

Dolby DP600 Program Optimizer Release Notes

Version 1.8.1.9

Release Date: February 2013

This document provides information about the Dolby® DP600 Program Optimizer v1.8.1.9 release, including the latest product features, bug fixes, operational considerations, known issues, and upgrade instructions.

See the online help and user's manual for detailed product specifications and operating instructions.

If you have questions, email broadcastsupport@dolby.com.

1 Version 1.8.1.9 Release

The v1.8.1.9 release deploys on all DP600 hardware. This release supports broadcast-quality encoding of Dolby Digital Plus™ 5.1 at 192 kbps, and Dolby Digital Plus 7.1 at 384 kbps, as well as backup and restore of unit settings.

2 New Features Since v1.6.x.x

This section describes new features for the DP600.

Table 1 DP600 New Features

Feature	Description
5.1 Dolby Digital Plus encoding	The DP600 now encodes 6x PCM (1) (.wav) or six-channel PCM interleaved (.wav) to 5.1 Dolby Digital Plus at a minimum bit rate of 192 kbps.
7.1 Dolby Digital Plus encoding	The DP600 now encodes 8x PCM (1) (.wav) or eight-channel PCM interleaved (.wav) to 7.1 Dolby Digital Plus at a minimum bit rate of 384 kbps.
Dolby E frame advance	The DP600 now can optionally advance Dolby E one frame to maintain compatibility with real-time Dolby E decoders.
Data backup and restore	The DP600 now enables the creation of data backup and restore across multiple units. The backup and restore can be made either during software installation (offline), or while the unit is in operation (online).
Loudness measurement	The DP600 now supports Dialogue Intelligence™ for ITU-R BS.1770-2 loudness measurement.

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Feature	Description																		
Numerical channel ID	<p>The DP600 now supports numbers as channel identifiers in the file name for multiple-mono work orders. The mapping from number to channel is defined as follows:</p> <table border="1" data-bbox="616 345 1451 765"> <thead> <tr> <th data-bbox="616 345 1038 422">Channel Identifier with Letters</th><th data-bbox="1038 345 1451 422">Channel Identifier with Numbers</th></tr> </thead> <tbody> <tr> <td data-bbox="616 422 1038 473">L</td><td data-bbox="1038 422 1451 473">1</td></tr> <tr> <td data-bbox="616 473 1038 525">R</td><td data-bbox="1038 473 1451 525">2</td></tr> <tr> <td data-bbox="616 525 1038 576">C</td><td data-bbox="1038 525 1451 576">3</td></tr> <tr> <td data-bbox="616 576 1038 626">LFE, LE, B</td><td data-bbox="1038 576 1451 626">4</td></tr> <tr> <td data-bbox="616 626 1038 677">LS, LSS</td><td data-bbox="1038 626 1451 677">5</td></tr> <tr> <td data-bbox="616 677 1038 727">RS, RSS</td><td data-bbox="1038 677 1451 727">6</td></tr> <tr> <td data-bbox="616 727 1038 765">BSL, LRS, LSR, LE, LB</td><td data-bbox="1038 727 1451 765">7</td></tr> <tr> <td data-bbox="616 765 1038 803">BSR, RRS, RSR, RE, RB</td><td data-bbox="1038 765 1451 803">8</td></tr> </tbody> </table> <p>The meanings of the letter designations are:</p> <p>L: Left R: Right C: Center LFE, LE, B: Low-Frequency Effects; Low Effect; Bass LS, LSS: Left Surround; Left-Side Surround RS, RSS: Right Surround; Right-Side Surround BSL, LRS, LSR, LE, LB: Back Surround Left; Left Rear Surround; Left Surround Rear; Left Extra; Left Back BSR, RRS, RSR, RE, RB: Back Surround Right; Right Rear Surround; Right Surround Rear; Right Extra; Right Back</p>	Channel Identifier with Letters	Channel Identifier with Numbers	L	1	R	2	C	3	LFE, LE, B	4	LS, LSS	5	RS, RSS	6	BSL, LRS, LSR, LE, LB	7	BSR, RRS, RSR, RE, RB	8
Channel Identifier with Letters	Channel Identifier with Numbers																		
L	1																		
R	2																		
C	3																		
LFE, LE, B	4																		
LS, LSS	5																		
RS, RSS	6																		
BSL, LRS, LSR, LE, LB	7																		
BSR, RRS, RSR, RE, RB	8																		
MPEG transport stream remultiplexing of SMPTE 302M streams with PCM	The DP600 now supports multiplexing and demultiplexing of transport streams with SMPTE 302M streams containing PCM audio.																		
Dolby Digital Plus 5.1 to Dolby Digital Plus 7.1 upmix	The DP600 can now upmix Dolby Digital Plus 5.1-channel content to a Dolby Digital Plus 7.1-channel format.																		
Dolby Digital Plus 7.1 to Dolby Digital Plus 5.1 downmix	The DP600 can now downmix Dolby Digital Plus 7.1-channel content to a Dolby Digital Plus 5.1-channel format.																		
AIFF support	The DP600 now supports the AIFF format.																		
Dolby E 7.1 support	The DP600 now decodes and reencodes Dolby E 7.1-channel content.																		

