Libero® SoC Software Download and License Installation Quick Start Guide

Introduction

Libero® SoC Design Suite offers high productivity with its comprehensive, easy-to-learn, easy-to-adopt development tools for designing with Microchip's PolarFire® SoC, PolarFire, IGLOO®2, SmartFusion®2, RTG4™, SmartFusion, IGLOO, ProASIC®3, and Fusion families. The suite integrates industry-standard Synopsys Synplify Pro® synthesis and Mentor Graphics ModelSim® simulation with best-in-class constraints management, Programming & Debug Tools capabilities, and secure production programming support.

To work with Libero SoC Design Suite, a valid Libero license must be installed. There are several types of Libero licenses:

- Evaluation
- Silver
- Gold
- Platinum
- Archival

Silver and Evaluation licenses are available for free, while the other licenses are paid licenses.

Need help selecting the right Libero license for your design? Download the Libero License Selector Guide.

Most in-house IP cores (DirectCores) are freely available with Libero licenses apart from few high-value IP cores. For more details, refer to the DirectCores (in-house) IP License Selector Guide.

For more details about Libero, IP Core licenses, and associated collateral, see our Licensing page at www.microsemi.com/product-directory/design-resources/1711-licensing#overview.

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1. Downloading and Installing Libero SoC

The following procedure describes how to download and install the Libero SoC.

Note: Libero also offers a silent installation. For more information, see section 2. Performing a Silent Installation.

1. Go to Libero SoC Design Software Download page.
2. Click the Libero software application you want to install.
3. Log in to the SoC portal page and save the downloaded software.
4. Unzip the downloaded file and run the installer (`.exe` on Windows or `.bin` on Linux).

2. Performing a Silent Installation

A silent installation eliminates the need to monitor the Libero installation because no graphical output is displayed and no input is required. The silent installation uses either default values or a response file that contains the values for various installer variables that are used to control the installation.

The response file contains information that you enter as responses to prompts when running a Libero installation. During a silent installation, the installation reads the necessary input from the response file at run time. The installer creates the file when the installation is complete and stores the values of the applicable properties in the file.

To generate a response file when running an installation via a command-line, use the `-r` command-line switch followed by the path and file name of the response file you want to generate. For example:

```
<installer> -r "/path/to/response_file"
```

You can initiate a silent installer from the command-line, using the `<installer> -i silent` command. Alternatively, you can use a response file to control the installation. For example: `<installer> -i silent -f </path_to_modified_response_file>`.

The following example shows a sample response file:

Example 2-1. Sample Response File

```
**************************************************

#Installation Flow
#-----------------
USER_INPUT_RESULT_1=1
USER_INPUT_RESULT_2=0
USER_INPUT_RESULT_3=0

#Choose Install Directory
USER_INSTALL_DIR=<path for installation>
USER_COMMON_DIR=<path to common directory>

#Choose Install Set
#------------------
CHOSEN_FEATURE_LIST=Libero,Synplify,ModelsimPro,Identify,SmartHLS
CHOSEN_INSTALL_FEATURE_LIST=Libero,Synplify,ModelsimPro,Identify,SmartHLS
CHOSEN_INSTALL_SET=Custom

**************************************************
```

3.   Requesting a Libero License

You need a DiskID, MACID, or FlexID to request a Libero license.

1.   Log in to the SoC portal page and save the downloaded software.
2.   Perform one of the following steps:
–   For a paid license: click **License and Registration**, enter the ID of the software you downloaded, and click **Software ID for the Purchased Product**.
–   For a free license: click **Request Free License page** and select the license option.
3.   Based on the individual license request, enter the DiskID, MACID, or FlexID, and then click **Submit**.

