

Using Cebo-Stick in ProfiLab Expert

This document describes how to access Cebo-Stick devices from ProfiLab Expert.

Common information

The interface from ProfiLab Expert to the Cebo MSR API for Cebo-Stick devices offers many features from the core API.

Library look up behavior

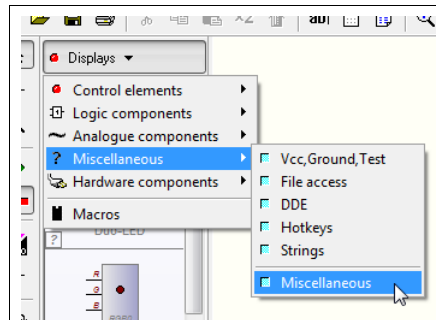
The ProfiLab Expert interface consists of three DLL files. The DLL to import into the project is **cebostick-profilab-1.0.dll**. This library requires the Cebo MSR base library **cebomsr-1.7-x86.dll**. As USB communication is handled using the open source **libusb** library, the base library itself needs to load **libusb-1.0.dll**.

ProfiLab Expert stores the path to the top level DLL as full path in its project. It is unlikely that this will fail to load, other than the file is really not accessible or corrupted. But it is common that loading this file fails due to **its dependencies** could not be found. The places where the DLL's are searched for is described on this [Website](#).

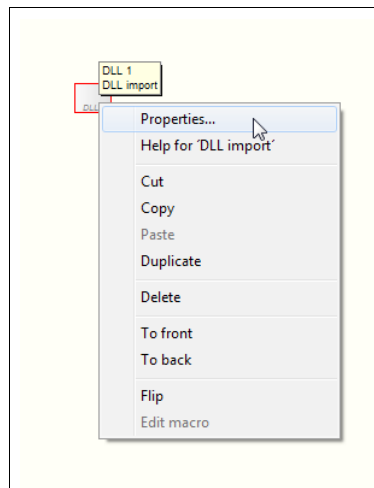
A good way to handle this, is to place **cebomsr-1.7-x86.dll** and **libusb-1.0.dll** into the ProfiLab Expert installation directory, next to **ProfiLab40.exe**. This works well when directly working with ProfiLab Expert. In the case of the **Compile** feature, ProfiLab Expert already puts **cebostick-profilab-1.0.dll** in the output folder. Copying the other two dependencies into the same folder completes the standalone project configuration.

Usage information

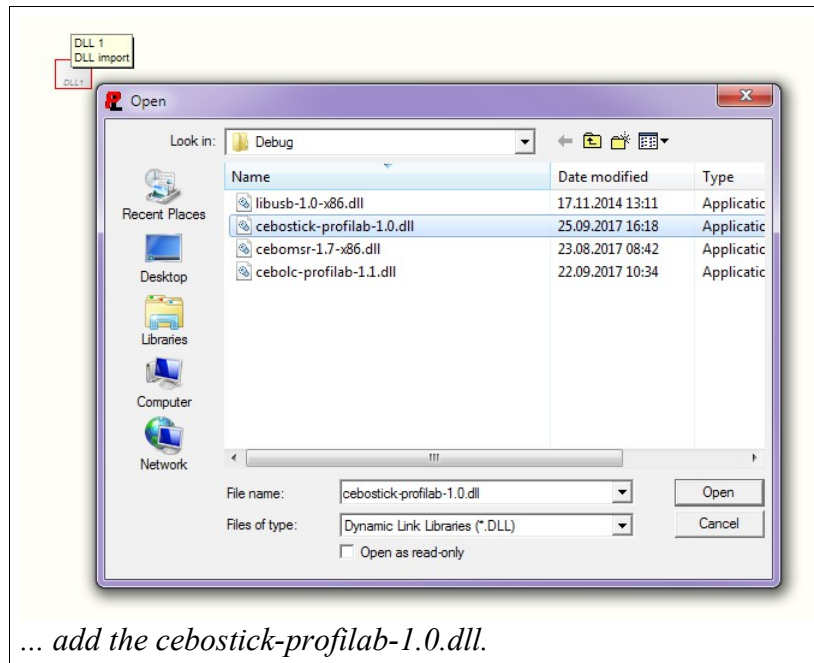
The interface uses the **DLL Import** feature that ProfiLab Expert offers as control to enhance its library. Follow the steps below to add a single instance.



Find DLL import in this section and add it.



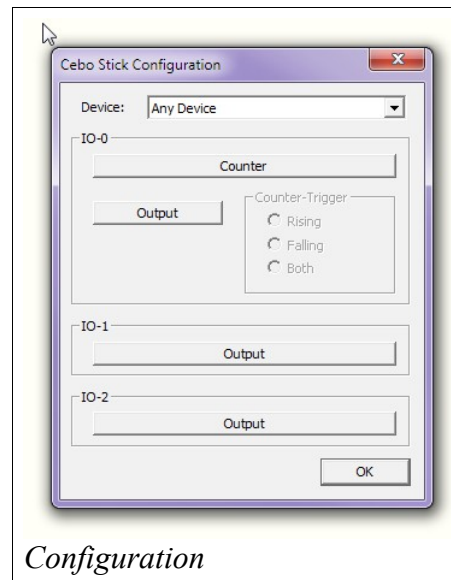
From the controls properties ...



Repeat this procedure to access more than one Cebo-Stick.

Interface configuration

Clicking on the **Configure ...** button in the controls properties opens the configuration dialog.



Device

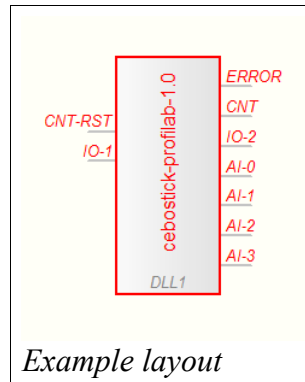
The device selection box allows a unique mapping to a specific device. This is only useful if more than one Cebo-Stick device is connected to the PC. If 'Any Device' is selected, the first accessible device is used. This option should only be used if a single Cebo-Stick is present, because the order is unpredictable and the **first** device can be anyone. The dropdown box contains the serial number of all devices found in the system.

Digital IO's

The "Counter" button defines how IO-0 is working. The default behavior is to act as I/O. In this case, the "Output" button decides whether IO-0 is an input or output. If IO-0 is in counter mode, you can select the flank that is used to increase the counter. In addition to this, the module gets an "CNT-RST" input, which resets the counter in "LOW" state. IO-1 and IO-2 are either input or output, which you can modify using the "Output" buttons in the respective group panel.

ProfiLab Expert symbol

Depending on the configuration, the ProfiLab Expert symbol changes its pins. As ProfiLab Expert does not support autorouting, existing connections can be invalidated after layout changes. So best practice is to first configure the settings and connect afterwards.



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Revision history

Version	Date	Comment	Author	Approved
1.0	Sep, 25 2017	Initial release	th	th