MXC

Microflex® Complete

Update & Feature License

User guide for the Shure Microflex Complete Conference System

Version: MXC-FUU guide RevC.docx

Table of Contents

1 Introduction

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

The manual does also describe how to upload a MXC/DCS 6000 Feature License into the 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’.

2 Buttons and windows in the FUU

Update System
Press this buttons to update the firmware in all units in the system

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 CCU

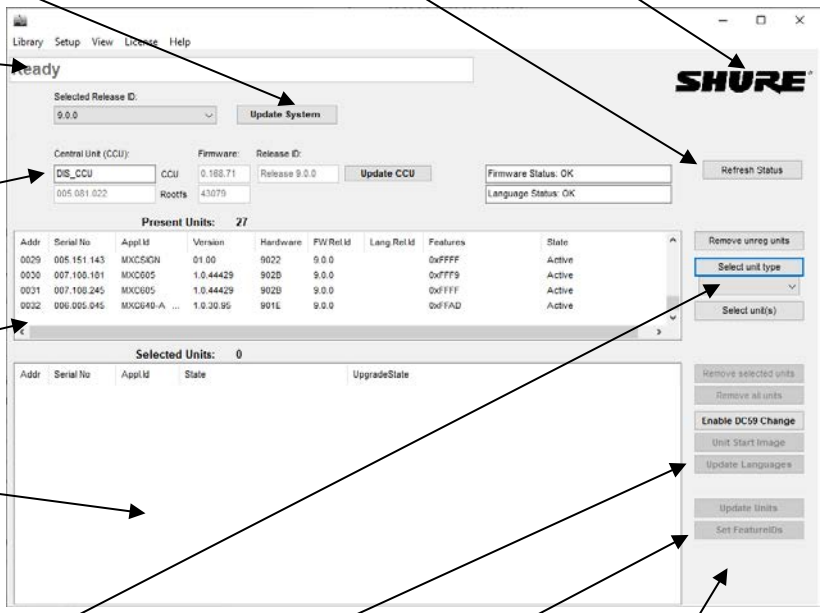
Status window
This window shows the status and give messages to the user

CCU window
The windows shows ’Type’, ’Serial number’ & ’Firmware version’ of the CCU.

‘Present Units’ window
All units present in the system are shown in this window

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

Select unit buttons
Select one or more units in the ’Present Units’ window and press the ’Select Units(s) button’ to add ’Selected Units’ window or select by type



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

’Update Units button’
Press this button to update the units present in the ’Selected Units window’

’Set Feature Id button’
Press this button change the Feature setting for the selected units

3 Firmware update of MXC

3.1 Before you start

The following equipment is needed:

- A PC with an LAN port
- A Ethernet LAN cable
- The MXC Firmware Update Utility (FUU)
- The Firmware Library

3.2 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.

3.3 Compatibility

Shure.com has information about compatibility and updateability. If you are in doubt please consult Shure Conferencing Support by e-mail: conferencingsupport@shure.dk

