
Linux® Environment Setup User Guide

Introduction

This user guide describes how to install Libero® SoC and the Linux packages required to run Libero SoC. It also describes how to set up licensing.



Tip: The user guide is for users who will be running Libero SoC in a Linux® environment.

Software Requirements

Libero SoC is supported on the following Linux operating systems:

- Red Hat Enterprise Linux® (RHEL) 7 64-bit, and RHEL v8.2
- Ubuntu® v18.04 and v20.04
- OpenSUSE® Leap 42.3 (SLES v12.3 equivalent)
- CentOS™ 7 64-bit, and CentOS v8.2 64-bit

Getting Started

1. Download the current release of Libero SoC for Linux from www.microchip.com.
2. See the appropriate chapter in this user guide for instructions on installing Libero SoC for Linux on your operating system.

Table of Contents

Introduction.....	1
1. Installing the Libero SoC License.....	4
1.1. Step 1—Downloading License Daemons, License File, and Set Up Licensing on the License Server.....	4
1.2. Step 2—Adding Packages to the Linux OS.....	4
1.3. Step 3—Setting Up Licensing (Floating License).....	5
1.4. Step 4—Downloading and Installing a PDF Reader.....	6
1.5. Step 5—Setting Up a Locale User Environment Variable.....	6
1.6. Step 6—Setting Up the User Environment Variables to Start Libero SoC.....	6
1.7. Step 7—Setting the Vault to Store IP Cores.....	7
1.8. Step 8—Downloading Libero SoC IP Cores.....	7
1.9. Step 9—Setting the PDF Reader and Web Browser.....	8
1.10. Step 10—Configuring Linux to Detect and Use Programmer Hardware.....	9
1.11. Step 11—Creating a flexIm Initialization Script (Optional).....	11
2. Installing Libero SoC on an Ubuntu Operating System.....	13
2.1. Step 1—Setting Up the Necessary Accounts in the Linux OS.....	13
2.2. Step 2—Downloading Libero Installer Files, License Daemons, and License File.....	13
2.3. Step 3—Adding Missing Packages to the Linux OS.....	14
2.4. Step 4—Installing Libero SoC.....	14
2.5. Step 5—Optional: Installing SoftConsole for SoC Families.....	15
2.6. Step 6—Setting Up Licensing and Starting the Licensing Manager.....	15
2.7. Step 7—Setting Up the User Environment and Starting Libero.....	16
2.8. Step 8—Updating the Firmware Catalog.....	17
2.9. Step 9—Configuring Linux to Detect and Use FlashPro5 Programmer Hardware.....	17
2.10. Step 10—Starting Libero and Testing the Complete Flow.....	18
2.11. Step 11—Optional: Creating a Service Using systemctl.....	19
3. Installing Libero SoC on an OpenSUSE Operating System.....	20
4. Installing Libero SoC on a CentOS/Red Hat Operating System.....	21
4.1. Step 1—Setting Up the Necessary Accounts in the Linux OS.....	21
4.2. Step 2—Downloading Libero Installer Files, License Daemons, and License File.....	21
4.3. Step 3—Adding Missing Packages to the Linux OS.....	21
4.4. Step 4—Optional: Installing SoftConsole for SoC Families.....	22
4.5. Step 5—Setting Up Licensing and Starting the Licensing Manager.....	23
4.6. Step 6—Setting Up the User Environment and Starting Libero.....	24
4.7. Step 7—Updating the Firmware Catalog.....	24
4.8. Step 8—Configuring Linux to Detect and Use FlashPro5 Programmer Hardware.....	25
4.9. Step 9—Starting Libero and Testing the Complete Flow.....	25
4.10. Step 10—Optional: Creating a Service Using systemctl.....	26
5. Appendix: Warning /Error Messages and Solutions.....	28
5.1. Wind/U Error: Failed to connect to the registry on server.....	28
5.2. Warning: Unknown locale.....	29
5.3. Warning: Failed to contact web Repositories.....	29

5.4.	Error: Could not Locate the Motif Library in LD_LIBRARY_PATH.....	29
5.5.	Wind/U X-toolkit Error: wuDisplay: Can't open display.....	30
5.6.	Wind/U Error: A fatal registry I/O failure has occurred.....	30
5.7.	Segmentation fault "\$exedir/\$exename" "\$@" message.....	30
5.8.	Designer GUI Appears Stretched When Running On Linux.....	31
5.9.	Libero GUI is Distorted on Older Versions of Red Hat 5 Through VNC.....	31
5.10.	Libero GUI Fails to Start When Pre-loading a Project.....	31
5.11.	Viewing PDF Files and Online Help Files.....	32
5.12.	JRE libraries are missing or not compatible.....	32
5.13.	Libero Installer stalled on Red Hat/CentOS 6.x.....	32
5.14.	Error when Installing Linux Packages.....	32
5.15.	During Installation Warning Message appears: /tmp does not have enough disk space.....	33
5.16.	X libraries not in LD_LIBRARY_PATH (Libero).....	33
5.17.	Missing libgthread-2.0.so.0 libraries (Libero).....	33
5.18.	Missing MOTIF libraries (Libero).....	33
5.19.	Missing libncurses.so.5 libraries (ModelSim).....	33
5.20.	Missing libXrender libraries.....	34
5.21.	Missing libfontconfig.so.1 libraries.....	34
5.22.	Missing libfreetype.so.6 libraries.....	34
5.23.	Missing libpng.so.6 libraries.....	34
5.24.	Double Quotes around Vault Location Path on Linux Installation.....	34
5.25.	Script "udev_install" to set up FlashPro fails on Linux.....	35
5.26.	Starting the License Manager gives Error on Linux.....	35
5.27.	Missing libXtst library during Libero installation.....	35
5.28.	Libero installation registry file still shows installed directories even though they had been uninstalled.....	35
5.29.	Possible errors related to Linux SSSD.....	36
5.30.	Warning: Ignoring 'modelsim.log' log file name from tool's profile.....	36
5.31.	Difficulty Licensing SynplifyPro® Daemon on Linux OS.....	37
6.	References.....	38
7.	Revision History.....	39
	Microchip FPGA Support.....	40
	Microchip Information.....	40
	The Microchip Website.....	40
	Product Change Notification Service.....	40
	Customer Support.....	40
	Microchip Devices Code Protection Feature.....	40
	Legal Notice.....	41
	Trademarks.....	41
	Quality Management System.....	42
	Worldwide Sales and Service.....	43

1. Installing the Libero SoC License

After downloading the current release of Libero SoC for Linux, use the following steps to install the Libero SoC license.

1.1 Step 1—Downloading License Daemons, License File, and Set Up Licensing on the License Server

For some sites, the site's system administration policy requires a special user account to be set up for administering site-wide licenses for all applications. The account `<caeadmin>` is a hypothetical user account name for this purpose. Use your regular user account (for example, `user_john`) for these steps if it is allowed at your site.

1.1.1 Downloading License Daemons

1. Open a terminal window by selecting **Applications > System Tools > Terminal**.
2. (Optional) At the Linux prompt, type `su - <caeadmin>` to switch to user "`<caeadmin>`" (assuming that your licenses are set up by a special user account called "`<caeadmin>`").
Note: Skip this step if your site's system administration policy allows a regular user to set up licensing.
3. Get the hardware MAC-ID of the Linux Host you want to use as the License Server.
 - a. Type the following command:

```
% ifconfig | grep Eth
```
 - a. The output from the command should be similar to:

```
eth0 Link encap:Ethernet HWaddr 00:0C:29:66:78:72
```
 - b. Record the 12-digit hex number. Leave out the colon ":". You will need this HostID to get the license file.
4. Download the [License Server Daemons for Linux](#).

1.1.2 Requesting a Libero SoC License

1. Log in to your [microchipDIRECT](#) portal and request a new Libero Silver Floating License for Windows® or Linux Server. Use the recorded MAC-ID from the previously entered `ifconfig` command (see [1.3. Step 3—Setting Up Licensing \(Floating License\)](#)).
2. Download the license file to the `HOME` directory of the user who will be installing and administering licensing for Libero.

1.2 Step 2—Adding Packages to the Linux OS

Libero SoC requires the Linux system to have some special packages that may not be part of a standard CentOS/RHEL distribution. To help you find out what additional packages are required, a shell script is available in the `<Libero_SoC_installed_location>/bin/check_linux_req` directory. The script checks the packages on the Linux system, identifies the required packages that are already installed, and lets you know which packages need to be added.

To run the script, type the following at the prompt:

```
% cd <Libero_SoC_installed_location>/bin/check_linux_req
% ./check_linux_req.sh
```

Red Hat uses the Red Hat Package Manager (RPM). However, the Yellowdog Updater Modified (YUM) tool adds support for package management and dependency management. For this reason, YUM is the preferred tool.

Installation of these packages requires superuser privileges or an account on the sudo list. Use superuser account (`root`) or `sudo` access to run these commands:

1. Use the previously opened terminal or open a new terminal window by selecting **Applications > System Tools > Terminal**.

2. Do one of the following:

- At the prompt, type:

```
% su -
```

- Or using sudo, type:

```
% sudo yum install -y <package name>
```

3. Make sure that all optional repositories are enabled, using the command:

```
yum-config-manager --enable  
\  
\*optional\*
```

4. If a multilib error is seen for any package, run yum update first for that package, and then retry the yum install step for that package. Repeat for all packages for which yum install errors out with a multilib error.

1.3 Step 3—Setting Up Licensing (Floating License)

1. Unzip the previously downloaded licensing daemons file `Linux_Licensing_Daemon.zip` from [1.1.1. Downloading License Daemons](#):

```
% unzip Linux_Licensing_Daemon.zip; & chmod 755 Linux_Licensing_Daemon/*
```

2. Create a new directory called `flexlm` under `<~caeadmin>`:

```
% mkdir flexlm
```

3. Move the previously downloaded license file from [1.7. Step 7—Setting the Vault to Store IP Cores](#) into the `flexlm` directory.

4. Change directory into the `flexlm` directory and unzip the `License.dat` file:

```
% cd flexlm;  
% unzip License.dat
```

5. Start editing the `License.dat` file. Linux filenames are case-sensitive.

```
% gedit License.dat (if you are familiar with vi use vi License.dat)
```

6. Edit the first four lines in the `License.dat` file to match your current environment:

```
SERVER <localhost> <XXXXXXXXXXXX> 1702 where <XXXXXXXXXXXX> is the 12-digit MAC-  
ID of your Linux License server
```

- 7.

```
DAEMON actlmgrd /home/<caeadmin>/Linux_Licensing_Daemon/actlmgrd DAEMON mgcld /  
home/<caeadmin>/Linux_Licensing_Daemon/mgcld VENDOR snpslmd /home/<caeadmin>/  
Linux_Licensing_Daemon/snpslmd
```

8. Replace the `<XXXXXXXXXXXX>` in the first line with the MAC-ID you obtained from the `ifconfig` command.

9. Save the `License.dat` file and return to the `<caeadmin>` HOME directory (`<~caeadmin>`). Start the licensing server manager (`lmgrd`) by entering the following command (no line break):

```
% /home/<caeadmin>/Linux_Licensing_Daemon/lmgrd -c /home/<caead- min>/flexlm/  
License.dat -log /tmp/lmgrd.log
```

10. Check the log file for errors:

```
% more /tmp/lmgrd.log
```

11. If there are no errors, enter the following command:

```
% tail -f -s10 /tmp/lmgrd.log
```

12. Leave the terminal window with the <caeadmin> account open. Whenever a license is checked in or out from the License Server, the tail command prints the information to the <caeadmin> terminal window.
13. (Optional) Create the flexlm initialization script (1.11. Step 11—Creating a flexlm Initialization Script (Optional) to start the license server whenever the system boots up. An rc script is provided (1.10. Step 10—Configuring Linux to Detect and Use Programmer Hardware).

