S32 Design Studio for S32 Platform 3.4

Installation Guide

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System Requirements

To maximize performance, the S32 Design Studio for S32 Platform tools should be installed on a computer with the recommended system configuration. While the tools will operate on a computer with the minimum configuration, the limited hardware will restrict its ability to function at desired performance levels.

Table 1: Requirements for Windows platform

Recommended Configuration • PC with 2.6 GHz Intel® Pentium® compatible processor or better • 4 GB of RAM • 30 GB of disk space (when installing all product features or all updates) • 24 GB of temporary storage (required only during the product installation) • USB port for communications with target hardware • Ethernet port for communications with target hardware (optional)
Operational Minimum Configuration • PC with 1.8 GHz Intel® Pentium® compatible processor • 2 GB of RAM • 25 GB of disk space • 20 GB of temporary storage (required only during the product installation) • USB port for communications with target hardware
Java Runtime • Java Runtime Environment 1.8 64-bit (included in the installation package)
Host Operating System Support • Microsoft® Windows® 7 64-bit • Microsoft® Windows® 8/8.1 64-bit • Microsoft® Windows® 10 64-bit **Note:** S32 Design Studio for S32 Platform 3.4 supports all flavors and editions of the above operating systems as limited to the requirements of the Java Runtime Environment.

Table 2: Requirements for Linux platform

Recommended Configuration • PC with 2.6 GHz Intel® Pentium® compatible processor or better • 4 GB of RAM • 25 GB of disk space • 20 GB of temporary storage (required only during the product installation) • USB port for communications with target hardware • Ethernet port for communications with target hardware (optional)
Operational Minimum Configuration • PC with 1.8 GHz Intel® Pentium® compatible processor • 2 GB of RAM • 20 GB of disk space

- 16 GB of temporary storage (required only during the product installation)
- USB port for communications with target hardware

Java Runtime

- Java Runtime Environment 1.8 64-bit (must be installed separately)

GNU Compiler Collection

- GCC 4.9.2 or newer

Host Operating System Support

- Ubuntu LTS 16.04 64-bit
- Ubuntu LTS 18.04 64-bit
- Debian 8 64-bit
- CentOS 7 64-bit

Note: S32 Design Studio for S32 Platform 3.4 supports all editions of the operating systems listed above and is limited only by the requirements of the Java Runtime Environment.

Installation prerequisites for Linux platforms

The following preliminary steps are required before you install S32 Design Studio for S32 Platform 3.4.

- The user account installing the product needs to be a member of sudoers group.
- Compatibility libraries necessary to run a 32-bit toolchain on a 64-bit Linux need to be installed:

Table 3: Installing 32-bit compatibility libraries

Libraries	Platform	Installing

lib32z1
lib32ncurses5
libstdc++6
libbz2-1.0
glibc
libX11
libxpm4
libncursesw5
libmpfr4
	Ubuntu 16	`sudo dpkg --add-architecture i386`
		`sudo apt-get update`
		`sudo apt-get install lib32z1 libncurses5:i386`
		`libstdc++6:i386 libbz2-1.0:i386 libc6:i386`
		`libx11-6:i386 libxpm4:i386 libncursesw5:i386`
		`libmpfr4:i386`
		`sudo ln -s /lib/i386-linux-gnu/libncursesw.so.5`
		`/lib/i386-linux-gnu/libncursesw.so.6`

	Ubuntu 18	`sudo dpkg --add-architecture i386`
		`sudo apt-get update`
		`sudo apt-get install lib32z1 libncurses5:i386`
		`libstdc++6:i386 libbz2-1.0:i386 libc6:i386`
		`libx11-6:i386 libxpm4:i386 libncursesw5:i386`
		`libmpfr6:i386`
		`sudo ln -s /lib/i386-linux-gnu/libncursesw.so.5`
		`/lib/i386-linux-gnu/libncursesw.so.6`
		`sudo ln -s /usr/lib/i386-linux-gnu/libmpfr.so.6`
		`/usr/lib/i386-linux-gnu/libmpfr.so.4`

