Conferencing Systems, Firmware Release 8.0 and later

DCS 6000 Firmware
Upgrade & Feature License Manual

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Upgrade Manual DCS 6000 rev Y.docx
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Introduction

This manual describes the procedure for upgrading/downgrading the firmware in the various units in the DCS 6000 system.

The manual does also describe how to upload a DCS 6000 Feature License into the CU/CCU Central Units.

For upload of language files and start-up bitmap in DC 6990 Conference Units please refer to the manual ‘User Manual DC 6990 Languages’.
Buttons and windows in the FUU

‘Upgrade CU firmware buttons’
Press those buttons to upgrade the firmware in the FUU.

‘Status window’
This window shows the status and give messages to

‘CU window’
Those windows shows ‘Type’, ‘Serial number’ & ‘Firmware version’ (‘PPC’ & ‘DSP’ version) of the CU.

‘Present Units window’
All units present in the

‘Selected Units window’
Unit, which are selected for upgrading are shown in this

‘Select unit’ buttons
Select one of the units in the ‘Present Units window’ and press the ‘Add unit button’ to add ‘Selected Units

‘Remove buttons’
Press those buttons to either remove a selected unit or to remove all units from the

‘Update status button’
Press this buttons to update the status of the units connected

‘Command line’ button
Press this Icon to get a window for sending commands to the CU

‘Upgrade Units button’
Press this button to upgrade the units present in the ‘Selected Units window’

‘Set Feature Id button’
Press this button change the Feature setting for the selected units
Firmware upgrade of DCS 6000

Before you start
The following equipment is needed:
- A PC with an LAN port
- A Ethernet LAN cable
- The DCS 6000 Firmware Upgrade Utility (FUU)
- The DCS 6000 Firmware Library

General guidelines
Check that all communication in the system is stable before performing updates.

**IMPORTANT: NEVER REMOVE POWER FROM A SYSTEM PERFORMING AN UPDATE.**

Errors in the update procedure may render the units unusable, so do not update a system just before a critical meeting if you have no spare equipment.

If for some reason the update fails for one or more units but power has not been removed it is usually possible to do the update again and units that did not correctly update the first time will continue where they stopped the second time around.

Compatibility
The web site dis.cc has information about compatibility and upgradeability. If you are in doubt please consult Shure Conferencing Support by e-mail: conferencingsupport@shure.dk

Locked units
If a unit displays the message “Locked” in the LCD display, then the firmware version in the unit is not compatible with the firmware in the Central Unit and the firmware in the unit has to be upgraded/downgraded.

Firmware Upgrade Utility (FUU)
The DCS 6000 ‘Firmware Upgrade Utility’ (FUU) is included in the Firmware Releases.

**IMPORTANT: Always use the latest version of the FUU.**
# Connecting the FUU – Firmware Upgrade Utility

1. Unzip the zip file containing a Firmware Upgrade Library folder and a FUU folder to the desktop or another convenient location on the PC.

2. Connect the PC to the CCU or CU 61xx using a LAN cable and switch on the CU 6xxx.

3. Browse to the folder ‘DIS_Firmware_Upgrade_Utility_xxx’ and open the folder.

4. Start DIS Firmware Upgrade Utility (FUU) in the FUU folder by double-clicking the icon.

5. The FUU starts.
   The FUU application will automatically find the folders with the firmware releases and the language files.

6. Select to use Ethernet connection.
   Check the Ethernet settings by selecting ‘Ethernet connection to CU/CCU’.
   Type the CU/CCU IP address in IP address field. Use IP port 3142.
7. The FUU will now show all units in the system as well as information about the CU.

Checking the ‘Error Status’ window

8. Before any upgrade is performed the ‘Error Status’ has to be checked.

   The error in the communication from the units to the CU/CCU can be checked clicking ‘View/View Error status Window’

   Basically this window shall show no errors in the system. However in large systems, there might be generated some errors during start-up.

   The error counter can be reset by clicking ‘Reset error counters in CU’. After resetting the counters, no error must be present. If a counter is counting up, it is a clear indication, that there are communication errors.

   **IMPORTANT: DON’T DO ANY UPGRADE IF THERE ARE ERRORS IN THE COMMUNICATION.**

   If units are to be checked click the ‘Switch to Operation Mode’ and then perform an AIB, Automatic In-bus test.

   The result must be ‘OK’ for all units.

   If errors are present or for more test options, please refer to the section ‘DCS-LAN Communication’.
9. **System Upgrade**
Select the Firmware Release in the 'Selected Release Id' drop-down list and press 'Upgrade System'.

