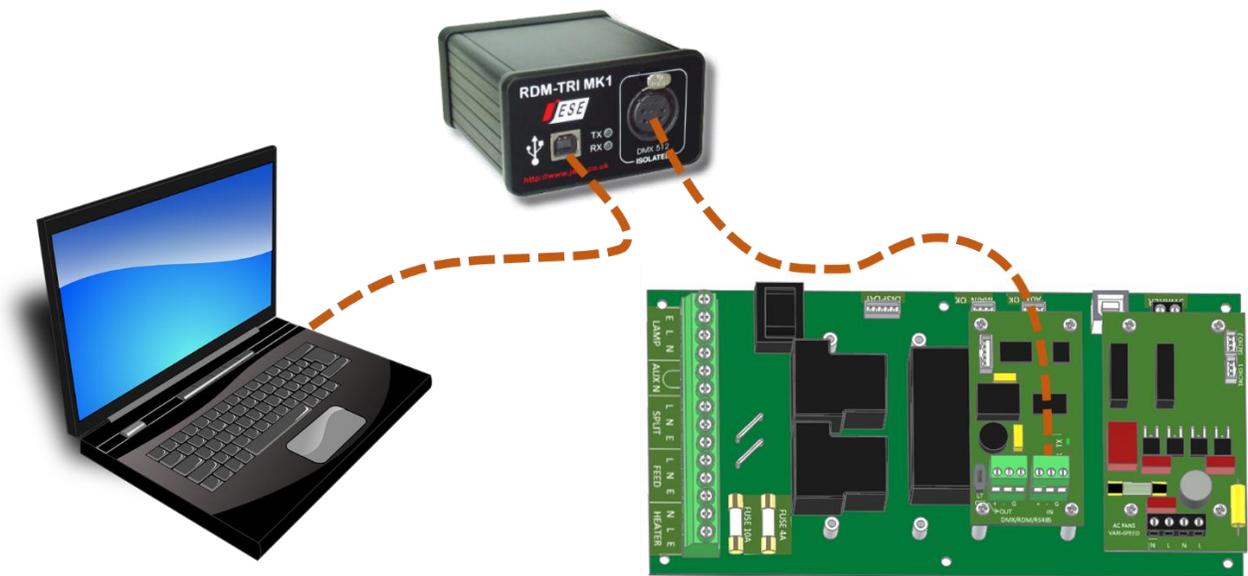


# DEC4 Firmware Upgrade Instructions

Revision 02

June 2017

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## DEC4 Firmware Updates

From time to time Tempest may introduce new DEC4 firmware for feature enhancements and bug fixes. Please note that the main System Control Board (SCB) and the various optional daughter boards each have their own firmware, and it will be good practice to update all firmware in an enclosure for optimal performance and interoperability.

- System Control Board firmware may be updated INDIRECTLY, over an RDM network, using JESE GETSET software and a JESE RDM-TRI interface.
- Fan board firmware is extremely simple and is unlikely to require updating.
- RS485 Board (51.485) firmware may be updated over an RDM network, using JESE GETSET software and a JESE RDM-TRI interface.

## Indirect Firmware Updates

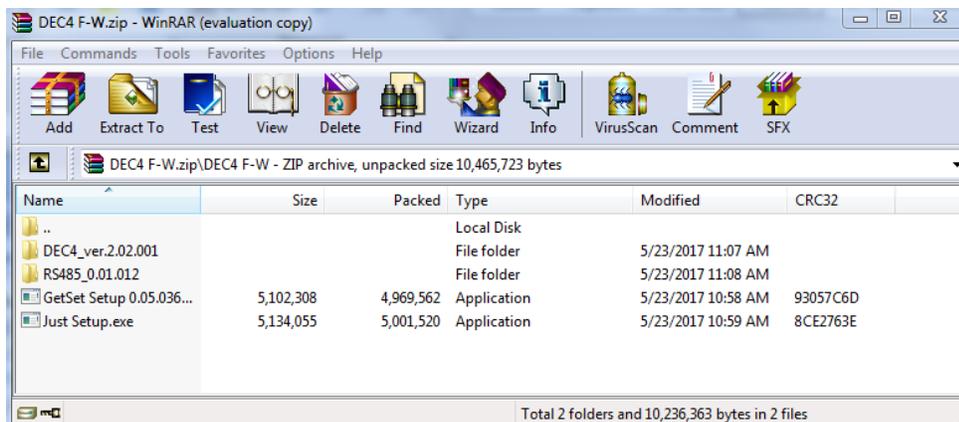
### Requirements

Windows Laptop / PC, Windows XP through Windows 10

A JESE RDM-TRI or RDM-TXI interface and USB connection (available from Tempest).

