Loading Firmware on SPAN-SE

This application note gives information on the step-by-step process to load or reload firmware on the individual components of the SPAN-SE using WinLoad.

1   Overview

SPAN-SE requires different firmware for each card inside the unit. The SPAN-SE contains an OEMV3 and requires a unique loading process for the OEMV3 firmware. Authorization codes and firmware can be obtained from NovAtel Customer Service. The contact information for customer service is in the last section of this document. Loading also requires the latest version of WinLoad, which can be found on the NovAtel website at: http://www.novatel.com/support/fswupdates.htm.

Please refer to the SPAN-SE User Manual for more information regarding the hardware used throughout this application note. User manuals are available from our website at: http://www.novatel.com/support/docupdates.htm.

2   Loading Procedure

As mentioned above, there are different builds of firmware for each card within the SPAN-SE:

- SPPC
- FPGA
- OEMV3

Ensure that you are using the latest version of WinLoad, to obtain the most recent version, either check the NovAtel website or contact NovAtel Customer Service. The contact information for customer service is in the last section of this document.

To check what version of WinLoad you are using, select Help → About…

2.1   SPPC Firmware Loading

The SPPC card in the SPAN-SE connects directly to the yellow cable. Use the DB9 end labeled *COM1* to load the card. Ensure this end is connected to the port on the computer that you wish to load from.
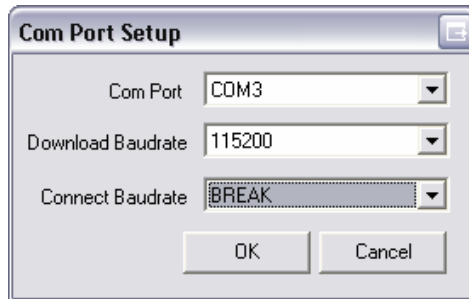
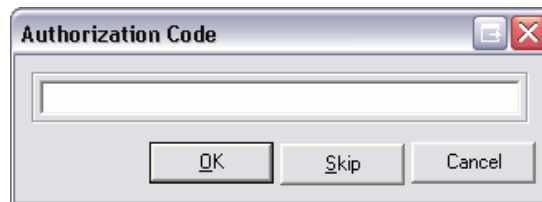1. Select the firmware file to load.
    a. Select File → File Open…

b. Browse to the required location and select the firmware file.

c. Choose Open.

2. Ensure that the Com Port Setup is set for your computer.

a. Select Settings → COM Settings…

b. Choose the Com Port that the *COM1* DB9 is connected to.

c. Ensure the Download Baudrate is not higher than the maximum rate the port can handle.

d. Set the Connect Baudrate to *BREAK*.

3. Power the SPAN-SE and wait 30 seconds.

4. Select the Write Flash button; WinLoad should begin the loading process.

5. Input the code provided by Customer Service when the Authorization Code request appears.

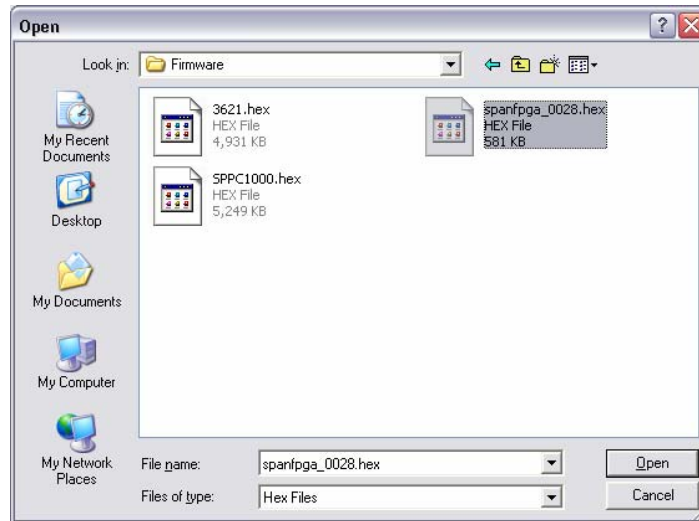6. Select OK. Loading finishes automatically.

2.2 FPGA Firmware Loading

The steps to load the FPGA are the same as the steps to load the SPPC firmware. The SPPC card in the SPAN-SE connects directly to the yellow cable. Use the DB9 end labeled *COM1* to load the card. Ensure this end is connected to the port on your computer that you wish to load from.
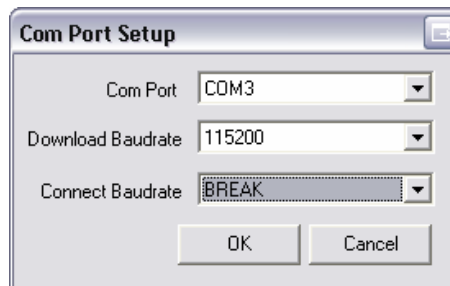
1. Select the firmware file to load.