3 Bug Fixes

This release includes the following bug fixes:

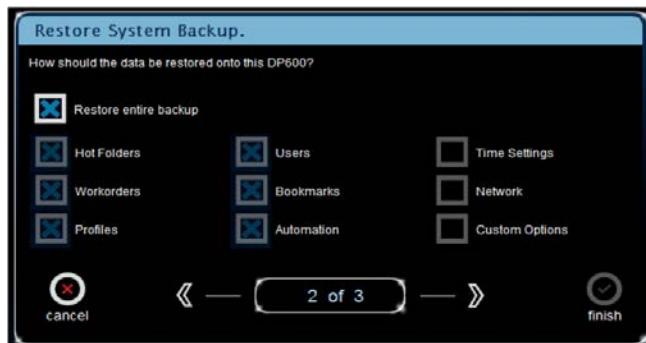
- The detection of input files when using two-channel, mono-only hot folders has been fixed to ensure that the Left and Right channels are detected.
- When using mono-only hot folders set to simple mode with a 5.1+2 configuration, the channels are now picked up in the correct order.
- The loudness logs have been updated to remove erroneous entries.

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Notes

The following notes apply to this release:

- When replacing a hard drive, use a drive of equal or greater size.
- The unique Grass Valley® hot folder type has been removed in v1.8. Use standard FTP hot folders in its place.
- When performing loudness measurement and correction on Dolby Digital Plus 7.1-channel content, the DP600 must decode the 7.1-channel content to PCM, and then perform the loudness measurement and correction before reencoding to Dolby Digital Plus 7.1.
- When creating a backup using a USB drive, ensure that the USB memory device has at least 300 MB of free memory space. If the device has insufficient space, the DP600 displays a warning, and then requires a reboot to be able to recognize a second memory device with sufficient space.
- When restoring a backup created on another unit, ensure that all of the options are selected, as shown in the following figure.



- A new screen had been added to the commissioning application to allow the user to set some system properties. Contact Dolby Customer Support for any questions on the **System Properties** screen shown here.



- Physical memory issues may be exposed during the upgrade to v1.8 due to the increased RAM resources required. If this occurs, the upgrade process stops and the unit recovers to the previously installed firmware version after a manual reboot. Contact broadcastsupport@dolby.com if you experience this behavior.

5 Known Issues

The following are known issues in this release:

- When upgrading to v1.8.1.9 from v1.4 or v1.5, you may encounter the following error:

Hardware security token is not installed

scan_hw returned with error

If you see this error message, turn off the DP600, wait ten seconds, and then power the unit back on.

- After replacing a hard drive, the unit might take time to update the hard drive status.
- When using mono-only hot folders, do not use spaces in the source or destination directory name.
- Canceled work orders will transition to the cancelled state only after completion of the ingest process.
- When running multiple automation jobs, the name of each job must be unique.
- To ensure proper reporting by the front-panel drive status LEDs, keep the two power supplies connected at all times.
- The loudness summary logs erase during an upgrade. The individual work order loudness logs will still be available.
- If the display is not aligned to the center of the screen after the upgrade, use the front-panel user interface display menu (accessible behind the front-panel door) to adjust the display.
- High-data-rate Dolby Digital Plus content (>1 Mbps) may produce decoding artifacts when dynamic range control is invoked within the decoding engine.
- To stop the installation process, reboot the unit. Do not use the **quit** option.