1.4 Step 4—Downloading and Installing a PDF Reader

Note: If a PDF Reader is already installed, you can skip this step.

Libero requires a PDF reader to open the Libero Reference Manuals (**Help > Reference Manuals..**

1.5 Step 5—Setting Up a Locale User Environment Variable

Libero SOC supports only the en_US.UTF-8 locale. To set a global locale for single user, open the ~/.bash_profile file and add the following lines:

```
LANG="en_US.UTF-8"

export LANG
```

1.6 Step 6—Setting Up the User Environment Variables to Start Libero SoC

This step sets up all user environment variables to run Libero SoC.

1. Open a terminal window by selecting **Applications > System Tools > Terminal**.
2. Use an editor and open the ~John/.bashrc file (for user john).
3. Use an editor to open and append the following four lines to the user startup file.
 - a. For ~John/.bashrc (Bash-shell user john)

```
# For Floating License from a License Server
export LM_LICENSE_FILE=1702@localhost:$LM_LICENSE_FILE
export SNPSLMD_LICENSE_FILE=1702@localhost:$SNPSLMD_LICENSE_FILE
export LANG=en_US.UTF-8
# <1702> is the port number
# <localhost> is the license server

host name
#For Node-Locked License
export LM_LICENSE_FILE=<path_to_license.dat_folder>/
license.dat:$LM_LICENSE_FILE
exportSNPSLMD_LICENSE_FILE=<path_to_license.dat_folder>/
license.dat:$SNPSLMD_LICENSE_FILE

export LD_LIBRARY_PATH=/usr/lib:$LD_LIBRARY_PATH
export LANG=en_US.UTF-8
export DISPLAY=:1
export PATH=/usr/local/microsemi/<Libero_current_rel>/Libero/bin:${PATH}
```

- b. For ~John/.cshrc (C-shell user John), append the following four lines:

```
#For Floating License from a License Server
setenv LM_LICENSE_FILE=1702@localhost:$LM_LICENSE_FILE
setenv SNPSLMD_LICENSE_FILE=1702@localhost:$SNPSLMD_LICENSE_FILE
setenv LANG en_US.UTF-8
# <1702> is the port number
# <localhost> is the license

server host name
#For Node-Locked License
setenv LM_LICENSE_FILE=<path_to_license.dat_folder>/
license.dat:$LM_LICENSE_FILE
setenv SNPSLMD_LICENSE_FILE=<path_to_license.dat_folder>/
```

```
license.dat:$SNPSLMD_LICENSE_FILE

setenv LD_LIBRARY_PATH=/usr/lib:$LD_LIBRARY_PATH setenv export DISPLAY=:1
setenv LANG en_US.UTF-8

setenv PATH=/usr/local/microsemi/<Libero_current_rel>/Libero/bin:${PATH}
```

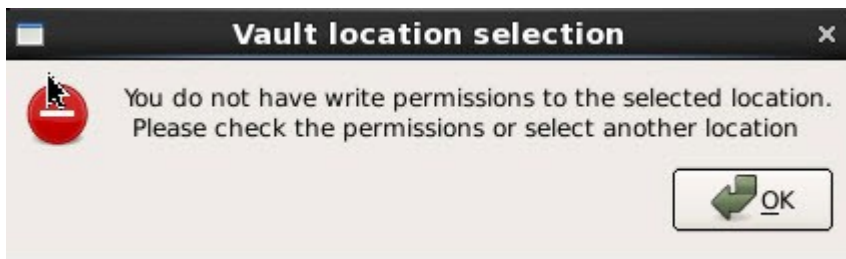
Note: Check the value for LC_CTYPE and ensure that it is same as en_US.UTF.8.

For details, see the instructions in the email you receive from Microchip with the `License.dat` file. For more information about licensing, see the [Libero Software Installation and Licensing Guide](#)

4. Save the `.bashrc` or `.cshrc` file and update your terminal window by typing `source ~/.bashrc` or `source ~/.cshrc`. (Alternatively, close the current window and open a new terminal window.)
5. Start Libero with the command `libero &`.

1.7 Step 7—Setting the Vault to Store IP Cores

Before IP cores from the IP catalog are available for use, the IP cores must be downloaded and stored in a physical disk location called the Vault. To set the vault location, from the Project menu, select Vault/Repositories and then the Vault Location tab (**Project > Vault/Repositories Settings > Vault Location**) have the write permission to the disk location before it can be set as the vault location. A warning message displays if you do not have the write permission.



Vault locations can be set to a disk location on a per-user basis or set to a central location for all users.

- **One vault location per user**
The individual user downloads and stores IP cores into this location. An internet connection is required for download. The individual user is responsible for maintaining the IP core versions and their availability in this vault.
- **One single central vault location for multiple users**
The System Administrator downloads and stores IP cores into this location. An internet connection is required for download. The System Administrator is responsible for maintaining the IP core versions and their availability. Multiple Individual users, who may not have an internet connection (and therefore cannot download IP cores), can set the vault to this central location and use the cores in the vault.

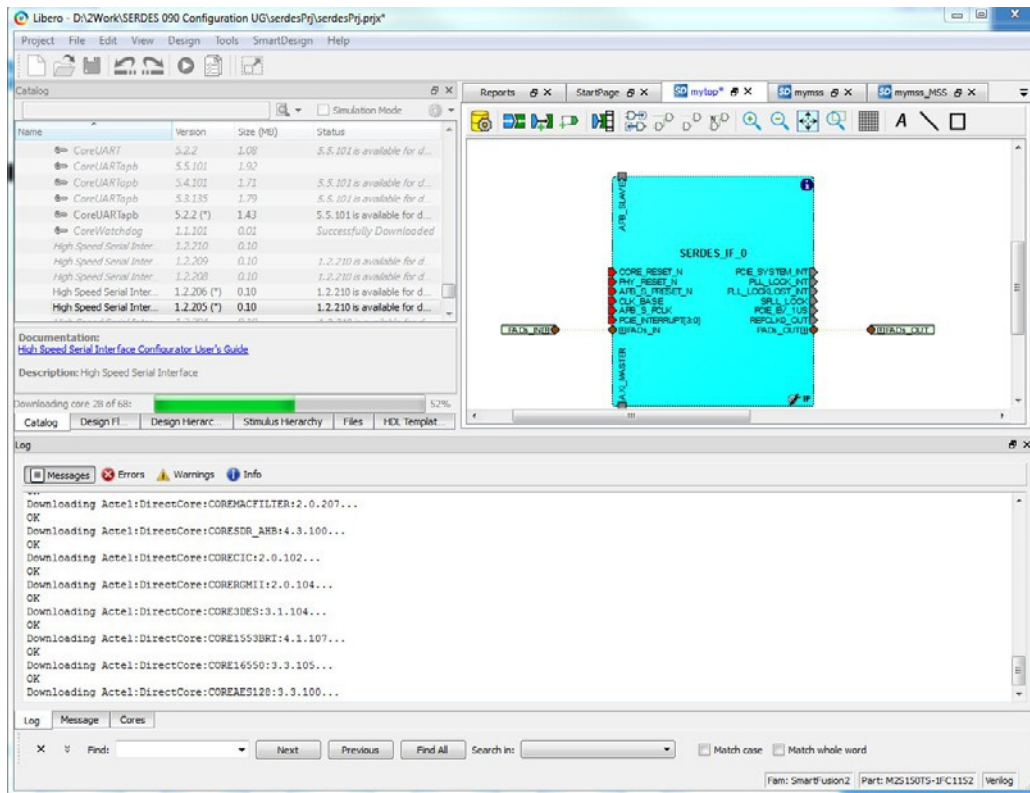


Important: The individual user must have write permission to the disk location of this central vault. If the user does not have write permission, the user must copy the central vault to a disk location where the user has write permission and set the vault to this copied location.

1.8 Step 8—Downloading Libero SoC IP Cores

In the Libero GUI, click **View > Window > Catalog**. The **Catalog** tab indicates the availability of new cores. Click **Download them now!**

Figure 1-1. Downloading Libero SoC IP Cores



1.9 Step 9—Setting the PDF Reader and Web Browser

1. Set the PDF Reader (**Project > Preferences > PDF Reader**) to a PDF Reader, for example,
`/usr/bin/acroread`
2. Set the Web Browser to a browser of your choice (**Project > Preferences > Web Browser**), for example,
`/usr/bin/firefox`

Figure 1-2. Project Preferences for PDF Reader

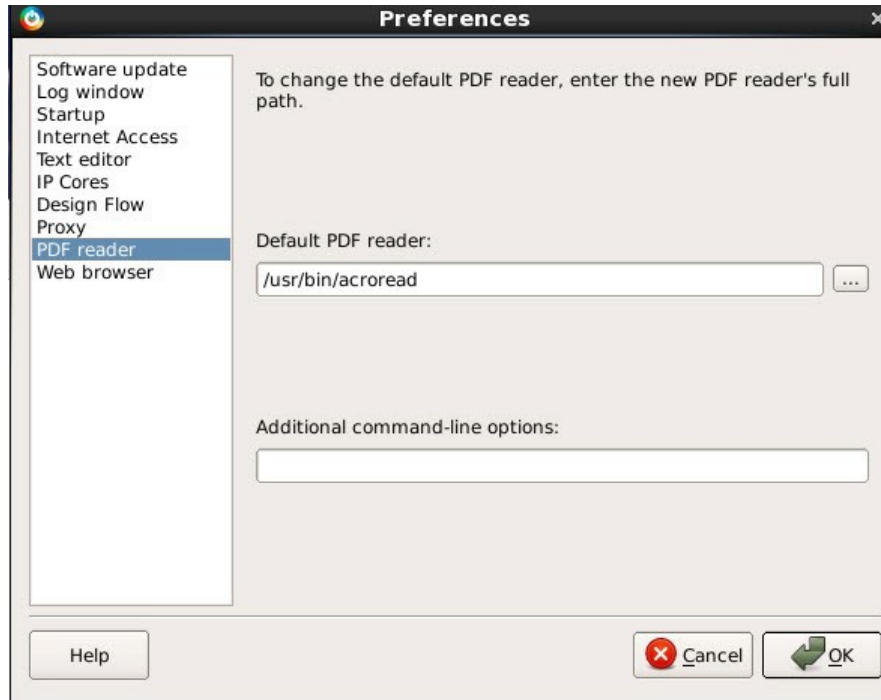
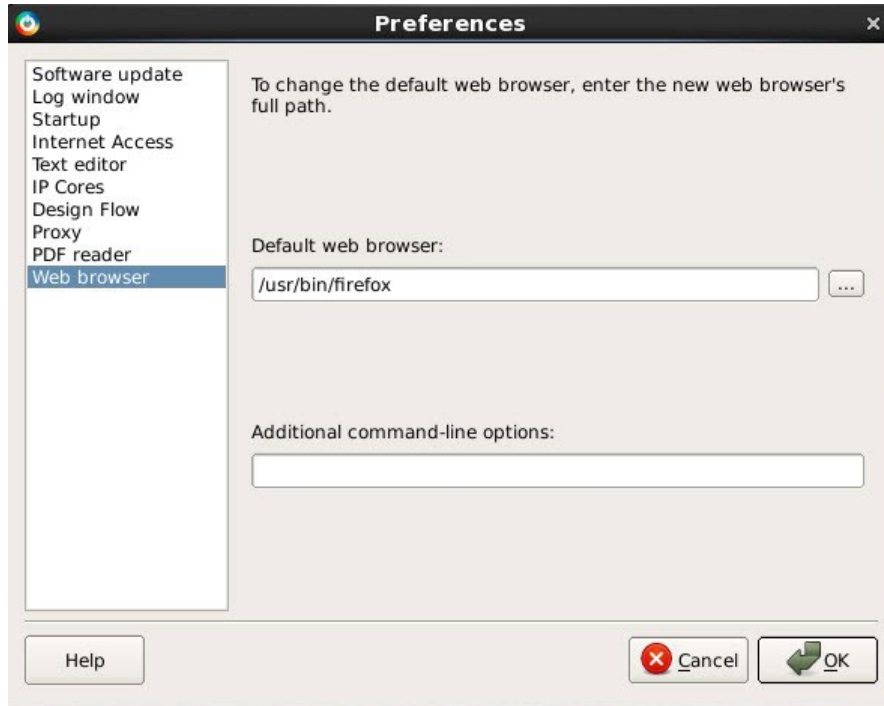


Figure 1-3. Project Preferences for Web Browser



1.10 Step 10—Configuring Linux to Detect and Use Programmer Hardware

1.10.1 Configuring Linux to Detect and Use FlashPro5 Programmer Hardware

If you want a regular user (without `root` permission) to program the Flash-based FPGA devices with FlashPro5 hardware, you must run the `udev_install` script on the Linux machine as `root`. The `udev_install` script helps you set up a `udev` rule file for the FlashPro5 hardware.

