XTime 900 Standard

Technology

Work Instruction
Kernel Upgrade EC3 & EABR

PURPOSE

This document is to guide the user in upgrading the EC3 and EABR kernel to stop the controllers from crashing. If you are upgrading an EC3 controller, only the controller kernel steps must be followed. If you are upgrading an EABR with an HID tag reader, both steps must be followed. If you are not sure if you have an HID tag reader or not, you can run the reader upgrade, it will not complete the reboot if it does not have an HID reader, and a hard reboot will have to be done either by physically removing the power or through the WinSCP application.

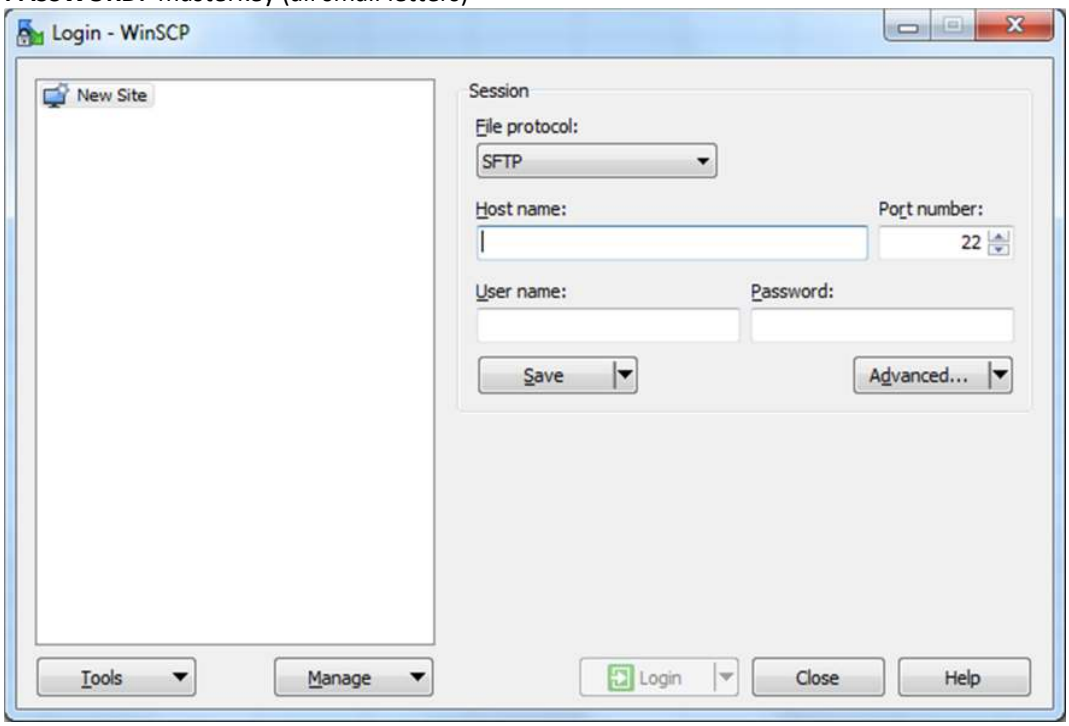
REQUIRED SOFTWARE

ftp://ftp.za.g4s.com/XTime900/Current%20release/firmware/EC3/EC3%20Kernal%20Upgrade/
ftp://ftp.za.g4s.com/XTime900/Current%20release/firmware/EABR%20Reader/Kernel%20Upgrade/

TO UPGRADE THE CONTROLLER KERNEL:

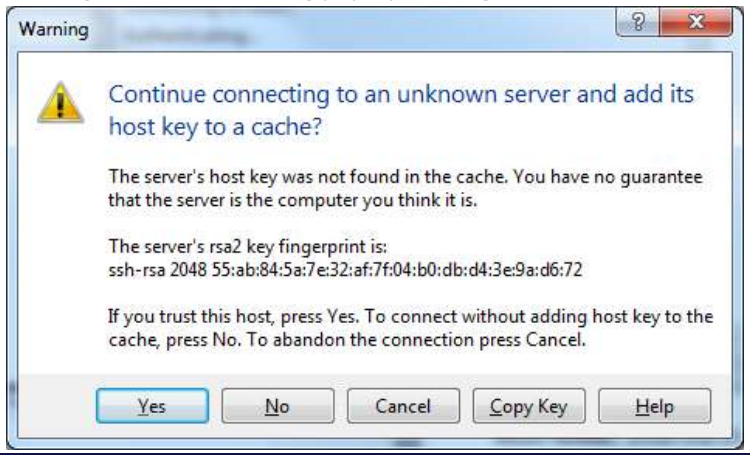
1. Run the WinSCP.exe application

HOST NAME: Enter the IP address of the controller
PORT NUMBER: Leave this as 22
USER NAME: type in root (all small letters)
PASSWORD: masterkey (all small letters)

