FlashPro v11.5 Release Notes

FlashPro and FlashPro Express for Windows, and FlashPro Express for Linux are packaged with Libero®
System-on-Chip (SoC) software and installed by default. If Libero SoC v11.5 is installed, it will not be required to
install FlashPro standalone.

FlashPro is available as a standalone installation as a convenience for programming-only installations.

The Libero SoC v11.5 software is used for designing with Microsemi®'s SmartFusion®2 and SmartFusion SoC
FPGAs, and IGLOO®2, IGLOO, ProASIC3, and Fusion FPGA families.

To access Datasheets and Silicon User Guides, visit www.microsemi.com. Any product can be selected and
clicked to go to the **Documents** tab of that particular product. Tutorials, Application Notes, Development Kits and
Starter Kits are listed in the **Design Resources** tab of each product.

Discontinued Devices:

- Some SmartFusion2 and IGLOO2 Data Security devices are discontinued. These devices are not available in
  Libero SoC v11.5. The existing design is required to be moved to a different device before upgrading to
  Libero SoC v11.5. For more information, refer to the *CN1419: Availability of SmartFusion2 and IGLOO2
  Data Security, "S" Devices*.

- SmartFusion2 M2S100 and IGLOO2 M2GL100 devices are being discontinued. These devices are not
  available in Libero SoC v11.5. The existing design is required to be moved to the equivalent M2S150 or
  M2GL150 device before upgrading to Libero SoC v11.5.

- 144 VQ packages are being replaced with 144 TQ. When using Libero SoC v11.5, the design has to be
  moved to TQ before proceeding. 144 VQ packages will be removed in the next release.

For more information about the new software features and enhancements, refer to the *Libero SoC Online Help*.

Contents

What's New in FlashPro v11.5?

New Device Support

Table 1: List of IGLOO2 Devices (New Device Support)

Die	Package	Speed Grade	Temp Ranges	Free Libero Gold
M2GL005	144 TQ	STD, -1	COM, IND	Yes
M2GL005S	144 TQ	STD, -1	COM, IND	No
M2GL010	144 TQ	STD, -1	COM, IND	Yes
M2GL010S	144 TQ	STD, -1	COM, IND	No
M2GL060	676 FBGA	STD, -1	COM, IND	Yes
M2GL060T	676 FBGA	STD, -1	COM, IND	Yes
M2GL060TS	676 FBGA	STD, -1	COM, IND	No
M2GL150	FCV484	STD, -1	COM, IND	No
M2GL150T	FCV484	STD, -1	COM, IND	No
M2GL150TS	FCV484	STD, -1	COM, IND	No

Table 2: List of SmartFusion2 Devices (New Device Support)

Die	Package	Speed Grade	Temp Ranges	Free Libero Gold
M2S005	144 TQ	STD, -1	COM, IND	Yes
M2S005S	144 TQ	STD, -1	COM, IND	No
M2S010	144 TQ	STD, -1	COM, IND	Yes
M2S010S	144 TQ	STD, -1	COM, IND	No
M2S060	676 FBGA	STD, -1	COM, IND	Yes
M2S060T	676 FBGA	STD, -1	COM, IND	Yes
M2S060TS	676 FBGA	STD, -1	COM, IND	No
M2S150	FCV484	STD, -1	COM, IND	No
M2S150T	FCV484	STD, -1	COM, IND	No
M2S150TS	FCV484	STD, -1	COM, IND	No

Software Enhancements

Export STAPL with Updated IDCODE for ProASIC3 UMC Devices

Export STAPL with updated IDCODE is now available in FlashPro v11.5. ProASCI3, IGLOO, and RT ProASIC3 devices from UMC require the STAPL file to be generated using Libero/FlashPro v8.2 or later. Older STAPL files can now be updated without regenerating. The older STAPL file must be loaded and exported using File > Export Single device STAPL file.

For more information about STAPL for ProASIC3 FPGAs, refer to *PCN1109*.

