# Updates for version 4v01 (5189)

## Ultrix Router Firmware

* Adds support for the ULTRIX-IP-IO blade in the Ultrix 5RU
* Adds Flex Slot support to enable I/O of up to 160x160
* Licensing URM via Password Protection for software licenses
* Performance enhancements & bug fixes

## Ultricore Router Control System

* ULTRICORE-BCS: Initial Release
	+ Extends Ultricore logical control system from 4kx4k to over 16k x 16x
	+ BCS client and NMOS capabilities governed by Licenses:
		- BCS Supports 10 control clients by default.
		- Ultricore-BCS-CLIENT
			* Adds clients in blocks of 10 (1 additional license seat = 10 additional clients) up to 100 Max.
* ULTRICORE-IP: (Feature of ULTRICORE-BCS)
	+ Separately licensed feature allows integration and control of NMOS-visible IP Endpoints.
		- Supports NMOS IS-04 Registration and Discovery
		- Supports NMOS IS-05 Connection Management
	+ Integrated RDS server
	+ Reports discovered sender/receiver endpoints as ports available to the Ultricore controller
* IP Video and Audio Subscription Licenses:
	+ Ultricore-IP+V License seats:  adds support for 16 Video connections between two Ross Devices
	+ Ultricore-IP+A License seats:  adds support for 384 Audio connections between two Ross Devices
	+ Ultricore-IP+V3RD License seats:  adds support for 16 Video connections to or between non-Ross Devices
	+ Ultricore-IP+A3RD License seats:  adds support for 384 Audio connections to or between non-Ross Devices
* 3rd Party Protocols:
	+ Probel Matrix-ID Support

## Dashboard interface

* GUI support for Ultrix IP-IO blade

# Updates for version 3.40 build 4083

## Ultriscape Multiviewer

* Interlaced source PiP display improvements
* UMD performance enhancements

## Ultricore Router Control System

* **Database**
	+ Database wizard to quickly create a working database
* **Softpanels**
	+ Ultritouch MV softpanel;
		- Change Ultriscape layouts
		- Direct PiP control
		- dynamic PiP follow operation
	+ Category softpanels adopt PushButton styling
* **Third-party protocols**
	+ GVG series 7000 layer 4 ACK enhancements
	+ TSL 5v0/4v0 protocol enhancements
	+ SNMP protocol added (licensed): frame alarming and monitoring
	+ Ultricool support added

## Ultrix router firmware

* minor performance enhancements

# Updates for version 3.31 build 3836

## Ultriscape Multiviewer

* Minor performance enhancements

## Ultricore Router Control System

* **Database**
	+ Destination follow allows one or more destinations to follow another
* **Softpanels**
	+ Ultritouch PB softpanel release version (licensed), with many enhanced features;
		- Output Monitoring window shows NDI\* encoded IP video streams
		- dynamic destination follow operation
		- window title bars
		- added Favorites window type
* **Third-party protocols**
	+ NVision release versions (requires license)
	+ GVG series 7000 BK,I support added

## Ultrix router firmware

* secure-shell access may be enabled/disabled via front panel
* minor performance enhancements

\*NDI is a registered trademark of NewTek Inc.

# Updates for version 3.30 build 3764

## Ultriscape Multiviewer

* **Third PiP size**
	+ A third PiP size has been added to Ultriscape. This is size is per head and does not effect the two global PiP sizes.
* Layout editor GUI enhancements

## Ultricore Router Control System

* **Softpanels**
	+ Ultritouch PB is a new softpanel type added to support Ultritouch RCP (beta)
	+ Push Button is a new softpanel type similar to Ultritouch but formatted for computer monitors (beta)
* **Third-party protocol**
	+ Added router status over TSL label egress. The router will send database source labels as tally text for selected destinations using TSL 3.1 protocol.
* GUI enhancements

**Ultrix router firmware**

* **Audio Delay**
	+ Up to 500 ms audio delay may be applied per channel. Requires UltriSync license
* **UltriSRC license**
	+ The license allows Sample Rate Conversion for MADI audio SFP inputs. (async. MADI)
* Improved ANC handling