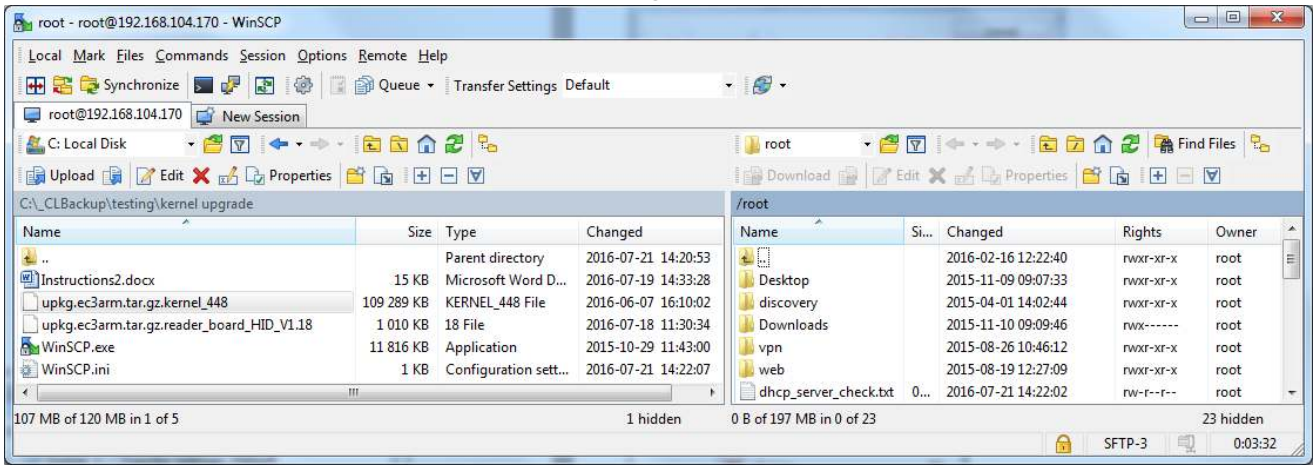


Click the Login button

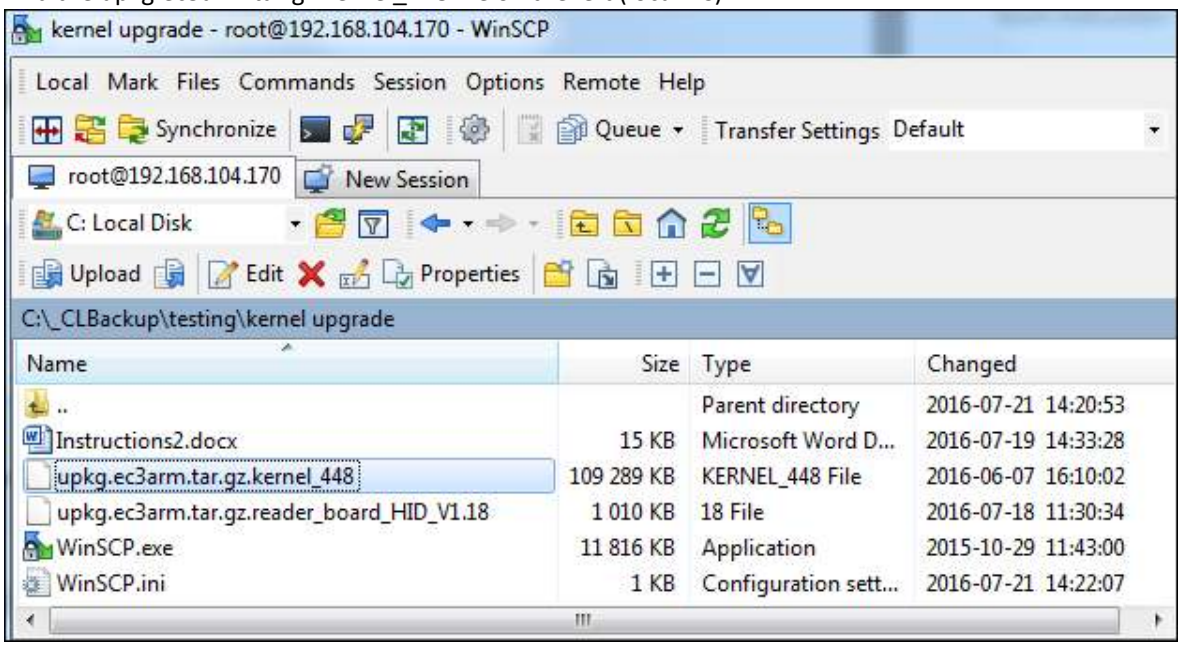
You might see the following pop-up message. Click Yes to continue:



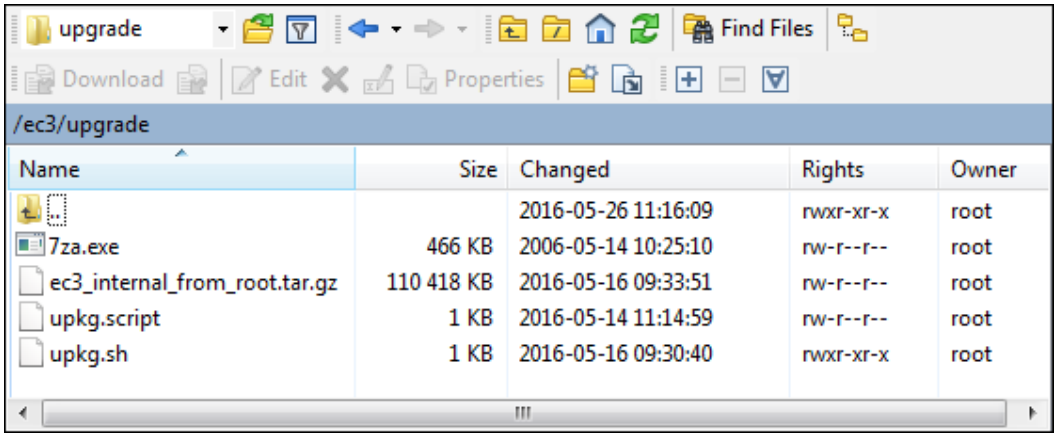
2. This is the GUI, on the left is the local PC and on the right is the EC3:



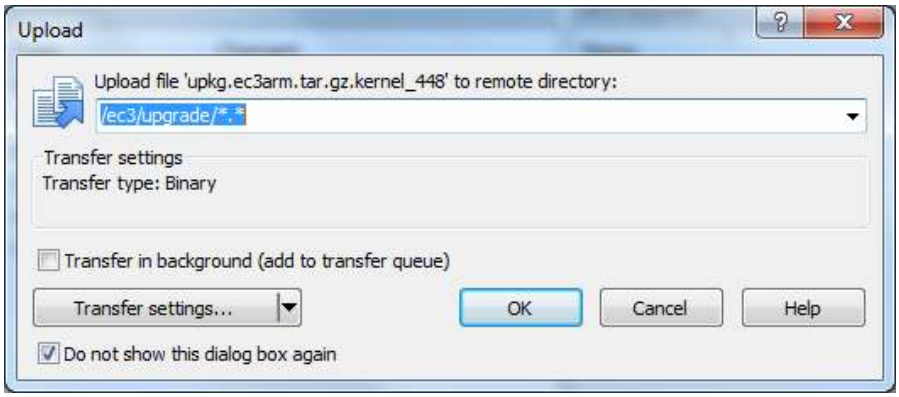
3. Find the upkg.ec3arm.tar.gz.kernel_448 file on the left (local PC)