10. A 'System Upgrade Status' window will appear and show the progress of the firmware upgrade.
The upgrade will take approximately 5 minutes pr. unit type except for the DC 6990 P that takes about 45 minutes.
How to upgrade or downgrade single units

If one or more specific units have to be upgraded or downgraded for service purpose or for adding some units to an old installation the FUU has to be changed to show the advanced layout. Please notice that this option is only recommended for experienced users.

11. Download ‘Release_7.4.4a-Full’ file from dis.cc.
    Unzip the file.

12. Select ‘Library/Select Upgrade Library’ in the FUU.
    A dialog box opens up.
    Browse in the unzipped ‘Release_7.4.4a-Full’ folder to the folder ‘FUU_Library_Release’.
    Select the file ‘FUU_Library’ and press ‘Open’.

13. Select ‘Setup/Advanced FUU Layout’.
    The FUU is now showing the advanced layout.
    Select the requested Release ID.
    Upgrade/downgrade of the CU/CCU can then be performed by selecting the ‘Upgrade CU/CCU’

14. After a downgrade of a CU/CCU a warning message may appear indicating that the ‘License key in the CU/CCU is missing’. This depends of the selected Firmware Release.
    This warning message indicates that the CU/CCU only has basic functionality.
    If extended functionality is needed a license key enabling further functionality must be imported to the CU/CCU.
15. Upgrade or downgrade of one of more units of the same type can be performed by selecting the individual units or unit types and pressing ‘Upgrade Units’.

16. Select the Release ID for the required upgrade in the drop-down list and press ‘Ok’. The units will now be upgraded/downgraded.
License key

The DIS-CCU and CU 61xx Central Unit will as standard only have basic functionality. By obtaining a license, the functionality can be expanded to include further functionality like:

- More Conference Units
- More Interpreter Channels
- CCU in 6000 mode

The file with the License key is delivered as a zipped file from your local Shure Partner.


Alternatively the license can be uploaded by selecting the ‘License/Import new CU/CCU License key’ in the License dropdown menu in the FUU.
DCS-LAN Communication

Checking communication errors using ‘Error Status’ window

Errors in the communication from/to the units to the CU/CCU can be checked clicking ‘View/View Error status Window’.

Basically this window shall show no errors in the system. However in large systems, there might be generated some errors during start-up. The error counters can be reset by clicking ‘Reset error counters in CU’.

After resetting the counters, no error must be present. If a counter is counting up, it is a clear indication, that there are communication errors.

**IMPORTANT: DON’T DO ANY UPGRADE IF THERE ARE ERRORS IN THE COMMUNICATION.**

If units are to be checked click the ‘Switch to Operation Mode’ and then perform an AIB, Automatic In-bus test.

The result must be ‘OK’ for all units.

![](image)

In case of errors in the communication

If errors are present, fault-finding must be done. The error can be one or more of the following:

1. Defective cable
2. One plug on the cable not inserted all the way into the socket in the unit.
3. Contaminated plug/socket
4. Defective auto termination in the last unit
5. Defective CU/CCU
6. Defective Unit.

Try narrowing the list by systematic fault finding

**Check the communication during the fault-finding in the ‘View Error status Window’**
Advanced test

When clicking ‘View/View Communication Window’ a window showing all communication to the CU/CCU opens.

The following list summarises some useful commands in case communication problems with the cables occur:

<table>
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<th>Description</th>
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<tr>
<td>aib</td>
<td>Automatic In Bus Test</td>
</tr>
<tr>
<td>avr</td>
<td>Automatic Version Request</td>
</tr>
<tr>
<td>dve</td>
<td>Display CU/CCU Version</td>
</tr>
<tr>
<td>erc</td>
<td>Errors on CU/CCU List errors received. After the list of error counts has been printed. If the command name is folowed by a ‘!’ the counters are reset.</td>
</tr>
<tr>
<td>erd</td>
<td>Error Received In Detail Checking error received on the CU/CCU</td>
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<tr>
<td>eu</td>
<td>Errors on Unit</td>
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<tr>
<td>lic</td>
<td>License Info</td>
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<td>ou</td>
<td>Overflows On Unit</td>
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<tr>
<td>reset</td>
<td>Reset</td>
</tr>
<tr>
<td>ru</td>
<td>Reset Unit - soft/hard</td>
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<td>List Seat Names</td>
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<td>seats</td>
<td>List Seat definitions</td>
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<td>sm0</td>
<td>Disable monitoring</td>
</tr>
<tr>
<td>sm1</td>
<td>Normal monitoring speed</td>
</tr>
<tr>
<td>ucc</td>
<td>Display Units With Chip card</td>
</tr>
<tr>
<td>uco</td>
<td>Display Units Connected</td>
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