

SOFTWARE RELEASE NOTES

Project Title: UNITY

Software Released by: Gary Pritchard
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This document is a cumulative list of bug fixes and feature enhancements for UNITY family of products.

Reporting Bugs

If you find a bug or feel that we could improve the dimmer, then please let us know. If you find a bug that affects operation or crashes the unit then could you let us know ASAP!!

email techSupport@lsccontrol.com.au
phone +61 3 9702 8000

Obtaining Updates

If you wish to be emailed about **LSC** software updates as they are released, then send an email to the above address and you will be added to the mailing list.

Installation procedure

If upgrading from v1.xx code, please refer to Appendix A at the end of this document.

To install a software update, perform the following steps:

- 1) Updating requires a USB memory stick that is formatted as FAT32.
- 2) Create a folder on the USB stick labelled **LSC**
- 3) Copy the software release file (named Unity_vNN.upd where 'NN' is the software version number) into the LSC folder on the USB stick.
- 4) Insert the USB stick into the UNITY head module *USB* connector.
- 5) Ensure all output modules are powered up.
- 6) Navigate to the Update Firmware menu
[Log In], [Advanced], [system Settings], [Update Firmware]
and press [Yes] to start the upgrade.
If there is more than one upgrade file on the USB stick, select the correct update file from the dialog box and then press [Yes]
- 7) The update status will be displayed, showing the individual items are being updated.
- 8) Once complete, the UCM and output modules will restart.

N.B. All outputs will be disabled (turned off) during the update process.

It is possible that if the update is interrupted at a critical point, that the touchscreen may no longer work. LSC strongly recommend having a USB hub and USB mouse available, so that if the touchscreen stops responding, the update can be continued and/or repeated using the USB mouse and USB stick connected via the USB hub to the Control module.

Reason for the Release: New Features and Bug Fixes

New Features:

- View Channels from the home screen.
It is now possible to instantly enter the View Channel window from the GUI home screen. Pressing the channel selection button above the circuit breaker on any output module channel opens the View Channel window with the selected channel information. Tapping the button again reverts to the home screen.
- The channel indicator LEDs above the circuit breakers in each module now show the channel mode. If the channel is operating as a dimmer the LED will be blue when the channel is active. If the channel is switching (Auto/AlwaysOn/Relay/Switch) then LED will be green to indicate that it is safe to use with non-dim loads.
- sACN merge by slot/address implemented. Previous versions of software only allowed for priority per universe. This update now includes the optional 'merge by address' functionality.
- Increased the maximum number of receivable sACN universes to a total of 32 universes.
- Art-Net universe numbering has been changed from the 0 based Net:SubNet:Universe convention to the more popular 1 based methodology.
e.g. 0:0:0 is now 1, and 0:1:0 is now 17
The set and view source windows displays both the old and new numbering system for ease of translation.
- The Art-Net IP address of the rack is now shown in the Sources menu to assist with diagnosing network issues.
- The sACN source window now includes a list of available sACN universes on the network. (This functionality requires the source sending the sACN data to have implemented the universe broadcast packet, which some older consoles do not support).
- The Module Status Window information has been updated to better reflect user requirements.
The original design showed the module type installed, rather than the operational mode selected in the QuickStart menu. This was confusing for many users.
The new design displays the module type (USMT or UDMT)) in black then the operating mode in Green/Blue (**SWITCH ONLY** or **DIM-SWITCH**).
- The default stagger start time has been reduced to 0.3s. The RnD team has determined that this is the best compromise between speed and protection from in-rush current tripping the upstream breaker.
- The [Firmware Update] button has been renamed to [Software Update] as this is a more recognised terminology.
- Alarm messages now include the channel name for extra clarity.
- When exporting the rack configuration setting to a USB stick (via the Reset To Factory Defaults menu), the folder created now uses the rack name instead of a generic name.
- The Status LED now displays Blue if the interface cannot communicate with the main GUI processor. Previously this was shown as Magenta, which is now used to show a persistent alarm is active.