FlashPro Express Serialization Programming Support

Production serialization programming support with STAPL files for the SmartFusion2, IGLOO2, SmartFusion, IGLOO, ProASIC3, Fusion, and RT ProASIC3 families.

Update eNVM Memory Content Enhancements

The **eNVM Update Tool** has been enhanced to use the same Graphical User Interface (GUI) as the microcontroller sub-system (MSS) eNVM configurator. Any data storage client's address, size, and content can be modified. The serialization clients' data can also be specified.
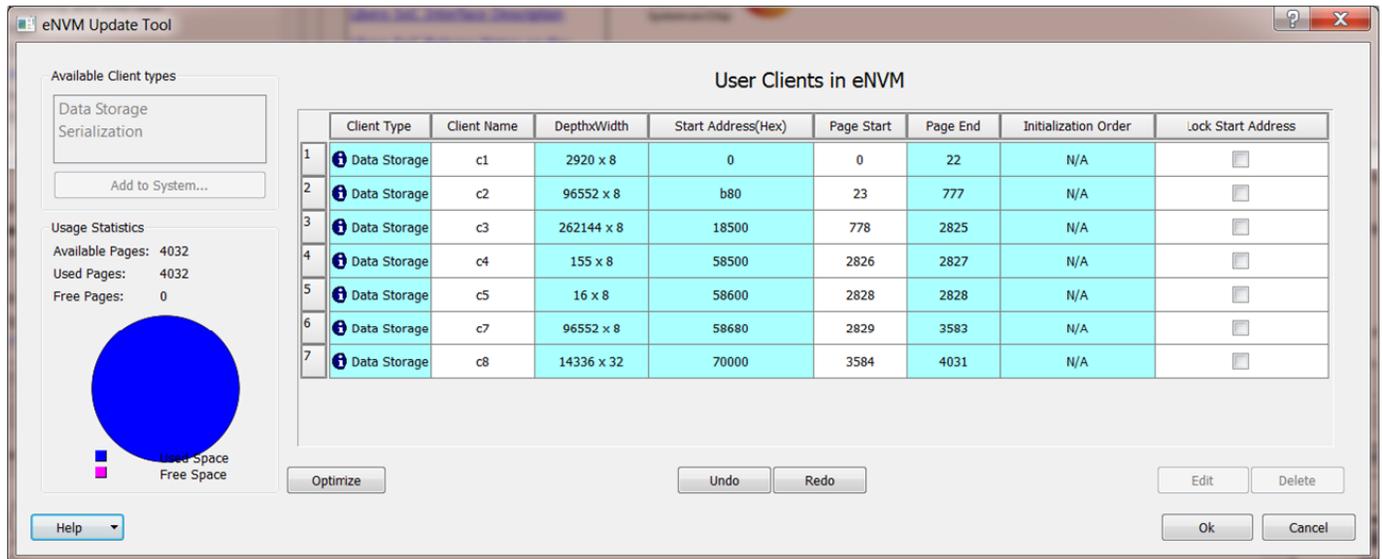
Figure 1 eNVM Update Tool GUI

Note: To disable programming for a client, it is essential to modify the client and select the **No Content (client is a placeholder and will not be programmed)** option (refer Figure 2). The memory file location will be remembered if the client is programmed at a later time.
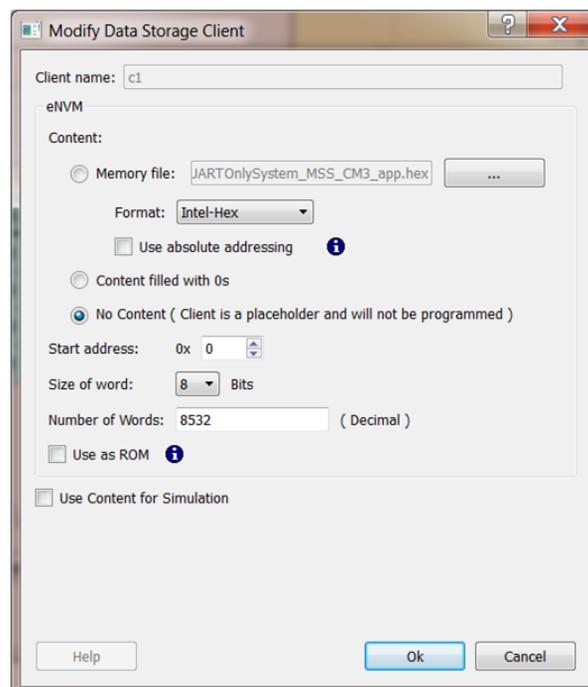
Figure 2 Modify Data Storage Client Window

