Exercise 1-2 Import Shared Library Wizard

Goal

Use the Import Shared Library wizard to generate VIs from a DLL.

Description

Use the Import Shared Library wizard to create a LabVIEW project library containing wrapper VIs for functions in the provided `calc.dll` `calc.h` header file. The Import Shared Library wizard parses the header file, lists the functions in the shared library, converts data types in the shared library to LabVIEW data types, and generates a wrapper VI for each selected function. The wizard saves the VIs in a LabVIEW project library. It also creates an HTML report about the generated library that you can launch when you complete the wizard. You then create a simple VI using the VIs in the generated project library.

Implementation

1. In Windows Explorer, navigate to the `<Exercises>\LabVIEW Intermediate II\Import Shared Library Wizard\Calculator Project`
   `Calculator Library`

2. In LabVIEW, select **Tools»Import»Shared Library (.dll)**

3. Configure the Import Shared Library Wizard.

   ❑ **Create VIs for a shared library** and click **Next**

   For the **Shared Library (.dll) File**
   `<Exercises>\LabVIEW Intermediate II\Import Shared Library Wizard\calc.dll`

   Notice that the Import Shared Library wizard filled in the file path for the **Header (.h) File** **Next**

   Next

   Select each of the functions in the left listbox to view that function's prototype in the right pane.

   Verify that all the function checkboxes are selected and click .

   Set **Project Library Name**

Copy the shared library file to the destination directory

Next

Error Handling Mode **Simple Error Handling**

Next

Settings

Name and Description **VI Description**

`Outputs the sum of the inputs`

+

– Under the function, select the function.
– Select the tab in the right pane and examine its contents.
– Select the tab and set to .

View the contents of the and tabs for the other items listed in the left pane. Click when finished.

View the contents of the Generation Summary and click .

Select **Open generated library** and **View the report** **Finish**

4. Read the generated Import Shared Library Report. Close the report.
5. Examine the contents of the and tabs of each of the generated library of VIs. Close the library window.
6. Create a new project that includes the library files you generated.

   In LabVIEW, select .

   In the window, right-click **My Computer** and select **Add»File**

   `Library\calculator.lvlib`

7. Use the generated VIs to create the calculator VI.

   In the Project Explorer window, right-click and select .

   Place `Add.vi` `Answer.vi`

   1-10.

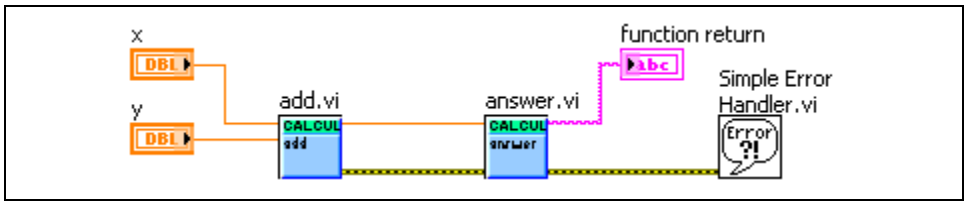

Figure 1-10. Calculate Sum VI Block Diagram

   Open the Context Help window. Place your cursor over the Add VI on the block diagram. The Context Help window should contain the VI description that you entered into the Import Shared Library Wizard.

   Save the VI as in the

   directory.

8. Test the VI.

   On the front panel, set x to 3 and set y to 2.

   Run the VI.

   The function return indicator should read `The answer is 5.000000`

End of Exercise 1-2