

Installation of Microchip Toolchain

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Tags	

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▼ Generating the silver license for the Libero SoC toolchain:

- Head to <https://www.microchipdirect.com/fpga-software-products> and create an account on Microchip website.
- Click on “**Register Free License**”

The screenshot shows a user profile page with a navigation bar at the top. Below the navigation bar, there's a section for 'FPGA Software and IP Core Products'. In this section, there's a table with one row. The table columns are: Microchip Part, Status, Software ID, Seats, Registration Date, Expiration, Download License, and Rehost License. The first column shows 'Liber0 Silver 1Yr Floating License for Windows/Linux Server (LIB-SLV-F-1YR)'. The 'Status' column says 'License not registered'. The 'Software ID' column shows '5e5-0635-18d'. The 'Seats' column shows '1'. The 'Registration Date' and 'Expiration' columns are empty. The 'Download License' and 'Rehost License' columns also show 'License not registered'. At the bottom right of the table, there are two buttons: 'Register Purchased Software' and 'Request Free License'. The 'Request Free License' button is highlighted with a red box.

- Click on “Libero Silver 1 Yr License for Windows/Linux Server”

Register Free FPGA license

X

Microchip Part	Type	Register License
Libero Evaluation Floating License for Windows or Linux Server	Libero	Register
Libero Evaluation Node Locked License for Windows	Libero	Register
Libero Silver 1Yr Floating License for Windows/Linux Server	Libero	Register
Libero Silver 1 Yr DiskID NL License	Libero	Register
SmartHLS 1 Year Floating License for Windows or Linux Server	SmartHLS	Register
SmartHLS 1 Year Node Locked License for Windows	SmartHLS	Register
Libero 30 days Seminar Floating License for Windows or Linux Server	Libero	Register
Libero 30 days Seminar Node Locked License for Windows	Libero	Register
CoreVECTORBLOX OBS Bundle Perpetual Floating License	VectorBlox	Register
CoreVECTORBLOX OBS Perpetual Node Locked License	VectorBlox	Register
Legacy IP Cores RTL Floating MACID license	IPCore	Register
Legacy IP Core RTLsource Node Locked License	IPCore	Register

[Close](#)

- Enter MAC ID for your system in xxxxxxxxxxxx format. (The usual XX-XX-XX-XX-XX format won't work on this site)
 - The MAC ID for your system could be found using following command in Linux: `/sbin/ifconfig` and in output the MAC address will be `ether` address of the ethernet CARD (`eth0` or `enp0xxxx` or `enp2sx`). If there are multiple ethernet cards in your system then enter the MAC ID of primary active card.

Register Product

X

Register Libero Silver 1Yr Floating License for Windows/Linux Server with Software ID

MAC ID: [*]	<input type="text"/>	Register
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Your MAC ID is a 12 character hexadecimal number set with valid characters A-F and/or 0-9. Ex: "1234abcd5678". MAC ID is required for Linux Floating, Linux Node Locked, or Windows Floating, or Symplicity "Server-Based Node-Locked" (SBNL) licenses.

Linux Node Locked or Floating: To obtain the MAC ID, from the Command Prompt type:

`/sbin/ifconfig`

The Ethernet/MAC ID address will be displayed. The MAC ID address is a twelve character hexadecimal number, similar to "00A0C982BEE3". Enter your MAC ID into the registration page window where indicated.

Windows Floating or Symplicity "Server-Based Node-Locked" (SBNL) Licenses: To obtain the PC MAC ID, type the following at a DOS or Command Prompt:

`C:\>Imutil lmhostid` or You can also use: `C:\><path_to_acel>\installation\bini\lmhostid`

The Ethernet/MAC ID address will be displayed. The MAC ID address is a twelve character hexadecimal number, similar to "00A0C982BEE3". Enter the 12 character MAC ID into the registration page window where indicated.

In some PC configurations, there can be more than one MAC ID. Use the MAC ID that you know will be the "active" ID. Some users may configure their laptops to have the wired MAC ID for docked laptop use and the wireless MAC ID for undocked use. Tools using the MAC ID depend on the MAC ID being active for use.

[Close](#)

- Your software license will arrive via email within 45 minutes.

▼ Installing the Libero-SoC toolchain:

- Download the installer from this website according to your OS type:
 - <https://www.microchip.com/en-us/products/fpgas-and-plds/fpga-and-soc-design-tools/fpga/libero-software-later-versions>
 - Version used: 2024.1
 - Follow the instruction in the launcher and once the installation is finish then link the license to it using following steps.
- Add following custom parameters to the .bashrc for linking the installation and license file:

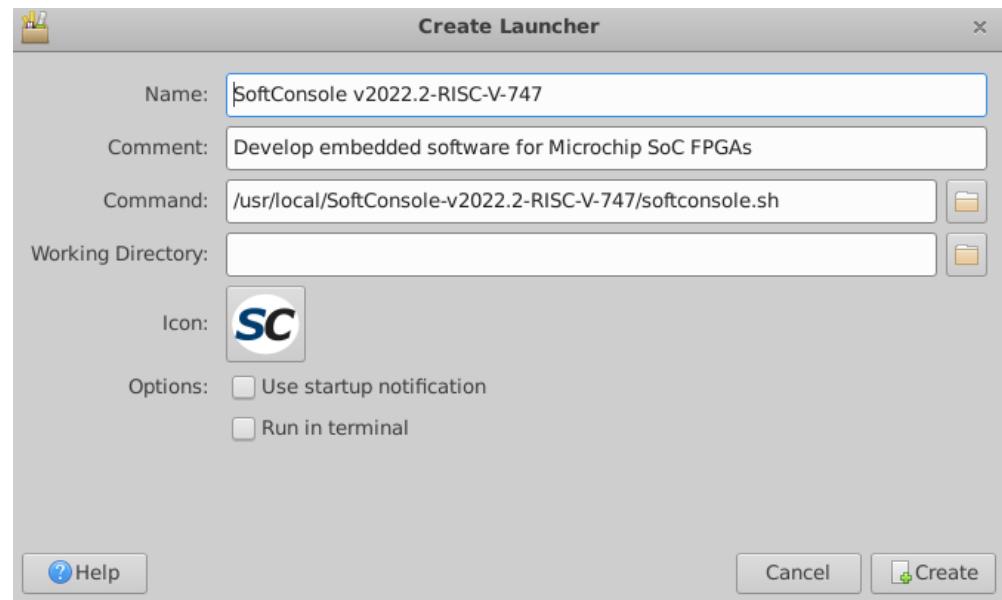
```
# Custom parameters:  
#ADD THE BIN PATH OF LIBERO HERE SO THAT IT COULD BE OPENED F  
export PATH=$PATH:/usr/local/microchip/Libero_SoC_v2024.1/Lib  
#export LM_LICENSE_FILE=<PATH-TO-LICENSE.DAT-FILE>  
export LM_LICENSE_FILE=/home/bhilareo/Downloads/Linux_Licensi
```

- Now Libero could be opened from anywhere using just following command:
 - libero

▼ Installing the SoftConsole IDE

- SoftConsole is Microchip's rapid development tool for bare metal and RTOS-based C/C++ applications targetting hardened RISC-V cores.
- Install it using following website: <https://www.microchip.com/en-us/products/fpgas-and-plds/fpga-and-soc-design-tools/soc-fpga/softconsole>
 - Version used: 2022.2
 - If on linux following issue is faced: :Cannot open the display then try running
 - \$ xhost + //This allows any client to access the display.

- Launcher for SoftConsole can be created on Linux as follows:



- Note: **You need to run this tool as a root for programming the board.**