

# Decision USB Series Products in ProfiLab

## *ProfiLab Overview*

The ProfiLab software is a powerful development tool for PC-based measurement and control applications. It combines features like front panel design and hardware control to one powerful tool, and can be used for circuit simulation, visualisation and presentation in many cases as well. ProfiLab comes along in three different versions and can be upgraded any time. Check out our Internet site at [www.abacom-online.de/UK](http://www.abacom-online.de/UK) or latest information.

## *Decision Support for ProfiLab*

Users can download a trial version of ProfiLab on the official website to experience. And Decision Computer also provides the example project and demonstration for our USB series products which allow users easy to connect and control our products in ProfiLab. The dll import files of Decision USB series products are in “dll for Decision USB Products” folder which define the device action and can allow user directly to use in the project.

Example Project in “ProfiLab Example for USB16PR” folder

### 1. USB16PR\_0.prj

Basic example for one device “USB16PR” in ProfiLab

### 2. USB16PR\_1.prj

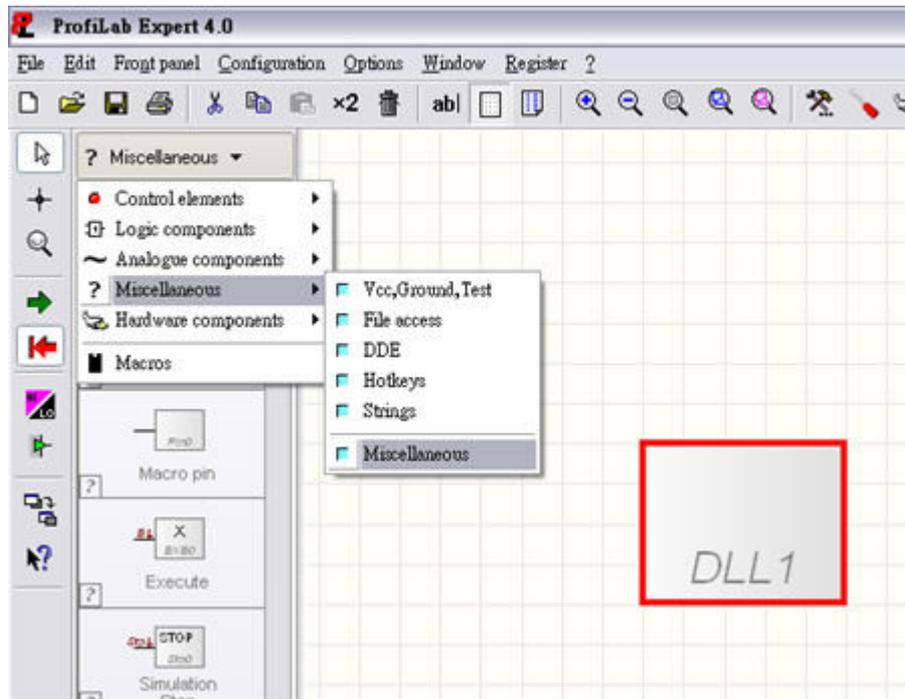
Advanced example for two devices “USB16PR” with LED display and hex display

### 3. USB16PR\_wTable.prj

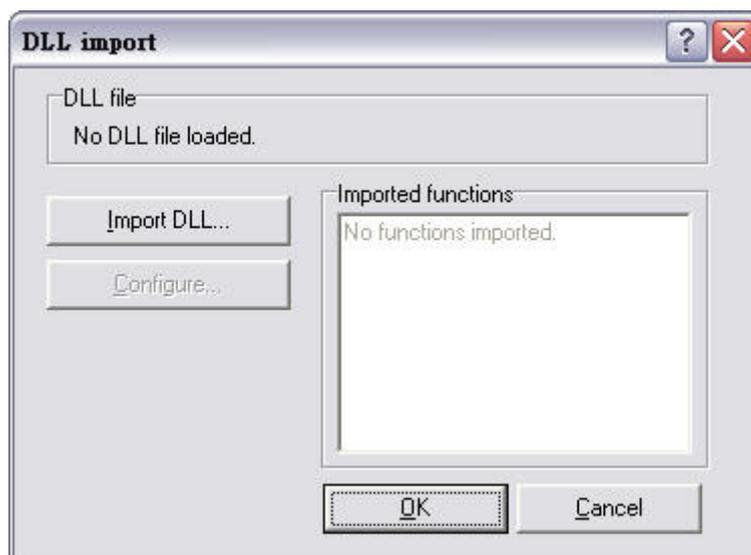
Advanced example for two devices "USB16PR" with LED display and hex display  
And record first device input/output channel into table which can export to an excel file