# Updates for version 3.25 build 3622

## Ultricore Router Control System

* **Third-party protocol**
	+ Added NVision serial NP0010 protocol
	+ Added NVision TCP/IP NP0016 protocol
	+ Added GVG layer 4 ACK support
* **general enhancements**
	+ MADI AUX dropout due to 12G crosstalk fix
	+ Intermittent audio loss after logical change fix
	+ Improved SD card error handling

## Dashboard interface

* **Offline Editor**
	+ Database import/export enhancements – mismatched I/O corrections
	+ Various minor enhancements
* **GUI**
	+ Unicode restrictions to prevent database errors
	+ Improved logical label updating

# Updates for version 3.20 build 3413

## Ultriscape Multiviewer

* **Tally Enhancements**
	+ when displaying Tally indicators, there is now an option to alter the behavior when both red and green tallies are activated: Red only (overrides green), or both tallies lit.
* **Audio Meter Enhancements**
	+ Audio metering may now select between -20dBFS or -18dbFS standards
* **Layout editor GUI enhancements**

## Ultricore Router Control System

* **Increased client connection support**
	+ up to 50 RCP’s and 20 Dashboard clients

## Dashboard interface

* **Offline Editor**
	+ a new offline editor tool allows creation and editing of a database when not connected to an Ultricore/Ultrix device
* **Database fill tool**
	+ option to include/exclude AUX ports in auto filling a slot/frame
* **GUI enhancements**

**Ultrix router firmware**

* **Ultrisync**
* option to choose black or freeze frame upon loss of signal
* **Signal format**
	+ 6G-SDI support : 2160p23.98, 2160p24, 2160p25, 2160p29.97, 2160p30

# Updates for version 2.02 build 2933

**Ultriscape Enhancements – Clocks and Backgrounds**

* Ability to create digital clocks on MV layouts. Each clock can be defined as a Time-of-day, Countdown, or Timer mode. Time-of Day Clocks are backed from NTP Time source (with Timezone offsets), Countdown and Timers, and be controlled via Dashboard UI, or RossTalk protocol messages. Up to 8 clocks can be added to each MV Layout.
* Ability to Upload custom backgrounds to each MV Layout file. PIP's, UMD's, and other elements are rendered over the top of a custom background.
* New Configuration Option to Globally (frame wide) change how Ultrix interprets incoming SD (480i and 576i) sources into the Multiviewer, options are 16:9 or 4:3 Aspect Ratio

# Tally Enhancements – PIP Dest TSL ID

* Ability to associate either a PIP destination, or a source in the logical tables as a specified TSL DID. If Source is assigned, when that source is routed to a PIP, the PIP gets assigned the DID dynamically. If the DID is associated with the PIP Destination, the DID will stay fixed regardless what source is routed to the PIP.

**Database Enhancements – Automatically Reset ID List**

* When any changes to the logical database are applied, the controller will automatically reset the ID range for the table. Non-contiguous ID ranges could cause unexpected behavior in certain softpanel scenarios.

# Updates for Version 2.01 build 2522

# 3rd Party Protocol Enhancements – Probel Extended Commands

To support Destination and Source List indexes > 1024 and Levels > 16, support for the extended Probel Commands in SW-P-08 Protocol have been added to the Ultrix / Ultricore Probel Driver.

The New commands are:

129 – EXTENDED CROSSPOINT INTERROGATE

130 – EXTENDED CROSSPOINT CONNECT

138 – EXTENDED PROTECT INTERROGATE

140 – EXTENDED PROTECT CONNECT

142 – EXTENDED PROTECT DISCONNECT

147 – EXTENDED PROTECT TALLY DUMP

149 – EXTENDED CROSSPOINT TALLY DUMP

228 – EXTENDED ALL SOURCE NAMES

229 – EXTENDED SINGLE SOURCE NAME

230 – EXTENDED ALL DESTINATION ASSOCIATION NAME

231 – EXTENDED SINGLE DESTINATION ASSOCIATION NAME

232 – EXTENDED ALL UMD LABEL REQUEST

233 – EXTENDED SINGLE UMD LABEL REQUEST

248 – EXTENDED CROSSPOINT CONNECT ON GO GROUP SALVO

* Responses and operational details of these new commands are in the Ultrix User Guide.

