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KnowItAll®

Spectrum Transfer
Software Developer's Kit



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KnowItAll® Spectrum Transfer Software Developer's Kit (SDK)

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Introduction

The KnowItAll® Spectrum Transfer Software Development Kit (SDK) provides a means for third parties to transfer spectral data directly from their software or instrument into Wiley's KnowItAll software for additional analysis. Available KnowItAll® applications are ID Expert, SearchIt, and the new MS Expert.

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. Currently, KnowItAll only accepts single file data formats.

Please note that the command line transfer was recently updated to also allow transfer of more than one file for multi-technique searches. Documentation for this option is included at the end of this document.

If you are interested in implementing the SDK, email us at support@knowitall.com and someone will be in touch. *You will also need to request the SDK sample code and example projects that 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 2019 or newer is required to compile and step through this project.
- Sample IR and MS data files are included in the SDK.

Transferring spectral data to a KnowItAll application requires sending the data in a file format supported by KnowItAll. KnowItAll supports most common file formats - a current list of supported formats is available here: www.knowitall.com/formats

If an additional file format is needed, please email us at support@knowitall.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.

Using the Example Project

Open SpectrumTransferExample.sln found in the SpectrumTransferExample folder in Visual Studio 2019 (or newer).

- With the SpectrumTransferExample.sln open, you will see two projects, a BRPluginDataTransfer project and SpectralTransferExample.
- The example application consists of a simple document window with File and Help menu items. The File menu has commands demonstrating file transfer with both in-memory and command-line options. It includes options for transfer to ID Expert and MS Expert (requires KnowItAll 2023 or newer).
- The SpectrumTransferExample.cpp has a static CLSID define for the available KnowItAll applications, 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.

For Multi-Technique Searches

Below are additional details if you wish to transfer more than one file simultaneously to KnowItAll for multi-technique searches.

Available command line parameters are:

- /PlugInGuid – the program ID for the KnowItAll application the spectral file is directed to. Note multiple spectra searches can only be performed in the SearchIt application at the current time.
- /ImportFilePath – path to a spectral file to be transferred. Multiple instances of this parameter can be used for including multiple files in the search.
- /ProfileName (optional) – Name of a SearchIt profile to be used for the search.
- /StartSearch (optional, default is false) – Boolean value indicating to start the search in KnowItAll automatically(true) or wait for user input(false)

Additional Implementation Notes:

- If StartSearch is set to true, the search will start with the user's persistent search settings. On an initial installation of KnowItAll, SearchIt does not have a predefined database selection.
- The KnowItAll installation includes predefined Search Profiles; however, the existing SearchIt profiles are technique specific. Users can create profiles with any preferred selection of databases.

