The Basys2 Board
Digilent's Entry-Level Board Solution

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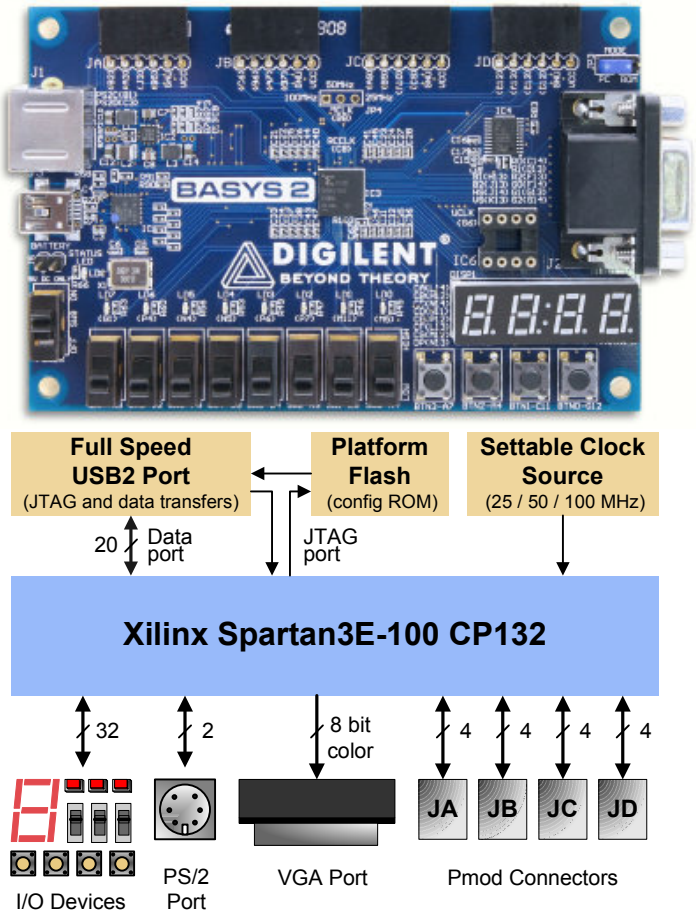
Digilent's newest entry-level Basys2 board offers the power of a Spartan-3E FPGA and the convenience of an on-board full speed USB port. With its collection of I/O ports and devices, the Basys2 board can implement circuits ranging from introductory logic designs to complex digital systems without the need for any other components. And since it is USB-powered and compatible with Xilinx's free award-winning CAD tools, the Basys2 can be used with a notebook PC to create an "anytime, anywhere" design station. At just $59 and supported by freely-downloadable reference designs and educational materials, the Basys2 board is the ideal choice for entry-level through intermediate engineering students. Now every student can have their own design station for less than the price of a textbook.



- *100,000-gate Xilinx Spartan 3E FPGA*
- *Atmel AT90USB2 Full-speed USB2 port providing board power and programming/data transfer interface*
- *Xilinx Platform Flash ROM to store FPGA configurations*
- *8 LEDs, 4-digit 7-segment display, 4 buttons, 8 slide switches*
- *PS/2 port and 8-bit VGA port*
- *User-settable clock (25/50/100MHz), plus socket for 2nd clock*
- *Four 6-pin header expansion connectors*
- *ESD and short-circuit protection on all I/O signals.*

Figure 1. Basys2 board block diagram and features

Expanded Features

The Basys2 board offers all the great features of the original Basys board, and also allows users to explore all the new and exciting features of Digilent's new Adept 2.0. See Digilent's website for a feature list of Adept 2.0.

In addition, the Basys2 has an on board full speed USB port that uses a standard USB cable. The Basys2 also offers enhanced expansion capabilities. A wide range of low-cost Pmod peripheral boards can be directly attached to the Basys2 to add features like A/D and D/A conversion, motor control, data ports, and a wide variety of sensors and actuators. Furthermore, the Basys2's USB port supports user data transfers, allowing digital systems to be tightly coupled to a PC. Two different plug-in breadboards are also available so that users can readily create their own unique peripheral circuits.

The Basys2 is designed to fully integrate academic materials developed for earlier boards. Digilent has resources available to assist in transitioning projects developed for an earlier board to the Basys2.

Digilent fully supports the Basys2 as one of its core educational boards. The Basys2 will be a part of our full line of FPGA boards for years to come.