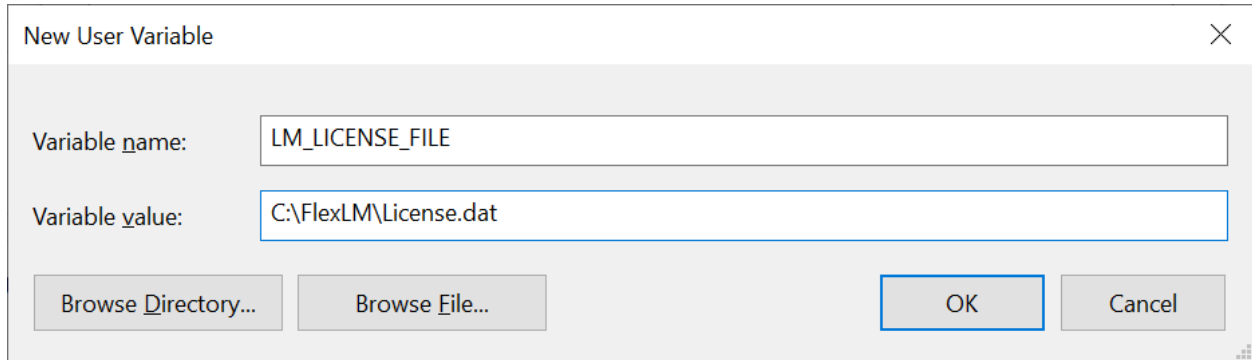> **Note:**   To locate the machine ID, click **How to find *ID** on the SoC Portal.

The requested license file is emailed as an attachment to the registered email ID in the SoC portal account.

4.   Setting Up a Node-Locked License

If you purchased a node-nocked license, perform the following procedure.

1.   On a local drive, save the `License.dat` file you received as an email attachment. For example, `C:\FlexLM\license.dat`.

2.   Open **Control Panel > System and Security > System > Advanced system settings > Environmental Variables**.

3.   Change the **Variable name** `LM_LICENSE_FILE` if necessary. Set the **Variable value** as the path to the license file saved, as shown in the following figure.

Figure 4-1. New User Variable Dialog Box

4.   Click **OK** to save the environment variables, and then click **OK** again to exit all environment variables and system properties windows.

5.   Launch Libero SoC on the computer.

5. Setting Up Floating Licenses

The following topics describe how to set up floating licenses.

5.1 Setting Up the License Server on a Host

To perform this procedure, you need the `License.dat` file attached to the email sent to the registered email ID in the SoC portal account as well as the required license daemons for your server platform.

1. On a server machine, save the `License.dat` file you received as an email attachment. For example, `C:\FlexLM\License.dat` or `/licenses/License.dat`.
2. Download the required license daemons for your server platform from Microsemi Licensing.
3. Extract the content to a folder on the server machine. For example, `C\:FlexLM` or `/licenses`.
4. Edit the top four header lines in the `License.dat` file, as shown in the following examples. Do not make any changes to the code in the license file.

   Original:

   ```
   SERVER <put.host.here> 000b83b1c08e 1702
   DAEMON actlmgrd path_to_actlmgrd/actlmgrd
   DAEMON mgcld path_to_mgcld/mgcld
   VENDOR snpslmd path_to_snpslmd/snpslmd
   ```

   Windows:

   ```
   SERVER <computer_name> 000b83b1c08e 1702
   DAEMON actlmgrd C:/FlexLM/actlmgrd
   DAEMON mgcld C:/FlexLM/mgcld
   VENDOR snpslmd C:/FlexLM/snpslmd
   ```

   Linux:
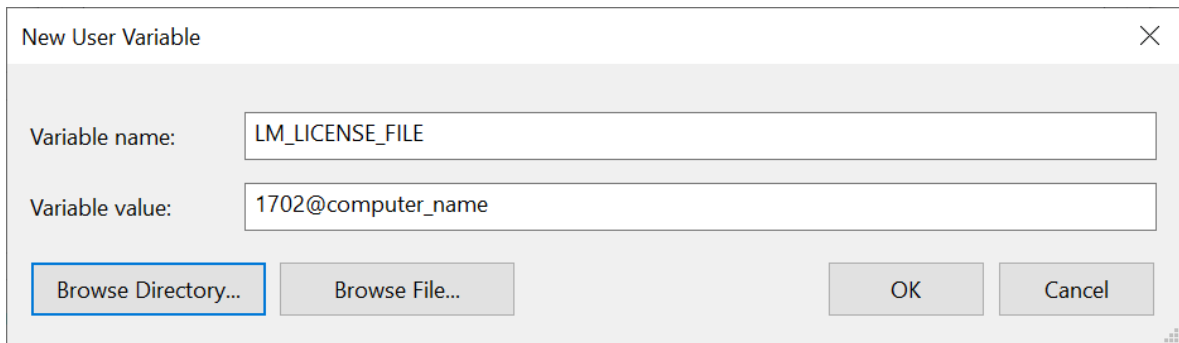
   ```
   SERVER <computer_name> 000b83b1c08e 1702
   DAEMON actlmgrd /licenses/actlmgrd
   DAEMON mgcld /licenses/mgcld
   VENDOR snpslmd /licenses/snpslmd
   ```