3.4 Locked units

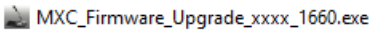
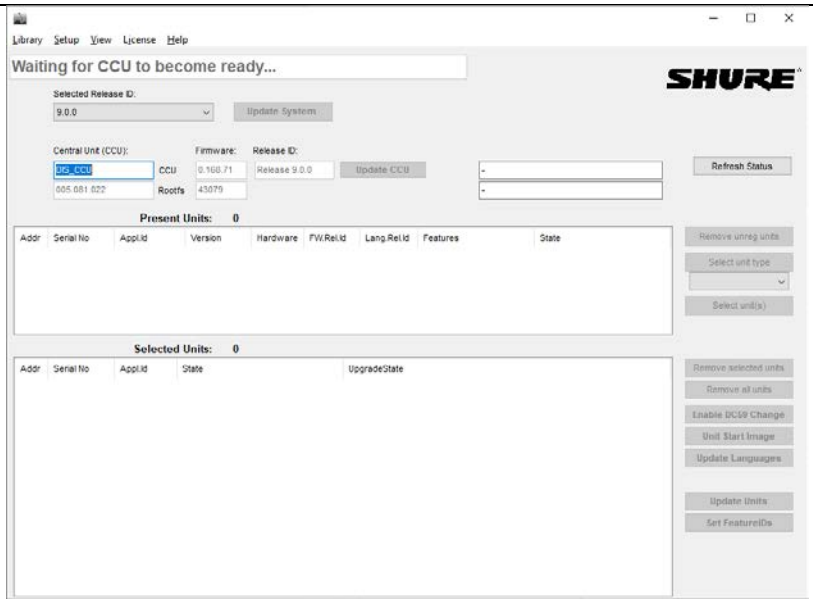
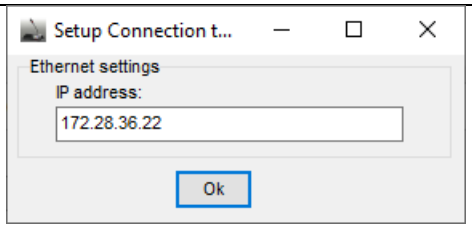
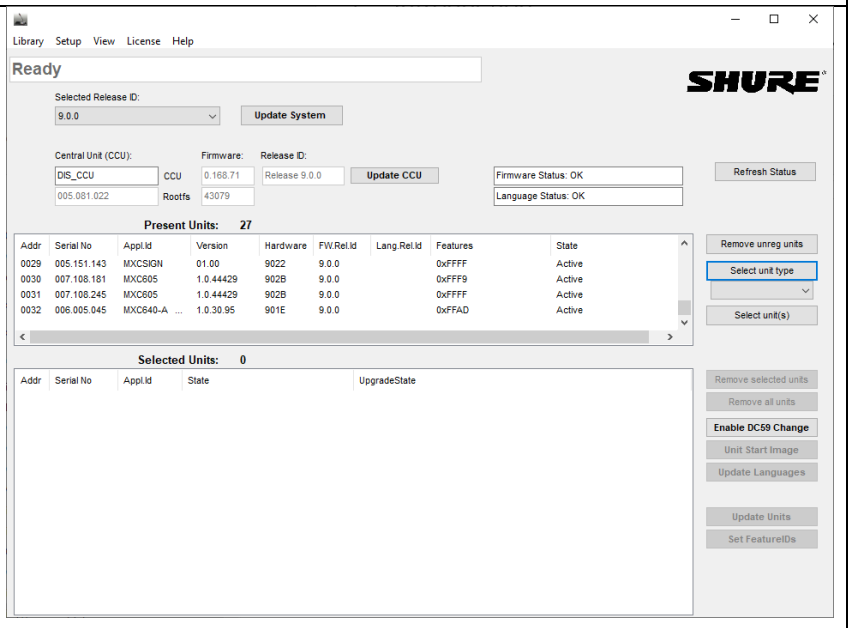
If a unit displays the message “Locked” in the LCD display, then the firmware version in the unit is not compatible with the firmware in the Central Unit and the firmware in the unit has to be updated/downgraded.

3.5 MXC Firmware Update Utility (FUU)

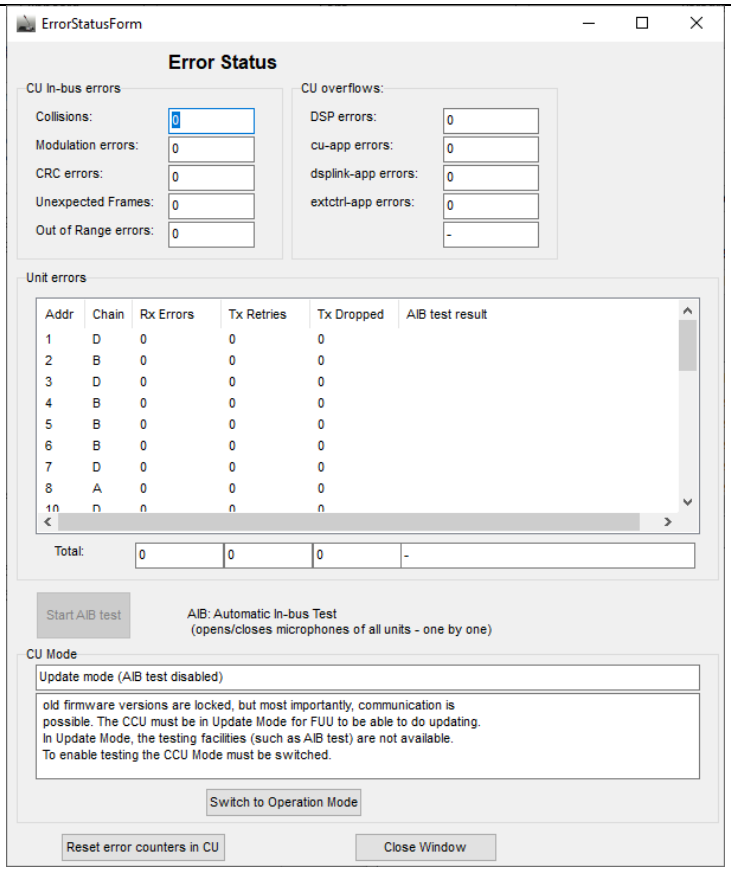
The MXC Firmware Update Utility’ (FUU) is included in the firmware releases.

