

ControlSpace® Designer v2.2 Release

Setup/Installation Notes

- This release requires firmware updates to both the ESP-88 and CC-64.
- This release requires the use of .NET Framework 2.0, available at <http://www.microsoft.com/downloads/details.aspx?familyid=79BC3B77-E02C-4AD3-AACF-A7633F706BA5&displaylang=en>
- Always check www.pro.bose.com for the latest ControlSpace Designer software and ESP firmware updates.

New Features

1. **Windows® Vista® Support** – This version supports the Windows Vista operating system and the minor issues found using previous versions of ControlSpace Designer with Windows Vista have been resolved.
2. **Support for .NET Framework 2.0** – This version now supports Microsoft® .NET framework v2.0 and v1.1 is no longer required. This improves compatibility with newer PCs.
3. **Automatic Mic Mixer NOM Limit** – The Automatic Microphone Mixer processing modules have been enhanced and now include a NOM (**N**umber of **O**pen **M**ics) limit option allowing the designer to limit the number of microphones that can be active simultaneously.
4. **Automatic Mic Mixer Gate Active Indicators** – Each input to the Automatic Microphone Mixer block now has an 'Active' indicator on the gate. This allows the installer to visually see which input channels are active at any time whilst on-line. The indicator differentiates between a channel that is fully open (light blue) and one that is open but ducked due to an active priority input (dark blue).
5. **Serial-over-IP Support** – Support has been added to allow the ESP to be controlled externally using the existing serial protocol commands via a TCP/IP Ethernet connection. This allows for easier integration with third-party control systems or for customized control programs to be written for controlling the ESP-88.
6. **New Wire Styles** – Additional wire styles have been added to give designers flexibility to create neater, more organized designs. The new default wire style is 'Orthogonal' (Rounded wires with jump-overs) but other styles can be selected via the 'Wire Style' option in the 'View' menu. For compatibility, configurations created in older versions of the software shall automatically open with the previous straight 'Line' style.

- 7. Enhanced EQ Processing** – The EQ processing blocks have been enhanced and include an improved low-frequency, higher bandwidth, anti-aliasing algorithm. As this by nature consumes additional DSP resources and for most applications the previous algorithm was sufficient the designer can decide which algorithms to use under the ESP properties dialog.
- 8. Surround System Tuning Mode** – To aid installers setting up surround sound systems a ‘System Tuning Mode’ has been added to the surround decoder card. This allows a choice of test sources to be quickly routed to individual output channels while making system adjustments. The surround card requires v6 firmware for the tuning mode to function correctly.
- 9. Surround Card Master Fader in Parameter Sets** – The surround card master fader can now be stored and recalled via a parameter set along with individual channel adjustments.
- 10. CC-16 and CC-64 Backlight Timeout** – It is now possible to adjust the backlight timeout on the CC-16 in addition to the CC64. The backlight for the displays can be set to remain on (0 seconds) or turn off after 1 to 30 seconds of inactivity. The timeout property for the CC16/64 can be found in the properties dialog accessed by right-clicking on the device in project view. To maintain backwards compatibility the default timeout values are 10 seconds for a CC16 and 30 seconds for a CC64. The backlight time for a CC64 can still be adjusted on the hardware by pressing banks 1+4 simultaneously but any changes made here will be overwritten when a file is uploaded.
- 11. ESP IP Address Changes** - Changing the ESP’s IP address no longer requires a hardware power-cycle. After changing the IP address the user is presented with the option of rebooting the ESP, following the reboot the new IP address is active.
- 12. Improved CC-4/Potentiometer GPI Mapping** – The operation of the CC-4 user interface has been improved to make better use of the low volume regions of the control. Previously the 8-12 o’clock region produced a minimal increase in volume. The CC-4 can also attain a minimum volume of $-\infty$ dB versus -59.5db and can break out of a mute state at minimum volume.
- 13. Meter Blocks Optimized** – The signal meter blocks have been optimized and use fewer DSP resources.
- 14. DS16 Pendant EQ** – EQ curve for pendant mounted DS16s has been added.

Changes and Bug Fixes since v2.050

1. An issue with the serial protocol "Get Level" command reporting incorrect data has been resolved.
2. Incorrect CC-64 labels when the bank controls were assigned with level- or mute-only have been resolved.
3. Help File now opens correctly when using Windows Vista
4. The 'Network Setup' and 'Update Firmware' utilities now operate correctly when using Windows Vista
5. Issues with ControlSpace Designer minimizing have been fixed
6. An issue whereby uploading a file could cause the system to hang when using Windows Vista has been resolved
7. An issue with CC-64 controlling selectors across multiple ESPs has been resolved
8. An issue with CC-64 not correctly changing group levels that were set to $-\infty$ at power-up has been resolved
9. Incorrect reporting of surround card status via the serial port has been resolved
10. The CC-64 lock property now functions properly in multi-ESP designs
11. An issue whereby gain levels set to $-\infty$ would be saved as -8dB has been now been resolved
12. The sequence in which the Room Combining Mixer properties were recalled by a parameter set caused the 'Local Select' value to be overwritten. This has now been corrected
13. An issue with the serial Group Mute (SN/GN) command not operating correctly across multiple ESP-88s has been resolved
14. ControlSpace Designer now opens with the grid turned off by default. The grid can be turned on manually via the option in the 'View' menu.