This `udev` rule authorizes the Linux user group (that you specify during execution of `udev_install` script) to access the FlashPro5 hardware without `sudo` or `root` permission.

Follow the steps below to configure Linux to detect and use FlashPro5 programmer hardware:

1. At the prompt, type:

```
su -
```

2. Change directory to the `<caeadmin>` `HOME` directory:

```
cd /home/<caeadmin>
```

3. Execute the `udev_install` script with the following option: `./udev_install -t /tmp`. The command generates a template file called `70-microsemi.rules` in the `/tmp` directory.
4. Modify the template file to match your group ID of the user `john` connecting the FlashPro5 hardware (assuming the user `john` will attach the FlashPro5 hardware):
 - a. Open a terminal and run the command `id` as user `john`. The output should be similar to the following text: `uid=500(john) gid=500(john)...`
 - b. Return to your terminal with `root` access. Open the `70-microsemi.rules` file in an ASCII editor.
 - c. Replace the `""` with your current group ID # in the following two lines:

```
BUS=="usb",SYSFS{idProduct}=="2008",SYSFS{idVendor}=="1514",MODE="0660",SYMLINK+="FlashPro5"  
BUS=="usb",SYSFS{idProduct}=="6001",SYSFS{idVendor}=="0403",MODE="0660",GROUP="",SYMLINK+="FTDI232"
```

Assuming the user `john` has `uid=500` and `gid=500`, the line after editing should resemble the following:

```
BUS=="usb",SYSFS{idProduct}=="2008",SYSFS{idVendor}=="1514",MODE="0660",  
GROUP="500",SYMLINK+="FlashPro5"  
BUS=="usb",SYSFS{idProduct}=="6001",SYSFS{idVendor}=="0403",MODE="0660",  
GROUP="500",SYMLINK+="FTDI232"
```

5. Move the `70-microsemi.rules` file to the proper location:

```
% mv /tmp/70-microsemi.rules /etc/udev/rules.d/
```

1.10.2 Configuring Linux to Detect and Use FlashPro6 Programmer Hardware

Follow the steps below to configure Linux to detect and use FlashPro6 programmer hardware.



Important: The `fp6_env_install` script creates two files:

- `cysub.conf` (located under `/etc`) – This file contains the list of devices you wish to communicate with CYUSB suite for Linux. If the file does not exist, the only device will be FlashPro6. Otherwise, the device is appended to the existing file.
- `88-cyusb.rules` (located under `/etc/udev/rules.d/`) – This file contains the `udev` rules for programming tools users to access the device without `sudo` or `root` access.

Procedure for `sudo` users (this is the preferred usage)

1. At the prompt, type:

```
sudo -
```

2. Change directory to <libero-install path>/bin

```
cd <libero-install path>/bin
```
3. Execute `fp6_env_install`
 - The `cyusb.conf` file is created under `/etc`
 - The `88-cyusb.rules` file is created or modified under `/etc/udev/rules.d`
4. When the script finishes, unplug the FlashPro6 hardware from the Linux server, and then plug the hardware back in. This will enable updates for the correct modules in the system.

Procedure for non-sudo users (when installing FlashPro6 for the first time)

1. Change directory to <libero-install path>/bin:

```
cd <libero-install path>/bin
```
2. Execute `fp6_env_install -t /tmp`
 - The `cyusb.conf` file is created or modified under `/tmp`
 - The `88-cyusb.rules` file is created or modified under `/tmp`
3. After the files are created, ask a user with `sudo` access to copy the files.

1.11 Step 11—Creating a flexlm Initialization Script (Optional)

The Linux boot process allows services to be started with the help of startup scripts. The `flexm` script launches the licensing server automatically during the boot process and properly shuts down the license daemon when the license server machine shuts down. This script eliminates the need to manually restart the licensing server after the license server Linux machine reboots.

1. Open a new terminal window by selecting **Applications > System Tools > Terminal**.
2. At the prompt, type:

```
% su -  
% cd /etc/init.d
```

3. Start an editor with a new file `flexlm`.
4. Paste the following content into the editor:

```
#!/bin/bash #  
# flexlm This starts and stops flexlm #  
# description: Start or stop the flexlm license manager + vendor daemons #  
# Return values according to LSB for all commands:  
# 0 - success  
# 1 - generic or unspecified error # 2 - invalid or excess argument(s)  
# 3 - unimplemented feature (e.g. "reload") # 4 - insufficient privilege  
# 5 - program is not installed # 6 - program is not configured # 7 - program  
is not running  
# #  
PATH=/sbin:/bin:/usr/bin:/usr/sbin LICENSE_FILE=/home/<caeadmin>/flexlm/  
License.dat LMGRD_HOME=/home/<caeadmin>/Linux_Licensing_Daemon  
LMGRD_LOGFILE=/tmp/lmgrd.log  
prog="flexlm"  
# Source function library.  
. /etc/init.d/functions # Check license file  
test -f $LICENSE_FILE || exit 6 RETVAL=0  
start () {  
test -x $LMGRD_HOME/lmgrd || exit 5 echo -n "$Starting Microsemi $prog: "  
su -c "$LMGRD_HOME/lmgrd -c $LICENSE_FILE -log $LMGRD_LOGFILE" - caeadmin  
RETVAL=$?  
return $RETVAL  
}  
stop(){  
}  
echo -n "$Stopping Microsemi $prog: "  
su -c "$LMGRD_HOME/lmutil lmdown -c $LICENSE_FILE -q" - caeadmin RETVAL=$?
```

```
return $RETVAL
status(){
su -c "$LMGRD_HOME/lmutil lmstat -c $LICENSE_FILE" - caeadmin RETVAL=$?
return $RETVAL
}
reload(){
stop start
}
restart(){
stop start
}
case "$1" in start)
stop)
start)
;;
stop)
;;
status)
status)
;;
restart)
restart)
;;
reload|force-reload) reload)
;;
*)
esac
echo $"Usage $0 {start|stop|status|restart|reload|force-reload}" RETVAL=3
exit $RETVAL
```

5. Save the file and exit the editor.
6. Change the permission of the flexlm file to rxwr-r-x as follows:

```
# chmod 755 flexlm
```

7. Create links for the Linux boot/shutdown process under the following runlevels:

```
# sh
# for i in 1 2 3 5
do
cd /etc/rc.d/rc${i}.d
ln -s ../init.d/flexlm S98flexlm
ln -s ../init.d/flexlm K98flexlm
>done
# for i in 0 6
do
cd /etc/rc.d/rc${i}.d
ln -s ../init.d/flexlm K98flexlm
done
#
```

8. Check the content of the License Log File /tmp/lmgrd.log file if you encounter any issues.

2. Installing Libero SoC on an Ubuntu Operating System

The Linux OS is based on the rigid UNIX security model. On Linux, every file is owned by a user and a group user. System settings can only be modified using special account/access rights called `root`. The Libero software will be installed with a non-`root` account and not with the standard `user` account `john`. For Libero installation and maintenance, you will add a `caeadmin` account.

2.1 Step 1—Setting Up the Necessary Accounts in the Linux OS

To install Libero SoC on an Ubuntu OS, start with the following step, and then proceed to the subsequent steps in this chapter.

1. Open **Settings**. When the dialog box appears, scroll down to **Users**.
2. Click **Unlock**, and then provide the password for `John Doe`.
3. Click **Add User**.
4. Add a new user called `caeadmin`, assign a password, and then click **Add**.
5. Close the **Settings** dialog box.

2.2 Step 2—Downloading Libero Installer Files, License Daemons, and License File

All Libero-related installation steps, daemons, and licensing setup will be administered using the `caeadmin` account.

1. Open a terminal window by selecting **Show Applications**, and then searching for **Terminal**.
2. Open the terminal.
3. Add user `caeadmin` to `sudo` group: `sudo usermod -aG sudo caeadmin`
4. At the prompt, type: `xhost +`
5. Switch to user `caeadmin`: `su - caeadmin`
6. Set the display variable: `export DISPLAY=:0`
7. Record the hardware MAC-ID:
 - a. Install the `net-tools`: `sudo apt install net-tools`
 - b. Type `ifconfig | grep ether`. The output should be similar to: `ether 00:50:56:66:78:72 txqueuelen 1000 (Ethernet)`
 - c. Record the 12 hex numbers without the colons from the output in the previous step (for example, `005056667872`). This is your hardware MAC-ID.
8. Download the software as user `caeadmin`:
 - a. Start the Firefox web browser by typing: `firefox`. All files will be stored into the `caeadmin` Downloads directory.
 - b. Log in to your [Microchip Direct account](#).
 - c. Download the Libero SoC software.
 - d. For SoC devices (SmartFusion®2/PolarFire SoC), install SoftConsole in addition to Libero SoC.
 - e. Download the 32-bit and 64-bit License Server Daemons.
 - f. Download the license file to the `caeadmin` Downloads directory.
 - g. Close the Firefox web browser.
 - h. Return to the **FPGA Software** tab, select **Request Free License**, and then register a new Libero Silver 1 Year Floating License for Windows/Linux. Use the recorded MAC-ID from the previously entered `ifconfig` command.
Note: Remove the quotation marks when entering the MAC-ID.
 - i. Check the integrity of the Libero and SoftConsole installer file by executing the following commands:
 - `sha256sum Downloads/Libero_SoC_v2022.1_lin.bin`. The correct hash output is: `df36...595e`
 - `sha256sum Downloads/Microchip-SoftConsole-v2021.3-7.0.0.599-linux-x64-installer.run`. The correct hash output is: `b220...4140`

2.3 Step 3—Adding Missing Packages to the Linux OS

To run Libero SoC, install several Linux packages in addition to the default installation files.