# 3rd Party Protocol Enhancements – Probel Controller mode

Probel SW-P-08 protocol can now be used to control 3rd party matrices via Ultricore CC, via Serial or TCP/IP connection type.

**Dashboard Interface – System Status**

In the System Status Page, a new Tab for Storage will show the current available storage in both the onboard Flash, and SD card memory locations

**Fan Controller Mode**

Added 4 Fan speed selection modes instead of 3

**Updates for Version 2.00 build 2432**

# Ultrisync, on board Frame Synchronizer on every SDI input

Each SDI input now supports optional (licensed) Frame Sync for SDI rates up to 3G-SDI (1080p)

* Includes 48K Sample Rate Conversion for all 16 Embedded Audio channels per SDI input
* Dual Timing Mode (1Frame / 2Frame)
* Floating License pool, dynamically assign per input

**Ultriscape Custom Layouts**

Ultriscape Multiviewer now supports custom pip layouts in addition to template based layouts

* Now 2 Global PIP Scaler sizes per Frame, selectable from 9 available
* Increased Number of available PiPs per Head (from 20 to 100)
* Shared Pips (single switch request to switch multiple pips across multiple MV Heads)
* Layouts can be built with any PIP size regardless of the current active system PIP sizes (for future layout creation)
* Layouts now available as logical sources in the Ultrix Source Table. Can be switched as 'regular' sources to MV outout heads from RCP panels, softpanels, or 3rd party control.
* Salvos can now recall both Layout and PIP Source assignment to MV Head.

**Ultriscape Layout Editor**

* Adjustable Layout Grid for element placement
* Element Alignment Tools
* Resizable Audio Meters, and UMD Labels, positionable both on or off PIP
* PIP border configuration modes

**Ultrimix**

* License Changes
	+ Ultrimix is now included Free of charge with the base unit. The license restriction has been removed from the Device License area. Audio Embed / Dis-Embed, breakaway switching, proc-amp and transitions are now available to all systems
	+ The Ultrimix feature gets enabled or disabled as a user preference from the Device Management page on a slot by slot basis.

**Ultrispeed**

* License Changes
	+ Ultrispeed is now a frame-wide license as opposed to a per-slot license. One license instance will enable 12G features on the entire frame

**Ultriclean**

* License Changes
	+ Ultriclean is now included as part of the Ultrimix package, which is included with every frame. Enable or disable clean switch on each port via the Device Management page.
* Dual Operation Mode (Lock to Input / Lock to Ref)
	+ The Ultriclean Line Sync outputs buffer can be locked to the current selected input timing or the system Reference input, and is per-output selectable in the Device Management Port configuration page.

**3rd Party Protocol Support**

* Salvo Recall via GVG7000 / Native Protocol
* Enhancements to GVG7000 / Native to improve polled Query responses

# Dashboard / Database Interface

* Database Groups Support, with new Soft Panel\*

Adds the Ability to create Logical Groups of Sources, Destinations and Levels, independent of Logical Names which can be navigated by RCP's and Dashboard Softpanels

* Database Category / Index Support with new Soft Panel\*
	+ New Mode of Category / Index Based routing (Known as XY Routing), where categories and Indexes are based on the Logical Name in the System Database. Added Softpanel and RCP panel support for this new Mode.
* Input Timing Data in Device UI
	+ The Device Management Port Status page now displays the SDI input timing in Lines and Pixels (shows 'Async' for free running inputs and 'Invalid' for non present inputs)
* System Status Page New UI Layout
	+ Tabs have been added to the system status page to separate Network, Database, Transfer and Setup functions
* Import Export of Database
	+ Adds the Ability to save locally or upload from local, any database in the system.
* Import / Export of Ultriscape MV Layouts
	+ Adds the Ability to save locally or upload from local, all MV Layouts in the system
* Import / Export of Ultrix Device (Hardware) Settings
	+ Adds the ability to save locally or upload from local, all Ultrix Device (hardware) settings
* Dashboard Permitted Clients List
	+ Can now Restrict Access to the Ultrix Frame to a specified set of Client IP addresses attempting control via Dashboard.

