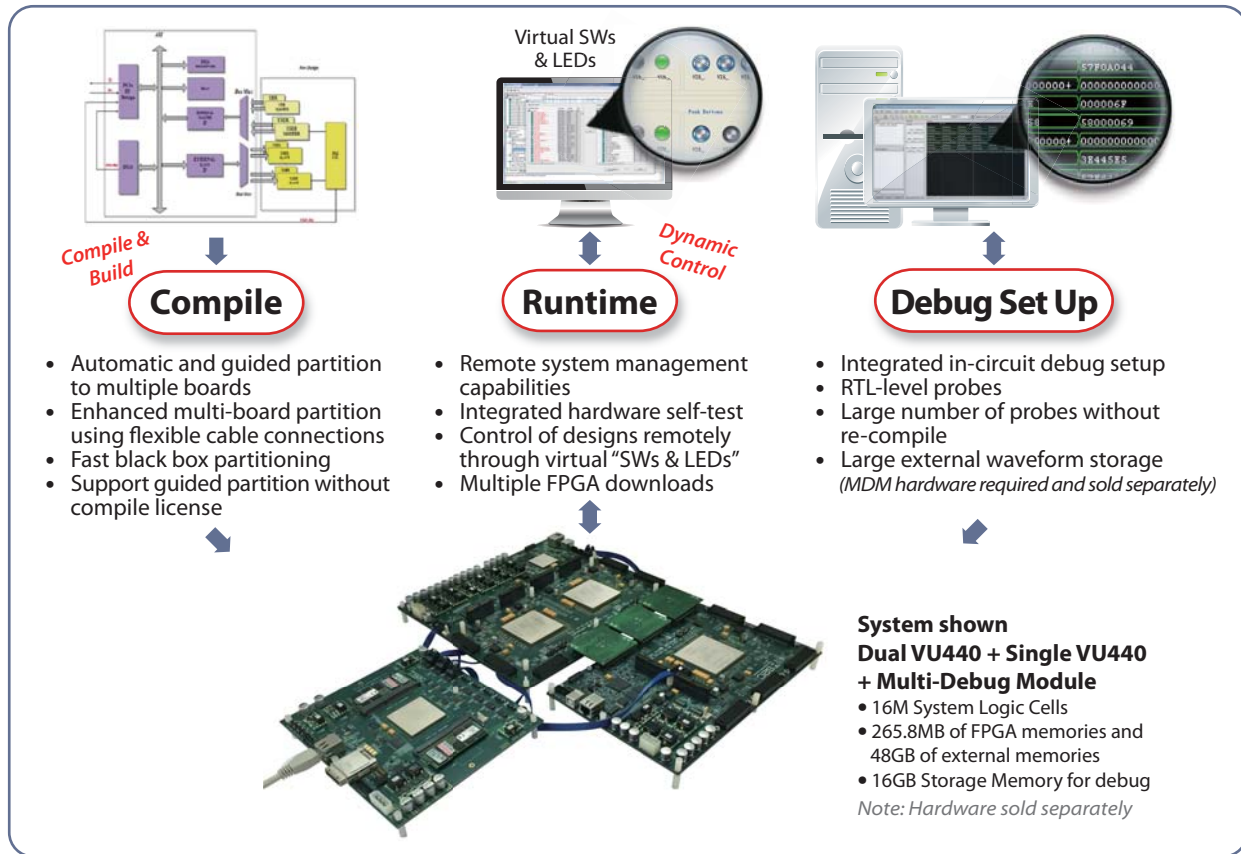


Prodigy™ Player Pro™

Cockpit for Prototype Design and Multi-Debug Set Up

Prodigy Player Pro is a tool that works with the Prodigy Logic Module family of FPGA-based prototyping platforms from S2C. Player Pro plays three roles in speeding your development process – it configures the prototype, runs remote system monitoring and control, and provides set up for multi-FPGA debugging.



Compile

An integrated GUI environment and Tcl interface makes it easy to manage the synthesis and partitioning tasks. The new GUI layout, includes re-organized pull down menu and new designed shortcut icons, brings the minimum learning curve.