Known Issues

1. The X-Curve function in the Surround Sound Input Card control panel is not operational in this release.
2. Some files created in 1.001 and 1.101 may not import properly or cause an error when uploaded. Most of these issues pertain to “illegal” characters ('&', '/', '<LF>', ',', '>', '<') being used in module or parameter set names. Versions 1.2 and greater support these characters but may have trouble importing a pre-1.2 version file that includes these characters. To import these files you open in the original version, remove any special characters, save, and then open in 2.0
3. Currently a maximum of two AMM blocks can be used per ESP
4. Parameter sets that include user interface re-assignment are not invoked correctly using the recall buttons in ControlSpace Designer whilst on-line causing the hardware and smart simulator to become out-of-sync. Using a 'dummy' CC16 in the design to recall the parameter sets is a workaround.
5. When an input channel of the AMM module opts to 'Use Channel Settings' from another channel the values are not automatically updated if the properties window is left open. Either close and re-open the channel properties window, or re-select the source channel from the list.
6. When recalling a parameter set that includes a user interface with a 'blank' assignment the smart simulation windows in ControlSpace Designer are not correctly updated. The hardware functions correctly.
7. Performing a copy/paste function on a parameter set that includes a user interface assignment will paste the current assignment for that interface not the assignment stored in the copied parameter set.
8. With certain configurations it is possible that the DSP resource required can be 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.
9. In certain situations the Project Directory can become out-of-sync. This doesn't happen when viewing the 'All' tab and can be restored by closing and re-opening the file.
10. In a multi-ESP project, a selector module from any ESP other than the RTC ESP assigned to a CC64 can cause the RTC ESP to halt when a change to the selector is invoked via the ControlSpace designer software.

Revision History

v2.050 (November, 2008)

New Features

1. **Serial Get/Set IP Address command** - The IP address of an ESP can now be read and set via the serial port using the command "IP". See Serial Protocol v2.6 for details.
2. **Serial commands for AMM and Surround Card** – Serial control and monitoring of the automatic mixer block and surround card, including the reporting of the current decoding format has been added. See Serial Protocol v2.6 for details.
3. **Mixer algorithms optimized.** - All mixer processing modules have been optimized and now use fewer DSP resources. Improvements range up to 15% for some modules.
4. **Support for 57,600 baud added** - The ESP now supports serial communication at 57,600 baud.

Bug fixes

1. A communication issue that caused timeout errors whilst trying to upload configuration files using certain types of network hardware has been resolved. Error messages included 'Receive Timeout :XMLFileSendReq' or 'SendNetList' and when subsequently trying to connect a GetProjectFile (EXTRACT) error.
2. An upload issue when attempting to send a design using three or more ESPs that included timers has been resolved.
3. An issue whereby a certain configuration of mixers could cause audio to be routed to an incorrect audio path has been fixed.
4. An issue where the value in blue display area of the CC-16 smart simulator did not match the project tree (white area) has been fixed.
5. An issue causing the CC-16 on one ESP to freeze when controlling a selector module in another ESP has been resolved.
6. Project directory now displays level and mute in input modules correctly after downloading running.
7. An issue where the CC-64 label properties did not match those displayed on the smart Simulator when the CC-64 is stored in a parameter set has been fixed.
8. An issue where the CC-64 max level property was functioning correctly has been fixed.
9. Selectors assigned to CC-64s not displaying the first entry has been resolved.
10. An issue that caused ControlSpace Designer to become slow and unresponsive when surround audio was playing has been resolved

v2.042 (August, 2008)

New Features

1. **Automatic microphone mixer** – Three new signal processing blocks have been added for automatic microphone mixing applications. Inputs can be configured to gate on/off automatically with signal level or manually using PTT contacts. Output can be

set to attenuate automatically as the number of active microphones increases thus maintaining feedback stability.

2. **Surround decoder card** – Support for our industry-unique surround sound decoder card was added to the ESP. The card supports decoding of Dolby, DTS and PCM (CDs) digital audio streams.
3. **Copy/Paste Parameter Sets** - Functionality has been added to allow parameter sets to be copied and pasted to create new parameter sets with the same blocks.