TCL Support for Chain Configuration and Programmer Settings

Chain Configuration and Programmer Settings can be done using TCL commands. For more details, refer to the *Libero SoC Online Help*.

Resolved Issues

Issues Fixed in v11.5

SAR 59220 - Export Bitstream, Export Programming Job and Generate Bitstream will fail if DPK is not entered in the Security Policy Manager

SAR 59218 - Debug policy shouldn't require DPK to be set if only digest check option is selected.

Customer Reported SARs fixed in Libero v11.5

Refer to the Technical Support Hotline Case Number to determine if the SAR has been fixed in this release. The case number and SAR are listed in Table 3.

Table 3: List of Case Numbers and SARs Fixed in Libero v11.5

SAR	Case Number	Product	Summary
48245	493642-1338645805	FlashPro	Program_NVM action is not given in the advanced features.
50624	493642-1442993788	FlashPro	Security issue with SVF programming file.
62663	493642-1467541775	STAPL	Need to Export STAPL with updated IDCODE for ProASIC3 UMC devices.
61361	493642-1533328502	STAPL	Change default ERASE/PROGRAM action to Disable Fabric Quickly via RLOCK prog.
61203	493642-1533328502	STAPL	Add encrypted PA3 STAPL action to Disable Fabric Quickly via RLOCK Prog.
54095	493642-1533328502	STAPL	Add PA3 STAPL Action to Disable Fabric Quickly (via RLOCK Prog).
36598	493642-1555946063	FlashPro	Need to change the names in [Strings] section of .INF file.
57563	493642-1641747338	FlashPro Express	Provide GUI option to disable Core check during scan chain.
57924	493642-1645046087	Project Manager	Verilog file Parsing bug.
56290	493642-1651231793	FlashPro	Log the digest values in programming log and serialization log.
59381	493642-1652945173	ModelSim ME	CCC simulation timing issue. Rounding issue in the PLL VCO inside ModelSim®.
58879	493642-1655249065	BFM (Simulation)	SERDES AXI slave issue with 64-bit bursts longer than 10.
58650	493642-1657127624	Project Manager	Automatic generated .do file broken.
58895	493642-1661049099	MSS Configuration	RTC crystal frequency fixed at 32 kHz.
58779	493642-1661928381	Synplify Pro	No Block RAMs inferred
58697	493642-1662534406	IBIS	ERROR: unknown model = Model not found: LVCMOS25:OUT_DRIVE:0110:SLEW:00
36598	493642-1688013883	FlashPro	Need to change the names in [Strings] section of .INF file.
36598	493642-615983223	FlashPro	Need to change the names in [Strings] section of .INF file.

Known Limitations, Issues, and Workarounds

SAR 62608 – FlashPro5 programming time is longer than FlashPro4. FlashPro5 programming time may be significantly longer for large devices vs. FlashPro4. For example, M2S090 programming takes 30 seconds more when using FlashPro5 than with FlashPro4.

SAR 62640 – No error is provided in the Update eNVM Memory Content tool when the maximum number of devices to program for serialization clients is set to 0.

SAR 62337 – Export bitstream tool fails when network paths are used.

> Workaround: Map the network drive prior to exporting bitstream files.

SAR 62057 – SmartFusion2/IGLOO2 Programming action "Help link" in Libero Messages/Errors window links to ProASIC3 Help.