IMPORTANT: Always use the version of the FUU which is included in the firmware release.

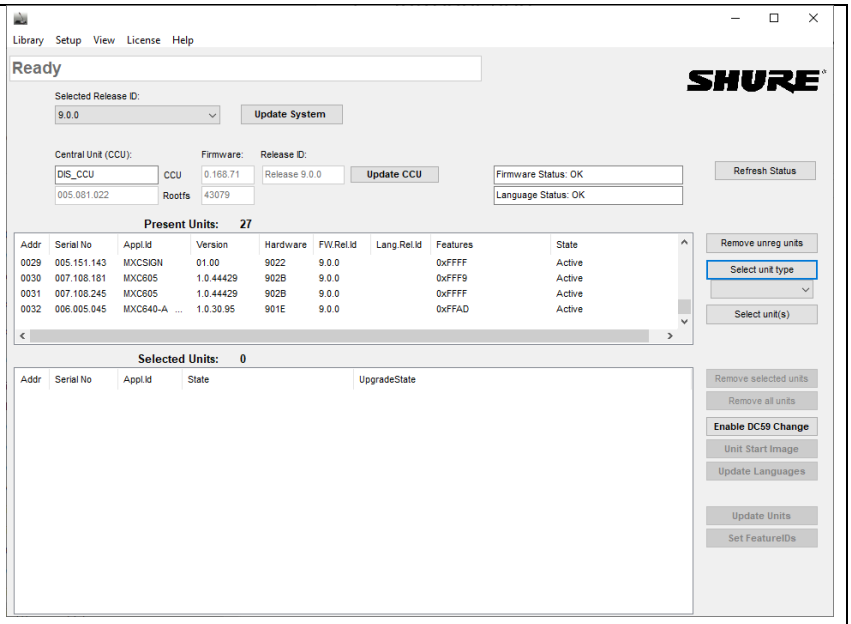
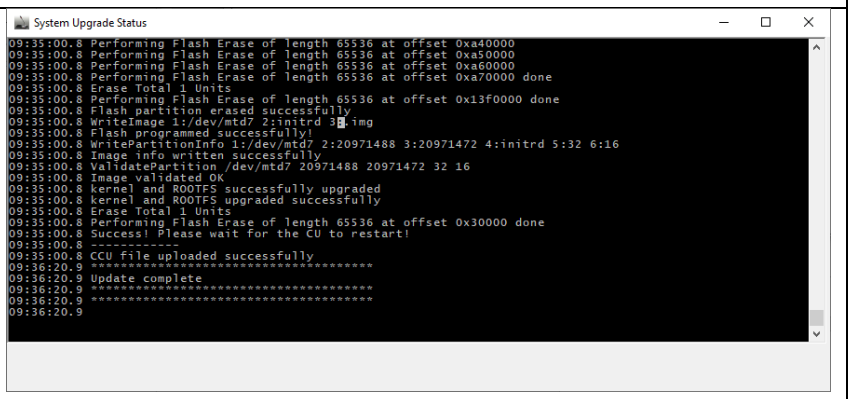
3.6 Connecting the FUU – Firmware Update Utility

1.	Unzip the zip file containing the Firmware *Update* Library folder and a FUU folder to the desktop or another convenient location on the PC.	
2.	Connect the PC to the CCU using a LAN cable and switch on power.	
3.	Browse to the folder 'MXC_Firmware_Update_Utility_xxx' And open the folder	
4.	Start MXC Firmware Update Utility (FUU) 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 CCU'. Type the 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 CCU.	