	Debian	`sudo dpkg --add-architecture i386`
		`sudo apt-get update`
		`sudo apt-get install lib32z1 lib32ncurses5`
		`libstdc++6 libc6:i386 libx11-6:i386`
		`libxpm4:i386 libncursesw5:i386 libmpfr4:i386`
		`sudo ln -s /lib/i386-linux-gnu/libncursesw.so.5`
		`/lib/i386-linux-gnu/libncursesw.so.6`

	CentOS 7	`sudo yum install zlib.i686 ncurses-devel.i686`
		`glibc.i686 libstdc++.i686 libX11.i686`
		`libXpm.i686`
		`sudo yum install ncurses-libs.i686 mpfr.i686`
		`sudo ln -s /usr/lib/libncursesw.so.5`
		`/usr/lib/libncursesw.so.6`

	CentOS 8	`sudo yum install zlib.i686 ncurses-devel.i686`
		`glibc.i686 libstdc++.i686 libX11.i686`
		`libXpm.i686`
		`sudo yum install ncurses-libs.i686 mpfr.i686`

- Libraries necessary to run a 64-bit GDB client need to be installed:

Table 4: Installing 64-bit libraries

Platform	Installing

Ubuntu 18	`cd /lib/x86_64-linux-gnu/`
	`sudo ln -s libncursesw.so.5 libncursesw.so.6`
	`sudo ln -s libtinfo.so.5 libtinfo.so.6`
	`cd /usr/lib/x86_64-linux-gnu/`
	`sudo ln -s libmpfr.so.6 libmpfr.so.4`

Ubuntu 16 and Debian	`cd /lib/x86_64-linux-gnu/`
	`sudo ln -s libncursesw.so.5 libncursesw.so.6`
	`sudo ln -s libtinfo.so.5 libtinfo.so.6`

CentOS 7	`cd /usr/lib64/`
	`sudo ln -s libncursesw.so.5 libncursesw.so.6`
	`sudo ln -s libtinfo.so.5 libtinfo.so.6`

CentOS 8	`sudo yum install ncurses-compat-libs`

- Java Runtime Environment 1.8 64-bit and JavaFX:

Table 5: Installing JRE 1.8 and JavaFX

Platform	Installing
Ubuntu 16	`sudo apt-get install openjdk-8-jre openjfx`

Ubuntu 18 and Debian	Install OracleJDK:
	1. Download the archive "`jdk-8u202-linux-x64.tar.gz`" from the official site: Java SE 8 Archive Downloads.
	2. Create directory (if not created):
	`sudo mkdir -p /usr/lib/jvm/`
	3. Unarchive downloaded archive:
	`sudo tar -zxvf jdk-8u202-linux-x64.tar.gz -C /usr/lib/jvm/`
	4. Add java executable to version control utility list:
	`sudo update-alternatives --install /usr/bin/java java /usr/lib/jvm/jdk1.8.0_202/bin/java 300`
	5. Activate this version:
	`sudo update-alternatives --config java`
	6. Add java environment variable:

Platform	Installing

	a. Create file:
	`sudo vi /etc/profile.d/java8jdk.sh`
	with the following content:
	`JAVA_BUILD=jdk1.8.0_202`
	`export PATH=$PATH:/usr/lib/jvm/${JAVA_BUILD}/bin`
	`export JAVA_HOME=/usr/lib/jvm/${JAVA_BUILD}/`
	`export JRE_HOME=/usr/lib/jvm/${JAVA_BUILD}/jre/`
	`export J2SDKDIR=/usr/lib/jvm/${JAVA_BUILD}/`
	`export J2REDIR=/usr/lib/jvm/${JAVA_BUILD}/jre/`
	b. Load the variable:
	`source /etc/profile.d/java8jdk.sh`
	7. Check installation and version:
	`java -version`

CentOS	Install OracleJDK:
	1. Download the package "`jdk-8u202-linux-x64.rpm`" from the official site: Java SE 8 Archive Downloads.
	2. Install:
	`sudo yum install javapackages-tools`
	`sudo yum install ~/Downloads/jdk-8u202-linux-x64.rpm`
	3. Configure the alternatives:
	`sudo update-alternatives --config java`
	Then type the selection number of installed java version.

