected to an Ethernet switch prior to powering up the multi-viewer.
- Any multi-viewer you wish to configure or access by using XEdit or XAdmin must be connected to an Ethernet switch.
- A client workstation must be connected to the LAN or Ethernet switch to access the multi-viewer by using XAdmin or XEdit.
- The Ethernet switch must support 100 Mbps full-duplex connections. In the case of a Kaleido-IP multi-viewer, the Ethernet switch associated with the *data* network should support 1000 Mbps full-duplex.
- The port on the Ethernet switch to which the multi-viewer is connected should be configured to auto-negotiate. By default, multi-viewers have their Ethernet ports set to auto-negotiate. If a switch does not support auto-negotiation, the recommended settings are 1000 Mbps, full-duplex—for a switch associated with a Kaleido-IP *data* network—, and 100 Mbps, full-duplex, for all other cases. As required by the IEEE-802.3 standard, section 28D.5, 1000 Mbps full-duplex communication is only supported via auto-negotiation.
- Kaleido-IP support for multicast join and leave: It is possible to add and configure up to 1500 programs in a Kaleido-IP system without exceeding the network's bandwidth or the unit's decoding resources. The Kaleido-IP multi-viewer joins a multicast group only when decoding is required:
  - a source is monitored on the wall, or
  - a source is associated with a background action,
  - a source includes an alarm level based on a related alarm,
  - you navigated to a related alarm in the System list, while XEdit is connected to the multi-viewer,
  - a related alarm is displayed in an iControl Web page, or
  - you navigated to a related alarm in the iControl GSM alarm browser.

In addition, streams that are not decoded are joined momentarily in a polling manner—one stream at a time—to update the PMT and PAT information.

The Kaleido-IP leaves the multicast group once configuration is completed, or as soon as a change of layout implies that a different set of streams must be decoded.

However, if your situation involves frequent changes of layout (e.g. loading a new layout to the monitor wall every minute), additional guidelines apply. When you are creating or editing a layout for such *touring* purposes:

- Avoid configuring UMDs with information that will cause the Kaleido-IP to perform extra join operations and stream decoding. Navigating to the alarm status and text attributes listed below in XEdit or in an iControl alarm browser cause the Kaleido-IP to join the corresponding multicast groups, and only leave them when XEdit or the alarm browser are closed.
  - **Alarms:** Video loss, Video invalid, Video black, Video freeze, Audio loss, Audio invalid, All silent, Overall audio overload.
  - **Text:** Video/Display format, Video/Display AR, AAC speaker mapping, Audio coding mode, Audio format
- Limit the total streaming bandwidth required for a touring layout to 600 Mbps.
- Limit the number of SD MPEG-2 streams assigned to this layout to 64. HD streams count double.
- Once configuration tasks are completed, terminate XEdit's connection to the Kaleido-IP.
- Do not leave an iControl alarm browser unnecessarily connected to the Kaleido-IP.

Clusters

IMPORTANT: **Before changing the system name or IP address of a multi-viewer associated with a cluster, review the following.**

- If you change the system name or IP address of a cluster member while another cluster member is offline or otherwise unavailable, the cluster's integrity will be broken. If you attempt to make such a change, XEdit will alert you of the situation, prompting you to cancel the operation and try again later, when all cluster members are available. However, in the advent that such a change was made by mistake, or that is had to be forced for some reason, you will have to repair the broken cluster (see "Repairing a Cluster System" in the Kaleido-X User's Manual).

- Changing the system name or IP address of a KMV-3901/3911 multi-viewer associated with a cluster, by using the card's control panel on the Densité housing frame, or by using the KMV-3901 control panel in iControl, is not supported.

- To maintain the integrity of a cluster configuration, such changes must be made by using the system configuration features available in XAdmin, or from the monitor wall menu (which, in the case of a *cascade* system, is currently not supported).

Kaleido-X Output/Expansion Cards

- **Kaleido-X (7RU) and Kaleido-X (14RU):** One card must always be present in either OUTPUT slot C (KXO-Dual or KXO-Dual3) or OUTPUT slot D (KXO-Dual, KXO-Dual3 or KXO-EXP) to ensure proper operation of the multi-viewer system.
- **Kaleido-X (4RU):** One KXO-Dual or KXO-Dual3 card must always be present in either OUTPUT slot A or OUTPUT slot B to ensure proper operation of the multi-viewer system.

KMV-3901/3911 Time Reference

- **Densité CPU-ETH2 Enhanced Ethernet Controller Card:** The Densité frame housing a KMV-3901 or KMV-3911 multi-viewer card must have a controller card with firmware version 2.0.4 or later. A controller with an earlier version of the firmware cannot provide a time reference to the multi-viewer card.
- **Date/time configuration:** The KMV-3901/3911 multi-viewer receives date and time information from the Densité CPU-ETH2 controller upon startup. Unlike other multi-viewer models, date/time and NTP settings for the KMV-3901/3911 cannot be configured in XAdmin. However, the Densité CPU-ETH2 controller itself can be configured to provide date and time information from an NTP server.
- **Time Code Reference from REF-1801:** If the time code reference signal is provided by a Densité REF-1801 HD/SD Frame Reference Module, this module must be configured as follows:
  - An input reference signal must be connected to the BNC marked REF on the REF-1801's rear panel.
  - The LTC source must be locked to the same reference signal.
  - The Reference Source must be set to **External** (either from the card's REFERENCE menu or, in iControl, from the **Input** tab on the control panel for this card).
  - The URS Generation Mode must be set to **Normal** (either from the card's REFERENCE menu or, in iControl, from the **Mode** tab on the control panel for this card).

Notes

- If the REF-1801 is configured properly, the Status LED on the front of the card will be green. Improper configuration would result in periodical time code glitches.
- Refer to the *REF-1801 HD/SD Frame Reference Module Guide to Installation and Operation* (Part No. M845-9900-100) for more information.

Upgrading

Upgrade packages are made available either on a DVD or via download from a Miranda FTP server. The upgrade package contains:

- the Kaleido-X Upgrade Manager application (.exe) required to upgrade the Kaleido-X, Kaleido-X16, and KMV-3901/3911 multi-viewers

- one or more Kaleido-X operating system (.os or .run) files
- documentation, including the Release Notes

If you do not have the upgrade package, please contact *support@miranda.com*.