Bug Fixes:

- Changing the mode of an active channel could turn off the other active channels set to the same mode.
e.g. If the user had 2 or more channels set to AlwaysOn and they changed one of these channels to AutoPower, the remaining AlwaysOn channel/s would turn off.
Channels that were set to Always On,
- Reselecting a channel to the same mode (e.g. AlwaysOn/Auto) would cause the channel to shut off.
- It was possible for the GUI to go into a split-screen mode, making it extremely hard to navigate.
- Clearing Persistent Alarms was quite slow (up to 500mS). It is now instant.
- Using the range select function from the module front panel selection buttons, could cause the first selected channel to be forced on if the user took too long to make the selection.
- The range selection function would drop the first channel if the user released the first button before the last button.
- The [Delete All Shows] button displayed a white screen with no functionality.
- A factory reset could potentially cause sACN reception to stop working until the IP address was changed.
- Persistent alarms now have a higher priority than acknowledged (ACK-D) alarms, so they remain shown when an ACK-D alarm is active.
- In rare circumstances a module would instantly go live when powered on, instead of waiting the usual 3 seconds.
- sACN priority did not always work correctly when one source failed.
- Changing the IP address after a Factory Reset to Defaults caused the rack to continuously go online/offline/online in HOUSTON X software until the rack was rebooted.
- Spurious network traffic could cause the UCM to reset. The Art-Net standard includes a command to request a device to change IP address. This command could, in specific circumstances cause the UCM to reboot. It was only ever seen at one installation using a very old 3rd party Art-Net node.
- Channels did not get the correct Dimmer Curve applied the first time they were changed from Switch to Dimmer.
- Changing a Slot from ANY to UDM type stops AutoPower until the module is power cycled.
- Running a fast change (>90BPM) caused random relay activations (UNITY only). This was not seen on the output, but was happening internally, causing an annoying clicking noise.

Components:

- Unity_v2.05.upd
 - GUI build v14151
 - Interface v2.03
 - OutputModules v2.03

Release: v2.04 Date: 11-May-2023

Reason for the Release: New Features and Bug Fixes.

New Features:

- The channel set up 'Operating Mode' screen has been modified to show if multiple sources are configured when multiple channels are selected. The Dim button is also disabled if some of the selected channels are in SwitchOnly modules.
- sACN Alarms now specify which universe/s have been lost.
- Alarms are now disabled for modules that are missing/powered off.

Bug Fixes:

- Forcing a channel on (emergency override) did not override the Max level setting,
- If the user held their finger on a button on the touchscreen and slid their finger off the button before removing their finger from the screen - the button would remain pressed down
- If none of the channels in a module had a source (e.g. set to AlwaysOff, AlwaysOn), then the Comms LED went yellow, which was misleading.
- Selecting and editing non sequential channels could result in some channels not updating until the module or UCM were power cycled.
- Changing the source from DMX1 to DMX2 did not get pushed to the module until the system was power cycled.
- It was possible to accidentally set a channel to ForceOn mode when in the Channel setup menu. ForceOn is now disabled in the channel setup menu.
- In a 96way rack, the column headers in the View Sources, Channel Input screen had the incorrect channel numbers for the last four rows.

Components:

- Unity v2.04.upd
 - GUI build v13686
 - Interface v2.02
 - OutputModules v2.02

Release: v2.03 Date: 6-Mar-2023

Reason for the Release: Combined UNITOUR/UNITY codebase.
New Features and Bug Fixes

Major Update.

The v2.0 code combines the original UNITY v1.x codebase with the new UNITOUR software, providing many new and improved features.

Due to the combining of the two products, a number of buttons in the UNITY software have been moved to a different location on the screen.

Major New Features:

**The software update process has been completely rewritten. There is now one update file to load which updates the GUI, interface and all modules. It also automatically skips any devices that are already up to date.
As this is the first version with the new Updater, when upgrading from version 1 code, v2.03 must be installed as separate components using the old install method.**