3.7 Checking the 'Error Status' window

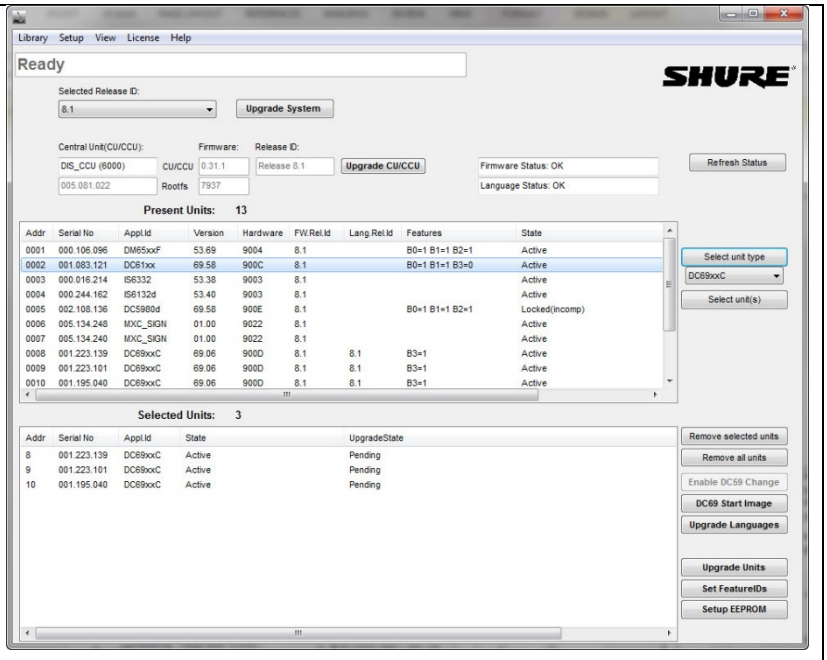
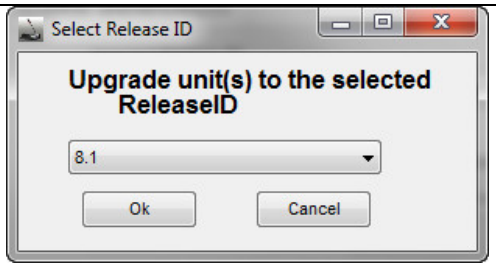
8.	Before any update is performed the 'Error Status' has to be checked. The error in the communication from the units to the CCU can be checked clicking 'View/View Error status Window' Basically this window shall show no errors in the system. However in large systems, there might be generated some errors during start-up. The error counter can be reset by clicking 'Reset error counters in CU'. If a counter is counting up, it is a clear indication, that there are communication errors. **IMPORTANT: DON'T DO ANY UPDATE 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'.	

3.8 System update

9.	Select the Firmware Release in the ‘Selected Release Id’ drop-down list and press ‘Update System’.	
10.	A’ System Update Status’ window will appear and show the progress of the firmware update. The update utility will update on unit type at a time, so if the system consist om many different unit types, the update of the whole system can take a considerable time (up to 2 hours). Example of update time: MXC620: app. 10 minutes MXC640: app 30 minutes	

3.9 How to update or downgrade single units

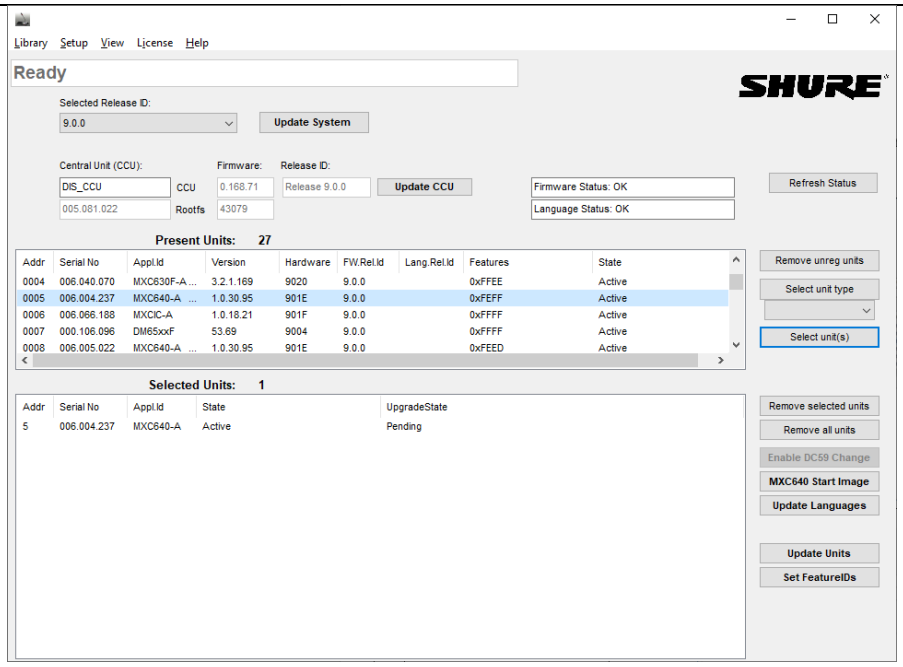
If one or more specific units have to be downgraded for service purpose or for adding some units to an old installation the FUU has to be changed to show the advanced layout. Please notice that this option is only recommended for experienced users.