SAR 58063 – For SmartFusion2 and IGLOO2, optional procedures for a programming action configured in Libero are not exported in the Programming Job.

> Workaround: Open the programming job project in FlashPro to configure and save this setting. FlashPro5 is not supported for RHEL 5 and CentOS 5. SVF for SmartFusion2 and IGLOO2 will be available in a future release.

SAR 51767 – Error: The command 'load_programming_data' failed.

During programming file generation if the serialization content files cannot be found, then you will see the following error: "Error: The command 'load_programming_data' failed."

> Workaround: Open **Update eNVM Memory Content** and specify a valid path for each serialization content file.

SAR 45867 – STAPL player for SmartFusion2 or IGLOO2 will be available in a future release.

SAR 47452 – FlashPro verify and erase errors are reported as programming failures.

If you run programming ACTION VERIFY/ERASE and there is a failure, then the error code will indicate it is a programming failure even though you were running action VERIFY/ERASE.

System Requirements

For more information about the operating systems (OS) support and minimum system requirements, refer to *System Requirements* on the web. 64-bit OS is required for designing SmartFusion2 and IGLOO2 devices.

Setup Instructions for Linux OS can be found on the *Libero SoC Documents* webpage.

Changes in OS support

Supported

Windows 7, Windows 8.1

RHEL 5* and RHEL 6, CentOS 5* and CentOS 6

* RHEL 5 and CentOS 5 do not support programming using FlashPro5

Discontinued

32-bit operating systems are no longer supported.

Windows XP is no longer supported.

Download FlashPro v11.5

Installation requires Admin privileges.

- Windows

- Linux

List of Changes

The following table lists critical changes that were made in each revision of the document.

Date	Change	Page
January 2015	Initial release.	NA

Product Support

Microsemi SoC Products Group backs its products with various support services, including Customer Service, Customer Technical Support Center, a website, electronic mail, and worldwide sales offices. This appendix contains information about contacting Microsemi SoC Products Group and using these support services.

Customer Service

Contact Customer Service for non-technical product support, such as product pricing, product upgrades, update information, order status, and authorization.

From North America, call **800.262.1060**
From the rest of the world, call **650.318.4460**
Fax, from anywhere in the world **650. 318.8044**

Customer Technical Support Center

Microsemi SoC Products Group staffs its Customer Technical Support Center with highly skilled engineers who can help answer your hardware, software, and design questions about Microsemi SoC Products. The Customer Technical Support Center spends a great deal of time creating application notes, answers to common design cycle questions, documentation of known issues and various FAQs. So, before you contact us, please visit our online resources. It is very likely we have already answered your questions.

Technical Support

For Microsemi SoC Products Support, visit http://www.microsemi.com/products/fpga-soc/design-support/fpga-soc-support.

Website

You can browse a variety of technical and non-technical information on the Microsemi SoC Products Group home page, at http://www.microsemi.com/soc/.

Contacting the Customer Technical Support Center

Highly skilled engineers staff the Technical Support Center. The Technical Support Center can be contacted by email or through the Microsemi SoC Products Group website.

Email

You can communicate your technical questions to our email address and receive answers back by email, fax, or phone. Also, if you have design problems, you can email your design files to receive assistance. We constantly monitor the email account throughout the day. When sending your request to us, please be sure to include your full name, company name, and your contact information for efficient processing of your request.

The technical support email address is soc_tech@microsemi.com.

My Cases

Microsemi SoC Products Group customers may submit and track technical cases online by going to My Cases.

Outside the U.S.

Customers needing assistance outside the US time zones can either contact technical support via email (soc_tech@microsemi.com) or contact a local sales office. Sales office listings can be found at www.microsemi.com/soc/company/contact/default.aspx.

ITAR Technical Support

For technical support on RH and RT FPGAs that are regulated by International Traffic in Arms Regulations (ITAR), contact us via soc_tech_itar@microsemi.com. Alternatively, within My Cases, select **Yes** in the ITAR drop-down list. For a complete list of ITAR-regulated Microsemi FPGAs, visit the ITAR web page.

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