# Libero IDE

Microsemi's Libero ® IDE software release for designing with Microsemi <u>Rad-Tolerant FPGAs</u>, <u>Antifuse FPGAs</u> and <u>Legacy & Discontinued Flash FPGAs</u> and managing the entire design flow from design entry, synthesis and simulation, through place-and-route, timing and power analysis. <u>PCN 1108: Silicon Family Support in Libero IDE</u>.

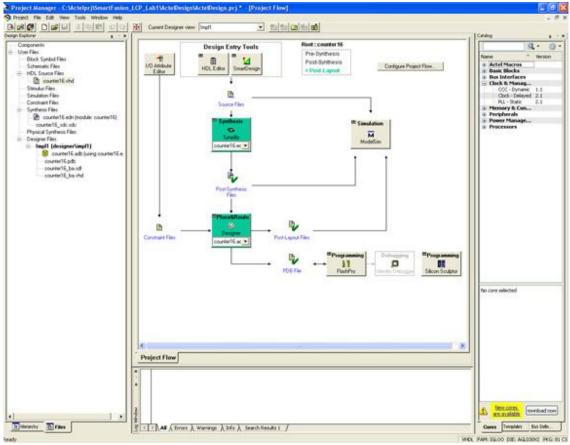
For other families please use <u>Libero SoC Design Suite</u> or <u>Libero SoC PolarFire</u>, see Device Support tab for details.

## Note: Libero license options are changing as indicated in Customer Notification <u>CN17012</u>. These changes came into effect with Libero SoC v11.8 released on 13<sup>th</sup> March, 2017.

#### Libero IDE Software Features:

- Powerful project and design flow management
- Full suite of integrated design entry tools and methodologies:
  - $_{\odot}$   $\,$  SmartDesign graphical SoC design creation with automatic abstraction to HDL  $\,$
  - IP Core Catalog and configuration
  - $\circ$  ~ User-defined block creation flow for design re-use
- <u>Synplify Pro ME</u> synthesis fully optimizes Microsemi FPGA device performance and area utilization
- <u>Synphony Model Compiler</u> ME performs high-level synthesis optimizations within a Simulink<sup>®</sup> environment
- <u>Modelsim</u> ME VHDL or Verilog behavioral, post-synthesis and post-layout simulation capability
- Physical design implementation, floorplanning, physical constraints, and layout
- Timing-driven and power-driven place-and-route
- SmartTime environment for timing constraint management and analysis
- SmartPower provides comprehensive power analysis for actual and "what if" power scenarios
- Interface to <u>FlashPro</u> programmers
- Post-route On Chip<u>Debug Tools</u> and <u>Identify ME</u> debugging software for Microsemi flash designs
- <u>Silicon Explorer II</u> debugging software for Microsemi antifuse designs

#### Libero IDE Project Manager



#### **Supported Product Families**

Product families supported in Libero IDE are given below

- ACT1
- ACT2/1200XL
- ACT3
- 3200DX
- 40MX
- 42MX
- SX/SX-A (including RTSX/-S/-SU)
- eX
- Axcelerator<sup>®</sup> (including RTAX<sup>™</sup>-S, RTAX-D)
- ProASIC (aka 500K)
- ProASICPLUS (aka APA)
- ProAsic<sup>®</sup>3E is available for RT prototyping only (for designs targetted to ProASIC<sup>®</sup>3E, use Libero SoC)

For licensing requirements on these product families, please refer to the Licensing tab.

#### Supported Platforms

Microsemi tests and supports the latest releases on the specific operating systems shown in the chart below. We are committed to resolving problems encountered by customers on these supported operating systems. We do not support untested operating systems or versions.

#### **Software Tools**

<b>Operating Systems</b>	LiberoFlashPro	
Windows 10 <sup>3</sup>	√	$\checkmark$
Windows 7 <sup>1</sup>	$\checkmark$	$\checkmark$
Windows XP Pro SP3	¹ ✔	$\checkmark$
RHEL 5 (Tikanga)1	$\checkmark$	N/A
RHEL 6 (Tikanga) <sup>2</sup>	$\checkmark$	N/A

- 1. Tools are tested on both 32-bit and 64-bit operating systems.
- 2. RHEL 6 is supported on 64-bit operating systems only.
- 3. Windows 10 is supported on 64-bit operating systems.

#### **FlashPro Programming Software**

#### **Operating Systems FlashPro4 & 3<sup>1,3</sup>FlashPro Lite<sup>4</sup>**

Windows 10	∢	N/A
Windows 7	√	<b>√</b> 2
Windows XP Pro SP3	✓	<b>√</b> 1

Notes:

- 1. Both 32-bit and x64 operating systems are supported for USB. The driver delivered with Libero v9.0 SP1 or FlashPro v9.0 SP1 or later is required for programmers connected to x64 systems.
- 2. 32-bit operating systems only.
- 3. *FlashPro3 was discontinued in 2009 and replaced with FlashPro4. For more information, read the product <u>discontinuation notification.</u>*
- 4. FlashPro Lite supports only the ProASIC<sup>PLUS</sup> family. Parallel Port is not yet available for x64 systems.

### Minimum System Requirements

Software/Platform	Disk Space*	*RAM	License Required
Libero IDE	4 GB	See charts below	vYes
Libero IDE SA	1.5 GB	See charts below	vYes
SoftConsole	400 MB	128 MB	No
FlashPro Standalone	e120 MB	256 MB	No

\* Maximum disk space for installation, assuming that all family device libraries are installed, and all IP Cores loaded to the IP Catalog. .

### **Recommended Memory Requirements**

Product Family	Device	RAM
RTAX-S and RTAX-DSP	Devices up to RTAX2000	1 GB
RTAX-S and RTAX-DSP	RTAX4000S, RTAX4000D	3 GB*
Axcelerator	All Devices	1 GB
SX-A / eX / MX	All Devices	256 MB
ProASIC	APA1000	1 GB