1. Use the previously opened terminal or open a new terminal window. Make sure `caeadmin@ubuntu` is shown at the prompt.
2. Update the core Linux system to the latest available packages and add the build tools. At the `root` prompt, execute the following commands:

```
sudo apt-get install -y apt-file
sudo apt install -y build-essential
sudo apt-get install -y lsb-core
sudo apt-get update
```

3. Add a new package source (needed for Libero) to the `sources.list` file:

```
sudo gedit /etc/apt/sources.list
```

4. Append the following line to the `sources.list` file, and then save and close the editor: `deb http://security.ubuntu.com/ubuntu bionic-security main universe`
5. Execute the update and upgrade:

```
sudo apt update
sudo apt upgrade
```

6. Install the following packages:

```
sudo apt-get install -y libc6:i386 libdrm2:i386 libexpat1:i386
libfontconfig1:i386 libfreetype6:i386 libglapi-mesa:i386 libglib2.0-0:i386
libgl1:i386 libice6:i386 libsm6:i386 libuuid1:i386 libx11-6:i386
libx11-xcb1:i386 libxau6:i386 libxcb-dri2-0:i386 libxcb-glx0:i386
libxcb1:i386 libxdamage1:i386 libxext6:i386 libxfixes3:i386 libxrender1:i386
libxxf86vm1:i386 zlib1g:i386
sudo apt-get install -y libxcb-xinerama0 libxcb-xinput0 libicu60
sudo apt-get install -y xfonts-intl-asian xfonts-intl-chinese xfonts-intl-
chinese-big xfonts-intl-japanese xfonts-intl-japanese-big ksh libxft2:i386
libgtk2.0-0:i386 libcanberra-gtk-module:i386 libfreetype6-dev packagekit-gtk3-
module:i386
```

7. Under `/home/caeadmin`, create a new directory called `microchip` and set the appropriate permissions. In the next step, you will install Libero into this `microchip` directory:

```
mkdir /home/caeadmin/microchip
chown caeadmin:caeadmin /home/caeadmin/microchip
chmod 755 /home/caeadmin
```

8. Create a file for the license server log file. You will use this file later.

```
sudo touch /var/log/lmgrd.log
sudo chmod 644 /var/log/lmgrd.log
sudo chown caeadmin:caeadmin /var/log/lmgrd.log
```

2.4 Step 4—Installing Libero SoC

All Libero-related installation steps, daemons, and licensing setup will be administered using the `caeadmin` account.

1. Make the terminal window with `caeadmin` rights active. If the window is no longer present, open a new terminal. Make sure `caeadmin@ubuntu` appears at the prompt and the display variable is set properly `export DISPLAY=:0`.
2. Change to the Downloads directory: `cd Downloads`
3. Make the file executable: `chmod +x Libero_SoC_v2022.1_lin.bin`

4. Execute the following command to open the Libero SoC GUI installer: `./Libero_SoC_v2022.1_lin.bin`
5. Scroll down to the end of the license terms and click **Next**.
6. Select the installation flow **Libero SoC** and click **Next**.
7. Install the software using the pathname `/home/caeadmin/microchip/Libero_SoC_v2022.1`. The common files will be installed using the pathname `/home/caeadmin/microchip/common`.
8. Click **Next** to accept the defaults, and then click **Install**.
9. Enable the **Check system requirements** to run the post-installation system check, and then click **Next**.



Attention: This step can take a significant amount of time.

10. When the check completes, scroll down to the end of the system check and verify that no additional packages need to be installed:

```
NO ADDITIONAL 32-BIT PACKAGES TO INSTALL
NO ADDITIONAL 64-BIT PACKAGES TO INSTALL
```

11. Click **Done** to quit the installer. If the check reports missing packages, install the missing packages, and then execute a final system check using the following commands:

```
cd /home/caeadmin/microchip/Libero_SoC_v2022.1/Libero/bin/check_linux_req
./check_linux_req_ubuntu.sh
```

2.5 Step 5—Optional: Installing SoftConsole for SoC Families

1. Make the SoftConsole installer file executable:

```
chmod +x Microchip-SoftConsole-v2021.3-7.0.0.599-linux-x64-installer.run
```

2. Start the GUI installer:

```
./Microchip-SoftConsole-v2021.3-7.0.0.599-linux-x64-installer.run
```

3. At the Setup screen, click **Forward**, and then accept the License Agreement in the next window.
4. Set the installation directory to `/home/caeadmin/microchip/SoftConsole-v2021.3`.
5. Click **Forward**, and then click **Finish** to close the installer GUI.
6. To debug using SoftConsole via FlashPro5/6, enable the hardware access using the instructions in `///home/caeadmin/microchip/SoftConsole-v2021.3/documentation/softconsole/using_softconsole/post_installation.htm`.

2.6 Step 6—Setting Up Licensing and Starting the Licensing Manager

Continue using terminal with `caeadmin` rights to set up licensing.

1. Unzip the previously downloaded licensing daemons files in `Linux_Licensing_Daemon.tar.Z` + `Linux_Licensing_Daemon_11.16.1_64-bit.tar.gz`:

```
tar -xzf Linux_Licensing_Daemon.tar.Z
mv Linux_Licensing_Daemon ../
tar -xzf Linux_Licensing_Daemon_11.16.1_64-bit.tar.gz
mv Linux_Licensing_Daemon_11.16.1_64-bit/* ../Linux_Licensing_Daemon
cd
chmod 755 Linux_Licensing_Daemon/*
```

2. Create a new directory called `flexlm`:

```
mkdir flexlm
```

3. Move the previously downloaded license file into the `flexlm` directory.
4. Change directory into `flexlm` directory and unzip the `License.dat` file:

```
cd flexlm; unzip License.zip
```

5. Start editing the `License.dat` file:

```
gedit | kwrite License.dat
```



Attention: If you are familiar with `vi`, use `vi License.dat`.

6. Edit the first four lines in the `License.dat` file to match your current environment:

```
SERVER ubuntu 005056667872 1702
DAEMON actlmgrd /home/caeadmin/Linux_Licensing_Daemon/actlmgrd
DAEMON mgcld /home/caeadmin/Linux_Licensing_Daemon/mgcld
VENDOR snpslmd /home/caeadmin/Linux_Licensing_Daemon/snpslmd
```

7. Save the `License.dat` file and return to the `caeadmin` HOME directory.
8. Some licensing daemons try to access `/usr/tmp`. This directory does not exist on Ubuntu, so create a link to the existing `/tmp` directory:

```
sudo ln -s /tmp /usr/tmp
```

9. Start the licensing server:

```
/home/caeadmin/Linux_Licensing_Daemon/lmgrd -c /home/caeadmin/flexlm/
License.dat -log /var/log/lmgrd.log
```

10. Check the logfile for issues or errors:

```
more /var/log/lmgrd.log
```

11. If the logfile is satisfactory, type:

```
tail -f -s10 /var/log/lmgrd.log
```

12. Leave the terminal window and `caeadmin` account open. If someone checks a license into or out of the server, the `tail` command prints the information to the `caeadmin` terminal window.
13. Linux allows you to start the license server when the system boots. For more information, see [2.11. Step 11—Optional: Creating a Service Using `systemctl`](#).

2.7 Step 7—Setting Up the User Environment and Starting Libero

In this procedure, you will set up all user environment variables. Libero will start and get updated with the latest IP-Cores from the repository.

1. Open a terminal window by selecting **Applications > System Tools > Terminal**.
2. Use an editor to open the `.bashrc` file for user `John`.
3. Append the following lines to the `~/.bashrc`:

```
export LM_LICENSE_FILE=1702@ubuntu
export LD_LIBRARY_PATH=/usr/lib:${LD_LIBRARY_PATH}
export DISPLAY=:0
export LINUX_HTMLREADER=/usr/bin/firefox

# Libero SoC v2022.1
export PATH=/home/caeadmin/microchip/Libero_SoC_v2022.1/Libero/bin:${PATH}
```



```
# SoftConsole 2021.3
export PATH=/home/caeadmin/microchip/SoftConsole-v2021.3:${PATH}
```

4. Save the `.bashrc` file and update your terminal window either by typing `source .bashrc` or by closing the current window and opening a new terminal window.
5. Start Libero with the command `libero`.
6. By default, Libero checks for updates. In the dialog box, select **Do not remind me again**, and then click **No**.
7. Linux is an ideal OS for a multiple user environment. For the Libero IP-Core update, there are two choices:
 - Let the user `caeadmin` update the IP Core catalog and maintain a central copy under `/home/caeadmin/microchip/common/vault`.
 - Let the individual user update the IP-Core catalog and have each user maintain his own copy of IP cores. In this case, Libero creates the new directory `~/.actel/vault` by default.

Libero displays the following message in the Log area:

```
Info: Current Vault Location =
      /home/john/.actel/vault
```

8. In the Libero GUI click **View > Windows > Catalog**. The catalog tab shows the availability of new cores. Click **Download them now!**. Depending on the connection speed, this process might take some time.

2.8 Step 8—Updating the Firmware Catalog

SoftConsole v2021.3 supports SmartFusion and SmartFusion2 Cortex®-M3 and MiV RISC-V firmware development and debugging. As such, it requires the firmware cores to be updated to the latest version in the catalog. The firmware cores are stored in the same vault used in the previous Libero (hardware) catalog update. However, there is an explicit command needed to update the firmware cores.

1. Open a new terminal using default user rights (`john`).
2. At the prompt, type: `catalog`
3. If the catalog shows the availability of new cores, click **Download them all!**.
4. After the update completes, click **File > Exit** to close the catalog.

2.9 Step 9—Configuring Linux to Detect and Use FlashPro5 Programmer Hardware

To program Flash-based FPGA devices with FlashPro5 hardware, run the `udev_install` script. This allows you to access the FlashPro5 hardware on the Linux-based machine.

1. VMware Workstation 16.2.x has a bug/feature preventing the access to USB devices. Therefore, shut down the CentOS machine, and then use a text editor to open the `Ubuntu_64-bit.vmx` file.
2. Search for `usb.restrictions.defaultAllow = "FALSE"` and change the string to `"TRUE"`.
3. Save the `Ubuntu_64bit.vmx` file, and then restart Ubuntu.
4. Open a new terminal.
5. Change the directory to the `caeadmin` HOME directory: `cd /home/caeadmin/microchip/Libero_SoC_v2022.1/Libero/bin`
6. Execute the `udev_install` script: `sudo ./udev_install`
7. Connect the FlashPro5 to the USB port and confirm the successful connection to the virtual machine.
8. Follow the instructions in the installer script.

```
Plug in you FlashPro5 hardware to one of the available USB connections.
Press return when the FlashPro5 hardware is plugged in.
```

```
Please enter the name of the linux group that will be granted access to the
FlashPro5 hardware.
john
70-microsemi.rules copied successfully to /etc/udev/rules.d/
We will now verify that you can write to FlashPro5 hardware.
First, unplug then plug in the FlashPro5 hardware.
Press return when the FlashPro5 hardware is plugged in.
```

```
Based on your group id, we have detected more than one group with the same
group id: adm, john.
If you wish to continue, users in both of these groups will have write access
to FP5 hardware. Do you wish to continue?[y/Y:n/N]
y
The FlashPro5 hardware is attached to device 005 under bus 001.
USB device 005 has write permission for authorized group adm.
```

- Group adm is wrong. Using an editor, open the `/etc/udev/rules.d/70-microsemi.rules` files and make the following changes:

```
SUBSYSTEM=="usb",ATTR{idProduct}=="2008",ATTR{idVendor}=="1514",MODE="0660",GRO
UP="1000",SYMLINK+="FlashPro5"
SUBSYSTEM=="usb",ATTR{idProduct}=="6001",ATTR{idVendor}=="0403",MODE="0660",GRO
UP="1000",SYMLINK+="FTDI232"
```



Tip: If multiple users are working on the same PC, create a separate user group for the Libero vault access rights and the programmer access.