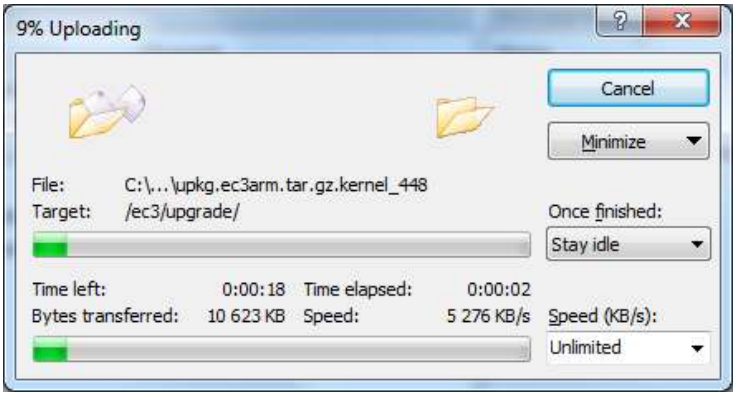
4. Select the ec3 | upgrade folder on the right (ec3 unit)



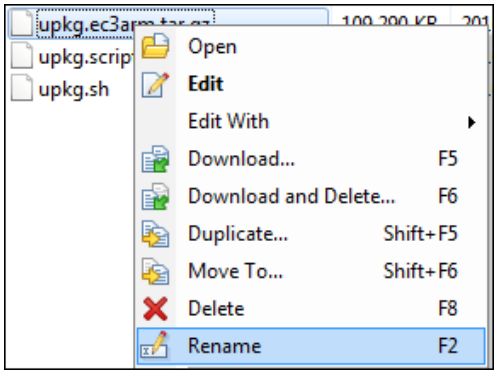
5. Drag the upkg.ec3arm.tar.gz.kernel_448 file across into the upgrade folder. Click OK if this window pops up:



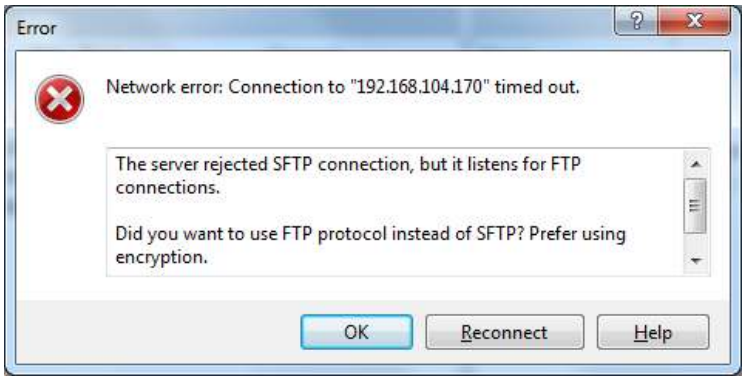
The file will copy across.



6. Once it has copied across, right click on it and select rename.

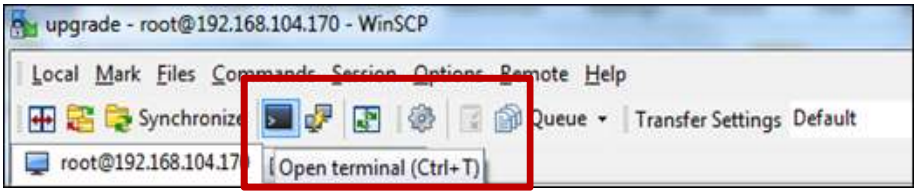


7. Remove the **.kernel_448** from the back of the file name and press enter. Ensure to remove the **.** that is before the word kernel. This will cause the upgrade to start.
8. After about 2 -3 minutes, the platform will beep five times in quick succession and then reboot. The connection to WinSCP will be broken.

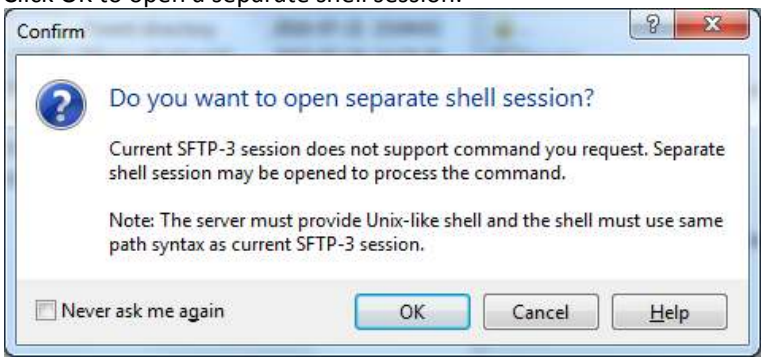


9. None of the board settings, network settings or applications will be changed. Only the kernel will be upgraded. The kernel upgrade is good both for Rev2 and Rev3 units, EC3's and EABR's, and it should stop all instances of the board crashing due to pll/clock corruption within the TI processor. .