In the case of a Kaleido-IP multi-viewer, the upgrade is performed from your PC or laptop, by using XAdmin. See "Upgrading Your Kaleido-IP Multi-Viewer to Kaleido-X Version 6.32" below.

> **Note:** If you are upgrading a Kaleido-IP that currently has a Kaleido-X version *earlier than 6.20,* the workflow will be slightly different. You may want to refer to the upgrade instructions in the Release Notes for Kaleido-X version 6.20. Make sure to review the related known issues: Ref. #31094 on page 39, Ref. #32001 on page 15, and Ref. #33687 on page 16.

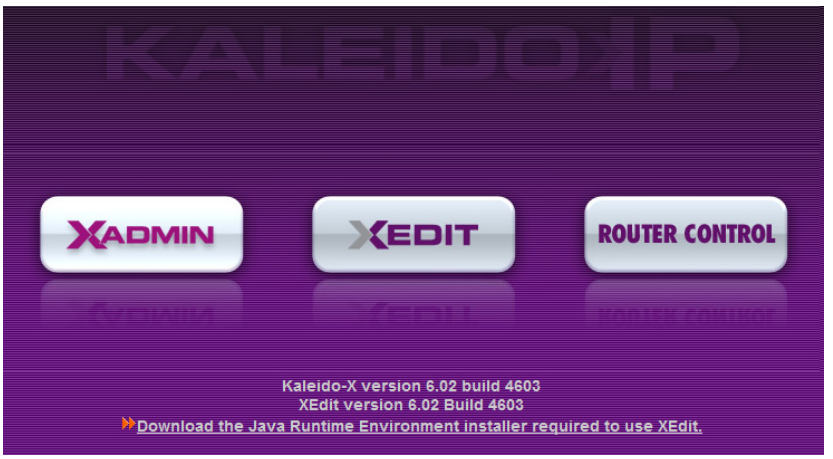
For all other multi-viewer models (Kaleido-X, Kaleido-X16, KMV-3901/3911) you will need a USB key (not supplied) and a mouse to perform an upgrade of the Kaleido-X system. The USB key should be USB 2.0 compliant, have a capacity of at least 1 GB, and must be formatted using the FAT32 file system. See "Upgrading a Kaleido-X/X16, or KMV-3901/3911 to Kaleido-X Version 6.32" on page 69.

Upgrading Your Kaleido-IP Multi-Viewer to Kaleido-X Version 6.32

To upgrade your Kaleido-IP multi-viewer:

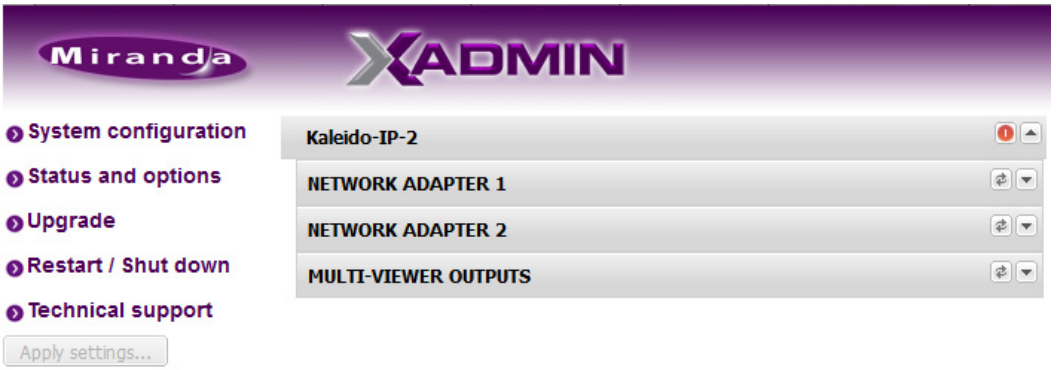
1. From a workstation on the same subnet, open a Web browser window and type the *management* IP address of the multi-viewer in the address bar.

   The Kaleido-IP home page appears.



2. Click the **XAdmin** button.

   The XAdmin **Status and Options** page appears.



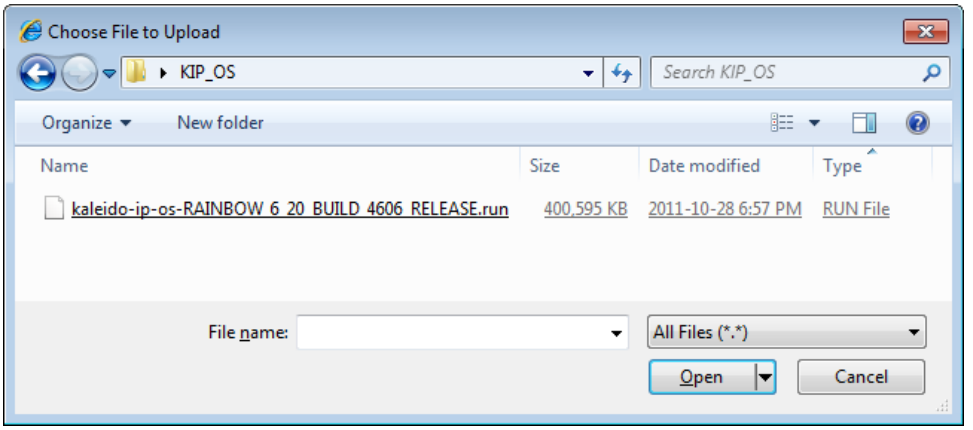
3. Click **Upgrade**, in the navigation area on the left of the page.

   The Upgrade page appears.

4. Click **Choose a package to upload**.

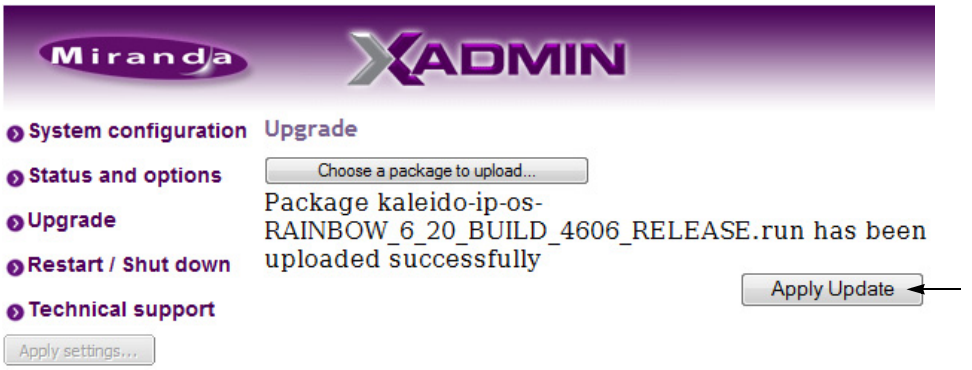
   A file chooser window appears.

