



KnowItAll™
Spectrum Transfer
Software Developer's Kit

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Introduction

The Spectrum Transfer Software Development Kit (SDK) provides a means for third parties to transfer spectral data directly from their software or instrument into Bio-Rad's KnowItAll software for additional analysis in our new KnowItAll® ID Expert™ application for unknown IR & Raman spectral identification

Spectra can be transferred using either shared memory or with a shell function to execute a command line. For shared memory transfer, the transferring application installs and uses a BRPluginDataTransfer.dll to transfer spectral data to the desired KnowItAll application. For command line transfer, the transferring application creates a temporary file to hold the spectral data and calls a shell function to pass the file path to KnowItAll with the CLSID of the target application.

In addition to this document, we have created a website (www.knowitall.com/spectrumtransfer) with example projects to demonstrate this functionality.

The Spectrum Transfer Software Development Kit Includes:

- The compiled BRPluginDataTransfer.dll that the transferring application can use to implement a shared memory transfer
- Program source code for BRPluginDataTransfer.dll that can be used by those wanting to compile their own DLL for shared memory transfer
- An example project demonstrating both the shared memory and the shell function call transfer methods. Note that Microsoft Visual Studio 2012 is required to compile and step through this project.
- A sample IR spectrum file

Transferring spectral data to a KnowItAll application requires sending the data in a file format supported by the KnowItAll environment. KnowItAll supports most common file formats. A sample IR spectrum file in JCAMP-DX format is included in the SDK.

If an additional file format is needed, please email us at informatics.usa@Wiley.com.

Using the SDK

The SDK is supplied in a zipped file. Unzip the file to an appropriate location. To test the spectrum transfer, KnowItAll needs to be installed and licensed on the same system. If you need access to the KnowItAll software please email us at informatics.usa@Wiley.com.

Using the Example Project

Open SpectrumTransferExample.sln found in the SpectrumTransferExample folder in Visual Studio 2012.

- With the SpectrumTransferExample.sln open, you will see two projects, a BRPluginDataTransfer project and a SpectralTransferExample.
- The example application consists of a simple document window with File and Help menu items. The File menu has commands for transferring a spectrum to the KnowItAll ID Expert™ application using either the shared memory approach or the command line method.
- The SpectrumTransferExample.cpp has a static CLSID define for the KnowItAll ID Expert application, which can accept spectral transfer. The example project allows you to step through the transfer process and see the proper approach to coding your application for each transfer method.
- The BRPluginDataTransfer project is provided for reference. This is the code compiled into the BRPluginDataTransfer.dll that must be included in your software installation for shared memory transfers to work properly. You can compile a debug version of this DLL if you wish to step through the code. A debug build of the SpectrumTransferExample project will interact appropriately with an installed version of the KnowItAll software.
- A release version of the BRPluginDataTransfer.DLL is provided in the main SDK folder. If you choose to use the shared memory method for transfer, this DLL must be included in your software installation.

www.knowitall.com