Frequently Asked Questions:
JSR Common API Library   February 16, 2007

FAQ1: How do I check the version of JSR_Common.dll I am using?
You can get this number by right-clicking on the File, selecting Properties, and going to the Version tab. The "File Version:" at the top of that tab is the version number to use.

FAQ2: I have a new library upgrade. How should I transfer over to using the new library?
If you are using the JSR Control Panel, you should uninstall the old version before you install the new version. The installer should put files in the right place.

For your own application that makes calls to the JSR Common Library, just copy the new JSR_Common.dll and DPRIO3.dll over the old files. If you'd like to be able to swap different versions for testing, you may wish to rename the old DLL's with, for example, their version number. You may want to search for the two DLL's to ensure you replace every instance.

FAQ3: Do I need to rebuild my application for a new version of JSR_Common.dll?
The API was designed to not require a rebuild of applications when a new version of JSR_Common.dll is released, as described in JSR_API_ProgrammersReference.pdf. Even new instruments and new properties will be implemented in the DLL to not break any older applications.

Even if your application does not need any of the newer features, we recommend using the newer DLL, as it may also contain fixes for bugs that happened with low frequency in an older version.

In most cases, you will be able to just replace JSR_Common.dll in your application with the newer version.

If there is ever a time some change to the DLL requires an application using it to be rebuilt with the newer header files, the release notes will clearly identify that situation.

FAQ4: Can JSR_OpenLibrary() be made faster?
The call to JSR_OpenLibrary() will cause it to search for JSR instruments. To speed that up, ensure the inLoadModelArray argument to JSR_OpenLibrary() lists only the instrument models you are using.

If you are not connecting to a DPR500, you can disable all RS-232 connections to the JSR Common Library by removing the file DPRIO3.dll from the folder and search path.

FAQ5: I can't run the precompiled Sample Workspace .exe files, or they crash or exit with an error while running.
1) Check that the 'bin' folder contains JSR_Common.dll & JSR_Common.lib
1a) If using a DPR500, check that the bin folder contains DPRIO3.dll
1b) Check for PRC50 drivers (PRC50 Developers)

The default location of PRC50 driver files is 'C:\Program Files\JSR Ultrasonics\PRC50'. However users can change this location at driver install time. Developers can verify the install location by checking registry key
"HKEY_LOCAL_MACHINE\SOFTWARE\JSR Ultrasonics\PRC50"

FAQ6: I can't compile new versions of Sample Workspace release builds!
Our projects are set up to copy all files into the bin directory, where the JSR_Common.dll and JSR_Common.lib files are located. We also write-protected the release versions of our SampleCode so that they are not accidentally overwritten. If you wish to build release versions of the sample code you can either change the read/write settings on the executables in the bin directory, or you can change the post-build setup in the projects.

FAQ7: What does the PRC50 driver installer do?
The PRC50 Driver Installer does the following:
    1) Registers PRC50 PCI drivers with the PC (via Windows driver installers).
    2) Writes files containing run-time-load firmware on the PC into a user-specified directory
        (default is C:\Program Files\JSR Ultrasonics\PRC50).
    3) Creates a Windows registry key pointing to the directory containing the firmware files.

FAQ8: How do I verify PRC50 drivers were installed correctly?
Check the following:
        1) There should be a PRC50 device in the Device Manager dialog.
        2) There should be a registry key called
            HKEY_LOCAL_MACHINE\SOFTWARE\JSR Ultrasonics\PRC50 .
        3) At that registry key, the value PRC50 should contain a folder location. There should be a
folder that matches that name, and it should contain 4 files or more files, including:
        PRC50_DSPHexOnchip.bin
        PRC50_DSPHexEmif.bin
        PRC50.rbf
        PRC50.cdf
        PRC50.MD5
If any of those things are missing, the PRC50 driver system has failed or been corrupted.

FAQ9: I get errors from JSR_LoaderLoadLib
The default path for a DLL is the folder the executable file is in. More details can be found on http://msdn2.microsoft.com by searching for "Dynamic-Link Library Search Order"

If you'd like your application to use the DLL installed for the JSR Control Panel, you can specify the path and file as "C:\\Program Files\\JSR Ultrasonics\\JSR Control Panel\\JSR_Common.dll

Remember that only one instance of the JSR Common Library can be open at one time. Any secondary attempt will return the status code JSR_FAIL_LIB_OPENED_IN_OTHER_DLL.