5. Navigate to the RUN package you wish to install, select it, and then click **Open**.

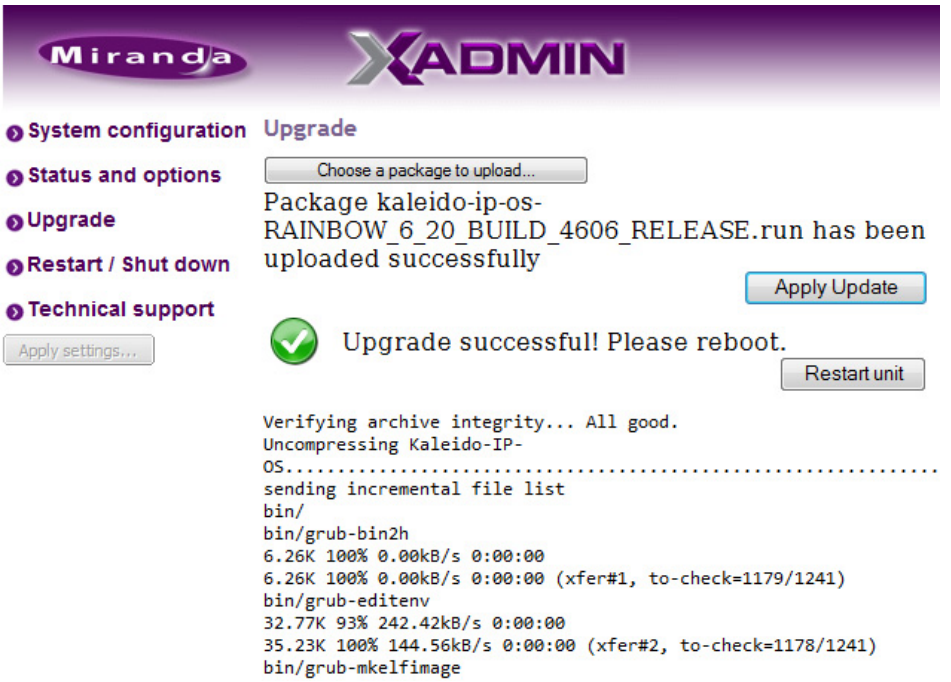


   The selected file is uploaded to the Kaleido-IP. This may take a few seconds.

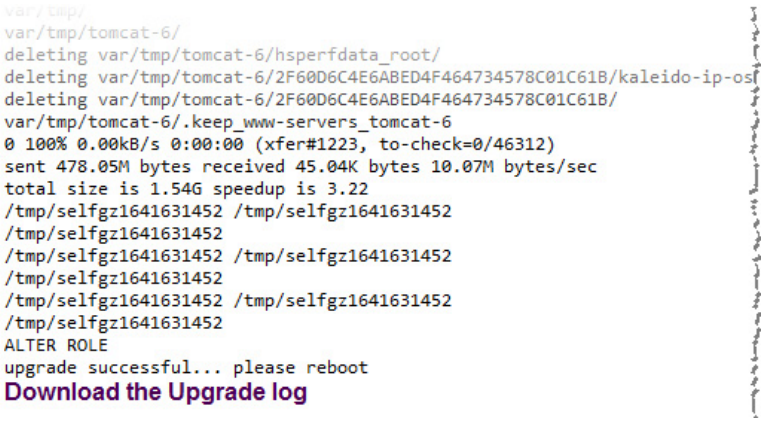
6. Once the upload has completed, click **Apply update**.



While the upgrade is taking place you can monitor its progress if you wish, or wait until the system prompts you to restart the Kaleido-IP unit.

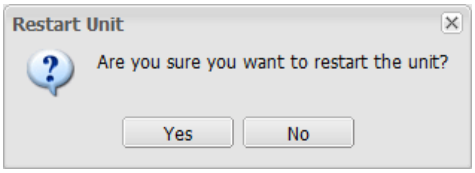


7. Once the upgrade has completed, if you wish to keep a copy of the log messages, scroll down to the bottom of the page, right-click **Download the Upgrade log**, and save the log to your hard drive as a text file.



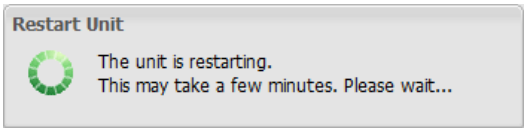
8. Click **Restart unit**.

   The system prompts you to confirm.

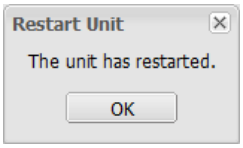


9. Click **Yes** to proceed.

   Your multi-viewer will shut down, and then start again, during which time you can observe messages associated with the operating system shutdown and boot sequences on the monitor wall display connected to Head 2. This may take a while.



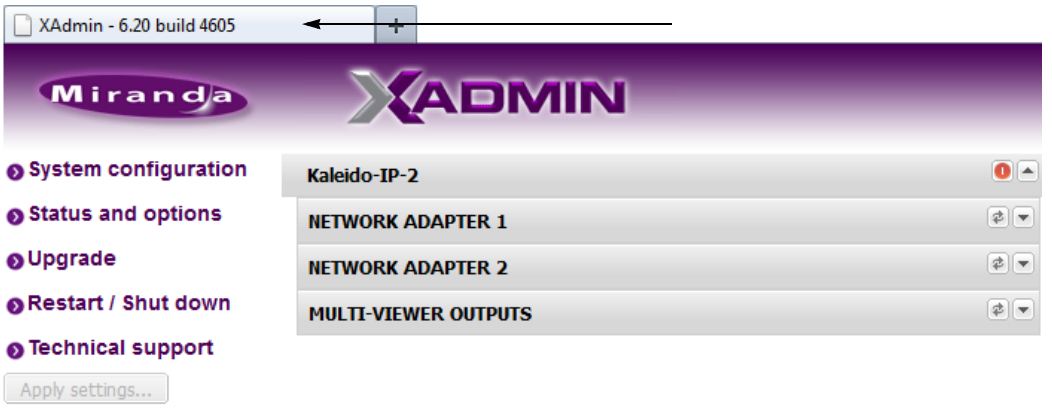
   Once the multi-viewer has restarted, the system notifies you.



