Ultra Mosaic 2.0.2

- Release Date: March, 2024.

> ⓘ **Important:** *Please review the **End User Software License Agreement** before installing or using this software.*

Feature Enhancements

A number of features have been added, or updated, to this version of software. This section provides a brief introduction to these features, and how to use them.
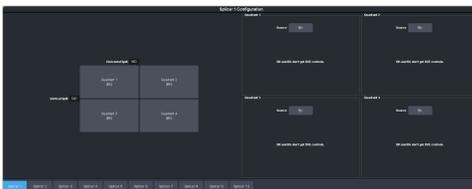
v2.0.2 Features

No New Features

This version of software fixes a number of bugs and does not introduce any new features.
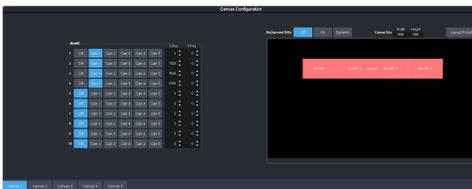
v2.0.0 Features

Splicer

Splicers allow you to use DVEs to position up to four sources (2×2) on a single output. This can be used to divide up a Canvas for the display segments you want to show it on.
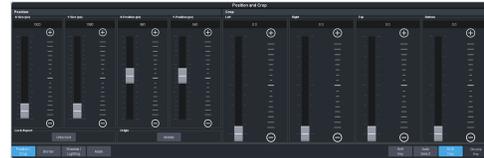

MultiScreen Expanded

MultiScreen has been expanded to include 10 MiniME™ layers that can be used on up to 5 Canvass.

Pixel Accurate DVE

DVE size and position can now be set to be pixel based (px) or screen based (scr). Screen based uses the same calculations as previous releases, where as pixel based uses actual pixel counts from an origin position.

> **Note:** *Lock Aspect and Origin position are only available in Pixel based mode.*

Origin Position

Origin positions is the 0 point for the pixel count of an image in both the X and Y axis. The origin can be at any corner, the middle, or the middle of any side.

When you Size a DVE, the origin point is a fixed point that the key expands from or shrink to.

When you Position a DVE, the origin point of the key is relative to the top left corner of the screen. For example, if the origin is Top Left, then 0,0 (x,y) position puts the top left corner of the key at the top left corner of the screen. If the origin is changed to Top Right, then 0,0 position puts the top right corner of the key at the top left corner of the screen and the key is completely off-screen.

When you position a MiniME™ on a Canvas, the origin point is the point on the Canvas that the MiniME™ uses relative to its own origin. The origin point of the MiniME™ is the top-left corner.

Note: The **MiniME Origin Position** is locked to **Top Left**. Other origin point selections are not available at this time.

New Devices Supported

No new device support or commands were added to this version of software.

New Devices

No new devices were added or updated for this version of software.

New/Updated Commands

No new commands were added or updated for this version of software.

Bugs Addressed

The following bugs were addressed in this version of software:

- CR-4437 — Media-Store alphas will now load automatically in UHDTV1 to the even channel of an odd Media-Store.
- CR-4593 — Ejecting a Media-Store channel will now clear the channel.
- CR-4811 — Certain broken outputs formats in UHD are in correct format instead of 1080p.
- CR-4649 — Video input was incorrectly lists as Still.
- CR-4626 — MiniME™ Key transparency controls now work properly.
- CR-4525 — Splicer origin will now detect pixel/screen changes.

Known Issues and Limitations

Keep these notes in mind when upgrading your system to this version of software. Contact Ross Video Technical Support if you have any questions about performing a software upgrade.

Operational Notes

The following issues have been identified when working with the switcher:

- **Reboot After Diagnostics** — The switcher must be rebooted after performing any diagnostic test.
- **Corrupt USB** — If you remove the USB drive while the switcher is writing to it, the USB could become corrupted and will need to be re-formatted.
- **External Re-Entry Video Errors** — A video timing error can occur when a video output of the switcher is routed back into the switcher using an input BNC. If video timing errors do occur, assigning a frame synchronizer to the input BNC will remove the timing errors.
- **GPI and Tally Diagnostics** — If you run the GPI or Tally diagnostic tests, you may have to reboot the switcher to end the test.
- **Stills with same Name** — You cannot have two or more Media-Store files with the same name but different file extensions in the same folder. The switcher treats capital and lowercase letters as the same.
- **Transitions with Show Alpha** — If the show alpha feature is on, only cut transition are possible on the ME. The switcher will perform a cut at the end of the transition duration instead of the selected transition type.
- **Reboot after Upgrade, Switcher Mode Change, or Option Installation** — You must power cycle the switcher after performing an upgrade, changing the **Switcher Mode** between SD, HD, and UHDTV1, or installing a software option. Refer to the relevant sections in your Manual for more information on performing the power cycle.
- **Long CC Pause Delays** — If you created a Pause for a custom control in version 3.0 or earlier and the switcher is operating in an interlaced video format, the pause duration was shown in fields but calculated in frames. This lead to durations being half as long as expected. This has been corrected, but any existing CC pause events, in interlaced, will now be twice as long as previously calculated. You must edit the event to reduce the duration by half to get the same result.

