

How to Set Up Your Linux Environment for Libero

Updated September 2013

Contents

Libero SoC is supported on these Linux operating systems.	1
RHEL 6.0 to 6.3 64-bit Operating Systems Set-up.....	2
Launching Libero on Linux RHEL OS	3
Correcting Warnings and Errors.....	3
Wind/U Error: Failed to connect to the registry on server	3
Warning: Unknown locale.....	3
Error: Could not locate the Motif library in LD_LIBRARY_PATH	4
Wind/U X-toolkit Error: wuDisplay: Can't open display.....	4
Wind/U Error: A fatal registry I/O failure has occurred. A registry daemon may not be running.	4
Segmentation fault "\$exedir/\$exename" "\$@" message	5
Designer GUI Appears Stretched When Running On Linux	6
Libero GUI is Distorted on Older Versions of RedHat 5 Through VNC.....	6
Libero GUI Fails to Start When Pre-loading a Project	6
Viewing PDF Files	6

Libero SoC is supported on these Linux operating systems.

- RHEL5 32-bit
- RHEL5 64-bit
- RHEL6 64-Bit

Starting in 2014 Libero SoC will be supported only on 64-bit OS.

There are specific set-up requirements for optimum Linux operation, which vary depending on your OS.

RHEL 6.0 to 6.3 64-bit Operating Systems Set-up

To run Libero SoC using RHEL 6.0-6.3, you must install a set of libraries using Yum package manager (<http://yum.baseurl.org/>). The commands and packages are below:

	Yum Package	Fixes Error Message
1	<i>yum install</i> libXft-2.1.13-4.1.el6.i686	X Libraries not in LD_LIBRARY_PATH (libero)
2	<i>yum install</i> openmotif22-2.2.3-19.el6.i686	Missing MOTIF libs (libero)
3	<i>yum install</i> glib2-2.22.5-7.el6.i686	Missing libgthread-2.0.so.0 (libero)
4	<i>yum install</i> ncurses-libs-5.7-3.20090208.el6.i686	Missing libncurses.so.5 (modelsim)

You may need to install the following additional packages:

	Yum Package	Fixes Error Message
5	<i>yum install</i> libXrender-0.9.5-1.el6.i686	Missing libXrender.so.1
6	<i>yum install</i> fontconfig-2.8.0-3.el6.i686	Missing libfontconfig.so.1
7	<i>yum install</i> freetype-2.3.11-14.el6_3.1.i686	Missing libfreetype.so.6

After installing the required packages, the system startup script must be updated as follow:

Replace `rpcbind` with `rpcbind -i` in the system startup script `/etc/init.d/rpcbind` as shown below.

```
# Source networking configuration.
[ -f /etc/sysconfig/network ] && . /etc/sysconfig/network

prog="rpcbind"
[ -f /etc/sysconfig/$prog ] && . /etc/sysconfig/$prog -i

RETVAL=0
uid=`id | cut -d\ ( -f1 | cut -d= -f2`

start() {
    # Check that networking is up.
    [ "$NETWORKING" = "yes" ] || exit 6

    [ -f /sbin/$prog ] || exit 5

    # Make sure the rpcbind is not already running.
    if status $prog > /dev/null ; then
        exit 0
    fi

    # Only root can start the service
    [ $uid -ne 0 ] && exit 4

    echo -n "Starting $prog: "
    daemon $prog $1 "$RPCBIND_ARGS" -i
    RETVAL=$?
    echo
    if [ $RETVAL -eq 0 ] ; then
```

Restart the `rpcbind` service as follow: `/etc/init.d/rpcbind restart`

Launching Libero on Linux RHEL OS

Launch Libero using the following command:

```
<Libero_Installation_Folder>/Libero/bin/libero
```

Correcting Warnings and Errors

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

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 <machine_name>

Wind/U Error: A fatal registry I/O failure has occurred. A registry daemon may not be running.

WARNING: Attempt to start the Wind/U registry appears to have failed.

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 Un-Check the Security Setting **Deny TCP connections to Xserver**. After making this change you must restart your computer for the changes to take effect.

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, please add the above command to your shell setup (ie. .cshrc) file.

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 unsure 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 -qal | grep -i motif” lists the files and paths associated 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

<http://www.openmotif.org/>

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. Please 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. Since 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.

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
```

Wind/U Error: A fatal registry I/O failure has occurred. A registry daemon may not be running.

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 Actel tools running on the same host by the same user. Save any work you may have in Designer, Libero, etc. before invoking actel_wuclean.

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

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

Description: When you invoke Libero SoC v10.1 on Linux Redhat 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-10.1>/data/catalogs/templates.xml to templates.xml.ori.

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.

Designer GUI Appears Stretched When Running On Linux

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.

Libero GUI is Distorted on Older Versions of RedHat 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 that 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:

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

Or

2. Upgrade to a newer version of VNC server (Xvnc) that enables Xrender by default. One version we 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.

Libero GUI Fails to Start When Pre-loading a Project

To change your user settings to prevent the automatic opening of your last project:

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`

Viewing PDF Files

You may need to set your LINUX_PDFREADER variable such that it enables a PDF viewer. For example:

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

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



Microsemi Corporate Headquarters
One Enterprise, Aliso Viejo CA 92656 USA
Within the USA: +1 (949) 380-6100
Sales: +1 (949) 380-6136
Fax: +1 (949) 215-4996

Microsemi Corporation (NASDAQ: MSCC) offers a comprehensive portfolio of semiconductor solutions for: aerospace, defense and security; enterprise and communications; and industrial and alternative energy markets. Products include high-performance, high-reliability analog and RF devices, mixed signal and RF integrated circuits, customizable SoCs, FPGAs, and complete subsystems. Microsemi is headquartered in Aliso Viejo, Calif. Learn more at www.microsemi.com.

© 2013 Microsemi Corporation. All rights reserved. Microsemi and the Microsemi logo are trademarks of Microsemi Corporation. All other trademarks and service marks are the property of their respective owners.