10. Click **OK**.

    The XAdmin Status and Options page appears.

11. Verify that the expected version number appears in the page title (check the tab label, or the browser's title bar).



At this point, the upgrade to version 6.32 is complete.

Upgrading a Kaleido-X/X16, or KMV-3901/3911 to Kaleido-X Version 6.32

To upgrade your multi-viewer:

1. Copy the upgrade package files to a USB key (see "Preparing a USB Key" on page 69).
2. Upgrade your multi-viewer's software and firmware from the USB key (see "Upgrading the Kaleido-X Software and Firmware" on page 72).
3. Verify the version number to confirm that the upgrade was successful (see "Verifying the Version Number" on page 75).

Preparing a USB Key

IMPORTANT: **Before upgrading your Kaleido-X system, review the following.**

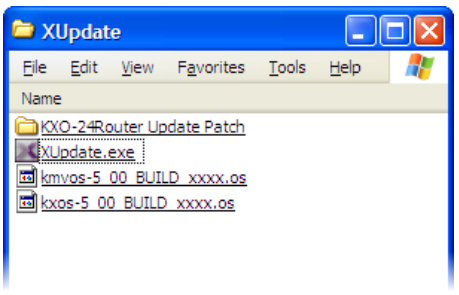
- **Kaleido-Modular multi-viewers require an additional restart after a system upgrade:** After upgrading a KMV-3901/3911 multi-viewer to the current version of the Kaleido-X Software, it may be necessary to restart the multi-viewer *twice,* for the monitor wall to be fully functional.

- **Upgrading a Kaleido-X multi-viewer with KXO-HDM modules to version 5.30:** In the case of a Kaleido-X multi-viewer that contains output cards equipped with the optional KXO-HDM module, upgrading to version 5.30 from an earlier version of the Kaleido-X Software requires precautions. **Before installing version 5.30,** you must stop all activity on the monitor wall, through either of the following methods:
  - Remove all input cards.
  - Load special layouts that do not contain any video monitor to all heads in every room associated with the multi-viewer and make sure not to make any layout change until the upgrade has completed.

- **Kaleido-X systems may require a RAM upgrade:** Kaleido-X version 5.00 (and later) can be installed on all Kaleido-X multi-viewers 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.
  - To verify whether your output cards already have a 2-GB RAM module installed, see "Verifying the Amount of RAM Installed on Kaleido-X Output Cards" on page 78.
  - For detailed instructions on how to replace RAM modules, see "Replacing the Memory Module on KXO-Dual Output Cards" on page 80.
- **Kaleido-X16 HD-SDI monitoring output option (KXS-X16-HDM-D, KXS-X16-HDM-S):** After upgrading your system from version 5.00 or earlier to version 5.10 or later, you will have to enter the activation key, in XAdmin, to enable your multi-viewer's HD-SDI monitoring output feature, if applicable.
- **Expansion systems:** Kaleido-X (7RU) multi-viewers and all cards that are to become part of an expansion system (including spares) must be upgraded to version 3.00 or later, *before* performing the expansion. Once two Kaleido-X frames have been upgraded to version 3.00 or later, and joined in expansion mode, cards with older versions of the software will not work.
- **Factory audio scales:** After upgrading a Kaleido-X (4RU, 7RU, or 14RU) multi-viewer system from a version prior to 3.00, you must restore the factory audio scales. See Ref. #16641 on page 17 for detailed instructions.
- **Brightness and contrast:** After upgrading a Kaleido-X (4RU, 7RU, or 14RU) multi-viewer system from a version prior to 2.00, you may have to recalibrate the brightness and contrast. Please refer to the Kaleido-X User's Manual for instructions.

To copy all files required for the upgrade to a USB key:

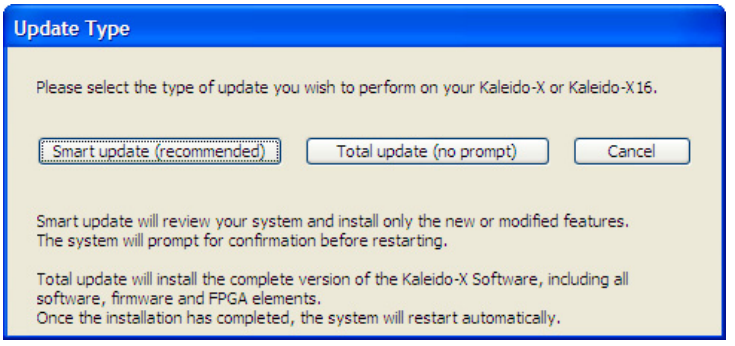
1. Insert the DVD that shipped with your multi-viewer into the DVD drive on your PC or laptop, or download the update files from Miranda's Web site onto the PC's hard drive.
2. Insert a USB key into one of the PC's USB ports.
3. Locate and open the XUpdate application (`XUpdate.exe`):



4. On the startup screen, click the appropriate update option for your multi-viewer model:
   – **Kaleido-X / Kaleido-X16 update**, for a Kaleido-X or Kaleido-X16 multi-viewer

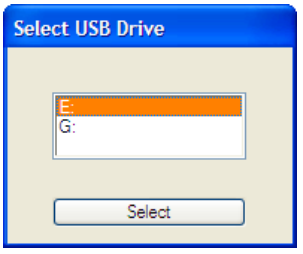
– **KMV-3901/3911 update**, for a Kaleido-Modular KMV-3901 or KMV-3911 multi-viewer

5. When prompted to select a type of update, click **Smart update (recommended)**:

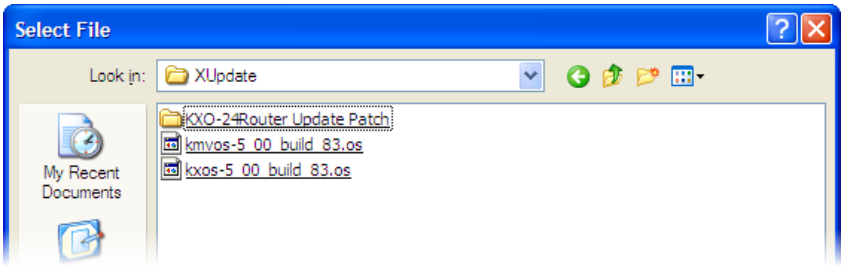


> **Note:** If you click **Total update (no prompt)**, then the update process, once initiated, cannot be halted. This option should only be used to recover from a failed upgrade.