Automated Compile Flow

Prodigy Player Pro has an intuitive GUI environment to guide all compile steps. After a design is compiled once, you can perform an ECO flow automatically in Tcl mode:

- Import design
- Set up clocks & I/Os
- Set up probes
- Run FPGA P&R
- Invoke synthesis
- Generate bitstream(s)
- Partition

I/O Assignment

Prodigy Player Pro provides a library of S2C daughter board pin-map files, and automatically matches them to I/O connectors. GUI-based clock and I/O properties assignment minimizes chance of error.

Partition

- Automatic and guided partitioning to multiple boards
 - User configurable cable connection setup
 - User configurable black box options to save partitioning time
- Automatic board file generation for multiple boards setup
- Pre-qualification of Pin-Multiplexing signals before automatic insertion of LVDS TDM macros and partitioning into multiple FPGAs/boards
- Comprehensive reports including Create Group Results View and Insert TDM Results Signal View
- Timing estimates help to quickly understand performance before P&R

Runtime

For compiled designs, Prodigy Player Pro enables you to control the target Prodigy Logic Module directly from the same software console, through either Ethernet or USB connections. (Detailed features vary between hardware platforms.)

Multiple FPGA Configurations

Prodigy Player Pro can download the design to the FPGA(s) through USB or Ethernet. It can also write the design to an SD card on the Prodigy Logic Module and download the design from an SD card.

Remote System Control

All system features can be controlled remotely through USB or Ethernet.

- Automatic detection of SD card when plugged in
- Easy monitoring I/O voltages, currents and temperature
- Automatic detection of daughter cards
- Controlling multiple Logic Modules conveniently from one console

Hardware Self-Test

A step-by-step wizard enables users to check for potential broken I/O pins, interconnection nets and clock lines. Users can also verify the global clock frequencies and I/O voltage settings.

Virtual “SWs & LEDs”

Prodigy Player Pro provides virtual switches and indicators that you can use just like real hardware.

- Virtual LEDs for quick monitoring of design status
- Virtual push buttons and switches to set design input conditions quickly
- Virtual UART for convenient firmware debugging

Debug Set Up

Prodigy Player Pro enables pre-set up of powerful multi-FPGA debug by allowing pre-selection of signals to be triggers and traced. The following debug set-up capabilities are available in Player Pro.

Integrated In-Circuit Debug Setup

- Preserve internal FPGA probes
- Probes are distributed to multiple FPGAs automatically based on the partition results
- Set up trigger and trace signals in multiple FPGAs from a single console

Large Number of Probes Without Re-Compile

- Mark an unlimited number of internal FPGA probes
- Trace up to 16K probes per FPGA in 8 groups of 2K probes each without FPGA re-compilation

Multi-FPGA Debug

When multi-FPGA debug is ready to be performed, the optional Prodigy Multi-Debug Module (MDM) can be employed. The MDM includes advanced multi-FPGA debug capabilities within the Player Pro cockpit as well as external MDM hardware. Features include:

Trigger Condition Specification

Users can easily set the trigger events and combinational events through the Prodigy Player Pro Debug panel.

- Trigger Events support: ==, !=, >=, <=, >, < and counting
- Combinational Events support: !, &, |, ^, -> and counting
- Supports up to 8 event trigger blocks

Concurrent Multiple FPGAs Debug (*MDM hardware required*)

- Debug multiple FPGAs using a single Logic Analyzer
- Transmit trigger and trace data from multiple FPGAs to MDM through high-speed Gigabit Transceivers
- Write the sample data in VCD/FSDB format for analysis
- Store large external 16GB of waveform

Specifications

Hardware Support

- Compile: VU, KU, A10, V7 and K7 Prodigy Logic Modules
- Runtime: VU, KU, A10, V7 and K7 Prodigy Logic Modules
- Debug Set Up: VU, KU and V7 Prodigy Logic Modules

OS Support

- Windows 7/10 64-bit
- Red Hat Enterprise Linux 6.6 WS64-bit
- Ubuntu Linux 14.04LTS 64-bit

Language Support

- Verilog / VHDL
- System Verilog
- EDIF
- Mixed languages