



Firmware Revision Information

Product Code(s): *ACR1002A, ACR1002A-T, ACR1002A-R*

Product Name(s): *ServSwitch Agility Transmitters and Receivers*

Date Modified: *August 10th, 2015*

Important Notice:

The upgrade package contains two images for each product variant, a main and backup firmware file. The main image runs by default however if there is an issue you may be advised to run the backup image by placing the dipswitch into the down position. It is advisable to upgrade both the backup and the main images and the iPath controller that requires it.

Upgrade Notes:

It is important to read and understand these notes before continuing any further with the 3.3 firmware.

- Always upgrade iPath to version 3.3 before attempting to upgrade the transmitters and receivers to 3.3
- If you add a transmitter or receiver unit at firmware 3.3 to an earlier iPath version (before version 3.3) the endpoints will not operate after the upgrade. To rectify this, you will have to delete the record from the iPath database and factory reset the endpoint before it can be reacquired.
- The ACR1000A-T-R2, ACR1000A-R-R2 & ACR1000A-CTL will ship with version 3.3 going forward. These three parts specified CANNOT be downgraded from 3.3 to an earlier version, however all other units can be downgraded from 3.3 to an earlier version such as 2.9.
- If you receive a transmitter or receiver that uses firmware version 3.3 and you don't want to upgrade your iPath system, simply upload the firmware you currently run on your system at the endpoint and it will downgrade. This works in all models except the ACR1000A-T-R2 and ACR1000A-R-R2
- In iPath version 3.3, you can no longer upload a config file and have all endpoints begin working due to TLS encryption. The only way to create a mirrored image of a controller is by setting up a hub/spoke system and copying the info to the backup controller first, then take the primary off line and use the secondary as the main controller. If you upload a configuration of another unit to iPath 3.3, the endpoints will appear offline until you remove them and factory reset all endpoints and reacquire them as if it was a new system.

Version 3.5.33713

Note: This firmware version is intended to be used with iPath firmware version 3.3.30913 or 4.0.32746

Note: This version is available for all models of the Agility range

New Features:

- **Added USB Flow Control:** A new USB quirk Flow control has been created. This can be enabled per USB port and is applied as a setting in the user field of the Advanced USB options page. See included Agility-Advacned-USB-Features_v2.pdf (attached in firmware folder) describing the use of advanced USB options. With this setting enabled we can now support more USB devices in particular.

- **U-Touch / PQ Labs Touch Screens and NewTek Tricasters:** To enable Flow Control, type 0x1000AAA in the User Code Field of the Receiver Advanced USB features or 16779946 in the User Code Field on the iPath controller.

Improvements:

- **Teaming Operation:** Redundancy for more than 6 USB devices has been added. With firmware 3.3 if there were more than 6 USB devices connected to a receiver, not all six devices would recover when a network segment failed. It is now possible to support up to 13 USB devices in a fail over situation

Version 3.4.31307 (Internal Release Only)

Note: This firmware version is intended to be used with iPath firmware version 3.3.30913

New Hardware:

- **New models in the Agility / iPath family:** The ACR1020A-T and ACR1020A-R models have been added to the Agility range. These Dual-Head / Single Link DVI extenders have the same functionality as the Agility ACR1002A-T & ACR1002A-R, with the exception the ACR1020A models do not support Dual-Link Video Resolutions. This version is the initial factory release for these endpoints only.

Version 3.3.30852

Note: This firmware version is intended to be used with iPath firmware version 3.3.

New Features:

- **Added TLS Encryption:** All transmitter and receiver units now use an encrypted TLS security when communicating point-to-point, or via iPath. The iPath has a security certificate and each extender has a unique key in order to communicate with iPath. This means that all transmitters and receivers on a 3.3 iPath system need to be running firmware 3.3. If the iPath is factory reset all of the TX and RX units also need to be factory reset.

- **Added new compression engine:** All second generation Agility units now support a new compression algorithm. This now gives an option to apply more compression if required in order to reduce the bandwidth requirements.

Enhanced Video Compression Options

- Pixel perfect: Only uses pixel perfect compression
- Adaptive: Guarantees frame rate – builds to pixel perfect
- Smoothest Video: This forces the maximum compression
- Advanced: This enables you to choose a fixed compression

In Advanced Mode, there are 4 values that can be entered:

- AFZ only (pixel perfect)
- AFZ+ Minimum compression
- AFZ+ Middle Compression
- AFZ+ Maximum compression

-**Added Faster channel changes:** When used in conjunction with iPath, channel changes using the hotkeys or the OSD menu have been speed up. The video and USB take less than 1 second to completely switch channels.

-**Added Frame Rate Matching:** It is now possible for the receiver video output to match the frame rate of the video coming into the transmitter. Other available options are to force 60Hz on the receiver, or to not change the Frame Rate if the video resolution does not change.

Improvements:

- **Improved Support for Mixed Hardware:** When used in a mixed system of Agility units, there is no longer any video blanking or video distortion when a single head receiver is switched into a multicast group containing dual-head units.

Known Issues:

- If a Single Head receiver joins a multicast group consisting of Dual-Head receivers, the redundancy functionality of the Agility Dual-Head receiver is disabled.

Version 3.1.26982

Note: This firmware version is intended to be used with iPath firmware version 3.1.