An installed version of the JESE GetSet RDM configuration utility.

A copy of the firmware file(s) to upload, available for download from [www.tempest.biz/tech\\_support](http://www.tempest.biz/tech_support).



Powered Target DEC4 with 51.485 RS485 communication interface card.

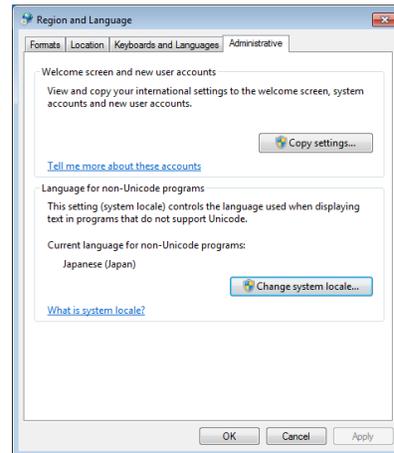
### Installation Procedure

The following procedure is effective for uploading firmware to the RS485 communication card, as well as firmware for the SCB.

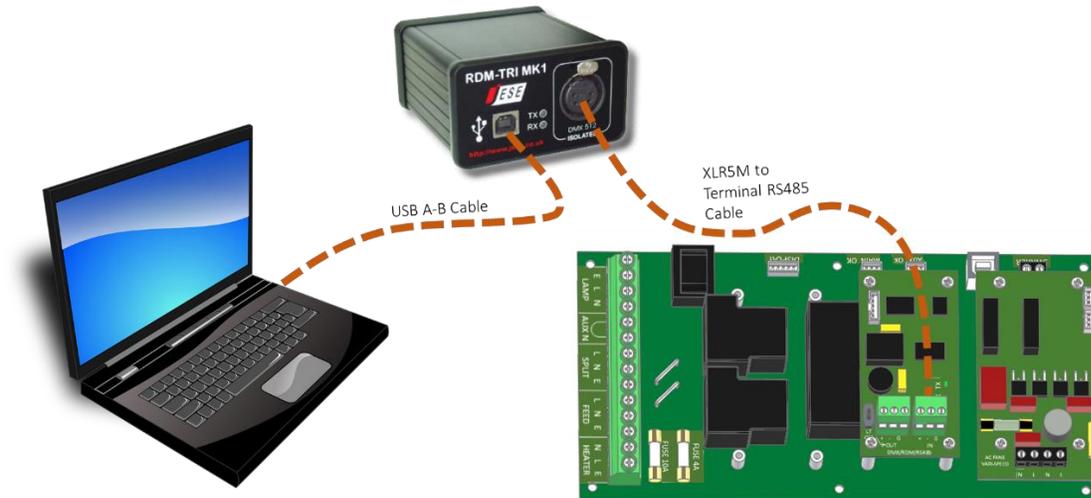
When uploaded, a file will be automatically loaded to its intended target.

1. If not already installed, install a copy of GetSet. *To ensure that the correct USB drivers are loaded, the software should be installed and the PC/Laptop re-started before connection to an RDM-TRI.*

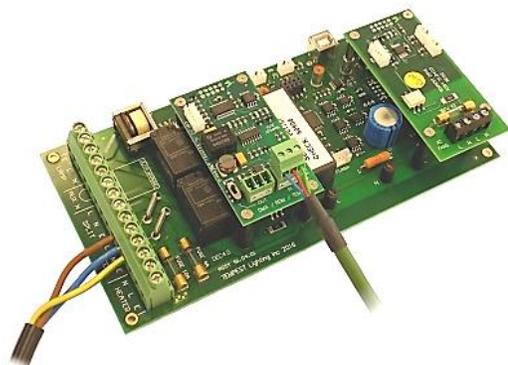
- In Windows 7, go to control panel and select Region and Language. Ensure input locale for non Unicode programs is set to a non Asian language