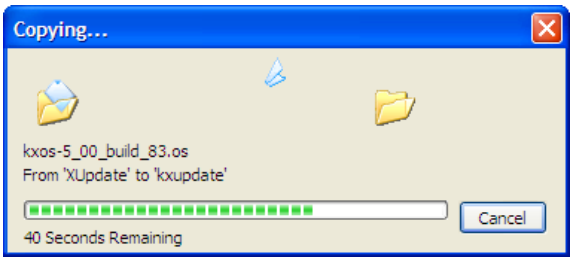
6. If the **Select USB Drive** window appears, click the letter corresponding to the USB key you inserted in step 2, and then click **Select**:



7. When prompted to select an update file, locate and double-click the Kaleido-X operating system file for your multi-viewer model (of the form "`kxos-6.32-build_xxxx.os`" for a Kaleido-X series multi-viewer, or of the form "`kmvos-6.32-build_xxxx.os`" for a KMV-3901 or KMV-3911):

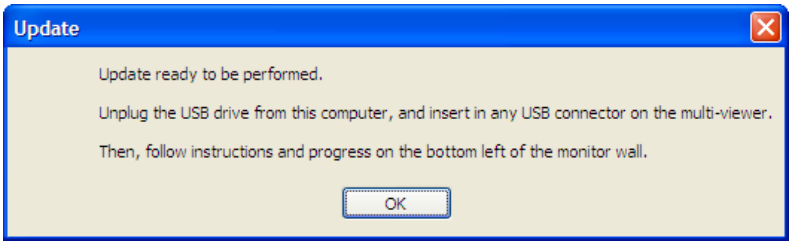


The .os file will be copied to the USB key. This may take a few minutes:



When the copying process has finished, a message appears.

8. Click **OK**:



9. Click **EXIT** on the startup screen.
10. Click the **Safely Remove Hardware** icon in your desktop's notification area, and then click the USB key on the shortcut menu. When a message informs you that it is safe to remove the key, do so.

Upgrading the Kaleido-X Software and Firmware

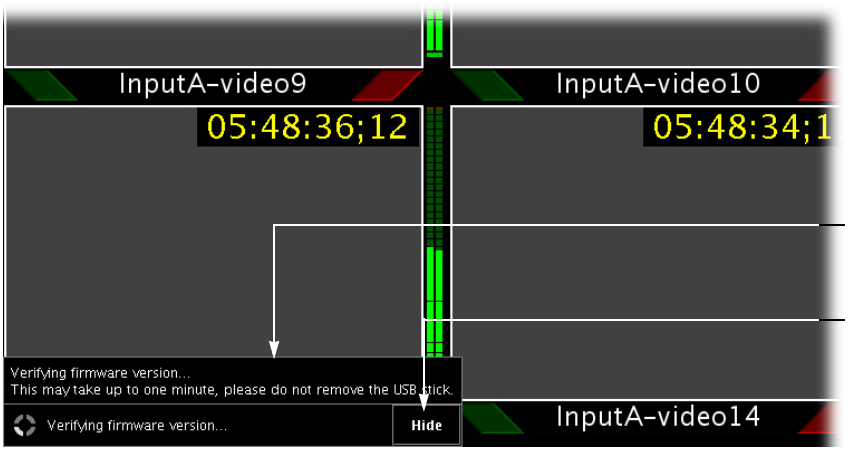
At this point, you are ready to upgrade the Kaleido-X system software and firmware. The multi-viewer should be powered up, with an active monitor wall display. You will need access to the monitor wall to observe the progress of the upgrade and you will use a mouse to trigger a system restart from the monitor wall once the upgrade has completed:

- If you have a Kaleido-RCP2, make sure that it is connected, and that you can use the mouse to move the pointer on the monitor wall. If the mouse is unresponsive, try rebooting the Kaleido-RCP2 by pressing ENTER+ESC+DEL on the Kaleido-RCP2's keypad.
- If your system does not include a Kaleido-RCP2, connect the mouse directly to a USB port on your multi-viewer, and then make sure you can move the pointer on the monitor wall.

Note: In the case of a *Kaleido-Modular* multi-viewer, when you connect a mouse directly to the card's USB port, the pointer travels vertically, between the bottom side of the display connected to MV OUT 1 and the top side of the display connected to MV OUT 2. In addition, since there is only one USB port, you must now unplug the mouse in order to connect the USB key.

To upgrade the Kaleido-X system software and firmware:

1. Insert the USB key into any of the USB ports on the Kaleido-X16 or Kaleido-Modular, or into a USB port on the KXO card **furthest to the right** in the Kaleido-X (as viewed from the front). After a while, a message appears at the bottom left corner of the monitor wall, reporting that the Upgrade Manager is verifying software, firmware, and safe mode versions:



Note: You can click the **Details** button to view more information. The button label alternates between **Details** and **Hide**.

The firmware verification process may take a minute or so:

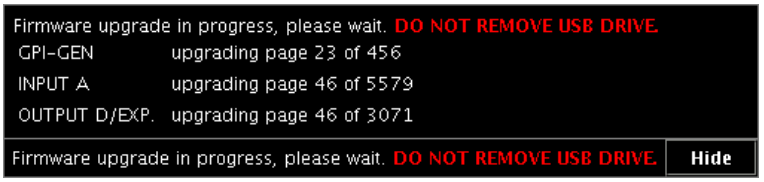
2. Once the verification process is complete, you will be advised what upgrade action, if any, needs to be performed:

IMPORTANT: **To cancel the upgrade process, you must click to ABORT within 30 seconds.**

3. The upgrade process begins automatically, starting with the software upgrade:

IMPORTANT: **In a Kaleido-X multi-viewer, all cards are updated in parallel, during which time their status LEDs will be flashing red. Do not interrupt this process. Do not insert or remove cards while an upgrade is in progress.**

4. Once the software upgrade is complete, the firmware upgrade begins:



When the entire upgrade process has successfully completed, a red button appears at the bottom of the dashboard on all displays that are connected to the system.