2.10 Step 10—Starting Libero and Testing the Complete Flow

The Libero install directory includes a sample project to test the design flow and licensing environment.

- Make sure you have a terminal open with `john` as the active user.
- Copy the sample directory in the HOME directory: `cp -r /home/caeadmin/microchip/Libero_SoC_v2022.1/Libero/scripts/sample/ ~/`
- Start libero with the sample project:

```
cd sample
libero script:run.tcl
```

- Verify the correct execution of the script:

```
...
No errors or warnings found.
Verify Timing Elapsed Time: 24.0238 seconds.
Info: Timing constraints have been met.

TEST CASE PASSED

The test project was closed.
The Execute Script command succeeded.
```

- Look at the `caeadmin` terminal window. The `tail` command shows the check-out/check-in of the various tools used during the test project run.

```
16:15:43 (actlmgrd) OUT: "ACTEL_SUMMIT" john@ubuntu
16:15:51 (mgcld) OUT: "microsemimsim" john@ubuntu
16:15:51 (mgcld) IN: "microsemimsim" john@ubuntu
16:15:54 (snpslmd) OUT: "synplifypro_actel" john@ubuntu
16:15:58 (snpslmd) IN: "synplifypro_actel" john@ubuntu
16:16:07 (mgcld) OUT: "microsemimsim" john@ubuntu
16:16:08 (mgcld) IN: "microsemimsim" john@ubuntu
16:17:11 (actlmgrd) IN: "ACTEL_SUMMIT" john@ubuntu
```

2.11 Step 11—Optional: Creating a Service Using systemctl

The Linux boot process allows services to be started with the help of startup scripts. This script launches the licensing server automatically during the boot process and shuts down the license server properly. The systemd facility replaces the older System-V initialization scripts from earlier Linux releases. The systemd is an event-driven facility that allows non-dependent subsystems to be started, controlled, or stopped in parallel.

1. Open a new terminal.
2. At the prompt, type: `cd /etc/systemd/system/`
3. Start an editor with a new file: `sudo vi flexlm.service`
4. Paste the following content into the editor:

```
[Unit]
Description=FlexLM license server daemon
After=network.target

[Service]
Type=simple
User=caeadmin
WorkingDirectory=/home/caeadmin/Linux_Licensing_Daemon
ExecStart=/home/caeadmin/Linux_Licensing_Daemon/lmgrd -z -local -c /home/
caeadmin/flexlm/License.dat -l /var/log/lmgrd.log
SuccessExitStatus=15
Restart=always
RestartSec=30

[Install]
WantedBy=multi-user.target
```

5. Save the file and set the file permission: `sudo chmod 644 flexlm.service`
6. Execute the following two commands to enable and start the service:

```
sudo systemctl enable flexlm
sudo systemctl start flexlm
```

Flexlm license server will now start automatically.

7. Confirm the correct startup of flexlm: `sudo journalctl -u flexlm`

The expected output is similar to:

```
Apr 05 16:09:59 ubuntu systemd[1]:
Started flexlm.service
```

8. If you encounter licensing problems/issues, browse through `/var/log/lmgrd.log`.

3. Installing Libero SoC on an OpenSUSE Operating System

1. Install X-windows packages necessary to launch the Libero installer.

```
% sudo zypper install libXext6 libX11-6 libXrender1 libXtst6 libXi6  
libgtk-2_0-0 tar
```

2. Set your DISPLAY environment variable.

- For Bourne, Bash, or Korn shell:

```
$ export DISPLAY=localhost:0.0
```

- For C shell:

```
% setenv DISPLAY localhost:0
```

3. Upon successful installation of the required packages, navigate to the Libero SoC installer file location.
4. Run the installer.

```
% ./Libero_SoC_v2022.1.bin
```

5. Follow on screen installation instructions.
6. Click **Finish**. Libero SoC is now ready to use.

4. Installing Libero SoC on a CentOS/Red Hat Operating System

There are several options available for installing the basic Linux OS:

- Using a virtual machine
- Using a spare partition on a hard disk
- Using an external hard drive/USB stick

This guide describes how to install the Linux OS in a virtual machine using VMware Workstation/Player. All other installation options exceed the scope of this user guide.

4.1 Step 1—Setting Up the Necessary Accounts in the Linux OS

Linux is based on the rigid UNIX security model. On a Linux OS, every file is owned by a user and a group user. System settings can only be modified using special account/access rights called `root`. The Libero software will be installed with a non-`root` account and not with the standard user account `John`. For the installation and maintenance of Libero, you will add an account called `caeadmin`.

To install Libero SoC on a Linux OS, start with the following step, and then proceed to the subsequent steps in this chapter.

1. Click your user name (for example, `John Doe`), and then log in using the password you entered during the installation.
2. In the menu bar, select **Applications > System Tools > Settings**. Scroll down to **Details**, and then click **Users**.
3. Click **Unlock**, and then provide the password for `root`, which was assigned during the installation process.
4. Click **Add User**.
5. Add a new user called `caeadmin`, assign a password, and then click **Add**.
6. Close the User Manager.

4.2 Step 2—Downloading Libero Installer Files, License Daemons, and License File

All Libero-related installation steps, daemons, and licensing setup will be administered using the `caeadmin` account.



Important: You can also obtain the license daemons from the Libero installation:

- `Actlmgd`: 64-bit Linux and Windows (`bin64` directory)
- `Mgcld`: 64-bit Linux and Windows (`bin64` directory)
- `Snpslmd`: 64-bit Linux (`bin64` directory) and 32-bit Windows (`bin` directory)

1. Request a Libero SoC license (see section [1.1.2. Requesting a Libero SoC License](#)).
2. Check the integrity of the Libero and SoftConsole installer file by executing the following commands:
 - `sha256sum Downloads/Libero_SoC_v2022.1_lin.bin`. The correct hash output is: `df36...595e`
 - `sha256sum Downloads/Microchip-SoftConsole-v2021.3-7.0.0.599-linux-x64-installer.run`. The correct hash output is: `b220...4140`

4.3 Step 3—Adding Missing Packages to the Linux OS

To run Libero SoC, several Linux packages must be installed in addition to the default installation files. Traditionally, Red Hat uses the Red Hat Package Manager RPM). However, the Yellowdog Updater Modified (YUM) tool adds automatic updates for package and dependency management. For this reason, the preferred tool is YUM.

1. Use the previously opened terminal or open a new terminal window by selecting **Applications > System Tools > Terminal**.

2. At the prompt, type: `su -`. This command changes the user to `root` and allows system-level modifications.
3. Add the `open-vm-tools`. These tools allow seamless integration of the virtual PC into the host PC (for example, they enable you to drag-and-drop text and files between the host and the virtual PC. At the prompt, type: `yum install open-vm-tools -y`
4. Update the core Linux system to the latest available packages. At the `root` prompt, type: `yum update -y`
5. Install the following packages:

```
yum install -y glibc-2.17-325.el7_9.i686 libdrm-2.4.97-2.el7.i686
expat-2.1.0-12.el7.i686 fontconfig-2.13.0-4.3.el7.i686
freetype-2.8-14.el7_9.1.i686 mesa-libglapi-18.3.4-12.el7.i686
glib2-2.56.1-9.el7_9.i686 libglvnd-glx-1.0.1-0.8.git5baa1e5.el7.i686
libICE-1.0.9-9.el7.i686 libSM-1.2.2-2.el7.i686 libuuid-2.23.2-65.el7_9.1.i686
libX11-1.6.7-4.el7_9.i686 libXau-1.0.8-2.1.el7.i686 libxcb-1.13-1.el7.i686
libXdamage-1.1.4-4.1.el7.i686 libXext-1.3.3-3.el7.i686
libXfixes-5.0.3-1.el7.i686 libXrender-0.9.10-1.el7.i686
libXxf86vm-1.1.4-1.el7.i686 zlib-1.2.7-19.el7_9.i686 ksh.x86_64 xorg-x11-
fonts-75dpi xorg-x11-fonts-100dpi freetype-devel libcanberra-gtk2.i686
PackageKit-gtk3-module.i686 systemd-libs.i686 libattr.i686 bzip2-libs.i686
libcap.i686 elfutils-libs.i686 elfutils-libelf.i686 libffi.i686 libgcrypt.i686
libgpg-error.i686 gsm.i686 xz-libs.i686 pcre.i686 libpng.i686
libwayland-client.i686 libwayland-server.i686 libxshmfence.i686 mesa-dri-
drivers.i686 libpng12.i686 xorg-x11-fonts-ISO8859-1-75dpi.noarch xorg-x11-
fonts-ISO8859-1-100dpi.noarch
```

6. If you run CentOS, add the following two packages to the installation. These files are not needed for Red Hat Enterprise Linux:

```
yum install -y redhat-lsb-4.1-27.el7.centos.1.x86_64
yum install -y redhat-lsb-4.1-27.el7.centos.1.i686
```

7. Under `/home/caeadmin`, create a new directory called `microchip` and set the appropriate permissions. In the next step, you will install Libero into this `microchip` directory:

```
mkdir /home/caeadmin/microchip
chown caeadmin:caeadmin /home/caeadmin/microchip
chmod 755 /home/caeadmin
```

8. Create a file for the license server log file. You will use this file later.

```
touch /var/log/lmgrd.log
chmod 644 /var/log/lmgrd.log
chown caeadmin:caeadmin /var/log/lmgrd.log
```

9. Close the `root` terminal: `exit`

Notes: Observe the following guidelines when running the `check_linux_req.sh` script to identify what packages need to be added:

- You can run this script as a regular (non-admin) user
- If you run the script without an argument, it prompts you to run as `sudo /tmp/req_to_install$$.sh` where `$$` is the process number. The script `req_to_install` contains the possible missing requirements and the packages to be updated or installed.
- If you run the script as `sudo`, it sets the missing requirements and updates packages if necessary or installs missing packages

4.4 Step 4—Optional: Installing SoftConsole for SoC Families

1. Make the SoftConsole installer file executable:

```
chmod +x Microchip-SoftConsole-v2021.3-7.0.0.599-linux-x64-installer.run
```

2. Start the GUI installer:

```
./Microchip-SoftConsole-v2021.3-7.0.0.599-linux-x64-installer.run
```

3. At the Setup screen, click **Forward**, and then accept the License Agreement in the next window.
4. Set the installation directory to `/home/caeadmin/microchip/SoftConsole-v2021.3`.
5. Click **Forward**, and then click **Finish** to close the installer GUI.
6. To debug using SoftConsole via FlashPro5/6, enable the hardware access using the instructions in `///home/caeadmin/microchip/SoftConsole-v2021.3/documentation/softconsole/using_softconsole/post_installation.htm`.

4.5 Step 5—Setting Up Licensing and Starting the Licensing Manager

Continue using terminal with `caeadmin` rights to set up licensing.

1. Unzip the previously downloaded licensing daemons files in `Linux_Licensing_Daemon.tar.Z` + `Linux_Licensing_Daemon_11.16.1_64-bit.tar.gz`:

```
tar -xzf Linux_Licensing_Daemon.tar.Z
mv Linux_Licensing_Daemon ../
tar -xzf Linux_Licensing_Daemon_11.16.1_64-bit.tar.gz
mv Linux_Licensing_Daemon_11.16.1_64-bit/* ../Linux_Licensing_Daemon
cd
chmod 755 Linux_Licensing_Daemon/*
```

2. Create a new directory called `flexlm`:

```
mkdir flexlm
```

3. Move the previously downloaded license file into the `flexlm` directory.
4. Change directory into `flexlm` directory and unzip the `License.dat` file:

```
cd flexlm; unzip License.zip
```

5. Start editing the `License.dat` file:

```
gedit | kwrite License.dat
```



Attention: If you are familiar with `vi`, use `vi License.dat`.