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- **720p in BT.2020 SDR** — The combination of 720p and the BT.2020 color gamut in SDR is not documented in the applicable standards and may not be supported by other downstream devices.
- **Sets Not Backwards Compatible** — If you save a set in one version, you may not be able to load the set in an older version of switcher software.
- **Incorrect Dynamic Range and Color Gamut PID in UHDTV1** — In UHDTV1, only the first link in the output carries the correct Dynamic Range and Color Gamut information. The other three links will continue to carry the SDR BT.709 PID.
- **Decimal Accuracy** — DashBoard and the 3-knob menu show numerical values slightly differently. DashBoard shows values accurate to 2 decimal places and the 3-knob menu shows values rounded to 1 decimal place.
- **Jumbo Frames Not Supported** — Ethernet frames with more than 1,500 bytes of payload (Jumbo Frames) are not supported at this time. If your device has an option to send jumbo frames, it must be turned off to properly communicate with the switcher.
- **MediaWipe and DVE Wipe** — If you switch back and forth between a DVE transition and a MediaWipe DVE transition, the DVE transition may only perform a cut at the end of the transition duration. Select a different DVE transition pattern and then switch back to the pattern you want to fix the issue.
- **Disable UDP TSL Device** — If you disable communications to a TSL device that is using the UDP transport protocol, the switcher will continue to send data to it.
- **Media-Store Alpha Channel in UHDTV1** — In UHDTV1, the alpha channel of a media item is not automatically loaded into the next channel. You must manually extract an alpha image and load that into the next Media-Store channel manually.

Software Upgrade

The switcher software is upgraded from DashBoard either by dragging and dropping the software onto the Upgrade page, or by saving the upgrade file to the USB drive inserted in the frame.

Depending on the version of software you are upgrading from, your menus may be arranged or appear differently.

Software Compatibility

Before installing any software, review the following version compatibility information.

> **Note:** Compatibility, unless otherwise indicated, shows the combination of software versions that were tested together. Other combinations may not have all the features introduced with the most recent version of software.

Table 1: Version Compatibility

Software	Version	To Verify
Ultra Mosaic	2.0.2	The current version is shown on the **Status** page in DashBoard for the Ultra Mosaic node.
DashBoard	9.8.1	Refer to the documentation what came with DashBoard for information on getting the current version number.
Carbonite Black Panel	1.5.530	A software mismatch message is shown on the control panel if you need to upgrade the software on the control panel.
TouchDrive Panel	3.0.1	The current version is shown on the **Status** page in DashBoard for the TouchDrive node.

> **(!) Important:** Depending on the components that need to be upgraded, not all of the upgrade procedures need to be completed.

To Upgrade the Switcher Software

Use DashBoard to upload the upgrade file to the switcher.

> **Note:** Save your switcher setup information to a set on a separate USB drive before upgrading. This switcher set can be

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used as a backup in case there is a critical error during the upgrade.

Tip: Switcher sets are not backwards compatible. Keep an archive copy of your sets in case you want to downgrade to the previous software version.

ⓘ **Important:** *Do NOT turn the switcher power off during the upgrade. Doing so may corrupt the switcher software or damage the switcher components.*

1. Click **Navigation Menu** > **Configuration** > **System** > **Upgrade**.

2. Locate the software upgrade file (`upgrade_mosaic-x.x.x.xxxx.ultra`) for the switcher and drag and drop it into the **Drag and Drop Upgrade** area on DashBoard.

   *Tip: You can also upgrade from the USB. All upgrade files located on the USB are shown in the **USB Upgrade** area. Click the file you want to use and click **Upgrade**.*

   *Tip: You can also upgrade by clicking **Browse**, locating the upgrade file, and then clicking **Upload File**.*

   The file is uploaded to the switcher.

3. Click **OK** to confirm the upgrade.
4. Wait for the DashBoard pages to come back up. This may take a few minutes.
5. Power cycle the frame by switching the power button **Off** and then **On** again.

   The switcher will come up with the new software version.

Upgrade Issues

If there is a problem during the upgrade procedure, an error message is shown on the display of the control panel.

Table 2: Upgrade Error Messages

Error Message	Description
`USB not inserted`	The USB drive was removed or unmounted during the upgrade. Re-insert the same USB drive back into the frame.
`USB < 1G free`	The USB drive requires at least 1GB of free space for temporary files during the upgrade. Copy the upgrade file to a larger USB drive and start the upgrade again.
`USB failure`	There has been a critical failure with the USB drive. A forced upgrade must be performed and switcher setting will have to be restored from the saved setup. Contact Ross Technical Support for support with this error.
`USB file failure`	There has been a critical failure with the files on the USB drive. A forced upgrade must be performed and switcher setting will have to be restored from the saved setup. Contact Ross Technical Support for support with this error.

To Upgrade the Carbonite Black Panel

After the frame has been upgraded and reconnected to the panel, a message may be displayed indicating that a software mismatch. You only need to upgrade the panel or CarboNET if the mismatch message is displayed.

Note: It is important to upgrade all devices connected to a frame to the same version. This includes in a MultiPanel configuration.

1. In DashBoard, double-click on the **CarbonitePanel** node for the Carbonite Black panel or CarboNET that you want to upgrade.
2. Click **Upload** > **Browse**.
3. Locate the `CarbonitePanel-v#_#_###.bin` upgrade file and click **Open**.

   *Tip: If you have multiple devices to upgrade, click **Next** and select all the devices that you want to upgrade.*

4. Click **Finish**.

DashBoard uploads the upgrade file to the device and performs the upgrade.

5. Click **Reboot** > **OK**.