- Plug your RDM-TRI in to your PC



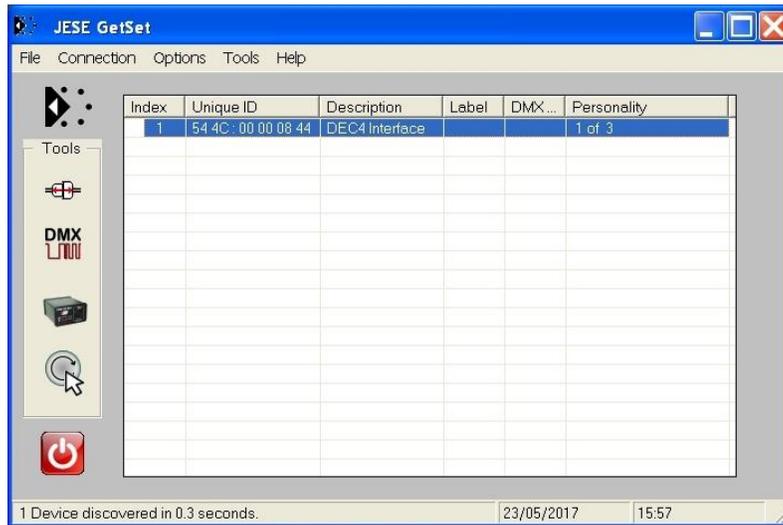
- Power up the target SCB, ideally with mains power, or alternatively, with a USB power adaptor connected to the USB Port on the SCB.
- Connect the RDM-TRI to the RS485 connection on the DEC4 communications board with the fly lead.
- If the DEC 'DATA MODE' is set to 'RS485 TEMP', select an alternative mode with an RDM option. Select the data mode from the DEC user display.



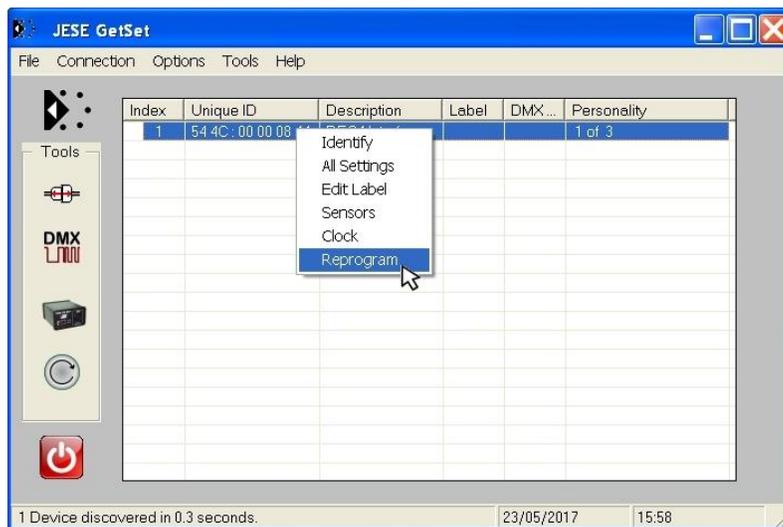
**IMPORTANT**

If the RDM-TRI is connected to a chain of DEC 4 Systems, **ALL** DEC systems must be configured in RDM Monitor Mode or RDM Control Mode, whilst ensuring that the last DEC in the chain is correctly terminated with the termination switch away from the edge of the board. An incorrectly configured termination switch in the chain will prevent the DEC systems in the disconnected section of the chain being discovered and showing up in the grid, as shown below.

- Open the GetSet application, connect to the RDM-TRI and discover the DEC. To run discovery, click the Icon indicated below



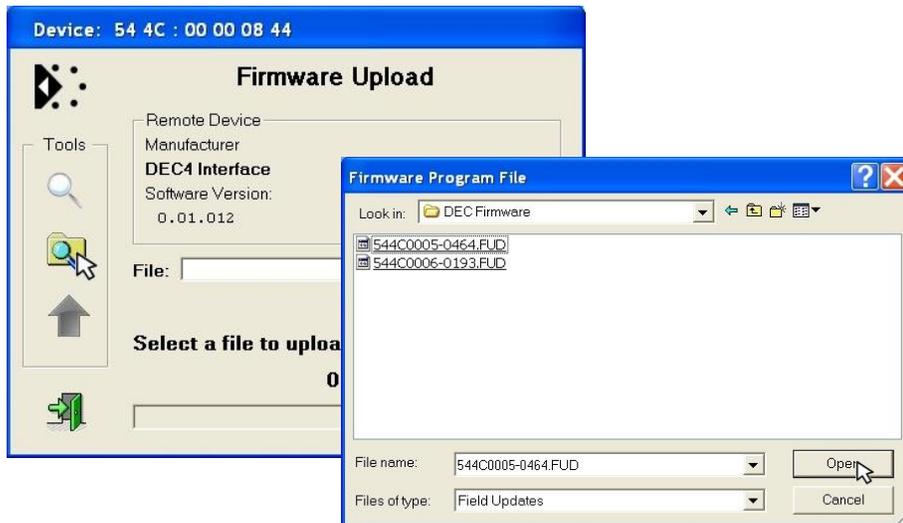
- Right click on the highlighted item in the list view and select 'Reprogram' from the popup menu. This will open the firmware upload tool.