6. Edit the first four lines in the `License.dat` file to match your current environment:

```
SERVER ubuntu 005056667872 1702
DAEMON actlmgrd /home/caeadmin/Linux_Licensing_Daemon/actlmgrd
DAEMON mgcld /home/caeadmin/Linux_Licensing_Daemon/mgcld
VENDOR snpslmd /home/caeadmin/Linux_Licensing_Daemon/snpslmd
```

7. Save the `License.dat` file and return to the `caeadmin` HOME directory.
8. Some licensing daemons try to access `/usr/tmp`. This directory does not exist on Ubuntu, so create a link to the existing `/tmp` directory:

```
sudo ln -s /tmp /usr/tmp
```

9. Start the licensing server:

```
/home/caeadmin/Linux_Licensing_Daemon/lmgrd -c /home/caeadmin/flexlm/
License.dat -log /var/log/lmgrd.log
```

10. Check the logfile for issues or errors:

```
more /var/log/lmgrd.log
```

11. If the logfile is satisfactory, type:

```
tail -f -s10 /var/log/lmgrd.log
```

12. Leave the terminal window and `caeadmin` account open. If someone checks a license into or out of the server, the `tail` command prints the information to the `caeadmin` terminal window.
13. Linux allows you to start the license server when the system boots. For more information, see [2.11. Step 11—Optional: Creating a Service Using `systemctl`](#).

4.6 Step 6—Setting Up the User Environment and Starting Libero

In this procedure, you will set up all user environment variables. Libero will start and get updated with the latest IP-Cores from the repository.

1. Open a terminal window by selecting **Applications > System Tools > Terminal**.
2. Use an editor to open the `.bashrc` file for user `John`.
3. Append the following lines to the `~/.bashrc`:

```
export LM_LICENSE_FILE=1702@ubuntu
export LD_LIBRARY_PATH=/usr/lib:${LD_LIBRARY_PATH}
export DISPLAY=:0
export LINUX_HTMLREADER=/usr/bin/firefox

# Libero SoC v2022.1
export PATH=/home/caeadmin/microchip/Libero_SoC_v2022.1/Libero/bin:${PATH}

# SoftConsole 2021.3
export PATH=/home/caeadmin/microchip/SoftConsole-v2021.3:${PATH}
```

4. Save the `.bashrc` file and update your terminal window either by typing `source ~/.bashrc` or by closing the current window and opening a new terminal window.
5. Start Libero with the command `libero`.
6. By default, Libero checks for updates. In the dialog box, select **Do not remind me again**, and then click **No**.
7. Linux is an ideal OS for a multiple user environment. For the Libero IP-Core update, there are two choices:
 - Let the user `caeadmin` update the IP Core catalog and maintain a central copy under `/home/caeadmin/microchip/common/vault`.
 - Let the individual user update the IP-Core catalog and have each user maintains his own copy of IP cores. In this case, Libero creates the new directory `~/.actel/vault` by default.

Libero displays the following message in the Log area:

```
Info: Current Vault Location =
      /home/john/.actel/vault
```

8. In the Libero GUI click **View > Windows > Catalog**. The catalog tab shows the availability of new cores. Click **Download them now!**. Depending on the connection speed, this process might take some time.

4.7 Step 7—Updating the Firmware Catalog

SoftConsole v2021.3 supports SmartFusion and SmartFusion2 Cortex®-M3 and MiV RISC-V firmware development and debugging. As such, it requires the firmware cores to be updated to the latest version in the catalog. The firmware cores are stored in the same vault used in the previous Libero (hardware) catalog update. However, there is an explicit command needed to update the firmware cores.

1. Open a new terminal using default user rights (`john`).
2. At the prompt, type: `catalog`
3. If the catalog shows the availability of new cores, click **Download them all!**
4. After the update completes, click **File > Exit** to close the catalog.

4.8 Step 8—Configuring Linux to Detect and Use FlashPro5 Programmer Hardware

To program Flash-based FPGA devices with FlashPro5 hardware, run the `udev_install` script. This allows you to access the FlashPro5 hardware on the Linux-based machine.

1. VMware Workstation 16.2.x has a bug/feature preventing the access to USB devices. Therefore, shut down the CentOS machine, and then use a text editor to open the `Ubuntu_64-bit.vmx` file.
2. Search for `usb.restrictions.defaultAllow = "FALSE"` and change the string to `"TRUE"`.
3. Save the `Ubuntu_64bit.vmx` file, and then restart Ubuntu.
4. Open a new terminal.
5. Change the directory to the caeadmin HOME directory: `cd /home/caeadmin/microchip/Libero_SoC_v2022.1/Libero/bin`
6. Execute the `udev_install` script: `sudo ./udev_install`
7. Connect the FlashPro5 to the USB port and confirm the successful connection to the virtual machine.
8. Follow the instructions in the installer script.

```
Plug in you FlashPro5 hardware to one of the available USB connections.
Press return when the FlashPro5 hardware is plugged in.
```

```
Please enter the name of the linux group that will be granted access to the
FlashPro5 hardware.
```

```
john
70-microsemi.rules copied successfully to /etc/udev/rules.d/
We will now verify that you can write to FlashPro5 hardware.
First, unplug then plug in the FlashPro5 hardware.
Press return when the FlashPro5 hardware is plugged in.
```

```
Based on your group id, we have detected more than one group with the same
group id: adm, john.
If you wish to continue, users in both of these groups will have write access
to FP5 hardware. Do you wish to continue?[y/Y:n/N]
y
The FlashPro5 hardware is attached to device 005 under bus 001.
USB device 005 has write permission for authorized group adm.
```

9. Group `adm` is wrong. Using an editor, open the `/etc/udev/rules.d/70-microsemi.rules` files and make the following changes:

```
SUBSYSTEM=="usb",ATTR{idProduct}=="2008",ATTR{idVendor}=="1514",MODE="0660",GRO
UP="1000",SYMLINK+="FlashPro5"
SUBSYSTEM=="usb",ATTR{idProduct}=="6001",ATTR{idVendor}=="0403",MODE="0660",GRO
UP="1000",SYMLINK+="FTDI232"
```



Tip: If multiple users are working on the same PC, create a separate user group for the Libero vault access rights and the programmer access.

4.9 Step 9—Starting Libero and Testing the Complete Flow

The Libero install directory includes a sample project to test the design flow and licensing environment.

1. Make sure you have a terminal open with `john` as the active user.
2. Copy the sample directory in the HOME directory: `cp -r /home/caeadmin/microchip/Libero_SoC_v2022.1/Libero/scripts/sample/ ~/`

3. Start `libero` with the sample project:

```
cd sample
libero script:run.tcl
```

4. Verify the correct execution of the script:

```
...
No errors or warnings found.
Verify Timing Elapsed Time: 24.0238 seconds.
Info: Timing constraints have been met.

TEST CASE PASSED

The test project was closed.
The Execute Script command succeeded.
```

5. Look at the `caeadmin` terminal window. The `tail` command shows the check-out/check-in of the various tools used during the test project run.

```
16:15:43 (actlmgrd) OUT: "ACTEL_SUMMIT" john@ubuntu
16:15:51 (mgcld) OUT: "microsemimsim" john@ubuntu
16:15:51 (mgcld) IN: "microsemimsim" john@ubuntu
16:15:54 (snpslmd) OUT: "synplifypro_actel" john@ubuntu
16:15:58 (snpslmd) IN: "synplifypro_actel" john@ubuntu
16:16:07 (mgcld) OUT: "microsemimsim" john@ubuntu
16:16:08 (mgcld) IN: "microsemimsim" john@ubuntu
16:17:11 (actlmgrd) IN: "ACTEL_SUMMIT" john@ubuntu
```

4.10 Step 10—Optional: Creating a Service Using `systemctl`

The Linux boot process allows services to be started with the help of startup scripts. This script launches the licensing server automatically during the boot process and shuts down the license server properly. The `systemd` facility replaces the older System-V initialization scripts from earlier Linux releases. The `systemd` is an event-driven facility that allows non-dependent subsystems to be started, controlled, or stopped in parallel.

1. Open a new terminal.
2. At the prompt, type: `cd /etc/systemd/system/`
3. Start an editor with a new file: `sudo vi flexlm.service`
4. Paste the following content into the editor:

```
Unit]
Description=FlexLM license server daemon
After=network.target

[Service]
Type=simple
User=caeadmin
WorkingDirectory=/home/caeadmin/Linux_Licensing_Daemon
ExecStart=/home/caeadmin/Linux_Licensing_Daemon/lmgrd -z -local -c /home/
caeadmin/flexlm/License.dat -l /var/log/lmgrd.log
SuccessExitStatus=15
Restart=always
RestartSec=30

[Install]
WantedBy=multi-user.target
```

5. Save the file and set the file permission: `sudo chmod 644 flexlm.service`
6. Execute the following two commands to enable and start the service:

```
sudo systemctl enable flexlm
sudo systemctl start flexlm
```

Flexlm license server will now start automatically.

7. Confirm the correct startup of flexlm: `sudo journalctl -u flexlm`
The expected output is similar to:

```
Apr 05 16:09:59 ubuntu systemd[1]:  
Started flexlm.service
```

8. If you encounter licensing problems/issues, browse through `/var/log/lmgrd.log`.

5. Appendix: Warning /Error Messages and Solutions

Linux users may encounter some or all of the following error messages. The solution for each is described in this appendix.

- [Error: Could not locate the Motif library in LD_LIBRARY_PATH](#)
- [Warning: Unknown locale](#)
- [Wind/U X-toolkit Error: wuDisplay: Can't open display](#)
- [Wind/U Error: Failed to connect to the registry on server](#)
- [Wind/U Error: A fatal registry I/O failure has occurred. A registry daemon may not be running.](#)
- [Designer GUI Appears Stretched When Running On Linux](#)
- [Libero GUI is Distorted on Older Versions of Red Hat 5 Through VNC](#)
- [Libero GUI Fails to Start When Pre-loading a Project](#)
- [Viewing PDF Files and Online Help Files](#)
- [Segmentation fault "\\$exedir/\\$exename" "\\$@" message](#)
- [Warning: Failed to contact web Repositories](#)
- [JRE libraries are missing or not compatible](#)
- [Libero Installer stalled on Red Hat/CentOS 6.x](#)
- [Error when Installing Linux Packages](#)
- [During Installation Warning Message appears: /tmp does not have enough disk space](#)
- [X libraries not in LD_LIBRARY_PATH \(Libero\)](#)
- [Missing libgthread-2.0.so.0 libraries \(Libero\)](#)
- [Missing MOTIF libraries \(Libero\)](#)
- [Missing libncurses.so.5 libraries \(ModelSim\)](#)
- [Missing libXrender libraries](#)
- [Missing libfontconfig.sol.1 libraries](#)
- [Missing libfreetype.so.6 libraries](#)
- [Double Quotes around Vault Location Path on Linux installation](#)
- [Script "udev_install" to set up FlashPro fails on Linux](#)
- [Starting the License Manager gives Error on Linux](#)
- [Libero installation registry file still shows installed directories even though they had been uninstalled](#)
- [Missing libXtst library during Libero installation](#)
- [Possible errors related to Linux SSSD](#)
- [Warning: Ignoring 'modelism.log' file log file name from tool's profile](#)
- [Difficulty Licensing SynplifyPro Daemon on Linux OS](#)

5.1 Wind/U Error: Failed to connect to the registry on server

Symptoms: Wind/U Error: Failed to connect to the registry on server [server_name]

Cause: This Error may indicate that there is a Linux security setting that prevents Libero from connecting to the Wind/U Registry. This connection is typically made using a TCP port.

