

Updating JSD-100 Firmware

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The JSD-100 has three processors that may be updated in the field. These processors are identified as the Main Processor, DSP1, and DSP2. They may be updated using the GUI over USB or Ethernet, or using a web browser over Ethernet. It is important that all versions provided in a code update package match those in a JSD-100 unit. However, if, for example, the JSD-100 already has the same code version in DSP1 as in the code update package, that DSP does not need to be updated. There is no harm in updating everything, even things that do not need to be updated.

In the code package, the new firmware for the main processor has a filename that starts with “pic”. The new firmware for DSP1 starts with “dsp1”. The new firmware for DSP2 starts with “dsp2”. In each case, the 6 digit number in the filename is the revision number of the code. Compare these revision numbers with the firmware currently installed in the JSD-100.

Though code may be updated in any order, we recommend this order: DSP2, DSP1, Main Processor.

Use of the web browser is generally the fastest method of doing a code update, but any of the methods detailed below may be used.

Do not attempt an update while the JSD-100 is in use!

Update Using Web Browser

1. Open a web browser and key the IP address of the JSD-100 in the address field. You should see a status page for the JSD-100.
2. Click the link to the Configuration page. You will be asked for a username and password. These are admin and ultra.
3. Click the link to the Update Firmware page. You will see three fields for filenames, three Browse buttons, and three Update buttons. The Update buttons have the firmware revisions currently installed in the JSD-100.
4. Click the Browse button to select the appropriate file for the processor to be updated. As mentioned above, we suggest doing DSP2, then DSP1, then the main processor, but you need not update processors that are already up to date.
5. Click the corresponding Update button. Most of the front LEDs will flash as the

processor is updated. When the JSD-100 front panel LEDs stop flickering, the update is complete. The system will reset itself. The web browser connection will be lost during the reset. Hitting the browser Back button, then reload, should bring up the Update page once again. The updated code version number should show in the corresponding button.

Updating using GUI

1. Open the GUI and connect to the JSD-100 using either Ethernet or USB.
2. Click the Software Update tab.
3. Note the versions of the currently installed firmware on the right side of the Software Update screen. The main processor is identified as the PIC on this screen. The firmware version is the first 6 digit number (ie, D_100810-A_0-A_0 has a main processor version number of 100810).
4. Select the processor to be updated by clicking the appropriate button (PIC for main processor, DSP1, or DSP2). As discussed above, we suggest updating only those processors that need to be updated (code version is different than that in the supplied code package), and that the order be DSP2, DSP1, PIC. The button for the selected processor will turn green.
5. Click the Browser button and select the file to be sent to the JSD-100.
6. Click the Download button. As the firmware is loaded into the JSD-100, the front panel LEDs will flicker. When they have stopped flickering, the firmware update for that processor is complete. The JSD-100 will reset, if necessary. During the reset, communications with the JSD-100 will be lost. Reconnect and verify the new version numbers on the right side of the screen.
7. Repeat the process for each processor that needs to be updated.