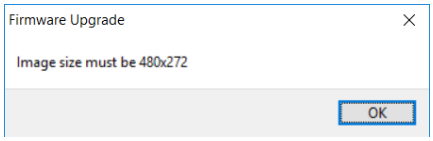
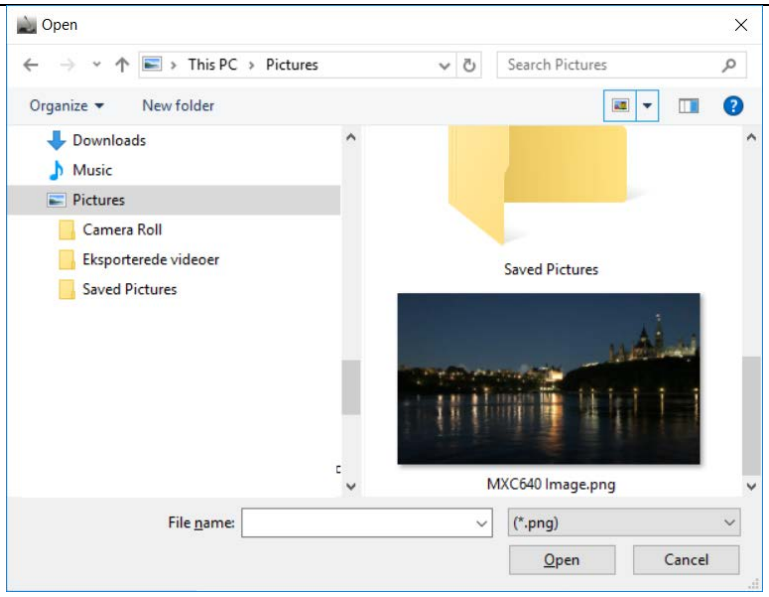
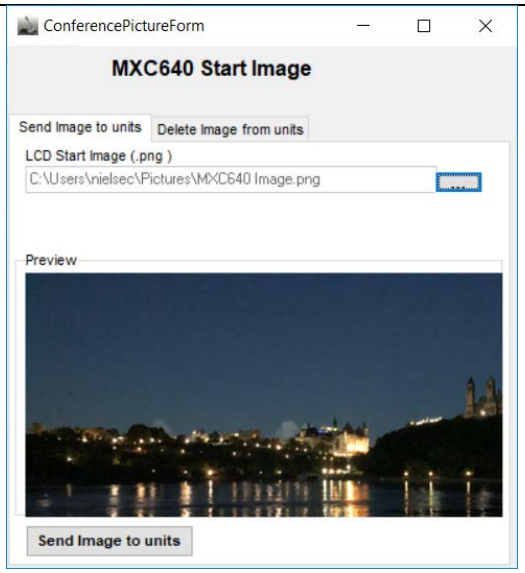
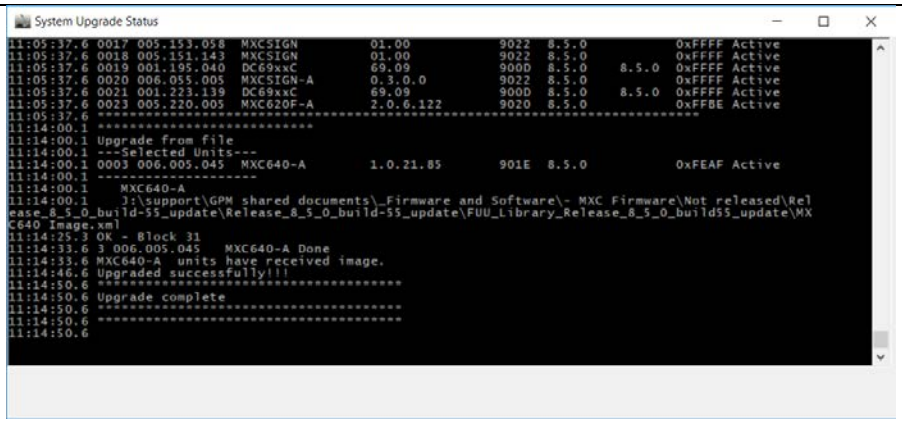
11.	Update or downgrade of one of more units of the same type can be performed by selecting the individual units or unit types and pressing ‘Update Units’.	
12.	Select the Release ID for the required update in the drop-down list and press ‘Ok’. The units will now be updated/downgraded.	