5. Save and close the license file.
6. Go to either a command prompt in Windows or to terminal in Linux, and then run the appropriate command:
   - Windows: `C:\FlexLM\lmgrd -c C:\FlexLM\License.dat -l C:\FlexLM\License.log`
   - Linux: `/licenses/lmgrd -c /licenses/License.dat -l /licenses/License. log <path_to_license_daemons>/lmgrd -c <path_to_license_file /License.dat> -l <path_to_license_file>/License.log`

5.2 Setting Up a Client License for a Windows End User

1. Open **Control Panel > System and Security > System > Advanced System Settings > Environment Variables**.
2. Change the **Variable name** `LM_LICENSE_FILE` if necessary. Set the **Variable value** to `<port>@<computer_name>`, as shown in the following figure.

Figure 5-1. Edit System Variable Dialog Box

New User Variable	×
Variable name:	LM_LICENSE_FILE
Variable value:	1702@computer_name
Browse Directory... Browse File...	OK Cancel

3. Click **OK** to save the environment variables, and then click **OK** to exit all environment variables and system properties windows.
4. Launch Libero SoC on a Windows machine.

5.3 Setting Up a Client License for a Linux End User

1. Open a terminal window.
2. Run the following command: `> setenv LM_LICENSE_FILE <port>@<computer_name>`

    Example: `> setenv LM_LICENSE_FILE 1702@computer_name`
3. Launch Libero SoC on a Linux machine.

6.   Changing Vault and Repository Locations

1.   Launch Libero SoC.
2.   From the **Project** menu, select **Vault/Repositories Settings**.
3.   Click **Vault location**.
4.   Browse to the new Vault location.
5.   Click **OK**.

7.   Downloading IP Cores

There are two methods to download IP Cores:

- Downloading and Installing MegaVault without an Internet Connection
- Downloading IP Cores with an Internet Connection

7.1   Downloading and Installing MegaVault without an Internet Connection

The MegaVault application contains a list of Microchip IP cores. When you install the application, you can add the IP cores to the existing Vault or to a new Vault on the local machine or server. The following procedure describes how to download and install MegaVault without an Internet connection. Use this procedure if the machine on which Libero is installed does not have Internet access or has security restrictions that prevent you from downloading IP cores from the Libero Catalog.

1. Download and install MegaVault installer for the required Libero SoC versions:
    - MegaVault v12.0 and later versions: www.microsemi.com/product-directory/design-resources/1750-libero-soc#downloads
    - MegaVault v11.9 and earlier versions: www.microsemi.com/product-directory/libero-soc/5507-libero-soc-v11-9-archive#downloads
2. Install the MegaVault application and change the Vault location (see 6. Changing Vault and Repository Locations).
3. Download individual IP cores (`.zip` files) into the Vault. To obtain specific cores and versions, download the `.cpz` file and import it into the Libero Vault. For a complete list of cores, see the following core indexes:
    - DirectCores: www.microchip-ip.com/cwps/download_index/DirectCore
    - SgCores: www.microchip-ip.com/cwps/download_index/SgCore
    - Firmware cores: www.microchip-ip.com/cwps/download_index/Firmware
4. After downloading the cores, import them into Libero SoC:
    a) Launch the Libero SoC software .
    b) From the Windows menu, select **View > Catalog** to open the Catalog window.
    c) From the **Option** button, select **Add Core to Vault**.
    d) Browse to the downloaded `.cpz` file, and then import it to the Vault location specified in your Libero software. The imported cores are added to the Vault location specified in your Libero software.

7.2   Downloading IP Cores with an Internet Connection

There are two methods to download individual IP cores with an Internet connection:

- Download individual IP cores by double-clicking them one at a time. See **1** highlighted in the following image.
- Download all the available IP cores in the Libero Catalog by clicking **Download them now!**. See **2** highlighted in the following image.

