ISE® design suite supports the Spartan®-6, Virtex®-6, and CoolRunner™ devices, as well as their previous generation families.

ISE® design suite runs on Windows XP/7/Server and Linux operating systems, click <u>here</u> for OS support details. Additionally, ISE supports Spartan-6 devices on Windows 10.

Xilinx recommends <u>Vivado® Design Suite</u> for new design starts with Virtex®-7, Kintex®-7, Artix®-7, and Zynq®-7000.

ISE Design Suite: Embedded Edition

The ISE Design Suite: Embedded Edition includes Xilinx <u>Platform</u> <u>Studio</u> (XPS), <u>Software Development Kit</u> (SDK), large repository of plug and play IP including <u>MicroBlaze™ Soft Processor</u> and <u>peripherals</u>, and a complete RTL to bit stream design flow. Embedded Edition provides the fundamental tools, technologies and familiar design flow to achieve optimal design results. These include intelligent clock gating for dynamic power reduction, <u>team design</u> for multi-site design teams, <u>design preservation</u> for timing repeatability, and a <u>partial</u> <u>reconfiguration</u> option for greater system flexibility, size, power, and cost reduction.

ISE Design Suite: System Edition

The ISE Design Suite: System Edition builds on top of the Embedded Edition by adding on <u>System Generator for DSP™</u>. System Generator for DSP is the industry's leading high-level tool for designing high-performance DSP systems using Xilinx programmale devices, providing system modeling and automatic code generation from Simulink® and MATLAB® (The MathWorks, Inc.)

ISE Design Suite: WebPACK Edition

ISE WebPACK delivers a complete, front-to-back design flow providing instant access to the ISE features and functionality at no cost. To learn more, please visit <u>ISE WebPACK Design Software</u> landing page.

Additional Options

The ISE Design Suite also offers a-la-carte tools to enhance designer productivity and to provide flexible configurations of the Design Suite Editions.

• <u>High-Level Synthesis</u> – Vivado High-Level Synthesis accelerates IP creation by enabling C, C++ and System C specifications to be directly targeted into

Xilinx programmable devices without the need to manually create RTL.

- <u>Partial Reconfiguration</u> Xilinx Partial Reconfiguration technology allows designers to change functionality on the fly, eliminating the need to fully reconfigure and re-establish links, dramatically enhancing the flexibility that FPGAs offer.
- <u>ChipScope</u> The ChipScope Pro Serial I/O Toolkit provides a fast, easy, and interactive setup and debug of serial I/O channels in high-speed FPGA designs for use with the WebPACK edition.
- <u>Embedded Development Kit</u> The Embedded Development Kit (EDK) is an integrated development environment for designing embedded processing systems for use with WebPACK edition.
- <u>System Generator for DSP</u> The industry's leading high-level tool for designing high-performance DSP systems using Xilinx devices for use with the WebPACK edition.

| Features | ISE WebPACK | Embedded Edition | System Edition |
|--|----------------|----------------------|-------------------|
| Device Support | Limited | All | All |
| <u>ChipScope™ Pro and the ChipScope</u> <u>Pro Serial I/O Toolkit</u> | ~ | | ~ |
| CORE Generator TM | v | ~ | V |
| Design Preservation | v | | v |
| Embedded IP Peripherals | v | v | V |
| ISE Simulator (ISim) | Limited | v | v |

| MicroBlaze Soft Processor | ~ | V | V |
|--|--------|--------|--------|
| Partial Reconfiguration* | Option | Option | Option |
| <u>PlanAhead™</u> | ~ | | |
| Platform Studio | ~ | ~ | ~ |
| Power Optimization | ~ | ~ | ~ |
| Project Navigator | ~ | ~ | ~ |
| Software Development Kit (SDK) | ~ | V | V |
| System Generator for DSP | | | ~ |
| <u>Timing Driven Place & Route,</u> <u>SmartGuide, and SmartXplorer</u> | ~ | ~ | ~ |
| XST Synthesis | ~ | ~ | ~ |

* Can be purchased as an option.