5. Click any of the **Upgrade complete** buttons to restart the system.

Note: When the firmware upgrade (or downgrade) process involves several cards (e.g. a fully populated expansion system), the dashboard may still be displaying firmware upgrade progress messages while the **Upgrade complete** button has already appeared. You can safely click the button to restart the system at this point.

The multi-viewer now restarts. This may take up to 30 seconds.

IMPORTANT: **If you are upgrading a Kaleido-X multi-viewer from version 5.00 (or earlier) to version 5.10 (or later), and your system includes output cards with KXO-HDM mezzanines, the mezzanines' firmware will now be upgraded.**

Upgrading the mezzanines may take up to 20 minutes, during which time their status LED will be orange. Once a mezzanine has completed its firmware upgrade, the output card will restart again.

Note: When you next upgrade your system the card and mezzanine upgrades will take place at the same time, and no additional card restart will be required.

6. If you are upgrading a **Kaleido-Modular** card, and notice a lack of luminance or corrupted video on the monitor wall, you should now restart your system once more, by clicking the Reset button on XAdmin's Status and Options page.

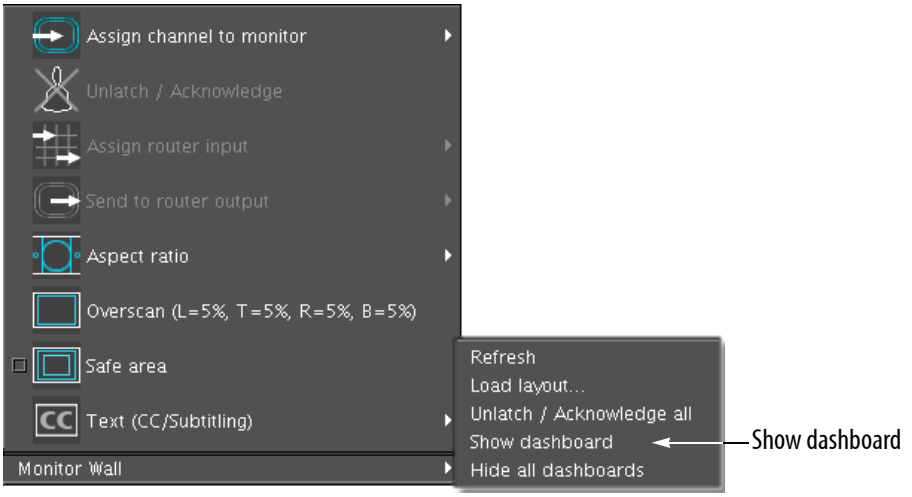
Verifying the Version Number

At this point, the upgrade to version 6.32 is complete. You can verify the new version number by displaying the dashboard on the monitor wall or, in the case of a Kaleido-Modular multi-viewer, by using the control panel on the Densité frame (see "Displaying the System's Version Number for a Kaleido-Modular Multi-Viewer" below).

Displaying the Dashboard

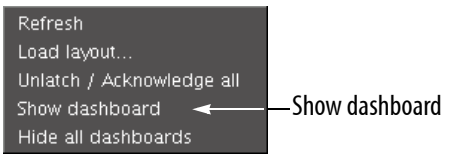
To display the dashboard:

1. Right-click anywhere on the monitor wall. On the shortcut menu, point to **Monitor Wall**, and then click **Show dashboard** to display the dashboard associated with the current head.

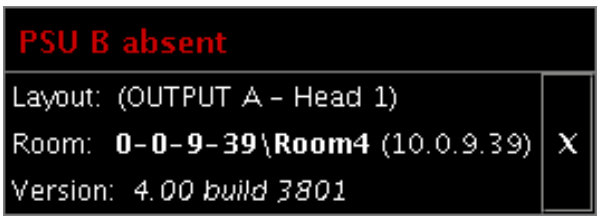


Monitor wall shortcut menu (within composite monitor shortcut menu)

Note: If you right-click the monitor wall background directly, then the monitor wall shortcut menu appears immediately. Click **Show dashboard**:



After a brief delay, the dashboard appears at the bottom-right corner of the monitor, and the command **Hide dashboard** replaces **Show dashboard** on the menu.



Dashboard on the monitor wall

Displaying the System's Version Number for a Kaleido-Modular Multi-Viewer

To display the system's version number on the Densité control panel:

1. Press the SELECT button on the front edge of the Kaleido-Modular card.

   The Status LED on the selected card flashes orange, and the associated control menu appears on the display of the Densité frame's local control panel.

2. On the local control panel, press the [–] button.

   The version of the Kaleido-X Software that is running on the card (e.g. "6.32-build.21") appears on the display.

3. Press the SELECT button on the front edge of the Kaleido-Modular card to exit the control menu.

Downgrading

IMPORTANT: **Before downgrading your Kaleido-X system, review the following:**

- **Expansion systems:** Before downgrading an expansion system, you must first split the system into two standalone frames. See Ref. #18212 on page 17 for details.

- **Kaleido-X (7RU, 4RU, and 14RU):**
  - Multi-viewers with output cards that shipped with version 5.22 (or later), initially or after repairs, cannot be downgraded to a version earlier than 5.22.
  - If you are downgrading a multi-viewer from version 5.10 (or later) to version 5.00 (or earlier), and your system includes output cards with **KXO-HDM** mezzanines, you will need to reseat these cards once the older version of the Kaleido-X Software is installed and your multi-viewer has restarted.
  - We do not recommend downgrading a Kaleido-X system to a version earlier than 2.10.

- **Kaleido-X16:**
  - Support for audio monitoring over the HD-SDI output requires version 5.30 (or later), and recent hardware: in the XAdmin Status and Options page, under SYSTEM, the value indicated for the **Card revision** attribute must be 0x4 or more.
  - Support for feeding a Kaleido-X16's HDMI output to an **EdgeVision** device requires version 5.30 (or later).
  - A Kaleido-X16 multi-viewer that shipped with version 5.22 (or later), initially or after repairs, cannot be downgraded to a version earlier than 5.22.
  - No Kaleido-X16 multi-viewer can be downgraded to a version earlier than 4.10.

- **Kaleido-Modular:**
  - The **KMV-3911** cannot be downgraded to a version earlier than 5.30. Downgrading to an earlier version would cause the monitor wall displays to remain blank or only show video (no graphics). In the advent that such a downgrade was attempted by mistake, reseat the card to revert the changes and restore functionality. Should this fail, please contact Technical Support (see "Contact Us!" on page 83).
  - The **KMV-3901** cannot be downgraded to a version earlier than 5.00.