4 Changing of start image in MXC640

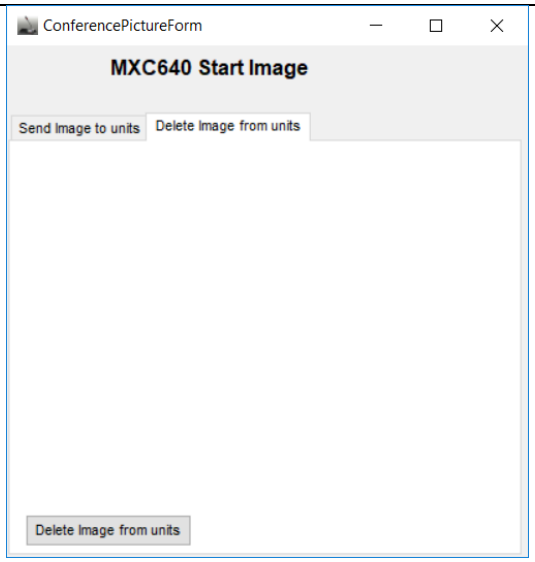
The start image on the MXC640 can be changed individually on all MXC640 units to customize the look of the units.

4.1 Upload a start image

13.	Change the FUU to the Advanced FUU Layout in Setup -> Advanced FUU Layout. Extra buttons appears in the FUU. Select the MXC640(s) on the unit list that needs to have a new start image uploaded by using the 'Select unit type' or 'Select unit' button. Press 'MXC640 Start Image'.	
14.	A 'MXC640 Start Image' window opens up. Select Image Type Select the browse button '…' to select the start image.	

15.	A file browser window opens up. Browse for the image to upload, select it and press ‘Open’. Please notice the image format must be **.png** with a resolution of **480x272 pixels**. If the selected image does not have the specified resolution an error message is shown:  	
16.	The selected image is now displayed in the ‘MXC640 Start Image’ window. Select ‘Send Image to units’ to upload the start image to the selected MXC640 units.	
17.	The FUU starts uploading the image. When FUU is done uploading the image, an ‘Update complete’ message is displayed and the ‘System Update Status’ window can be closed.	

4.2 Delete a start image

18.	Deleting a picture is following the same procedure as uploading a picture, however ‘Delete image from MXC640 units’ has to be selected.	