*\* RCP 'E-Panel' (RCP-QE18 and RCP-QE36) Firmware update v1.55 or higher adds support for Groups and Category index to align with Ultrix sw V2.0*

# Updates for Version 1.21 build 1871

## DashBoard Interface

### Connections Tab

* In the Connections tab of the currently loaded database, Ultrix now displays both Client and Server connections (including RCP panels) that are currently connected to the system.

### System Status

* A button was added to refresh the current crosspoint status to all panels if a soft panel does not show current router status.
* A Refresh I/O Ports button was added in the event that Hardware (including remote connected routers) changes.
* Added a selection box on the Database tab that chooses whether Ultrix router acts as the system controller or an externally controlled frame.
* An Enable Tally button was added to add the TSL Display ID Value to all sources.
* If the System name changes, the Logical Port mapping is automatically updated to include the new name.

### Port License Page

* Multiviewer and UltriClean license assignments to ports are now consolidated in one location in the Device Configuration Page.

### Gearbox Port Configuration

* Adding SDI Gearbox assignments can now be performed from the Port Status page, via color-coded ports labels.

### UltriClean Port Configuration

* Enabling the UltriClean Clean switch outputs and configuring their timing window can now be performed from the Output Port Status page in the Device Configuration page.

### Frame Configuration

* Added SD card presence alarm in the Alarms area of the Device Configuration page, to notify the user that the SD Card is not present or mounted correctly.

## UltriSpeed

* UltriSpeed 2SI Quad Link to 12G-SDI Gearbox, and 12G-SDI to 2SI Quad Link Conversion is available on every UltriSpeed enabled slot.
* ‘Signal Medic’ recovery from LOS signals in 2SI Quad Link Inputs is now available on every enabled Gearbox 2SI group.

## UltriClean Feature

* UltriClean is a new software licensed feature that enables clean switch output on a port by port assignment basis, with a variable Line Sync Buffer window (1/16 to 1/2 of a Line of Video). Note that for any Slots with an UltriMix license enabled, every output port is automatically UltriClean enabled as well.

## UltriScape

### Tally

* Tally Indicator Lamp Icons (Dots) may be applied to a Multiviewer PiPs, in addition or instead of PiP Border Tally indicators.
* An option was added to allow Reversal of Red / Green Tally, depending on the TSL sender device.

### UMD / Labels

* An Overwrite or Append Option was added to allow TSL UMD Data to be appended after a Source / Destination label, or completely override the label.
* Label Background Transparency is now a user definable option (0-100%).

### Configuration

* A new UltriScape Configuration page was added, for selection of settings that affect all Multiviewer outputs. This includes Label Transparency, and Tally Color mapping.

### Layouts

* The number of available Layout templates was increased from 10 to 20.

### Logical Audio Meters

* UltriScape audio meters can now be assigned channels in two different ways:

**Physical** — In this mode, the audio meters always display the embedded audio of the SDI video that is assigned to the PiP. In Destination Follow mode, the meters will display what is currently assigned to the embedded audio of that destination.

**Logical** — In this Mode, each PiP Meter channel is now a port which is added to the logical destinations table of the Ultricore database. Any source audio channel can now be individually routed to any specified meter on the Multiviewer display.

## System Logging

* Logging Data now persistent between reboots
* Improved logging for troubleshooting third-party protocol communications
* Full system configuration, status, and logging data can be downloaded as a single \*.tgz file
* Web browser download logs function also saves active database files

## 3rd Party Protocols

* GVG7000 Native Protocol now supports index values as 2 ,3, or 4 bytes
* TSL v5 Protocol now supports Screen IDs

# Version 1.10 build 1442

## UltriScape

### TSL Tally Borders and Labels

* TSL Protocol Support added to Ultrix. Supports version 3.1, 4.0, and 5.0 over serial, UDP or TCP connections.
* Added UMD Label Append and Border Tally Support to UltriScape Multiviewer Heads.

### 1080i / 1080p Head Output Format Selection

* Can now select either 1080i or 1080p in either 59.94Hz or 50Hz frame rates to each individual Multiviewer Head Output.

## DashBoard Interface

### Database Source and Destination Fill

* A new Advanced Fill tool assists in quickly populating the database.