- An up-to-date version of the MAKE utility:

Table 6: Installing MAKE

Platform	Installing
Ubuntu	`sudo apt-get install make`
Debian	`sudo apt-get install build-essential`
CentOS	`sudo yum install make`

- Webkit for GTK:

Table 7: Installing libwebkitgtk

Platform	Installing
Ubuntu and Debian	`sudo apt-get install libwebkitgtk-1.0-0 libcanberra-gtk-module libcanberra-gtk3-module`

CentOS 7	`sudo yum install http://li.nux.ro/download/nux/dextop/el7/x86_64/nux-dextop-release-0-5.el7.nux.noarch.rpm`
	`sudo yum install epel-release`
	`sudo yum install webkitgtk`

- The TCL package is required to run the scripts found in the `Project_Settings` container in a project:

Table 8: Installing TCL

Platform	Installing
Ubuntu and Debian	`sudo apt-get install tcl`
CentOS	`sudo yum install tcl`

- The Python 2.7 needs to be installed to use the GDB Python build (`tools/gdb-arm/arm32-eabi/bin/arm-none-eabi-gdb-py`):

Table 9: Installing Python

Platform	Installing
Ubuntu and Debian	`sudo apt-get install python-minimal`

CentOS 8	`sudo yum install python2`
	`sudo update-alternatives --config python`
	Then type the selection number of installed python2.

- The enum34 needs to be installed to use the S32 Debugger:

Table 10: Installing enum34

Platform	Installing

Ubuntu and Debian	1. Ensure if your default python is version 2.7:
	`python --version`
	2. Install pip:
	`sudo apt-get install python-pip`

Platform	Installing

	3. Install enum34:
	`sudo pip install enum34`
	4. Check if enum34 works:
	`python`
	`import enum`
	`print(enum.__file__)`

CentOS 7	1. Ensure if your default python is version 2.7:
	`python --version`
	2. Install epel repo:
	`sudo yum install epel-release`
	3. Install pip:
	`sudo yum install python-pip`
	Note: If you get an access error from your network:
	• Open epel.repo
	`sudo gedit /etc/yum.repos.d/epel.repo`
	• Change `https` to `http`,
	• Save file,
	• Repeat the pip install command.
	4. Install enum34:
	`sudo pip install enum34`
	5. Check if enum34 works:
	`python`
	`import enum`
	`print(enum.__file__)`

CentOS 8	1. Ensure if your default python is version 2.7:
	`python --version`
	2. Install pip:
	`sudo yum install python2-pip`
	3. Install enum34:
	`sudo pip2 install enum34`
	4. Check if enum34 works:
	`python`
	`import enum`

Platform	Installing
	`print(enum.__file__)`

- (Optional) The 32-bit libraries for Python 2.7 need to be installed to use legacy GDB Python build (e.g. `build_tools/gcc_b1574/gcc-6.3-arm32-eabi/bin/arm-none-eabi-gdb-py`):

  Table 11: Installing 32-bit libraries for Python 2.7

Platform	Installing
Ubuntu and Debian	`sudo apt-get install libpython2.7:i386`
CentOS 7	`sudo yum install python-libs.i686`

- The `unix2dos` utility:

  Table 12: Installing unix2dos

Platform	Installing
Ubuntu 16 and Debian	`sudo apt-get install tofrodos`
Ubuntu 18	`sudo apt-get install dos2unix`
CentOS	`sudo yum install unix2dos`

- Video codecs for viewing video:

Platform	Installing
Ubuntu	`sudo apt-get install ubuntu-restricted-extras`

- On Ubuntu 16.04 the GTK 3.20 should be installed. Execute the following commands to install:

```
sudo add-apt-repository ppa:gnome3-team/gnome3-staging
sudo add-apt-repository ppa:gnome3-team/gnome3
sudo apt update
sudo apt dist-upgrade
```

- (Optional) 32-bit GTK2 libraries need to be installed to use Wind River Diab installer:

  Note: Wind River Diab Compiler does not support Debian.