Figure 7-1. Downloading Cores from the Catalog
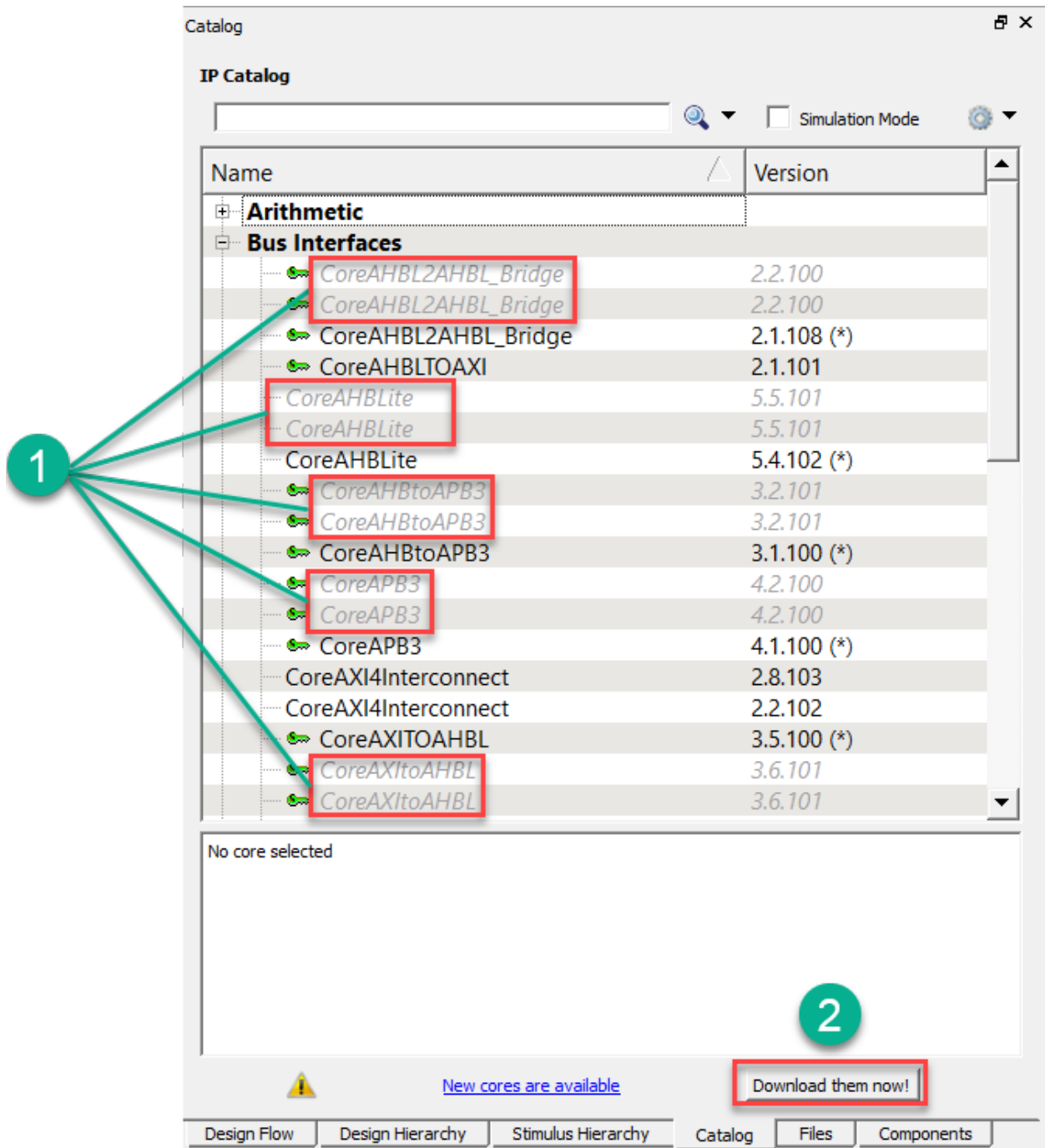
7.3 Installing Paid IP Cores (DirectCores)

1. Generate a new IP Core license based on your purchased license part number. For more details, see
   3. Requesting a Libero License.
2. When you receive the license file, open the IP Core `license.dat` file, copy the content, and add it to the
   original Libero software license file on the similar Libero license option (Disk ID or MAC ID). For example, if
   you purchased a node locked license for the IP Core, add the IP core license file content to the original Libero
   node locked license file.

8. Revision History

Revision	Date	Description
B	08/2021	Added section 2. Performing a Silent Installation.
A	05/2021	Initial Revision

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