

# ControlSpace® Designer™ software v4.046

## Release Notes

28 March 2014

Revision: 1.0

### General

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This interim release includes updated firmware for PowerMatch amplifiers (all models) and ESP-880, ESP-1240 and ESP-4120 processors that address some high-priority defects found after the original release of ControlSpace Designer 4.0. There have been no changes to the ControlSpace Designer application itself, it has simply been re-packaged with the updated firmware for convenience.

### Firmware

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This release includes the following firmware: ESP-880, ESP-1240 and ESP-4120 (v1.041), PMxxxx (v1.361). No updates to ESP-00 II, ESP-88/00, CC-64 or CC-16 firmware are required

### Minimum System Requirements

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The following are the minimum system requirements for running ControlSpace Designer software:

- ▶ Microsoft Windows 7 (32bit or 64bit)
- ▶ 1GHz processor (or better)
- ▶ 512MB of available RAM (1GB recommended)
- ▶ 512MB of available disk space (1GB recommended)
- ▶ Minimum resolution of 1366x768 WXGA
- ▶ 1 available USB port
- ▶ 1 available Ethernet port (100 MB minimum)
- ▶ ControlSpace Designer requires Microsoft® .NET Framework 3.5 to be installed for Windows XP, Windows Vista® and Windows 8, [available for download here](#). Windows 7 includes .NET Framework 3.5 so no additional installation is required.

### Changes / Fixes since v4.0

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#### PowerMatch PM8500/N, PM8250/N, PM4500/N, PM4250/N

1. Occasionally when bringing a PowerMatch amplifier out of standby an 'ICV\_not\_OK' error could be encountered. This was more likely to occur with 8ch models and in environments with an elevated ambient temperature or if the amplifier had been in standby for a long period of time. This issue has now been resolved, but it's possible that a little fan noise may be heard when the device is standby.
2. We also saw instances of power supply fan faults being incorrectly reported on PowerMatch amplifiers when coming out of standby. This was most likely to occur on 4ch models, but could happen on any model and was caused by fans taking longer to spin-up than expected. The fans are now run for longer on startup and the timeout has been increased so the issue no longer occurs.

3. With the previous release, changes made via the front panel or while online with ControlSpace Designer via a USB connection were not being saved correctly with 'save settings' option enabled once the PowerMatch had been rebooted. This could cause settings to be lost when the amplifier was restarted. Settings are now saved correctly when the 'save settings' option is enabled.

### **ESP-880, ESP-1240, ESP-4120**

4. If an ESP-880, ESP-1240 or ESP4120 was booted without a network connection it would cease responding to CC-16 or GPI changes after a number of actions and there would be no audible change. With repeated pushes the CC-16 could eventually show 'Comm Failure'. This issue has been resolved and no longer occurs.

### **Known Issues, Defects and Limitations**

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The following are the known issues and defects with this release. Information included here can be useful when troubleshooting issues with software or hardware operation.

#### **Basic Operation/Update**

1. With a rear network card fitted in an ESP-880/4120/1240 the front and rear ports can be used simultaneously, but must not be connected to the same network switch. The front panel only passes control data and can be used as a service connection for ControlSpace Designer.
2. Network communication issues may be observed when using a wireless connection for ControlSpace Designer especially when working with larger systems or if there is channel interference present.
3. An incorrect firmware version can be displayed in the Firmware update panel if there is an IP conflict. Correct the IP conflict and re-open the window.
4. We have seen occasional firmware update failures when using Windows 7 64-bit OS with certain PC and network switch combinations; connecting directly using a crossover cable is a workaround. Likewise some failures have been observed when the network adaptor has 'Large Send Offload (IPv4) = enabled; disabling appears to resolve the issue.
5. If a PowerMatch firmware update via Ethernet is interrupted during the initial stages a reboot may be required to fully re-establish communications.
6. Checking DSP resource usage or attempting to send a design to an ESP-00 without any input cards will cause a 'ESPCalcResourcesError'. Ensure that the design includes at least one input card.
7. If a FW update for an ESP-880/1240/4120 fails after the processor has been running for a long time, try rebooting and restarting the update process.
8. Duplicate devices can be displayed in the Firmware update dialog if there are multiple network adaptors set to the same ControlSpace network address (e.g. wired and wireless).
9. PowerMatch amplifiers can fail to respond to Designer if left on a network with non-ControlSpace traffic for a period of time. Rebooting restores normal communication.