Table 13: Installing 32-bit gtk2 libraries for Diab Compiler

Platform	Installing
Ubuntu	`sudo apt-get install libstdc++6:i386 libgtk2.0-0:i386 libxtst6:i386`
CentOS 7	`sudo yum install gtk2.i686 libXtst.i686`

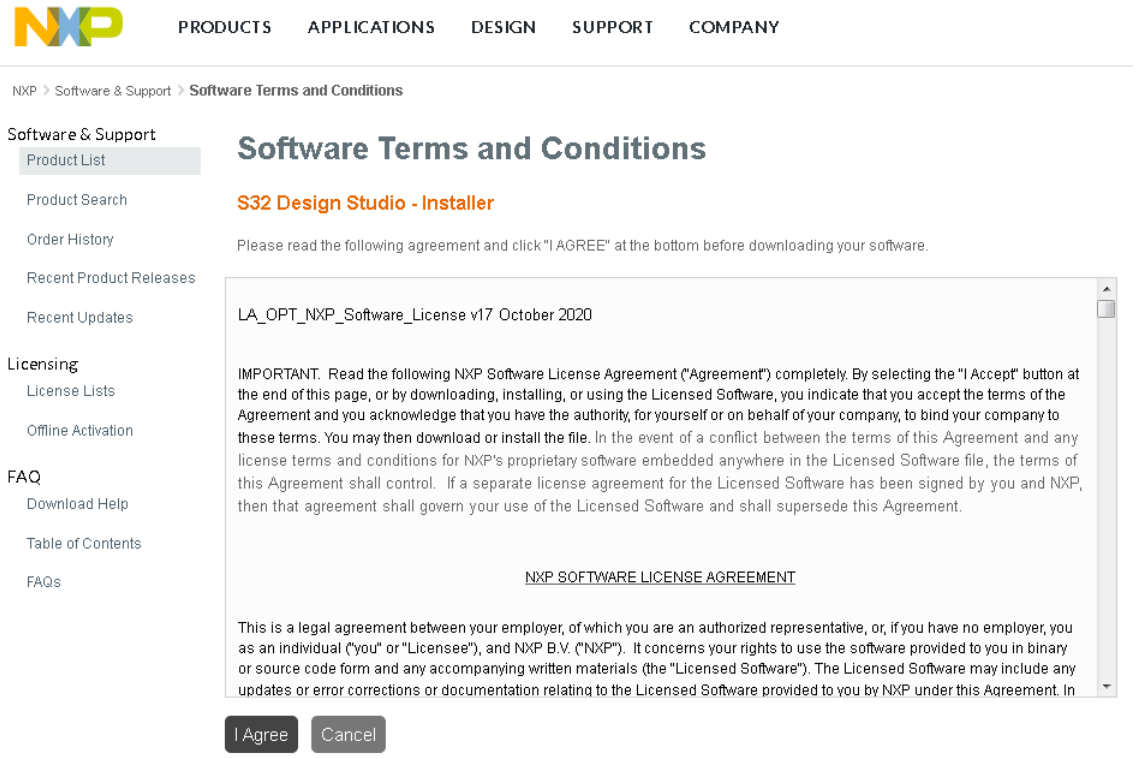
Downloading S32DS 3.4

Downloading the S32DS 3.4 installer

The installer package contains the complete S32 Design Studio for S32 Platform tool and can be used on the computer with no access to the Internet.