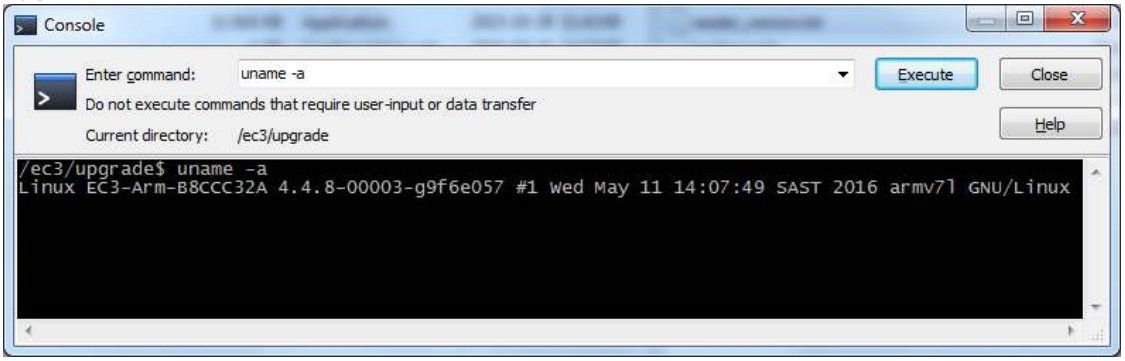
10. If you wish to confirm the kernel version, you can do so from within WinSCP by running a terminal session. To do this click on the terminal command from the menu:



11. Click OK to open a separate shell session:



12. Type in **uname –a** in the enter command text box. It will show the kernel version – this should be 4.4.8 if the upgrade was successful.

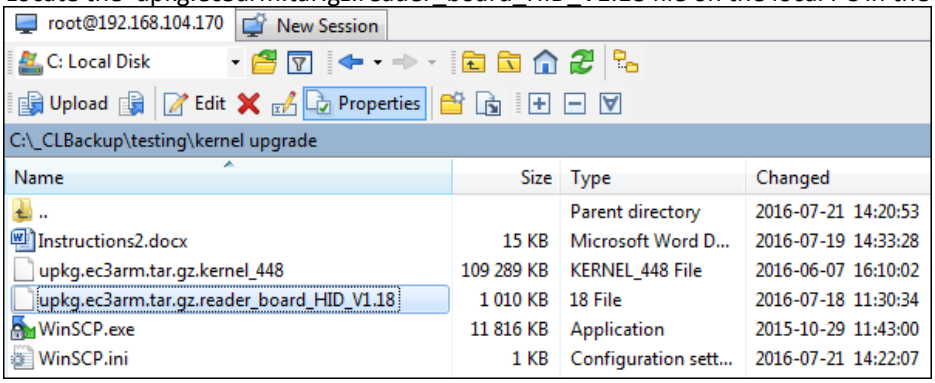


TO UPGRADE THE EABR READER BOARD

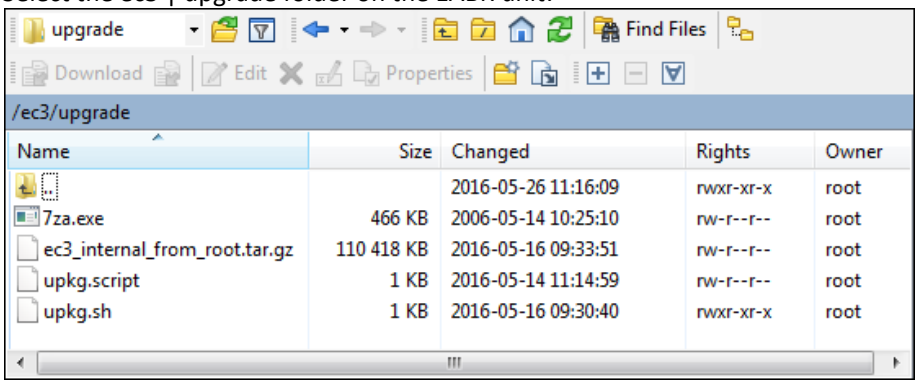
1. The reader board upgrade file is named 'upkg.ec3arm.tar.gz.reader_board_HID_V1.18'.