- **Kaleido-IP:**
  - The Kaleido-IP cannot be downgraded to a version earlier than 6.00.
  - In the case of a Kaleido-IP multi-viewer system with sources from an EdgeVision device, the Kaleido-IP must have version 6.30 (or later) of the Kaleido-X Software, and the EdgeVision must have version 1.05 (or later) of the EdgeVision software.

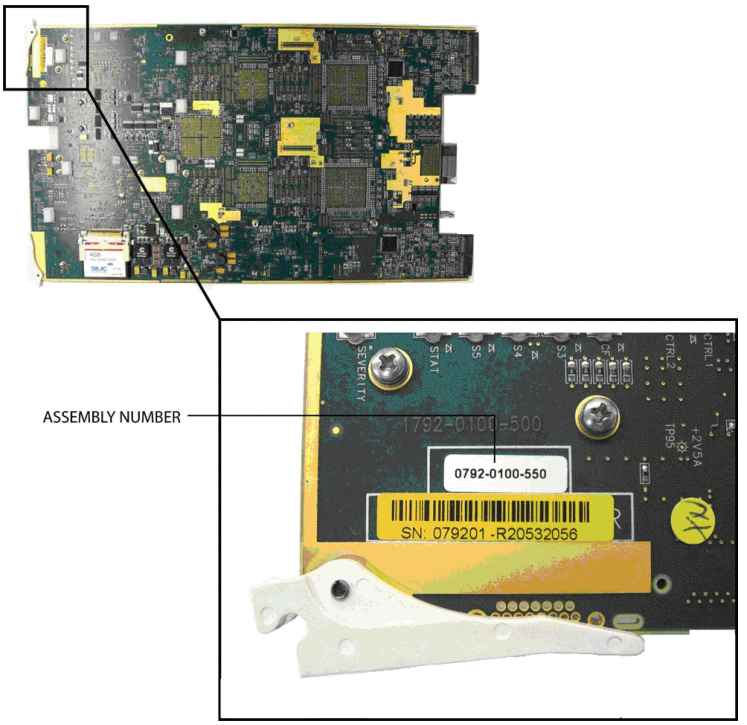
- **Router control:** As of Kaleido-X version 4.00, router configuration changes made in Router Manager Configurator are not compatible with earlier versions of the software. See Ref. #18955 on page 38 for details.

To downgrade your multi-viewer to an earlier version of the Kaleido-X Software:

- Follow the upgrade instructions in the Release Notes that were published with the Kaleido-X Software version you wish to use.

Verifying the Amount of RAM Installed on Kaleido-X Output Cards

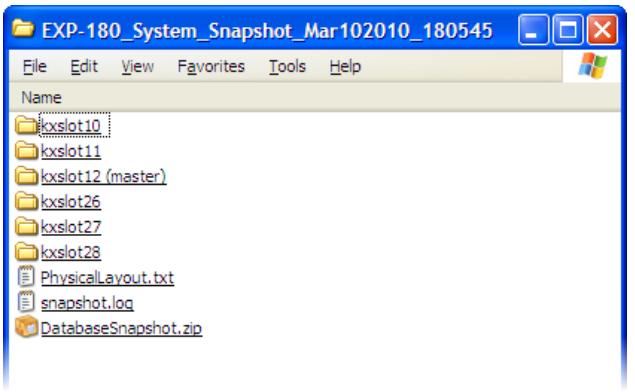
All Kaleido-X output cards with assembly numbers 0792-0100-600 and above (KXO-Dual3) have a 2-GB RAM module factory-installed. To find the assembly number for an output card, look at the underside of the board near the bottom ejector. The assembly number is printed on a small white label:



- If the card's assembly number is **0792-0100-600 or higher**, then no further verification is required for this card.
- If your multi-viewer includes cards whose assembly number is **0792-0100-599 or lower**, you will need to verify the amount of RAM installed on each card by inspecting a snapshot of your system.

To verify whether a KXO-Dual output card has 1 GB or 2 GB of RAM:

1. Open XAdmin's Technical Support page, to download a system snapshot (see "Generating a System Snapshot" in the Kaleido-X User's Manual), and then extract the content of the ZIP file to a folder on your local hard drive.
2. Open the folder where you extracted the system snapshot, and notice that it contains a number of subfolders whose name starts with "kxslot". There is one such folder for each output card. For example, the system snapshot folder for an expansion system with six output cards would look like this:



3. Referring to the tables below, identify which *kxslot* folder corresponds to the output card whose RAM capacity your wish to verify:

Kaleido-X (4RU)

Card	Folder
Output A	kxSlot13
Output B	kxSlot12

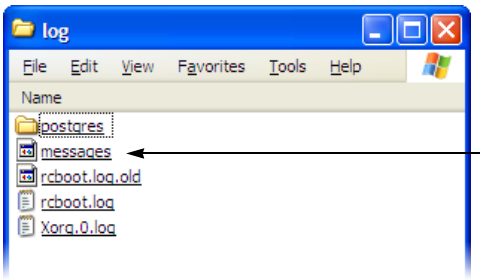
Kaleido-X (7RU)

Card	Folder
Output A	kxSlot10
Output B	kxSlot11
Output C	kxSlot12
Output D	kxSlot13

Kaleido-X (14RU)

Frame A		Frame B	
Card	**Folder**	**Card**	**Folder**
Output A	kxSlot10	Output A	kxSlot26
Output B	kxSlot11	Output B	kxSlot27
Output C	kxSlot12	Output C	kxSlot28

4. Open the folder you just identified, and navigate to `/var/log/messages`:



5. Open this file (`messages`) in a text editor. Alternatively you can also drag the file onto a browser window.
6. Search for a line where information similar to the following appears:

   ```
   Mar 10 09:39:42 localhost kernel: Memory: 2044012k/2064192k
   available (1354k kernel code, 19084k reserved, 468k data, 108k init,
   1146688k highmem)
   ```

   -OR-

   ```
   Mar  5 15:07:59 localhost kernel: Memory: 1004248k/1015616k
   available (1354k kernel code, 10876k reserved, 468k data, 108k init,
   98112k highmem)
   ```

7. There may be more than one occurrence. Notice the date and time indicated at the beginning of the line and keep searching until you have found the *most recent* such entry in the file.
   - If you see the string **`Memory: 2044012k`**, in the most recent such entry, then this card already has **2 GB** of RAM and does not need to be upgraded.
   - If you see the string **`Memory: 1004248k`**, in the most recent such entry, then this card only has **1 GB** of RAM and you must order a memory upgrade. Note down the card's serial number; you will need to remember which cards need the memory upgrade when you receive the new RAM modules.
8. Repeat the procedure for every output card whose RAM capacity you need to verify.
9. Once you have identified how many (if any) of your KXO-Dual cards only have a 1-GB RAM module, please contact your Miranda sales representative to order one memory upgrade option for every KXO-Dual card that must be upgraded.
10. When you receive the new RAM modules, install them on the cards you identified (see "Replacing the Memory Module on KXO-Dual Output Cards" below).