To download the offline installer, perform these steps:

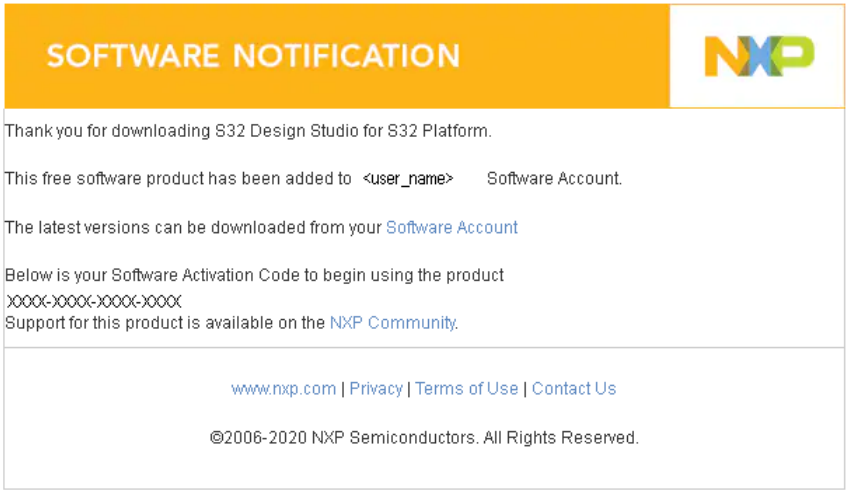
1. Go to the S32 Design Studio IDE page: www.nxp.com/S32DS.
2. Choose the required product and go to the **Downloads** tab.
3. Click **Download** next to the **S32 Design Studio for S32 Platform 3.4 – Windows/Linux** hyperlink. If you have not logged in, you will be directed to the **NXP Sign In** page.
4. On the **Software Terms and Conditions** page review the license terms as you scroll down, then click **I Agree**.



5. In the **File Name** column, click the link next to the installer. If you want to download several files, select the check boxes and click **Download selected files**.
6. Confirm the download and specify the location where you want the installer package to be saved.

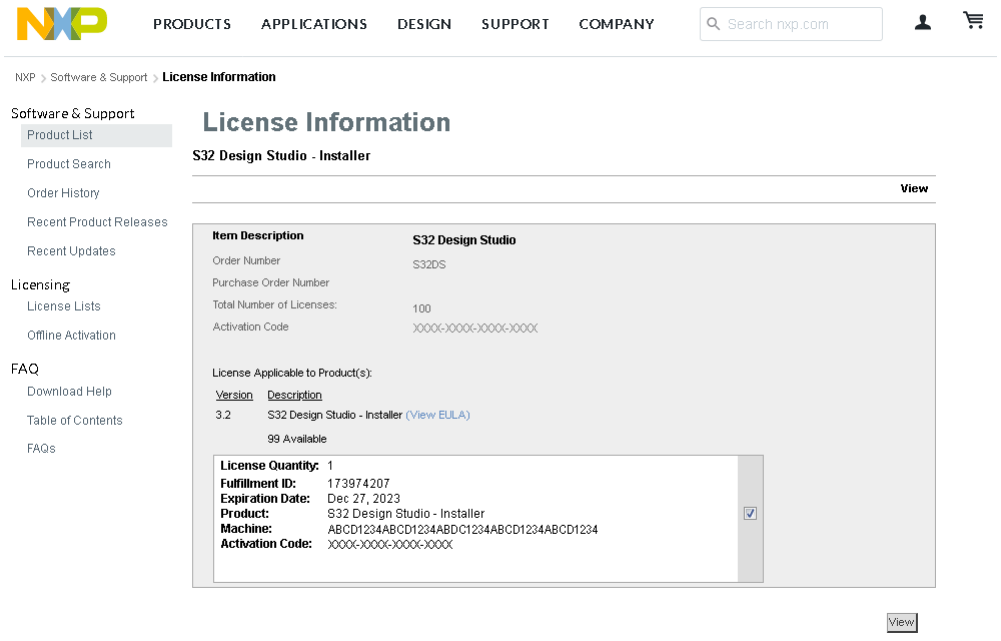
Obtaining the activation code

When you agree with the Software Terms and Conditions, you get a notification message with the activation code to your email address.