- New dark colour scheme for easier viewing in low light conditions.
- The Art-Net/sACN functionality has been extended. It is now possible to assign different Art-Net or sACN universes to each channel if required. The old [Configure Art-Net] and [Configure sACN] buttons have been removed from the GUI. Configuration of these options is now done in the Channel Setup window, using the [Input Source] button.
- sACN Merging. If there are multiple sACN sources with the same priority, they are merged using HTP (Highest Takes Precedence).
- Art-Net merging. If there are multiple Art-Net sources, they are merged using HTP.
- A new View Sources screen allows the user to view any of the inputs (DMX1, DMX2, Art-Net or sACN) and see the entire 512 channels of data in real time, or to view the values at the input to each channel.
- A new Set Power Limits screen allows the user to set min/max voltage and max current limits for each phase and the neutral feed of the rack. Voltages outside the limits will force the affected channels to be shut down and a warning alarm issued. Currents over the limits will issue a warning alarm only.
- Alarms can now be made persistent. This allows transient alarms (e.g. over/under voltage) to remain displayed in the Alarms window until dismissed by the operator. Persistent alarms are shown in Purple (Magenta).
- A Dim/Switch module can now be used to replace a SwitchOnly module without any need to reconfigure the rack. This is to allow a venue with multiple racks to hold a single spare Dim/Switch module and use it as either a Dim/Switch or SwitchOnly module.
- Channels set to 'Always On' now stagger start.
- Channels can now be set to 'Always Off', to disable them.
- Delete show files. A new screen allows the user to delete old show files.
- Factory Reset. A new screen allows the user to reset the unit to factory defaults. There are several options as to which parts to reset, including whether to reset network settings and delete show and/or log files.
- AutoPower events now appear in the Log file with a date/time stamp.
- The functionality of the NET(work) indicator on the Home Menu has changed. Previously it was green if there was any physical connection to a network. Now it only shows green if

there is network traffic flowing. If there is a physical connection, but no data, it will remain red.

- Additional logging data. The log file now includes additional items including, AutoPower events, DMX/Art-Net/sACN connection/loss and software update information.
- Archived log files are now loaded automatically when selected, reducing the number of buttons presses required.
- The Configure Alarms window now allows for specific alarms to be enabled/disabled with regards to HOUSTON X.
- Channels that are turned on via the 'Channel Override Mode' (via holding down the channel select button for >5 seconds) now show a White indicator LED so that it is clear as to why they are on.

There are also many minor tweaks and enhancements that are too numerous to mention.

Bug Fixes:

- If the Control Module was started without a network connection, it would not communicate with HOUSTON X correctly.
- If the IP address mode was set to DHCP and the ethernet network was not connected at power up, the IP address was never set.
- Changing the Network address was slow and required rebooting.
- Log file issues - sometimes a single log file contains multiple dates.
- Log file issues - sometimes a log file would contain only one entry.
- Log file issues – large files (>1,000 entries) would cause the UI to bog down or crash when the View Logs window was open.
- Art-Net functionality stopped until a reboot if the IP address was changed.
- Improvements to HOUSTONX licensing.
- The module removal alarm was not cancelled correctly in HOUSTON X.
- The DMX Relay mode turned On at 0.3% instead of the 1% specified in the GUI.
- The [DIM] button in channel mode selection screen could become disabled in certain configurations.

There are also many minor bug fixes that are too numerous to mention

Components:

- Unity v2.03.upd
 - GUI build v13626
 - Interface v2.01
 - OutputModules v2.00

Release: v1.05 Date: 29-July-2020

Reason for the Release: Bug Fixes.

Components:

- Unity v1.05.upd
 - GUI build v10543
 - Interface v1.15
 - OutputModules v1.08

Versions 1.03 and 1.04 were never released to the public

Release: v1.02 Date: 03-August-2018

Reason for the Release: New Features and Bug Fixes.

New Features:

- CSV import and the Network menu now permit assigning a Gateway address.
- Set Slots now allows some or all slots to be set before saving. Previously these had to be saved one at a time.

Bug Fixes:

- The Interface firmware version number was not updated when new Interface firmware was uploaded.
- The App Firmware Update screen progress bar hit 100% well before the update was completed. The EXIT button was still visible (but not operational during the update) leading some to believe that the system had frozen. If the reset button was now pushed at this point the SD was corrupted as the update was incomplete requiring the SD card to be reprogrammed.
This version now has the bar performing correctly and the EXIT button is now hidden during upgrades.
- Unity did not report as an LSC Product when using a network scanner.
- Changing the Time Zone did not update the time shown immediately.
- If sACN was operational and the IP address was changed, sACN would cease to work.
- There was no way to enter a Gateway address for static setups. This has been corrected and added to the CSV import function as well.
- The UCM would always start in DHCP mode and then change to static IP if it was set. In network environments it was therefore possible to get have two IP addresses reporting for the same device.

Known Problems:

- None.