This following example shows how to load the dll into ProfiLAB as a hardware device component.

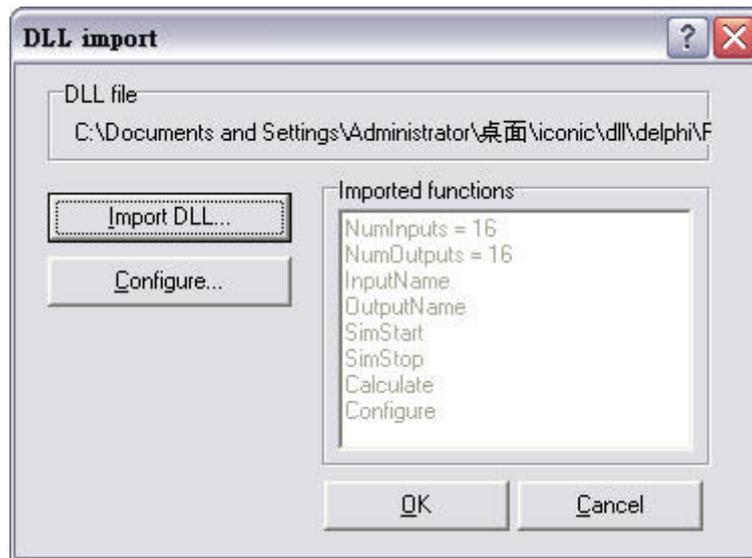
1. New a project
2. Choice “Miscellaneous” -> “Miscellaneous” -> “DLL Import”



3. Press right button and select “Properties”



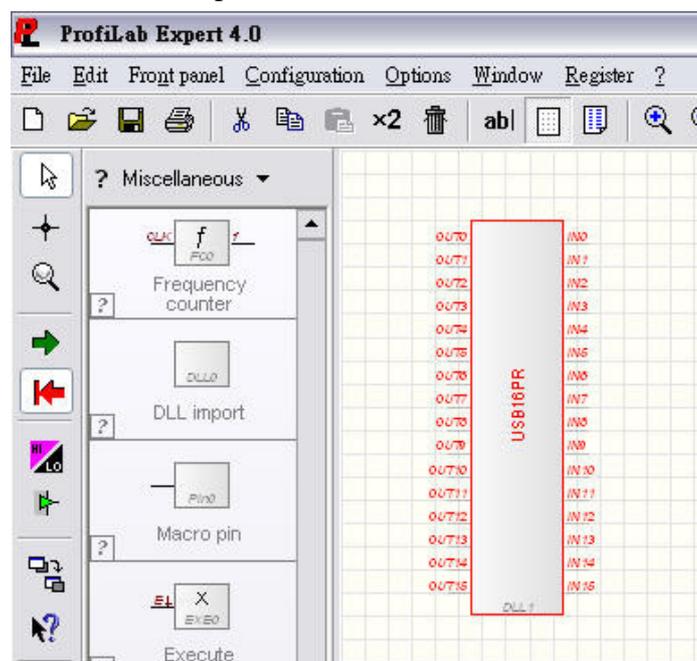
- Import DLL and select the destination of “USB16PR.dll”.  
If import successfully, functions will appear on the table and Configure button will also enable.



- Press “Configure” and you can set the ID for the USB16PR and test its connection.



- And now you have a USB16PR component to use.



7. USB16PR contains 16 input channels (IN0~IN15) and 16 output channels (OUT0~OUT15).

Pin IN0~IN15 will receive signals from real device.

