Digilent JTAG-USB Cable Reference Manual

Overview

The Digilent JTAG-USB Cable provides a quick and inexpensive USB 2.0 programming solution for Digilent system boards. The cable works with any USB-equipped computer and attaches to system boards using a Digilent 6-pin JTAG header.

The cable is ideal for notebook computers or any computer without a parallel port.

It can program any Xilinx device with a minimum I/O voltage of 1.5V, at speeds up to ten times faster than a JTAG3 (or parallel 3) cable.

Features:

- a Digilent 6-pin JTAG header
- speeds up to ten times faster than a JTAG3 cable
- free JTAG programming software available
- compatibility with any USB port.

Functional Description

The cable provides an easy and inexpensive USB connection.

For JTAG programming, the cable's firmware drives the JTAG scan chain by transferring .bit or .svf files. Digilent's Adept software's Export program is needed for JTAG programming. Export automatically detects devices in the JTAG scan chain. For more information on using Export see the *Digilent Adept Reference Manual*.

Both the cable and the Adept software are fully compatible with any Xilinx device on any circuit board. See the *Digilent Adept Reference Manual* for information on programming other devices.

Before the cable can be used on a given computer, it must be identified to the Adept software by adding its serial number or alphanumeric ID string to the device table in the Adept software. Every cable is given a unique serial number and default "DCabUsb" ID string. The USB administrator tool in the Adept software can automatically identify a newly attached cable and add it to the device table. Once the cable ID is in the device table, it can be used to configure Xilinx devices.

To download the Adept software and the *Digilent Adept Reference Manual* see www.digilentinc.com.