6 Installation and Upgrade Procedure

The following instructions provide details on installing or upgrading the software for the DP600. Before beginning an installation or upgrade procedure, burn the DVD image (.iso file) to a DVD at the slowest speed possible (no more than 4x) to ensure an accurate transfer of data to the disc.

With this disc, you can perform a clean installation, a reinstall, or an upgrade of the DP600 software (if required). A clean installation restores the DP600 to the factory settings and deletes:

- Network settings
- Custom profiles
- Work orders and reports
- Bookmarks
- License file
- User account information

An upgrade or reinstall retains all of these files and settings. During an upgrade (or refresh) installation, you can save the DP600 settings to an external USB storage device.

To perform an upgrade, reinstall, or a clean installation of the DP600 software:

1. Insert the *DP600 Installation Software* DVD in the CD/DVD drive.
2. Shut down the system, and disconnect the power cords.
3. Wait 30 seconds, and then reconnect the power cords.
4. A prompt asks whether you want to verify the software.

Press **<V>** to verify the installation software, or press any other key to continue with the upgrade installation.

The currently installed software version and the software version on the DVD are displayed. In addition, a message indicates that a software upgrade is possible and that the system will back up the user data.

5. Select one of the options presented with the following message:

Software upgrade possible. System configuration can be backed up.

- 1. Upgrade and backup system to an external drive**
- 2. Upgrade**
- 3. Clean install and backup system to an external drive**
- 4. Clean install**

Q. Quit

Select an install option: [press 1-4 or 'q' to quit]

Instructions for the following options are available in this document:

- To perform an upgrade and save to an external drive, see [Performing an External Backup](#).
- To perform a clean install, see [Performing a Clean Install](#).
- To perform an upgrade and save to an internal backup, see [Performing an Upgrade](#).
- To calibrate the touch screen, see [Calibrating the Touch Screen](#).

6.1.1 Performing an External Backup

To perform an external backup:

- At the prompt, insert an external USB drive, and then press **<S>** to skip the backup, or press any other key to continue.

The system saves the backup, confirms that the external copy was successful, and then prompts you to remove the drive. The backup file is now on the drive, so you can use the file to restore your data to any DP600 running version 1.8.1 or later.

6.1.2 Performing a Clean Install

After pressing **<4>**, a prompt confirms your selection and warns you that user data will not be backed up.

To perform a clean install:

1. Press **<C>** to continue the install, or press any other key to quit.

The installation runs for a while. When the new software completely installs, the prompt asks you to press any key to reboot, and to remove the DVD.

2. After ejecting the DVD, press **<Enter>** to start the application.

6.1.3 Performing an Upgrade

To perform an internal upgrade:

1. Select one of the upgrade options shown in the menu earlier in this document.

When the new software completely installs, a prompt asks you to press any key to reboot, and to remove the DVD.



Caution: Make sure that the front panel is open before you eject the DVD.

2. Press any key to reboot and remove the installation disc from the CD/DVD drive. If the disc is still in the CD/DVD drive while rebooting, the installation sequence begins again.
3. After ejecting the DVD, press <Enter> to start the application.
4. Page through the screens to verify your settings, and then click **finish** to reboot.

After rebooting, the DP600 **home** screen is displayed.

6.1.4 Calibrating the Touch Screen

The manufacturing process includes the calibration of the touch screen. You might, however, need to recalibrate.

If the touch screen calibration setup appears, perform these three steps within 30 seconds:

1. Press the first target for approximately two seconds until it changes to a cross.
2. Press the next target until it changes to a cross.
3. Continue this procedure for the additional targets.

If you do not proceed within the 30-second time period, the calibration stops and the system continues to boot. A small target displays at one corner of the calibration setup.

When the calibration is complete, the DP600 **Welcome!** screen is displayed. It provides a checklist of what you need before you configure the system.

4. If you performed an upgrade or reinstall, page through the screens to verify your settings, and then click **finish** to reboot.

After rebooting, the DP600 **home** screen is displayed.

If you did not perform an upgrade or reinstall, and did not back up your DP600 settings, you must recommission your unit, which requires relicensing. You can retrieve the license file of your unit from www.dolbysupport.com if you have not archived it previously.