Solution: Resolve this error by modifying the Linux Security settings. For example, on RHEL5, navigate to the desktop menu **System > Administration > Login Screen > Security Tab** and Uncheck the Security Setting Deny TCP connections to Xserver. After making this change you must restart your computer for the changes to take effect.

Run the `actel_wuclean` command to clean up any left-over processes. At the command prompt:

```
% ./actel_wuclean -R -D
```

5.2 Warning: Unknown locale

Symptoms: Warning (241): Unknown locale specified locale:en_US.iso885915 LANGUAGE: UNDEFINED
SUBLANGUAGE: Wind/U Warning (241): Unknown locale specified locale: en_US.iso885915
LANGUAGE:UNDEFINED SUBLANGUAGE:

The four tabs on the lower left of the GUI are also displayed incorrectly.

Cause: This is caused by incorrect language setting on the Operating System.

Solution: Set the locale [elcap] with the following command:

```
% setenv LANG en_US
```

Note: If you experience this problem often, add the above command to your shell setup (such as .cshrc or .bashc) file.

5.3 Warning: Failed to contact web Repositories

The warning message "Failed to contact Web Repositories" appears in the Libero catalog window if any one of the following conditions is true:

- You do not have a connection to the Internet.
- You do not have write permission to the disk location you have set your vault to.
- Your vault location runs out of disk space. (For the Linux environment, Libero's vault location is set by default to your user directory in ~/.actel/vault. If your work site imposes quota restrictions on the size of user directories, you user directory may run out of disk space).
- A firewall prevents access to the Web Repositories.
To correct the problem:
 1. Check that you have an Internet connection.
 2. Check that you have write permission to the vault location or change your vault location setting to a location that you have write permission (Project > Vault/Repositories Settings > Vault location).
 3. Increase the disk space for the vault location to a minimum of 850 MB.
 4. Contact your IT department about the firewall issue.

5.4 Error: Could not Locate the Motif Library in LD_LIBRARY_PATH

Cause: Libero uses Motif Graphical Toolkit Library for its Graphical Interface on Linux. RHEL OS installation may not include a Motif Library.

Solution: If you have the Motif Library Installed, there should be an Environment Variable called LD_LIBRARY_PATH that points to the location of the Motif Library. Ensure that the path of the Motif Library is contained in the LD_LIBRARY_PATH Environment Variable. You can add the path with the command:

```
set LD_LIBRARY_PATH = (<path to Motif Library> $LD_LIBRARY_PATH)
```

If you are not sure whether you have the Motif Library Installed, try the following commands: The command "rpm -qa | grep -i motif" lists which Motif Library is installed.

The command "rpm -qa | grep -i motif" lists the files and paths associated with the motif library listed above (notice the extra "l" in the second command).

If you do not have a Motif Library Installed, consider downloading and installing OPEN Motif for free from www.opennc.org/openmotif/

Libero Linux tools expect to see the libXm.so.3 package of the Motif Library. Different versions of OPEN Motif could potentially install libXm.so.4 or others that are not compatible with Libero. Ensure that the version of OPEN Motif used installs libXm.so.3. One example version that provides libXm.so.3 is openmotif v2.2.3. As Libero is a 32-bit application, the 32-bit Motif Library must be used even if the computer is running a 64-bit Operating System.

5.5 Wind/U X-toolkit Error: wuDisplay: Can't open display

Set the \$DISPLAY environment variable to:0 using the command:

```
setenv DISPLAY :0
```

Then run the command:

```
<Libero_Installation_Folder>/Libero/bin/actel_wuclean -R to clean up any processes left over from the first invocation of Libero
```

5.6 Wind/U Error: A fatal registry I/O failure has occurred

Symptoms: Wind/U Error (251): Function RegPingDaemon - A fatal registry I/O failure has occurred. A registry daemon may not be running. Restart your application and verify that a registry daemon is running:

```
Wind/U Error (251): Function RegOpenKeyExA - A fatal registry I/O failure has occurred. A registry daemon may not be running. Restart your application and verify that a registry daemon is running.
```

Solution/Workaround: Run the 'actel_wuclean' utility found in the bin folder. Use the '-R' option as follows:

```
.../bin/actel_wuclean -R
```

The following messages may appear:

```
Shutting down Actel applications.
All actgen_bin processes are shut down.

All smartgen_bin processes are shut down.
All expert_bin processes are shut down.
All mvn_bin processes are shut down.
All libero_bin processes are shut down.
Shutting down Wind/U daemons...
All windu_scmd processes are shut down.
All windu_serviced processes are shut down.
All windu_registryd processes are shut down.
Removing Wind/U temporary files from the temporary directories...
Removing cached Wind/U files from the home directory...
Done
```

The actel_wuclean utility shuts down any Microchip tools running on the same host by the same user. Save any work you may have before invoking actel_wuclean.

5.7 Segmentation fault "\$exedir/\$exename" "\$@" message

Scenario 1: When trying to invoke Libero SoC 10.1 on Linux Red Hat 5.4 (32bit or 64-bit), Libero may crash with segmentation fault message

Description: When you invoke Libero SoC v10.1 on Linux Red Hat 5.4 machine, Libero does not come up and a crash with segmentation fault message is issued. For example:

```
<line 67: 10617 Segmentation fault "$exedir/$exename" "$@">
```

Solution/Workaround: The templates file at <Installation-path-to-libero-10.1>/data/catalogs/ templates.xml may get corrupted and cause the crash. To resolve this issue, rename the file at

```
<Installation-path-to-libero-version>/data/catalogs/templates.xml to templates.xml.ori. Make sure that there is enough disk space in the user's home directory, ~<user_name>.
```

Run the "check_linux_req" script to make sure that all required packages have been installed on the system.

Scenario 2: Multiview Navigator errors are reported upon opening the Constraints Editor.

Description: The following messages are displayed on the Linux terminal when the Floorplan Constraints Editor is opened:

```
Start Server 1
Start Server 2
Failed to open Def Table: 9 Failed to open Def Table: 8 Failed to open Def Table: 12
Running in orphan mode!
```

The following message appears on exiting MVN and a core file is created: `.../bin/mvn: line 69: 1675 Segmentation fault (core dumped) "$exedir/../../lib/$exename" "$@"`

Solution/Workaround: These errors can be ignored.

5.8 Designer GUI Appears Stretched When Running On Linux

Note: Designer is for IGLOO®, SmartFusion®, Fusion, and ProASIC3® devices only.

Scenario: Log onto a Linux machine, then run Designer software.

Symptoms: Some of the GUIs appear stretched.

Description: Some Designer GUIs appear stretched on Linux when directly logged into the machine. This is due to issues with mismatched color depths on the GUI and desktop.

Solution/Workaround: Change the desktop color depth to resolve the issue. For Linux access via VNC, change the color depth of the vncserver to 8, 16 or 24. See the vncserver manual pages for details.

5.9 Libero GUI is Distorted on Older Versions of Red Hat 5 Through VNC

Scenario: The Libero GUI may appear distorted when VNC is used with Linux Red Hat versions older than 5.3.

Description: When using VNC and Linux RH 5.2 or older, Libero GUI, fonts and background colors may appear slightly faded or fuzzy. This issue is not unique to Libero but affects all Qt based software including Synplify Pro. The problem is caused by the VNC server (Xvnc) not loading Xrender by default in these older versions of RHEL 5.

Note: There should be no issue when using Linux RHEL 5 (Tikanga) 5.3 to 5.75 (32-bit and 64-bit).

Workaround/ Solution:

When using RHEL 5.2 (and older) with VNC:

- Microchip has tested and recommends using Exceed 11, if possible. This version of Exceed is still on the support list at OpenText.

Or

- Upgrade to a newer version of VNC server (Xvnc) that enables Xrender by default. One version that has been tested is Tiger (an open source vncserver that is available from <http://sourceforge.net/projects/tigervnc/files/tigervnc/>) VNC v1.2.0 instead of the default VNC server on RHEL 5.2.

5.10 Libero GUI Fails to Start When Pre-loading a Project

Scenario: Your most recent project file may have been corrupted and causes Libero to crash trying to open the corrupted project file.

Solution: To change your user settings to prevent Libero from automatically opening your last project when it invokes:

1. Open `~/.actel/libero.def`.
2. Add the following line to the file: `data IDE_OPEN_MRU_PROJECT 0`.
3. Start Libero using `<path_to_libero_install>/bin/Libero`.

5.11 Viewing PDF Files and Online Help Files

To view online Help files and PDF files, you may need to set environment variables LINUX_HTMLREADER to the full path of your web browser in your terminal before invoking Libero. For example:

csh (C-shell):

```
setenv LINUX_HTMLREADER /usr/bin/firefox
```

sh (Borne Shell)/ ksh (Korn Shell):

```
LINUX_HTMLREADER=/usr/bin/firefox; export LINUX_HTMLREADER
```

If you do not set the environment variable, some HTML files (such as the online help) will not be viewable from within Libero.

5.12 JRE libraries are missing or not compatible

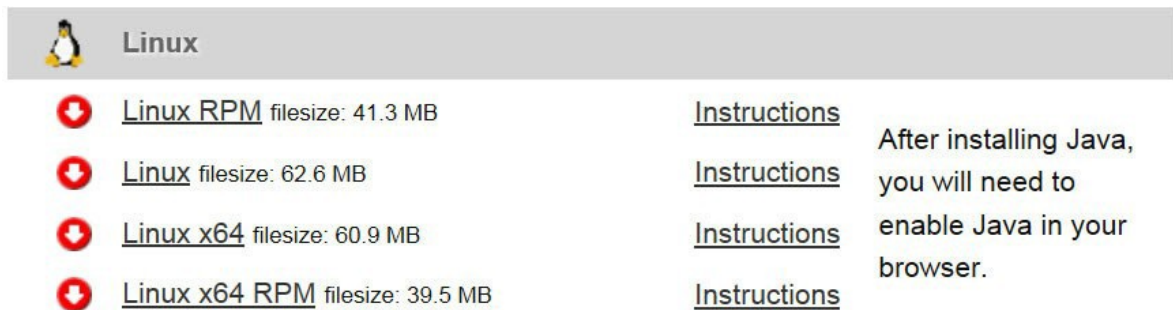
This is a Libero Installer Error message.

Description: The Installer script requires some Java Libraries to run and the libraries are missing.

Solution:

1. Go to the following Java Download website and install the missing Java libraries:
<http://www.java.com/en/download/manual.jsp#lin>
2. To download the 32-bit version, select "Linux RPM". The Instructions on how to install the RPM are under "Instructions" link located to the right of the "Linux RPM" link.
3. To download the 64-bit version, select "Linux x64 RPM". The Instructions on how to install the RPM are under "Instructions" link located to the right of the "Linux x64 RPM" link.

Figure 5-1. Java Download Website



Note: Alternatively, you may install the latest OpenJDK JRE as follows:

```
% su
```

```
% yum install java
```

4. If the installer still fails and you are using CentOS 6, run the installer as follows:
`LiberoSoc_v<version>Linux_bin LAX_VM <path_to_JRE>/java.exe` This forces the Libero Linux Installer to use the Java executable in the specified path.