#### **Signal Processing/Algorithms**

1. The gain for a PEQ band in the ESP-00/88 SpeakerPEQ module is internally limited to 18dB despite the control panel allowing values of up to 20dB.
2. There are currently subtle differences in attack/release timing for the compressor/limiter module between ESP-00/88 and ESP-880/4120/1240 processors.
3. ESP-00/88 configurations that contain multiple ArrayEQ modules may exhibit a 'zipper' noise whilst adjusting an EQ module via ControlSpace Designer.
4. The System Mute status can become out-of-sync if active whilst a design is uploaded to an ESP-880/4120/1240 or PowerMatch device, or when those devices are rebooted.

5. It is possible that some paths may not pass audio correctly when there are more than 3-4 AMM blocks in an ESP-00/88 configuration.
6. The X-Curve function in the Surround Sound Card remains un-operational in this release.
7. With certain configurations it is possible that the DSP resource requirement for ESP-00/88 processors is underestimated which can result in audible distortion if a design is loaded with greater than 97% usage. Try to keep DSP resource requirement under 95% or add the DSP expansion card.

### **ControlSpace® Designer™ software**

1. The file-compression method used for older designs is unsupported by Windows 7 64-bit and so it is not possible to download and open older design files directly. In this situation the 'Save Retrieved Design to File' option from the 'System' menu can be used to retrieve the compressed .cab to the desktop. From there the file can then be expanded and once the file extension has been changed from .xml to .csp the file can be opened by ControlSpace Designer as normal. To change the file extension you'll need to ensure that 'Hide extensions for known file types' is unchecked in the Windows folder options.
2. Since ControlSpace Designer v3.2 it has been possible to select which devices should receive the project file. When downloading it is important to ensure that the correct device is selected or an incorrect design file will be loaded without warning that design is mismatched.
3. Unchecking NIC lock does not persist unless lock applied to another NIC or to Automatic Selection.
4. Although greatly improved, it is still possible that some aspects of the CC-16/64 simulators or other panels will not be rendered correctly if the screen DPI setting is set to a value other than 100%. This is often an issue with newer, higher-resolution PCs which can be shipped with larger text selected by default.
5. A redraw/repaint issue occurs when dragging the Firmware Update window on the Windows XP OS only.
6. Some of the Project directory tabs are known to not update correctly and can cause multiple performance issues, especially in larger systems. When working with larger projects we recommend you close Project directory and then restart Designer.
7. If the network connection to some of the device is lost during an upload, the connection state of devices may become out-of-sync with Designer. In this scenario it's best to fix the connection issues and then restart ControlSpace Designer.
8. When an input channel of the AMM module is set to 'Use Channel Settings' from another, the values are not correctly updated if the properties window is open. Either close and re-open the channel properties window, or re-select the source channel from the list.
9. Incorrectly entering characters into numerical fields, such as those found in the AMM control panel can cause unhandled exceptions.
10. Following a download, the SpEQ module incorrectly displays the saved preset rather than the one currently active. The correct EQ is applied; only the label is wrong.
11. Currently in Project View, the ESP-88/00 Dante outputs will incorrectly connect to analog devices, and not to Dante inputs on other devices.
12. The state of the 'Restore Last Settings' property for PowerMatch devices is not correctly reported when connecting via USB, if changed via an Ethernet connection prior.
13. Using 'undo' after moving/making changes to PowerMatch devices may be problematic; it is recommended that you avoid using 'undo' after making multiple changes.
14. The Select Timeout and Backlight Timeout property values are not maintained when performing a copy/paste on CC-16s.
15. Inadvertently double-clicking 'Go offline' when there has been no changes can cause the connection process to be restarted.
16. Unplugging the network cable from the PC or network switch whilst online with an ESP-880/1240/4120 can put the hardware into an incommunicable state for up to 5mins but then re-connection is possible. Alternatively the hardware can be rebooted.

17. It is possible to add a second network audio card to an ESP-88/00 with a Dante card via the 'Properties Window'. This is not supported by the hardware and should be avoided. Selection works correctly in the ESP-88/00 'Device Properties'.
18. When using Windows 8 some channel label fields for the Selector module are not fully visible in the control panel; using the properties window is a workaround.
19. When using Windows 8 you may receive an 'unable to write to settings.xml' error when trying to change the default network address or network adaptor unless you select 'Run as Administrator' for ControlSpace Designer.