2. Run the WinSCP.exe application and log in as shown above in point 1.

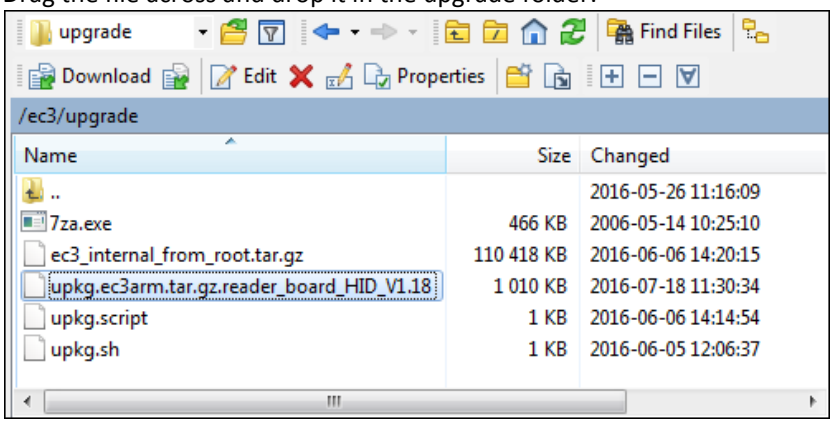
3. Locate the upkg.ec3arm.tar.gz.reader_board_HID_V1.18 file on the local PC in the left window:



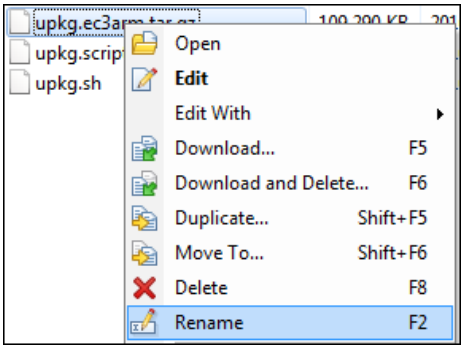
4. Select the ec3 | upgrade folder on the EABR unit:



5. Drag the file across and drop it in the upgrade folder:

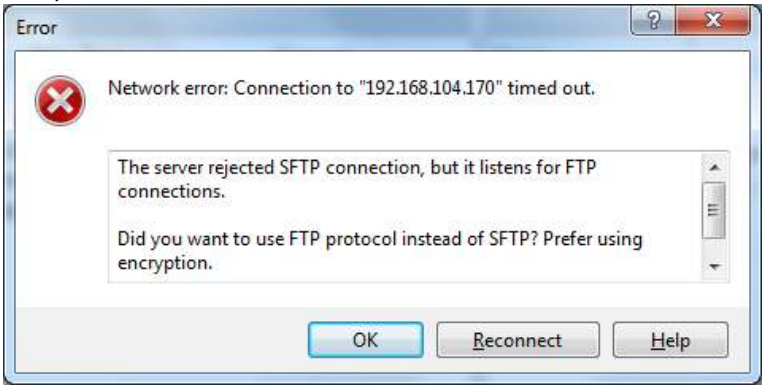


6. Once it has copied across, right click on it and select rename.



7. Remove the **.reader_board_HID_V1.18** from the back of the file name and press enter. Ensure to remove the **.** that is before the word reader. This will cause the upgrade to start.

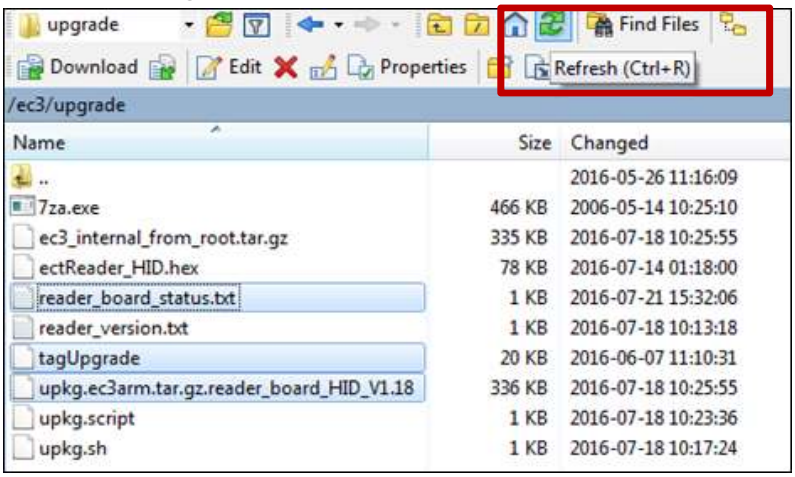
8. After about a minute, the platform will beep five times in quick succession and then reboot. The upgrade is then complete. The connection will be broken