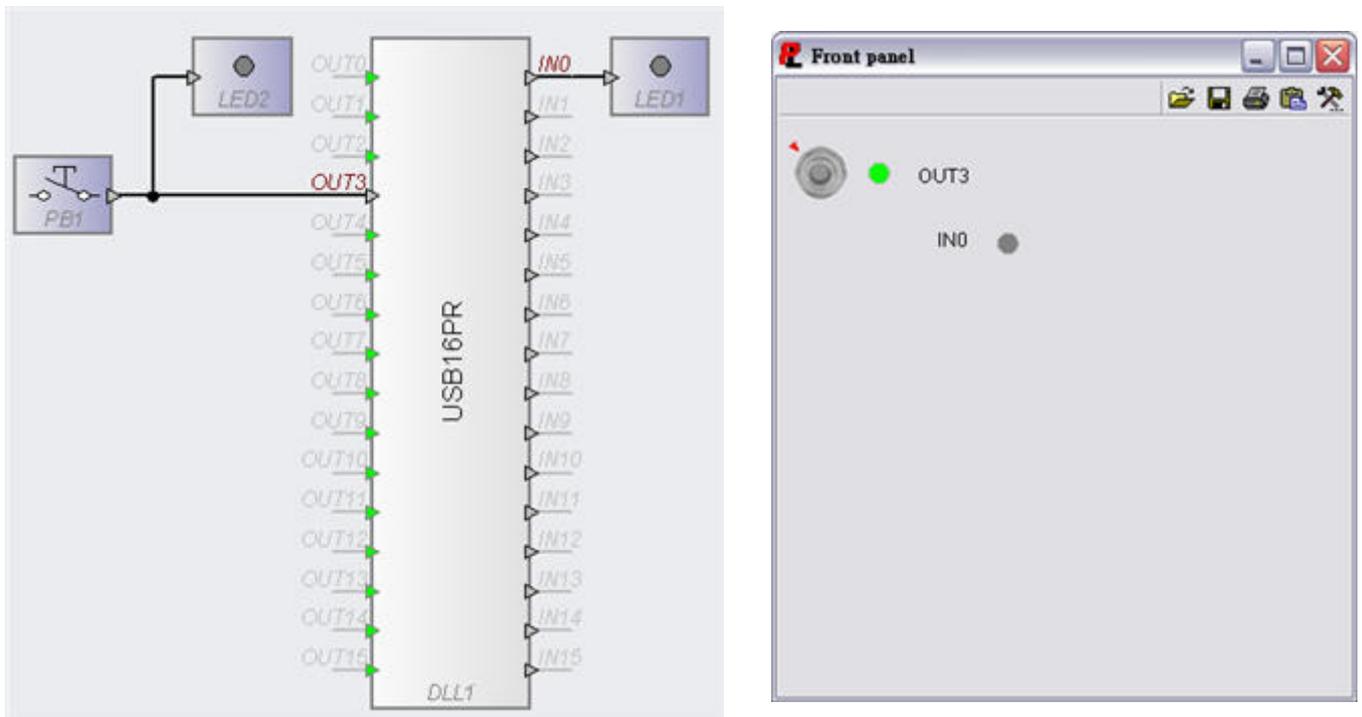
When it receives HIGH signal from real device, it will output HIGH or 5 in the software.

Like following below, IN0 connects to a LED display, so when IN0 receives HIGH signal from real device, IN0 will light the LED on the display panel in the software.

Pin OUT0~OUT15 will generate signals to real device.

When it receives HIGH signal from the software, it will generate signal to real device.

Like following below, OUT3 connects to a digital control (push button) and a LED, so when user press the button on the display panel, the digital control will give HIGH to the OUT3 and light LED on the display panel and OUT3 in the real device will generate high signal as well.



Notice:

1. Output pins which don't connect anything will receive High in the software and make the real device output HIGH. To avoid this situation, you can connect them to ground component. You can find the example on the USB16PR\_0.prj.
2. "USB16PR.dll" is for ProfiLAB to define hardware device. "USBDII.dll" is for hardware device control. Please make sure to put them in the same folder with project file.