

## ***Frequently Asked Questions***

**Title:** LabVIEW, DLLs, Dispatcher dll

**Date:** March 2020

**Card/Board/Module:** All

**Operating System:** Windows

### **Question:**

How can I run the LabVIEW tools if I cannot find the DLLs?

How do the LabVIEW tools find the DLLs – dispatcher, underlying DLL, INI file?

### **Answer:**

#### 1. Concerning LabVIEW and DLLs:

For some of our LabVIEW products, we have an interim dll called a Dispatcher DLL, which itself calls out to the underlying DLL.

Please note that the dispatcher DLL and its associated INI file (which must be bundled together in the same folder) allow you to be flexible in where the rest of the DLLs are expected to be found.

- Your application needs to first access the dispatcher DLL.
- The INI file lists the name of the major underlying DLL, and where the DLL sits.
- You can set the DLL path to be WINSYSDIR or SysWOW64 if that is good for you.

#### 2. Additional explanation:

Each VI has an associated Call Library Function, which has an associated [Library Name or DLL] and [Function Name].

For some of our LabVIEW products, the DLL name containing the API function called out by the VI is listed directly in the VI. For some of our LabVIEW products, we have an interim dll called a Dispatcher DLL, which itself calls out to

the underlying DLL.

When we use a Dispatcher DLL, the first VI call, `Init_Module`, opens an INI file, `ExcSWToolsForLV.ini`, in which there are two lines that tell the dispatcher dll the name of the underlying DLL, which actually is the API for all functions, and its path (where it can be found).

This call to function `Init_Module`, loads the underlying DLL and creates pointers to each API function therein. Then, for each VI called, the underlying API function now has an associated pointer, and the actual function can be called.

We place the dispatcher DLL and the INI file in the folder where the LLB files sit. So, when you open one of our application VIs, it can find & open the necessary DLLs.

For example, for 429RTx, our default setting in the INI file is:

DLL name=`Exc429RTx.dll`

DLL path=`PCI_and_UNET_DLLS`

This indicates that the underlying dll is named `Exc429RTx.dll`, and is found in subfolder `PCI_and_UNET_DLLS`. This folder contains additional DLLs that are required by `Exc429RTx.dll`.