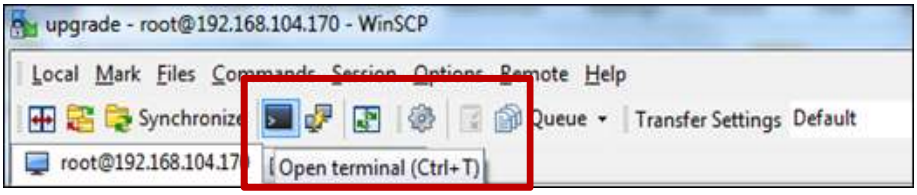
IMPORTANT NOTE

13. This upgrade is only for HID EABR's but will do no harm if applied to an NXP unit. The upgrade will abort and the reader will start to do a reboot, and then stay on a blank screen. This is because the command did not complete on the NXP unit and must be manually rebooted. This can be done with a hard reboot, or through the WinSCP consol.

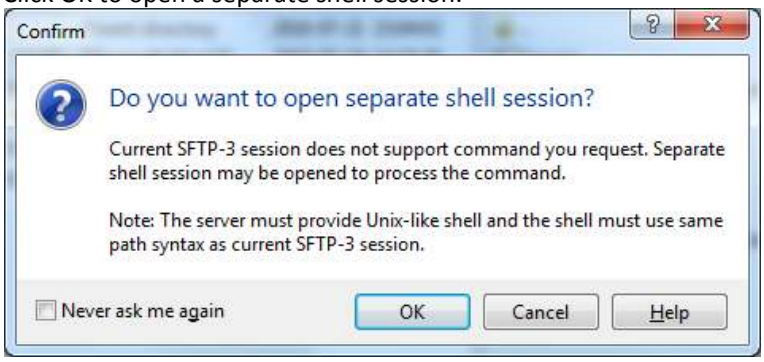
14. To reboot through WinSCP, click refresh on the controller side to ensure you still have a connection:



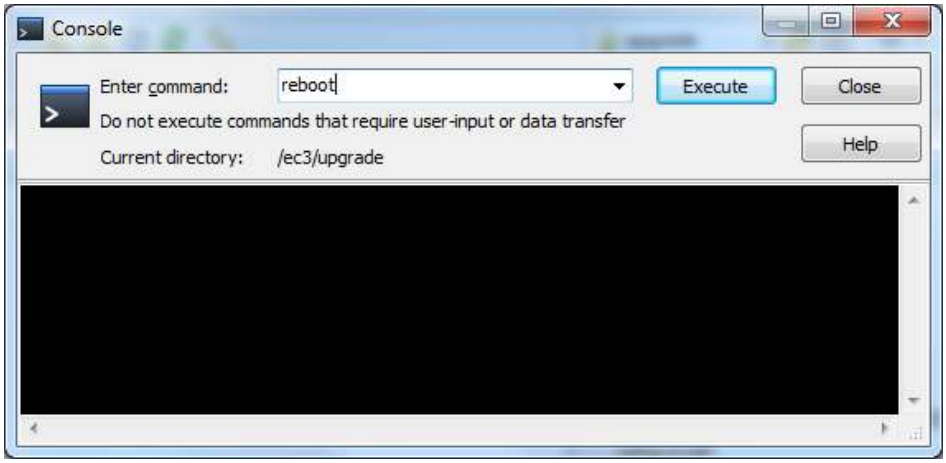
15. Click on the terminal command from the menu



16. Click OK to open a separate shell session:



17. Type **reboot** in the command text box and click on the Execute button:



18. The connection will be terminated as the reader reboots:

19. None of the board settings or applications will be changed. Only the reader board firmware will be upgraded on the HID units.
20. If you wish to confirm the reader board firmware version, open the 'reader_board_status.txt' file in the upgrade folder in WinSCP.
21. The upgrades may be applied in any order, but must be done serially, one at a time. Thus if both upgrades are being done, two reboots are necessary.

******* END OF WORK INSTRUCTION *******