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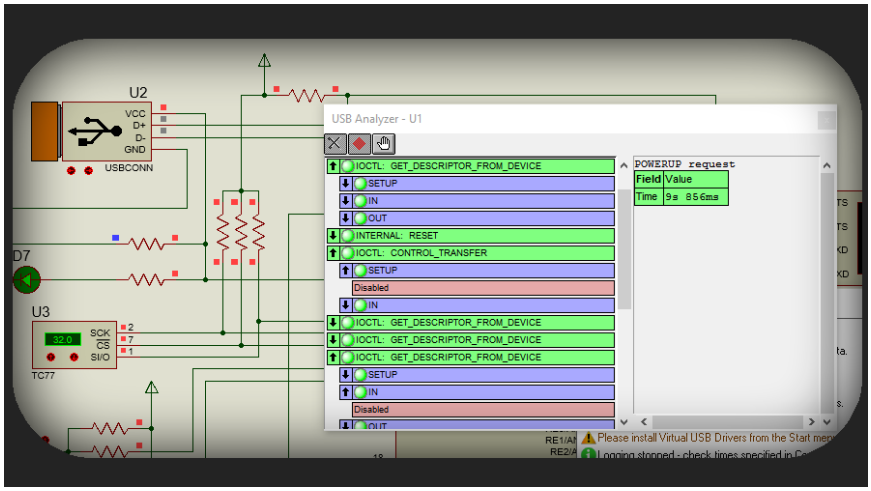
Proteus USB Transaction Analyser

Technical Details

Summary

Proteus VSM USB simulation represents the worlds first (and only) schematic based USB Simulation engine. You can now design your own USB peripheral device entirely in Proteus (using one of the supported microcontrollers) and then test both the firmware and the hardware by simulating the circuit. Communication is modelled down to Windows driver level, with all requests to and replies from the simulated USB device displayed in the USB Transaction Analyser.

⚠ *USB Simulation is an add-on module that requires a license for a supported Proteus VSM family .*



Variants

The following Proteus VSM families include variants with USB simulation capabilities:

- Proteus VSM for PIC18 .
- Proteus VSM for AVR.
- Proteus VSM for Cortex-M3.

Specifically, the following processor variants can be used with the USB transaction analyser:

- LPC1311, LPC1313, LPC1342, LPC1343.
- PIC18F13K50, PIC18F14K50, PIC18F2450 PIC18F2455.
- PIC18F25J50, PIC18F26J50, PIC18F26J53, PIC18F27J53
- PIC18F4550, PIC18F4553, PIC18F45J50, PIC18F46J50
- LF variants of the above PIC18's where appropriate.
- AT90USB646, AT90USB1286, PIC18F46J53
- PIC18F47J53, PIC18F2458, PIC18F24J50
- PIC18F2550, PIC18F2553, PIC18F4450
- PIC18F4455, PIC18F4458, PIC18F44J50

Supported USB Classes

At the time of writing the following USB classes are supported inside Proteus VSM Simulation:

- Mass Storage Device Class (MSD)
- Human Interface Device Class (HID)
- Communications Device Class (CDC)

Limitations

The following is a listing of known limitations in the current version of the USB Analyser:

x Only USB Device (not USB Host) is supported.

x Only the named subset of USB classes is supported.

x Support for USB Simulation is limited to specific processor variants.