Alternatively, you can find your activation code on the NXP website.

1. Open the **Sign In or Register** page: www.nxp.com/security/login. The **My Account** page opens after signing in.
2. Click **Software Licensing and Support**, then click **Software accounts** > **View accounts**.
3. On the **Product List** page select the **NXP Software** products.
4. On the **Product Information** page click the product link.
5. The **Product Download** page appears. Click the **License Keys** tab to open the **License Information** page. Write down or copy the **Activation Code**, you will need it to continue the installation.



Note: Codes depicted in this document are provided for illustration only and are fictitious.

Installing S32DS 3.4

To install S32 Design Studio for S32 Platform, you need to run the downloaded installation package on the target workstation. Installing the product from the command line in the console or silent mode is not supported.

To install S32 Design Studio for S32 Platform:

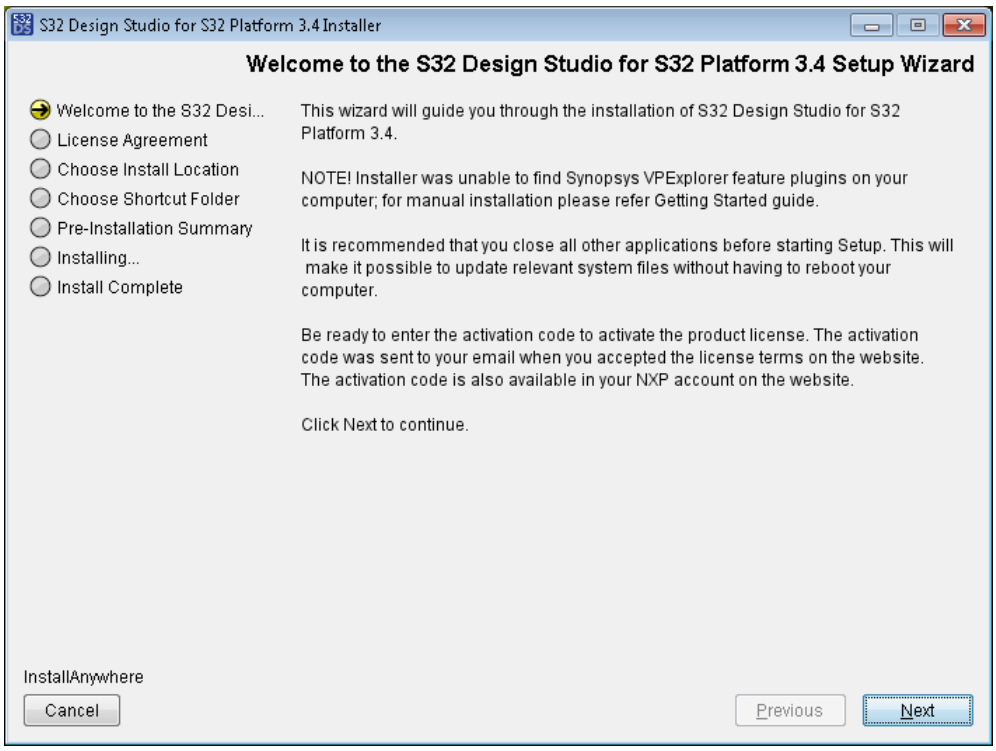
1. Go to the location where you saved the S32 Design Studio for S32 Platform installation package, then do one of the following depending on the target platform:

Platform	Action
Windows	Double-click the S32 Design Studio for S32 Platform installation package to start the installation procedure. **Note:** The user account designated for installing S32 Design Studio for S32 Platform must be a member of the local Administrators security group. If User Account Control (UAC) is enabled, Windows will ask you to elevate the privileges when you run the installation package. When asked by UAC, grant the S32 Design Studio for S32 Platform installer permissions to make changes on your computer.