5 License key

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

- More Conference Units
- More Interpreter Channels

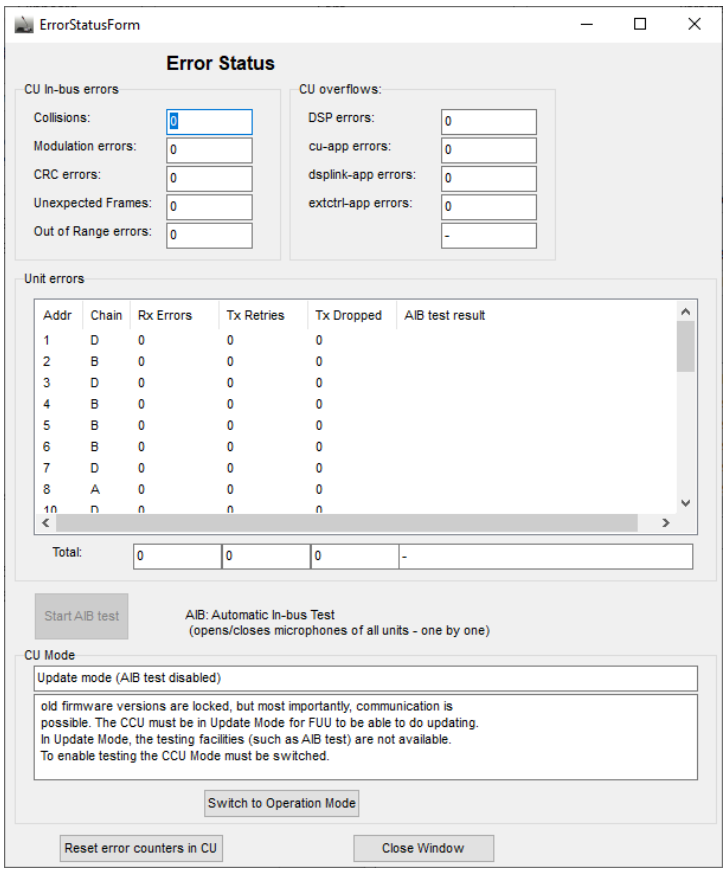
The file with the License key is delivered as a zipped file from your local Shure Partner.

Upload License File using the Browser. Please refer to the ‘MXC User Guide’.

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

6 DCS-LAN communication

6.1 Checking communication errors using 'Error Status' window



Errors in the communication from/to the units to the 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 am AIB, Automatic In-bus test.

The result must be 'OK' for all units.

6.2 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:

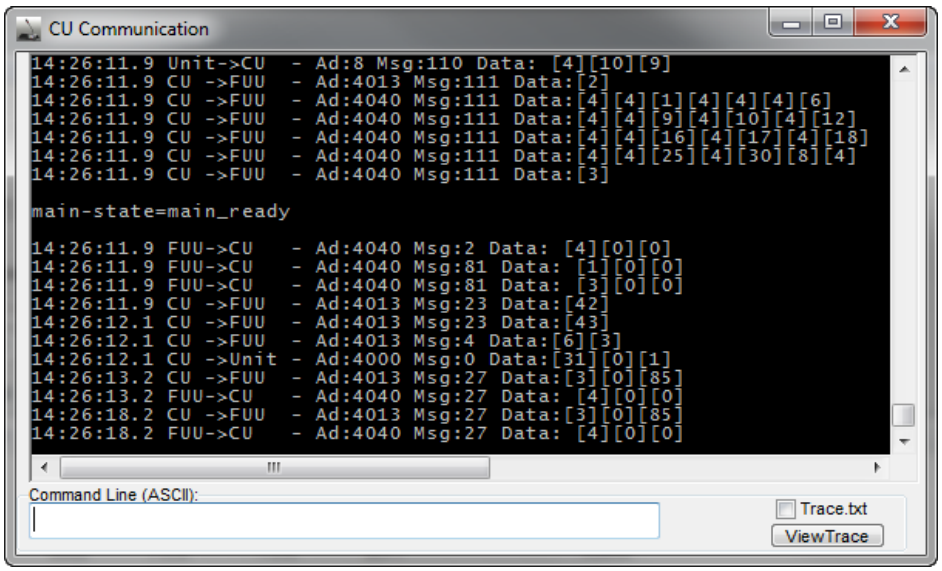
1. Defective cable
2. One plug on the cable not inserted all the way into the socket in the unit.
3. Contaminated plug/socket
4. Defective auto termination in the last unit (only 6000 units)
5. Defective CCU
6. Defective unit.

Try narrowing the list by systematic fault finding

Check the communication during the fault-finding in the 'View Error status Window'

6.3 Advanced test

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



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

Command	Description
aib	Automatic In Bus Test
avr	Automatic Version Request
dve	Display CCU Version
erc	Errors on 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.
erd	Error Received In Detail Checking error received on the CCU
eu	Errors on Unit
lic	License Info
ou	Overflows On Unit
reset	Reset
ru	Reset Unit - soft/hard
seatnames	List Seat Names
seats	List Seat definitions
sm0	Disable monitoring
sm1	Normal monitoring speed
ucc	Display Units With Chip card
uco	Display Units Connected