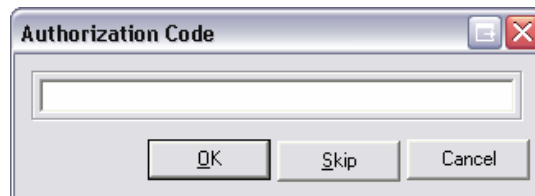a. Select File → File Open…

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       b.   Browse to the required location and select the firmware file.

       c.   Choose Open.

2.   Ensure that the Com Port Setup is set for your computer.

       a.   Select Settings → COM Settings…

       b.   Choose the Com Port that the COM1 DB9 is connected to.

       c.   Ensure the Download Baudrate is not higher than the maximum rate the port can handle.

       d.   Set the Connect Baudrate to *BREAK*.

3.   Power the SPAN-SE and wait 30 seconds.

4.   Select the Write Flash button; WinLoad should begin the loading process.

5.   Input the code provided by Customer Service when the Authorization Code request appears.
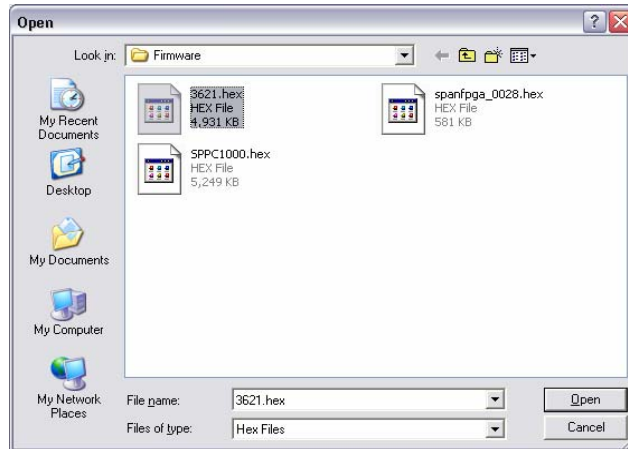

6.   Select OK. Loading finishes automatically.

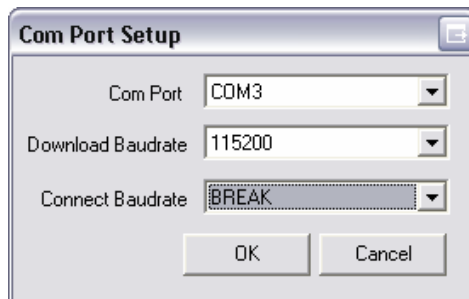## 2.3 OEMV3 Firmware Loading

The steps to load the OEMV3 are similar to the steps to load the SPPC firmware with one key difference: the SPPC card in the SPAN-SE connects directly to the yellow cable. Use the DB9 end labeled *COM1* to load the SPPC card. The OEMV3 card in the SPAN-SE connects directly through the green cable. Use the DB9 labeled *OEMV3* to load the OEMV3 card.
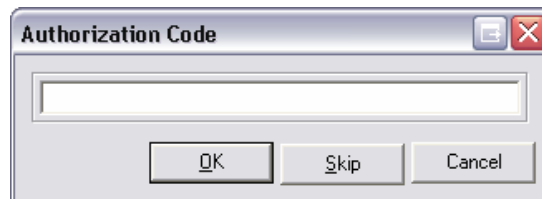
1. Select the firmware file to load.
   a. Select File → File Open…
   b. Browse to the required location and select the firmware file.

   c. Choose Open.
2. Ensure that the Com Port Setup is set for your computer.
   a. Select Settings → COM Settings…
   b. Choose the Com Port that the *COM1* DB9 is connected to.
   c. Ensure the Download Baudrate is not higher than the maximum rate the port can handle.
   d. Set the Connect Baudrate to *BREAK*.

3. Power the SPAN-SE and wait 30 seconds.
4. Select the Write Flash button; WinLoad should begin searching for the card and show the message, "Searching for card ... timeout in: 30 secs".
5. Change the connection of the Com Port from *COM1* to the *OEMV3* DB9 connection when the countdown resets to 30 seconds. The loading process starts automatically. If it does not, and the count reaches zero, press *Write Flash* again and the loading process will continue.
6. Input the code provided by Customer Service when the Authorization Code request appears.

7. Select OK. Loading finishes automatically.

3   Final Points

If you require any further information regarding the topics covered within this application, please contact:

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