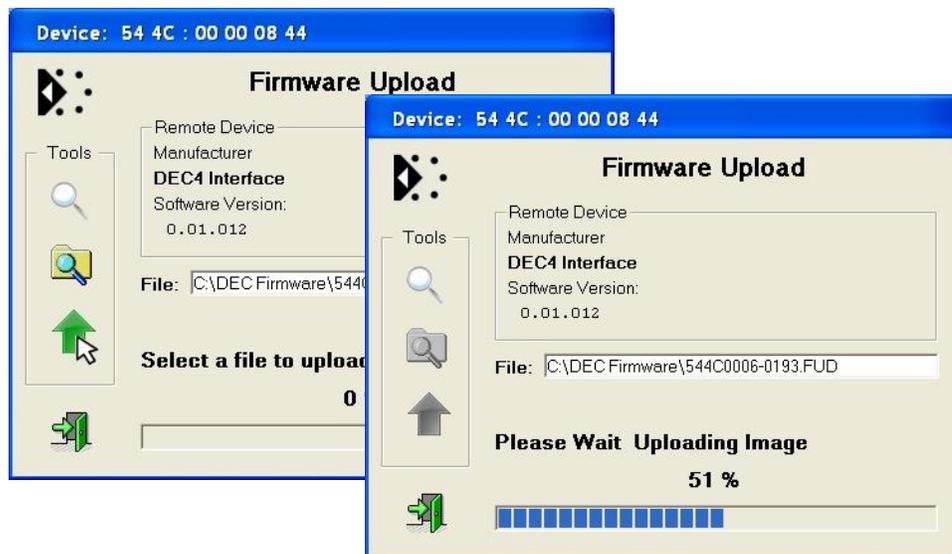
- In the Firmware upload handler, search for a file to upload by clicking the file icon. Find and select the file to load and click the Open button.

IMPORTANT

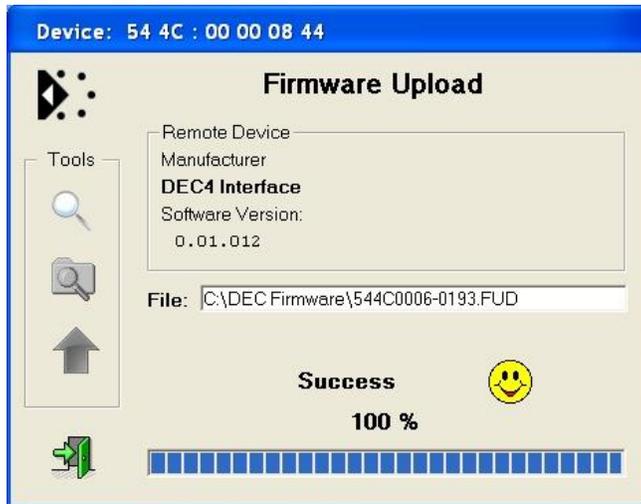
When uploading firmware for both the RS-485 card and the System Control Board (SCB), upload the firmware for the RS-485 card first. The firmware for the RS-485 card will be numbered '544C0006-xxxx.FUD' and for the SCB will be '544C0005-xxxx.FUD'



- On returning to the File upload tool window, select the green upload arrow to initiate the upload process. The upload will start.



11. On successful completion of upload and restart, the firmware upload is complete.



Repeat from stage 8 to 11 for each additional file to upload.

On completion of the upload, dismiss the upload window and return to the main window.

Close the application and disconnect the USB Cable from the SCB

**Important:**

If the Tempest enclosures are connected to an RDM interface or controller, set the DATA MODE for each enclosure as follows:

**RDM MONITOR ONLY**      To view status information over RDM

**RDM + CONTROL**      To monitor and over RDM and control the Lamp/Projector relays via DMX

If the enclosures are connected to an Ethernet network for monitoring using the Tempest TEMP protocol, set the DATA MODE for each enclosure to **RS485 TEMP**.