### Control Centers/Programming

1. Custom mode operation on the CC-64 is not currently supported for ESP-880/4120/1240 processors.
2. Assigning a volume or Group from an ESP-88/00 or PowerMatch device to the negative taper (A-) GPI mode of an ESP-880/1240/4120 processor is not supported in this release. Doing so will prevent the ESP-88/00 or PowerMatch device from operating correctly. When using reverse-taper GPI with ESP-880/4120/1240s, ensure that one of them is the RTC device.
3. When assigning gains/volumes to the ESP-880/4120/1240 GPI module be careful not to assign to both the positive taper (A+) and negative taper (A-) at the same time.
4. Volumes assigned to analog GPI on the ESP-880/4120/1240 are not currently synchronized to the hardware when the design is sent. The level will correct when the GPI is changed.
5. Changing ESP-880/4120/1240 assignments to CC-64 is not yet fully optimized and may take longer or generate more network traffic than expected.
6. Labels may not be fully removed if a blank assignment is recalled for a CC-16 connected to an ESP-880/4120/1240; changing assignments works correctly.
7. The bypass parameters of the PowerMatch Band Pass module are not recalled correctly via Parameter Set when ControlSpace Designer is disconnected.
8. Loading a locked loudspeaker preset to a SpeakerPEQ module stored in a Parameter Set or Group whilst online can cause undesirable side-effects. In this situation it is best to go offline, make the change and re-send the design to the hardware.
9. Dynamically re-assigning selectors from different devices to a CC16 or CC64 control does not work as expected, re-assign selectors from the same device or use Parameter Sets.
10. Dynamically re-assigning gains/inputs/outputs from different devices to a CC16 does not work as expected, only re-assign volume controls from the same device or use Groups.
11. In systems with multiple ESPs, dynamically re-assigning a CC-64 or CC-16 control from a Group to an individual module, such as a selector or a gain can result in unexpected behavior. The CC-64 or CC-16 may continue to display updates to the Group value even after the control has been changed. The issue does not occur when changing the assignment from one Group to another, or an individual module to another.
12. Dynamically changing a CC-64 control assignment from a selector to output/gain and back to a selector can cause the audio from the output/gain path to cease.
13. '\*' shown when navigating back to original channel on CC-16.
14. In larger systems it is possible for the CC-64 to become unresponsive when recalling parameter sets that change its lock status or control assignment.
15. It is possible that ControlSpace Designer can become out-of-sync or lose communication with the hardware if Parameter Sets are recalled in quick succession. Hardware functions correctly when ControlSpace Designer is disconnected.
16. Recalling Parameter Sets that include the CC-lock parameter in quick succession may cause the ESP to become un-responsive and disconnect, normal operation should be fine.
17. ControlSpace Designer is not updated correctly when the state of a CC-16/64 lock is changed directly via the GPI from an ESP.
18. Certain PowerMatch modules may not respond correctly to parameter changes or update ControlSpace Designer when triggered directly via ESP timer events. Use Parameter Sets instead.

19. When loading a new design with CC-64 controls unassigned or blanked, previous assignments from non-RTC devices can remain, leaving LED ladders incorrectly lit.
20. The front panel of PowerMatch amplifiers can display text incorrectly when changing the standby state via ControlSpace Designer and parameter set or serial command.
21. A 'netlist' error can occur when trying to send designs to an ESP processor with delays assigned directly to the serial inputs; use parameter sets instead.
22. Whilst most signal processing groups that span multiple PowerMatch devices are maintained when ControlSpace Designer is disconnected, Input PEQ, Array EQ and Band Pass modules are not.
23. The volume levels displayed on CC-64s can get out-of-sync if the same PowerMatch output is assigned to multiple CC-64s. This issue does not occur when using an ESP.
24. An issue can occur with grouped selectors in multiple ESP systems, whereby the CC-16 can appear locked or frozen. A workaround is to assign one of the group members to the CC-16 instead.
25. Depending on the number of ESPs in a project it is possible that the Group volume adjustment via CC-16 may become a little 'jumpy' when viewed in Designer.
26. Mute-only group labels are not displayed correctly on the CC-64 when assigned to the control dynamically. Level+Mute groups behave as expected and using Parameter Sets is an alternative.
27. When changing CC-16/64 assignments via Parameter Set the stored 'Off at Minimum' property is currently ignored by the hardware, but the change is made correctly in Designer.
28. Changing PowerMatch Array EQ parameters via Parameter Set remain unsupported in this release.
29. Parameter sets with commas in the label are not displayed correctly on CC-16 and CC-64 user controls.
30. PowerMatch amplifiers can display a 'System Halted' error if their standby state is changed via parameter set when the IP address has been changed after the design was loaded.
31. When an ESP-880/1240/4120 with a CC-16 that has objects assigned from a different device is rebooted, the CC-16 does not update to the current values of the assigned objects. The two will synchronize once changes are made.