Improvements:

- **Improved Support for Mixed Hardware:** USB is now more reliable when connected to the Fiber (ETH2) port of the extender.

Version 2.9.21660

Note: This firmware version is intended to be used with iPath firmware version 2.4.

Improvements:

- Microsoft wired 600 keyboards now supported
- Logitech wired illuminated keyboard supported

Version 2.8.20945

Note: This firmware version is intended to be used with iPath firmware version 2.4.

Additions:

- Support for hot key switching has been added and allows for much faster channel or preset changes. This feature is only applicable when in use with iPath firmware 2.4
- Eizo Flex scan T2351 Touch screens are now supported

Known Issues:

- Microsoft 600 wired keyboard is not supported

Version 2.7.19658

Note: This firmware version is intended to be used with iPath firmware version 2.3.

Additions:

- USB fast switching and merging. In the iPath firmware, we have implemented fast switching USB. This is implementation of our USB True Emulation Technology which we have developed on products like the ServSwitch Freedom and ServSwitch Wizard DVI DualLink Multihead. The TX units now store information about the USB devices they have connected and continue to report them to the host computer even when the receiver has disconnected. This means that the host computer doesn't tear down its USB link if a RX unit switches to another computer and so on return, the time to establish a USB link is reduced by 2/3 of the time to just 2 seconds.
- Increased ability to share or merging of USB devices. The change also improved the potential number of devices that can connect to any single TX unit. This number was previously limited to 12 devices but is now limited to 12 different VID/PID identities. This means you could have 6 keyboards and 6 mice all of the same make and model connected at one time and yet the TX only sees 1 keyboard and 1 mouse. This operation is

only applicable to HID devices (keyboards and mice) Non HID devices, including mass storage devices will require re-enumeration when switched.

- Added HID only devices mode. It is now possible to allow only HID devices to be extended back to the computer from the receiver. Such devices as flash drives will be blocked at the receiver.
- Added configuration option Enable Multi-port. Only applicable when used in point to point modes (not supported by iPath 2.3). There may be occasions where it is necessary to turn off the USB merging feature described above. By enabling the flag multi-port configuration, USB merging is disabled on the bottom two USB ports on the receiver unit.
- Added the ability to attached combined USB devices which include isochronous endpoints. While isochronous USB is still not supported, we have added the ability to ignore isochronous endpoints. Some USB devices like iPhones and Bloomberg keyboards have multiple USB devices reported. If only one of these devices was isochronous (e.g. supports audio) the entire device was rejected. Now we have added the ability to ignore isochronous endpoints so while the audio part of the device will still not work, the other functions will. An iPhone can now be used as a memory device.
- Added support for 3M multi-touch screen.
- Added support for Dell SX2210 touch screen.
- Added video compatibility check. This is disabled by default. The receiver now checks if the monitor can display the requested video resolution and an out of range error message appears if it cannot. This prevents locking out of the OSD when an incorrect channel is selected.

Improvements:

- USB support is now at the same level as the Agility Dual ACR1002A. This means that both the Agility Dual and Agility Single offer the same level of USB support.
- Mouse protocol mode detection is now more reliable when rebooting the USB host. When the USB host is rebooted it was possible for the wrong mouse protocol to be set which meant that while the mouse worked in the OSD menu it did not work on the PC.
- Logitech G9, G500, Microsoft 5000 and Sidewinder mice made more robust when changing channels. It was observed that these mice often stopped working when a channel change was made. The USB code is now more reliable to cope with these mice.
- Video modes 640x480 and 800x600 now use a 60Hz refresh rate.

Known Issues:

- It is not possible to access the bios on a Dell 990
- Eizo Flex scan T2351 Touch Screen is not supported
- Logitech set point drivers are not supported

Version 2.4.17870

- Fixed issue where a race error could cause the network to lockup

Version 2.2.15929

- Support for coexistence on the same iPath network system with new dual-head/dual-link ACR1002A transmitters and receivers

Version 1.14.14363

- In order to access the following features, iPath 1.6 must be used
- Added auto detect DDC clock speed to solve video issues when used with specific hardware

- Added new cable length and PLL settings on transmitter to cope with poor quality DVI video signals. This can be found under video configuration on the transmitter configuration page.
- Added support for CEA video timings
- Added USB country code functionality so 11 international keyboard layouts are now supported (GB, CH_DE, CH_FR, DE, ES, FR, IT, NL, NO, SE and US)
- Added support for Glide and Switch when used within the OSD menu of the Agility receiver
- USB boot mode protocol is now fully supported
- Added a dummy boot keyboard
- Added USB speed select functionality USB full/low speed and USB high speed is now selectable.
- Added ability to change the reported USB hub size. The supported USB hub size is 13 by default and there is now an option to change it to 7.
- There are new USB configuration parameters on the transmitter menu

Version 1.9.12071

- Initial release of firmware for production

Version 1.8.11330

- RS232 protocol integration
- iPath control disables transmitter and receiver web interface

Version 1.4.10640

- iPath support
- Third frame buffer added to resolve tearing video problems
- USB disconnection and reconnection (switching) made faster when the receiver switches between two transmitters

Version 1.3.10385

- Better handling of replicated Ethernet packets
- The audio has a -6 dB loss through the extender
- Fixed a problem with Ethernet buffering that led to video blanking
- Added multiple EDID options to default DDC

Version 1.0.10048

- Not released, original internal release for testing purposes