Components:

- UnityPi_v102.upd
- UCM_v1.05
- UXM_v1.05

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Release: v1.01 Date: 26-June-2018

Reason for the Release: Bug Fixes.

Bug Fixes:

- CSV import did not reenale sACN or ArtNet nor reconfigure the Patch. System now imports the data and then does a full reload as if it were just starting.

Known Problems:

- None.

Components:

- UnityPi_v101.upd
- UCM_v1.05
- UXM_v1.05

Release: v1.00 Date: 18-Aug-2017

Reason for the Release: First public release

Known Problems:

- None.

Components:

- UnityPi_v100.upd

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Appendix A

UNITY v1.xx to v2.xx Software Update

The v2.03 software release for UNITY is a major rewrite of the UNITY software. The software is now unified with the UNITOUR product, allowing for faster and more reliable development now and into the future. It also introduces many new features.

The v2.03 software also uses a new upgrader, which is incompatible with the v1.xx upgrader. Upgrading from v1.xx to v2.03 requires that the user follows the instructions carefully to ensure a smooth upgrade.

If one or more steps below are not followed correctly then the update will fail. The system can still be recovered, but it will take longer and require some simple tools and a computer with a micro SDcard reader. Contact techsupport@lsccontrol.com.au for details on this process.

Upgrading from v1.xx to v2.03

Tools required

- USB hub
- USB mouse
- USB memory stick (formatted as FAT32)
- Paper clip (to press the recessed Reset button)

Instructions

- 1) Download the **Unity_v1to203.zip** file from the LSC website.
<https://www.lsccontrol.com.au/product/60/unity/#downloadLoc>
- 2) Create a folder on the USB stick titled **LSC**
- 3) Unzip the three files into the LSC folder of the USB stick.
The three files are;
 - UnityCM_v2.01.upd
 - UnityXM_v2.00.upd
 - UnityPi_v2.03.img
- 4) Connect the USB hub to front USB port on the UCM module.
- 5) Plug the USB mouse and USB stick into the USB hub.
Check that the mouse works, then put it aside until steps 9/10 below.
IMPORTANT: If you do not have a working mouse and USB hub – then the upgrade will stall halfway through the process and cannot be completed. The rack will NOT be usable without additional tools and a computer.

- 6) Disconnect all input data (DMX1, DMX2, ethernet).
The modules will not upgrade if there is DMX, ArtNet or sACN data being processed.
- 7) Navigate to the [Update Firmware] menu.
- 8) **Upgrade the Dimmer/Switch modules** first.
Tap on each of the 4/8 modules buttons to select them and then tap on the [Update] button.
Select the **UnityXM_v2.00.upd** file and tap [ok]
This may take 2-3 attempts as there is a bug in v1.05 updater that can cause the update to stall in the middle of the file transfer..
If the progress bar stalls for more 5 seconds, press the cancel button and repeat.
If any module/s fails to update, repeat for those modules

Do NOT go onto the next step until ALL the modules have been upgraded.

- 9) **Upgrade the UCM Interface** next.
Tap on the UCM interface button and select the **UnityCM_v2.01.upd** file.
After the GUI says the file has uploaded, the status LED will chase RGBCMY whilst the Interface updates.

When the update is complete, the Status LED will change to steady Magenta. This indicates that the Interface is running but can no longer communicate with the GUI application. The GUI needs to be updated for communications to be restored.
This means that the touchscreen will not respond until after step 10 is completed.

After the status LED turns steady Magenta, use the USB mouse to press the [cancel] button.

- 10) **Upgrade the UCM App** last, using the **UnityPi_v2.03.img** file.
Using the mouse, select the option to upgrade the UCM App
This process takes 2-3 minutes.
After the update is complete, click on the [green tick] to finish the update.
- 11) Reset the UCM module.
Once the UCM has restarted and the home screen appears, use the paperclip to press the recessed Reset button to restart the UCM module.
- 12) Disconnect the USB hub, mouse and memory stick.
- 13) Press the [?] button on the Home screen and check that the following software versions are installed.
- UNITY
 - Software Version: 2.03
 - Build Number: 13626
 - Interface Firmware Version: 2.01
 - Modules Version 2.00
- 14) Test the system for normal operation.

N.B. All show configuration data should be maintained and all existing shows should load and operate normally.

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