5.13 Libero Installer stalled on Red Hat/CentOS 6.x

Description: Installation starts but then stalls half-way through installation when installing Libero on Red Hat/CentOS 6.x machines. In the System Monitor, the Waiting Channel of the process is `futex_wait_queue_me`.

Solution: Update the system kernel to version 2.6.32-504.16.2.el6.x86_64

5.14 Error when Installing Linux Packages

Description: Error Message while installing Linux packages: Protected multilib versions

Cause: There is package incompatibility between i686 (32-bit) and x86_64 (64-bit) packages when 32-bit Linux packages are installed.

Solution: First upgrade the packages to 64-bit and then install the 32-bit package, e.g., for the gtk2 package, the commands are:

```
% sudo yum upgrade gtk2
% sudo yum install gtk2.i686
```

5.15 During Installation Warning Message appears: /tmp does not have enough disk space

Cause: The Installer runs out of disk space in /tmp and tries to use /home/user instead, which also has less disk space than required.

Solution: At the Linux prompt, set the environment variable IATEMPDIR to a disk location with enough disk space as follows:

- For Bourne Shell (sh), Korn Shell (ksh), bash and zsh users:


```
% IATEMPDIR=/your/free/space/directory
% export IATEMPDIR
```
- For C-shell (csh) and tcsh users:


```
setenv IATEMPDIR= /your/free/space directory
```

5.16 X libraries not in LD_LIBRARY_PATH (Libero)

Description: Libero has a dependency on the X Libraries but cannot find it.

Solution: Install libXft package:

```
% sudo yum install libXft.i686
```

5.17 Missing libgthread-2.0.so.0 libraries (Libero)

Description: Libero has a dependency on the glib2 Libraries but cannot find it.

Solution: Install glib2 package:

```
% sudo yum install glib2.i686
```

Note: If the yum install command errors out because of a version conflict with x86_64 version already installed, use the yum update command instead:

```
% sudo yum update glib2
```

5.18 Missing MOTIF libraries (Libero)

Description: Libero has a dependency on the MOTIF libraries but cannot find them.

Solution: Install the MOTIF libraries:

CentOS 5/Red Hat: % sudo yum install openmotif

CentOS 6/Red Hat: % sudo yum install openmotif22

CentOS7/Red Hat 7: % sudo yum install motif

5.19 Missing libncurses.so.5 libraries (ModelSim)

Description: ModelSim Simulator has a dependency on the libncurses.so.5 libraries but cannot find them.

Solution: Install the current package version of ncurses libraries:

```
% sudo yum install ncurses-libs.i686
```

5.20 Missing libXrender libraries

Description: Libero has a dependency for libXrender libraries but cannot find them.

Solution: Install the current libXrender libraries:

```
% sudo yum install libXrender.i686
```

5.21 Missing libfontconfig.sol.1 libraries

Description: Libero has a dependency for libfontconfig libraries but cannot find them.

Solution: Install the libfontconfig libraries:

```
% sudo yum install fontconfig-2.8.0-3.el6.i686 (for Red Hat)
```

```
% sudo yum install fontconfig-2.8.0-5.el6.i686 (for CentOS)
```

5.22 Missing libfreetype.so.6 libraries

Description: Libero has a dependency for libfreetype libraries but cannot find them.

Solution: Install the current freetype libraries:

```
% sudo yum install freetype-2.3.11-14.el6_3.1.i686
```

5.23 Missing libpng.so.6 libraries

Description: Libero v12.2 and earlier requires the installation of libpng12.x86_64 system package.

Solution: Install libpng12.x86_64 library:

```
% sudo yum install libpng12.x86_64
```

5.24 Double Quotes around Vault Location Path on Linux Installation

Symptom: After console mode installation on Linux, the vault location displayed under Project > vault/ repositories setting shows <path install libero>/bin "<path common directory>/vault." The double quotes around the vault path location should be removed.

Problem: The install.def file has double quotes around the variable for the vault location.

Workaround: Exit Libero, update the install.def file, and restart Libero.

1. Exit Libero.
2. At the Linux shell prompt, go to <Libero_installed_path>/data directory:

```
% cd <Libero_installed_path>/data
```
3. At the Linux shell prompt, apply the sed command to remove the double quotes in the install.def file:

```
% sed 's/"//g' install.def > tmp.def
% cp tmp.def install.def
% rm tmp.def
```

4. Restart Libero to check that the double quotes around the vault location path are removed.

5.25 Script "udev_install" to set up FlashPro fails on Linux

Symptom: When running the "udev_install" script to set up FlashPro on Linux, the script fails with error message:

```
% ./udev_install
/bin/sh^M: bad interpreter: No such file or directory
```

Problem: The script uses Windows CR/LF line termination instead of Unix/Linux LF only line termination and, as such, is not a valid shell script for Linux.

Workaround: Users must run dos2unix command on the script "udev_install" to convert Windows CR/ LF line termination to Linux LF only line termination and run the script again. At the Linux shell prompt:

```
% dos2unix udev_install
% ./udev_install
```

Note: If dos2unix is not available, run the following command to install dos2unix, then run dos2unix:

```
% sudo yum install dos2unix
```

5.26 Starting the License Manager gives Error on Linux

Symptom: When running lmgrd to start the License Manager on Linux, the system gives this error message:

```
12:39:28 (actlmgrd) Vendor daemon can't talk to lmgrd (License server machine is down
or not responding. (-96,7:2 "No such file or directory"))
```

```
12:39:28 (actlmgrd) EXITING DUE TO SIGNAL 37 Exit reason 5
```

Problem: The host is not recognized due to a problem in the /etc/hosts file on the Linux system.

Solution:

1. At the Linux prompt, edit the /etc/hosts file and add the following lines:
IP address Hostname Alias

127.0.0.1 localhost <hostname>

Note: <hostname> is the name of the Linux system.
2. Restart lmgrd.

5.27 Missing libXtst library during Libero installation

Symptom: Libero installer crashes with the following message:

```
Invocation of this Java Application has caused an InvocationTargetException. This
application will now exit. (LAX)
Stack Trace: java.lang.UnsatisfiedLinkError:
/tmp/install.dir.8046/Linux/resource/jre/lib/i386/xawt/libmawt.so: libXtst.so.6:
cannot open shared object file: No such file or directory
```

Problem: libXtst system library is missing.

Solution: Install libXtst.i686 library:

```
% sudo yum install libXtst.i686
```

Note: This issue exists only for Libero SoC v12.0, v12.1, and v12.2.

5.28 Libero installation registry file still shows installed directories even though they had been uninstalled

Symptom: Libero installer dialog still shows existing installation instances even though such instances had been uninstalled.

Problem: Libero installer keeps installation instances in its registry file kept at the user home location by the name '.com.zerog.registry.xml'. After the uninstallation of each instance, the instance properties lines in the registry file do not get deleted as expected. Upon subsequent installation, the installer shows the previous installations as existed.

Workaround: Users must manually remove the installation properties lines in the registry file.

Example of the registry file:

```
<product name="Libero SoC v11.8" id="11d9aae4-1f0b-11b2-ad7a-efd5e774d882"
version="11.8.0.119" copyright="2013" info_url="" support_url="" location="/home/
mikej/prod/Libero_v11.8" last_modified="2020-01-24 02:37:58">
<![CDATA[]]>
<vendor name="Microsemi Corp." id="11d9b6f2-1f0b-11b2-ad7a-efd5e774d882"
home_page="http://www.actel.com" email=""/>
...
</product>
```

Carefully remove the above lines from the registry file. Save and exit. Restart Libero installer. The previous installation will not show up again.

5.29 Possible errors related to Linux SSSD

Description: Customers on RHEL/CentOS 6.8 or higher and who use System Security Services Daemon (SSSD) for authentication should install system package sssd-client.i686. Further information is available here:

access.redhat.com/documentation/en-us/red_hat_enterprise_linux/6/html/deployment_guide/installing-sssd-tools

Problem: If you configure SSSD for central authentication, several applications, such as Firefox or Adobe, might not start.

Workaround: Even on 64-bit systems, 32-bit applications require a 32-bit version of SSSD to use to access the password and identity cache. If a 32-bit version of SSSD is not available, but the system is configured to use the SSSD cache, then 32-bit applications can fail to start.

Recommended Action:

```
% sudo yum install sssd-client.i686
```

For example, customers may see the following errors when running Designer:

```
Wind/U Error (251): Function RegPingDaemon - A fatal registry I/O failure has
occurred. A registry daemon may not be running. Restart your application and verify
that a registry daemon is running.
Wind/U Error (251): Function RegOpenKeyExA - A fatal registry I/O failure has
occurred. A registry daemon may not be running. Restart your application and verify
that a registry daemon is running.
Wind/U Error (251): Function RegPingDaemon - A fatal registry I/O failure has
occurred. A registry daemon may not be running. Restart your application and verify
that a registry daemon is running.
Wind/U Error (251): Function RegOpenKeyExA - A fatal registry I/O failure has
occurred. A registry daemon may not be running. Restart your application and verify
that a registry daemon is running.
```

5.30 Warning: Ignoring 'modelsim.log' log file name from tool's profile

Problem: The Modelsim tool fails during sample design flow script with the following warning message:

```
Warning: Ignoring 'modelsim.log' log file name from tool's profile. Using
'testbench_presynth_simulation.log' instead.
Calling ModelSim Pro Edition simulator for pre-synthesis simulation.
Starting Simulation...
Error: Simulation failed.
Error: The command 'run_tool' failed.
Pre-Synthesis simulation -> FAILED
TEST RUN FAILED
```

Workaround: This issue might randomly show up in some scenarios and here is the workaround.

When Modelsim tool fails during sample design flow script with the above warning message, you must delete the `.actel` directory under the user home.

5.31 Difficulty Licensing SynplifyPro® Daemon on Linux OS

Linux customers who encounter difficulties while running the SynplifyPro daemon must install the following hybrid binary schemes:

- SynplifyPro: 32-bit binary scheme
- Libero SoC: 64-bit binary scheme

6. References

The following document is referenced in this user guide.

- [Libero Software Download and License Installation Quick Start Guide](#)

7. Revision History

The revision history describes the changes that were implemented in the document. The changes are listed by revision, starting with the most current publication.

Revision	Date	Description
G	07/2022	The following is the summary of changes in the revision F of the document: <ul style="list-style-type: none"> • Added Red Hat to the topic title 4. Installing Libero SoC on a CentOS/Red Hat Operating System • Updated 4.2. Step 2—Downloading Libero Installer Files, License Daemons, and License File by mentioning that you can obtain license daemons from the Libero installation • Provided guidelines about running the <code>check_linux_req.sh</code> script in 4.3. Step 3—Adding Missing Packages to the Linux OS
F	04/2022	The following is the summary of changes in the revision F of the document: <ul style="list-style-type: none"> • Updated 2. Installing Libero SoC on an Ubuntu Operating System • Updated 4. Installing Libero SoC on a CentOS/Red Hat Operating System • Updated 5.31. Difficulty Licensing SynplifyPro Daemon on Linux OS
E	04/2022	Added 5.30. Warning: Ignoring 'modelsim.log' log file name from tool's profile
D	12/2021	This document is released with Libero SoC Design Suite v2021.3 without changes from v2021.2.
C	08/2021	2. Installing Libero SoC on an Ubuntu Operating System : Added an instruction to install the 'lsb' package.
B	04/2021	Introduction : Updated the Linux Operating Systems
A	11/2020	The document is converted to Microchip template. Initial Revision

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ISBN: 978-1-6683-0887-5

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