### Serial Control

1. System commands (such as Parameter Set recall, or Group level change) must now be sent to either the Main/RTC device or one of the devices included in the Parameter Set/Group, not to any device as it was before. This change is part of the optimization to allow support of larger systems.
2. On making a connection to a system with ControlSpace Designer the 3<sup>rd</sup> party serial-over-Ethernet connections (e.g. for AMX/Crestron control) are dropped and will need to be re-established.
3. Changing the port number or disabling serial-over-Ethernet on ESP-880/1240/4120 devices doesn't take effect until the second connection, or after a reboot.
4. Querying the last invoked Parameter Set via serial command (GS) will return an incorrect value if a CC-64 is displaying a Parameter Set preview (\*).
5. Currently unable to change PowerMatch output levels whilst muted, matrix crosspoint levels whilst de-selected, or EQs whilst bypassed etc.
6. Currently unable to change 'advanced' PowerMatch Array EQ parameters via serial command; changing 'basic' parameters works as expected.
7. PowerMatch input groups allow level adjustment via serial command SG n,l even though they are of Grouping Type " Mute".
8. Querying the Noise generator on Redline/ESP via serial command always returns White Noise, even when set to Pink.
9. If an intermediate value for the Redline pre-gain parameter is sent via serial command the same value will also be returned rather than the actual value it was rounded to.

10. Sending a large 'burst' of serial commands can cause the ESP-880/1240/4120 to become unresponsive. This is unlikely to occur with typical operation.

### **Dante™ Network Audio**

1. Within the 'Dante Controller' utility there is a button that can be used to reboot a particular Dante interface. Please note that resetting the Dante card during operation (processing audio) can cause a loud (speaker damaging) pop and should be avoided. It is better to reboot the whole device if required.
2. Multicast audio traffic must be filtered from any ports connected to ESP-00/88, CC-64 and preferably PowerMatch devices. Using 'Legacy\_Hardware' mode is a convenient way to do this.
3. Dante interfaces are set to 'Obtain an IP address automatically' by default and will take an address from a DHCP server if present, otherwise they use a Link-local address in the 169.254.x.x range. For ease of setup we recommend using a DHCP server set to the same range as ControlSpace 192.168.0.x (avoiding the fixed addresses of ControlSpace devices).
4. Some firewalls can block access to the Link-Local range and/or protocols used by Dante Controller for discovering devices. If devices are not correctly detected, check firewall settings, turn-off the firewall temporarily or try an alternative PC.
5. Devices with Link-Local IP addresses may not be detected with multiple Network interface adaptors (NICs) active. Disable unused NICs or manually set the Link-Local address for the NIC.
6. We recommend only using commercial grade gigabit switches for Dante networks, preferably 'smart' or managed switches that support QOS and IGMP snooping.
7. With smart/managed switches, a break in a Dante connection can cause a burst of audio traffic to be sent to all ports. For most devices this is not an issue, but it can swamp ESP-00/88 or CC-64 devices which have a 10Mbit network connection. Connect these via a 'dumb' switch or preferably use the secondary port of the Dante card (when not required for redundancy)
8. The Dante card properties dialog for the ESP-00/88 currently only displays the IP and MAC address, and it is possible that an incorrect value maybe be shown. Restarting ControlSpace Designer will allow the value to be refreshed.
9. It is possible in larger Dante systems using redundancy, where IP addresses are provided via DHCP, that a Dante card may not be detected correctly during boot. Using static or Link-Local (obtain automatically without DHCP server) addresses is a workaround.

*Refer to the relevant Dante Technical Notes, available separately, for more detailed information on setting up and configuring systems that include Dante audio networking.*