To upgrade E-MADI64 H8, DSP or FPGA code using EHX:

1. Ensure that you have the following equipment:

Required equipment	Description / comments
PC with an Ethernet or serial communications port	-
EHX software	EHX must be installed and configured.
Ethernet or serial cable for the PC-to-matrix connection	-
H8 application code, DSP and FPGA code files	The appropriate application code, DSP code and FPGA code files (**.fwc** format) are available from the Eclipse HX v7.0 DVDs: • **Software DVD > Eclipse HX-Omega-Median > E-MADI Application** • **Software DVD > Eclipse HX-Omega-Median > E-MADI DSP** • **Hardware DVD > Eclipse HX-Omega-Median > E-MADI FPGA.**

Table 31: Required equipment

2. Start EHX on the PC.

3. Connect the PC to the matrix using either Ethernet or a serial communications port.

4. Open the EHX configuration map within EHX.

5. Select **System > Layout.**

6. Right click the matrix and then select **Firmware> Update Firmware**.

   The **Update Firmware** wizard dialog is displayed. Click **Next**.

   In the **Select Hardware Type** screen, ensure that the **Card** radio button is selected.
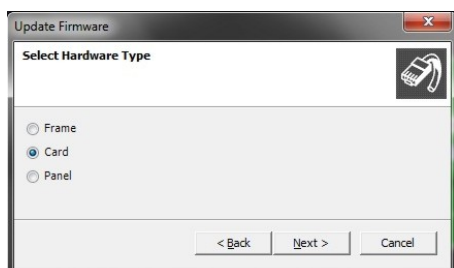

Figure 77: Select Hardware Type

7. Click **Next** and then browse to the E-MADI64 code file (application, DSP or FPGA code files (***.fwc**)).

    Tip: *See Step 1 for the location of the .fwc files on the Eclipse HX v7.0 DVD.*

8. Click **Next** and confirm that the details displayed are correct.

9. Click **Next** and confirm that the download commences.

    Note:
    The E-MADI64 card status light flashes green while the upgrade is in process (LED on to off ratio: 1:4 at 0.5Hz). When the upgrade is complete, the status light is lit green at a steady heartbeat (LED on to off ratio: 1:1 at 0.5Hz).

10. When the download has completed, click **Finish** to close the update firmware wizard.

11. Ensure that the E-MADI64 cards reset once the download is complete.

Code	Approx. reset time
Application	1 minute
DSP	3 minutes
FPGA	18 minutes

Table 32: Approximate reset times

12. Confirm the updated firmware version by opening EHX and going to
    Matrix event log > Matrix overview.

    Note:
    *You can also use the Firmware report tool in EHX to confirm the firmware version for the H8 boot code (see the previous procedure), H8 application code and FPGA. However, the Firmware report tool does **not** provide firmware version information for DSP code.*

    To use the Firmware report tool:

    a. *Open EHX and go to **System > Layout** .*

    b. *Right click the matrix icon.*

    c. *Select **Firmware > Firmware report.***

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