Replacing the Memory Module on KXO-Dual Output Cards

The memory upgrade kit includes a 2-GB memory module, and a self-adhesive wire clamp (part no. 2400-0040-0).

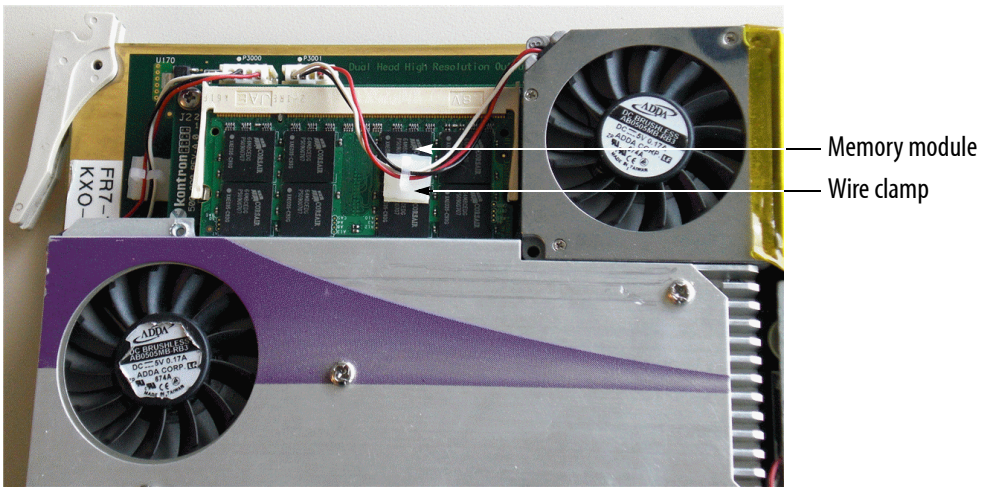
To replace the memory modules on output cards within your Kaleido-X system, you must proceed according to a specific sequence:

- **In the case of a standalone Kaleido-X frame,** start with the KXO-Dual card in slot D, and then continue with the cards in slots C, B, and A (in this order).
- **In the case of a Kaleido-X Expansion system,** start with the KXO-Dual card in Frame A slot C, then continue with the cards in slots B and A. Next move on to Frame B slot C, and continue with the cards in slots B, and A (in this order).

> **WARNING:** Before starting, make sure you are properly grounded and all static electricity build-up has dissipated.

To remove the memory module on a KXO-Dual card:

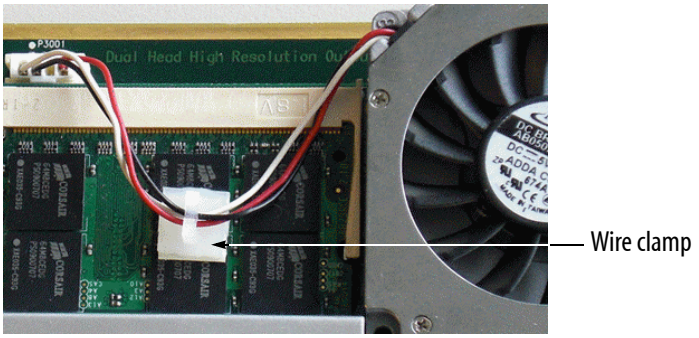
1. Remove the KXO-Dual card from the Kaleido-X system.
2. Locate the memory module near the front edge of the card in the corner that is enclosed by two fans:



3. If there is a plastic clamp holding fan wires glued on top of the memory module, carefully release the wires from the clamp.
4. Release the two retaining clips holding the memory module in place.
5. Pull the memory module away from the card at a 45 degree angle.

To install the replacement memory module on the KXO-Dual card:

1. Insert the replacement memory module at a 45 degree angle.
2. Carefully press the memory module down so that the retaining clips lock into place.
3. Attach the self-adhesive wire clamp (part no. 2400-0040-0) to the top of the memory module, and carefully secure the fan wires as shown below:



4. Reseat the KXO-Dual card into the frame. The card will now restart.
5. Once the card restart has completed, repeat the above procedures (remove module, install replacement, attach clamp and secure fan wires) with the next card, until you have replaced the memory module on all KXO-Dual output cards in your system.

Contact Us!

Miranda Technical Support

For technical assistance, please contact the Miranda Technical Support center nearest you:

Americas

Office hours: 9:00 a.m. – 9:00 p.m. (EST)
Telephone: 1-800-224-7882
Fax: +1 514 335 1614
E-mail: *support@miranda.com*

Europe, Middle East, Africa, UK

Office hours: 9:00 a.m. – 6:00 p.m. (GMT)
Telephone: +44 118 952 3444
Fax: +44 118 952 3401
E-mail: *eurotech@miranda.com*

France

Office hours: 9:00 a.m. – 5:00 p.m. (GMT+1)
Telephone: +33 1 55 86 87 88
Fax: +33 1 55 86 00 29
E-mail: *eurotech@miranda.com*

Asia

Office hours: 9:00 a.m. – 5:00 p.m. (GMT+8)
Telephone: +852 2539 6987
Fax: +852 2539 0804
E-mail: *asiatech@miranda.com*

China

Telephone: +86 10 5873 1814
E-mail: *asiatech@miranda.com*

EMERGENCY After Hours (Global)

Toll Free: 1-800-224-7882 (US and Canada)
Telephone: +1 514 333 1772

Corporate Head Office

Miranda Technologies Inc.

3499 Douglas-B.-Floreani, St-Laurent, Quebec, Canada H4S 2C6
Telephone: +1 514 333 1772
Fax: +1 514 333 9828
Web: *www.miranda.com*