



KnowItAll ID SDK

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KnowItAll ID SDK
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Introduction

The KnowItAll ID SDK is a powerful new Software Developer's Kit (SDK) that gives analytical instrument manufacturers the ability to integrate the power of Wiley's KnowItAll spectral database searching into their own software.

This SDK allows you to query the world's largest spectral database with a spectrum from your own software, and using Wiley's award-winning KnowItAll spectral search engine—the world's fastest and smartest—return information about the identity and match score of the top 50 one-component database results directly to your software to be displayed as you see fit. All of this is accomplished without your customers ever having to open the KnowItAll software.

For more advanced analyses, including multi-component / mixture analyses, a spectrum can be transferred from your software to KnowItAll for identification, and the identity of the mixture can be returned to your software for display there.

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

NOTE: This SDK will only work with KnowItAll version 2018.3 or newer.

Using the SDK

The KnowItAll ID SDK search supports FTIR, Vapor Phase IR, ATR, Raman and MS techniques and data is sent to the search functions in the form of raw data arrays.

The search through the KnowItAll interface requires the transfer of a supported spectra file format. KnowItAll supports most common file formats - here is a current list of supported formats at www.knowitall.com/formats. If an additional file format is needed, please email us at informatics.usa@Wiley.com.

Implementing the SDK

A sample header and CPP file can be found in the SearchSDK.zip file that you can download from www.knowitall.com/sdk.

For direct access search the SearchSDK.dll exposes functions for searching both evenly and unevenly spaced data. Spectral data must be provided in the form of a binary data array with an additional required parameter for spectral technique, as defined in the sample header file. Results are returned in the form of an array of objects containing a name and match percentage or HQI.

Search through the KnowItAll interface with results returned to the sending application requires the sending application to accept a Windows message and implement an on message function to parse the returned results. With the search through the KnowItAll interface, the search is performed in the KnowItAll ID Expert application including single, multi-component and peak search, along with predicting functional groups. Results from the single, multi-component, and peak searches can be returned to the sending application. The result objects returned include a flag to indicate the type of search object returned. Possible object types are defined in the SearchSDK header file and example code can be found in the Sample Code.cpp file.

NOTE: The customer must be instructed to install the KnowItAll databases locally during the installation process in order for the SDK to work.

www.knowitall.com