Bug Fixes

1. EQ groups that span multiple ESPs now track correctly when off-line.
2. A carriage return (CR) is no longer automatically appended to line feeds in the serial output.
3. Fixed an issue where some files experienced a timeout error during uploading.
4. An issue whereby changes to a locked CC16 took effect after the CC16 was unlocked has been resolved.
5. An issue where an 'Out of Memory' error could be generated under certain conditions has been resolved.
6. A CC-16 zone controller muted by another device or parameter set can now be unmuted by pressing volume +
7. An issue in which the CC-16 asterisk preview updated incorrectly in a multi-ESP configuration has been resolved.
8. An issue where the up button of the minimum volume field in CC-16/64 properties did not work properly has been fixed.
9. Updates to the IP address in the properties window now propagate correctly to the ESP block.
10. An issue where module names required '#' in order for the GA serial command to work has been fixed.
11. The redundant 'Change Network' button in the ESP network setup utility has been removed. The 'Set Network Address' option under 'Tools' should be used instead.

New Features

1. **Expanded Serial Control Protocol** - Set/Get Module commands have been added to the serial protocol. These allow full control of most signal processing modules & can provide automatic feedback when module values change.
2. **IP address flexibility** – The IP address range of the ControlSpace hardware can now be changed to any value to match clients' sites.
3. **Password protection** - Optional password protection of configuration files and the ESP can be activated for added security.
4. **CC-16 Preview** - CC-16 supports the "*" preview mode similar to CC-64. This allows parameter sets and selector states to be scrolled through (previewed) without changing the audio. The change is occurs after a period of time between 1 and 10 seconds specified by the designer. By default the timeout is set to 0 secs (changes made instantly) to maintain compatibility with older designs.
5. **CC-16 Mute** - The CC-16 will now display 'Mute' (instead of 00) when muted. The CC-16 will also enter the mute state if the volume down button is pressed once the minimum volume is reached.
6. **Daylight Savings Time** - The system will automatically apply daylight savings time to your timers if "Automatically adjust clock for daylight saving changes" is selected on your PC's Date and Time properties.

Bug Fixes

1. When a CC-16 or CC-64's assignment is changed by invoking a parameter set, the settings of the object are no longer changed but instead synchronize to the current value.
2. The EDR cards were not supported correctly in V1.101, this has been resolved.
3. CC-16 default min setting has been changed from -37 to -60dB and the default maximum setting is changed from 0 to +12dB. This makes the CC-16 default settings the same as the CC-64.
4. Upload errors caused by characters such as '&', '/', '<LF>', ',', '>' and '<' have been fixed.
5. An issue where the DSP Resources button caused an error message if a parameter set's label ended with double quotation mark has been fixed.
6. Some previous version files failed to open if a floating point value had been entered in a crossover. This has been fixed.
7. An exception error caused when all modules in the ESP view were selected, copied, and then pasted into another ESP has been fixed.
8. Preset and parameter set names can now accept ',' (comma).
9. Control of groups of input or output modules that span multiple ESPs has been fixed.
10. The CC-64 could not display labels with "&". This has been fixed.
11. The output connector of an output module can no longer be connected other modules.
12. An issue where the CC-64 smart simulator did not correctly update displayed gain values after dynamic reprogramming has been fixed.

13. Various upload issues have been fixed
14. An issue with configurations that included groups stored in parameter sets that spanned multiple ESPs has been resolved.
15. An issue with configurations that included groups of input/output modules stored in parameter sets has been resolved.
16. An issue where "Bypass all" for a grouped PEQ did not synchronize to the other PEQs in the group has been fixed.
17. PEQ settings from v1.001 will now import properly.
18. Bug fixed that incorrectly allowed a group of meters to be created.
19. Version 1.1 prohibited the CC-16 & CC-64 lock parameter from being added to a parameter set. This has been fixed.
20. The labels of each ESP in the "Select ESP to Download" dialog box have been corrected to all be unique.
21. An issue relating to the editing of PEQ snapshot labels has been fixed.
22. The GPI test button state was incorrect in simulator. This has been reversed so that OFF state relates to an open input.
23. Group master fader now includes $-\infty$ level to be consistent with gain blocks and input/output modules.
24. The 4x4 Mic/Line series II card and the original 4x4 Mic/Line card now appear as the same card in ControlSpace Designer.
25. Parameter sets spanning multiple ESPs invoked via the serial port only affected the main ("RTC") ESP. This has been resolved.
26. Changing the CC-64 minimum or maximum volume levels could cause inconsistent behavior, this has been fixed.
27. In certain circumstances the Matrix mixer display did not match the hardware state has been resolved.
28. A Mute level ($-\infty$) has been added to the CC-16. Pressing "Vol -" when the CC-16 is at minimum volume will cause the CC-16 to go into mute.
29. An issue where ControlSpace Designer was out of sync after uploading a design using GPI, with the GPI contact active has been resolved.
30. Copying and pasting input & output slot parameters no longer overwrites the slot name.
31. An issue where recalling parameter sets that include groups on systems that have multiple ESPs' caused settings in another chassis to be affected has been resolved.
32. An issue where DSP resources could sometimes display an incorrect (lower) value has been fixed.
33. An issue where copying parameters from one PEQ to another did not update the Q/BW setting has been fixed.