Linux	Open the terminal and navigate to the directory with the downloaded BIN file:
	`cd ~/S32DS`
	Add the execute permissions to the binary:
	`chmod a+x ./<install_name>.bin`
	Run the installer:
	`./<install_name>.bin`
	Note: The user account used to install S32 Design Studio for S32 Platform has to be a sudoers group member. You do not need the root privileges to install the product.

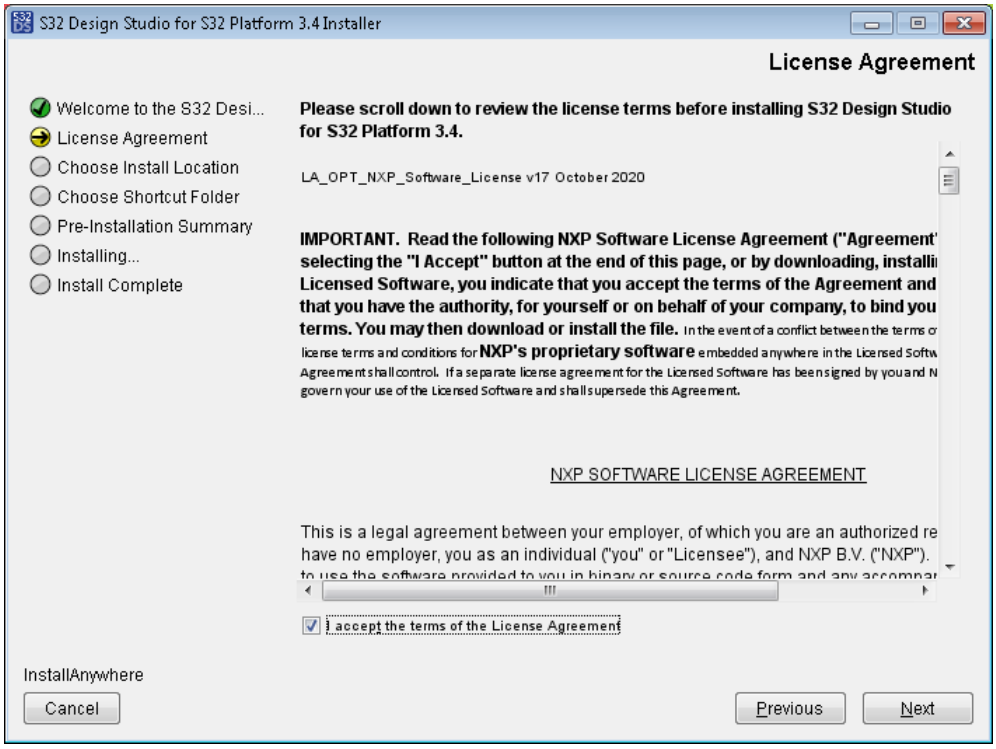
The S32 Design Studio splash screen appears:

2. When the installer wizard appears, click **Next**:

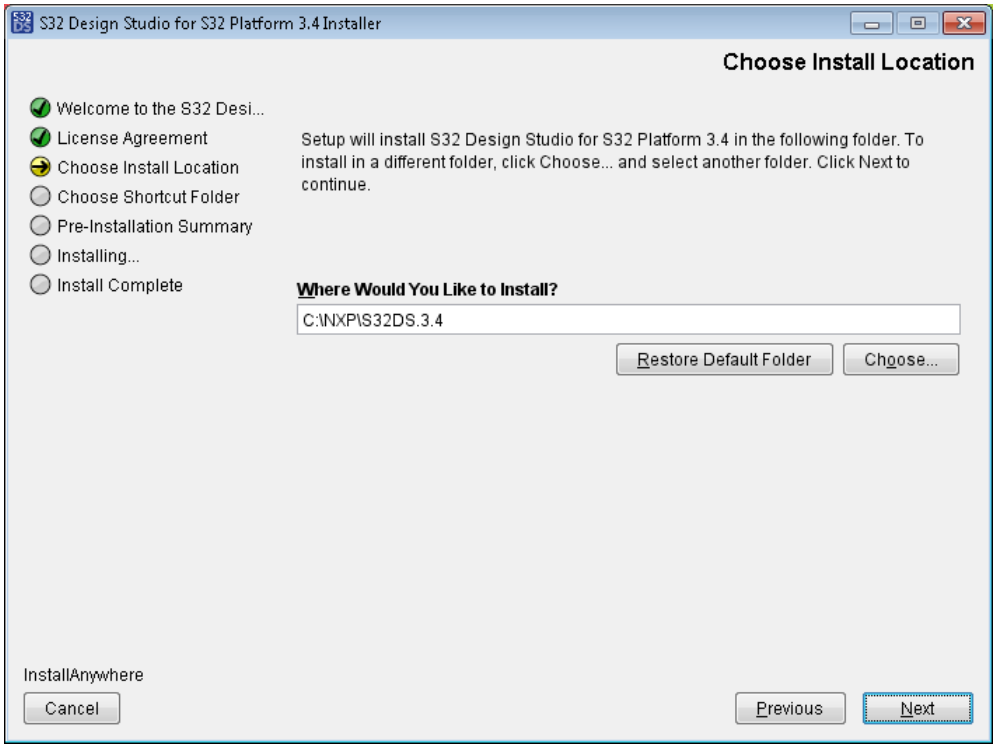


Note: If the "Unable to install the VP Explorer plug-in" message appears, use **Help** > **Install New Software** to install the plug-in manually after the product installation is complete.

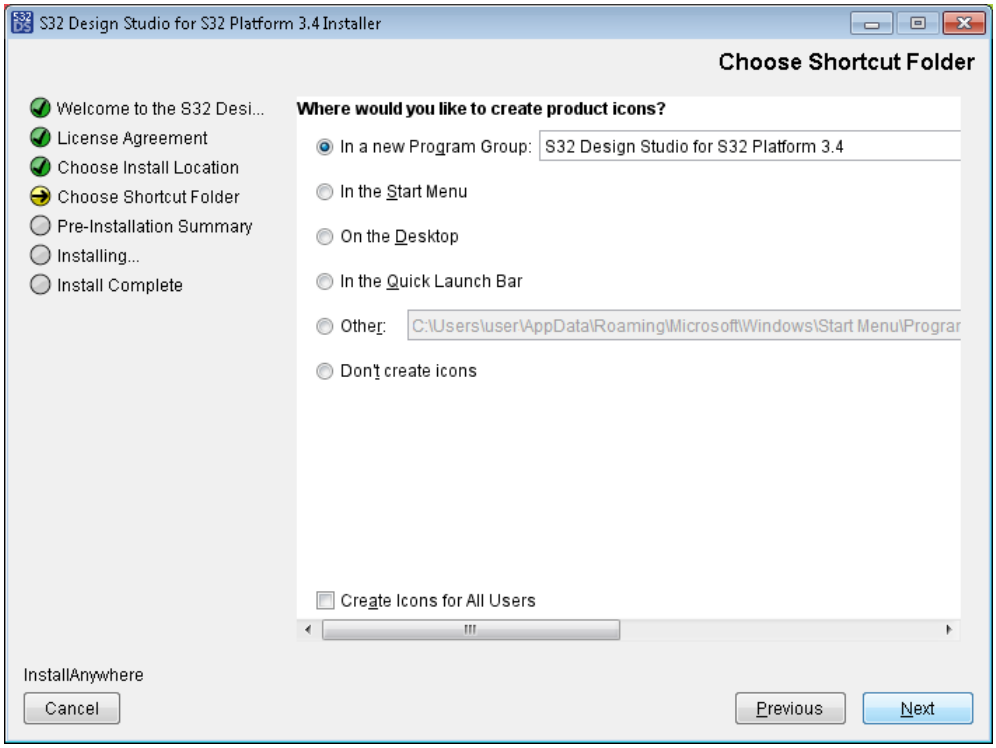
3. Review the license terms as you scroll it down, then accept and click **Next**:



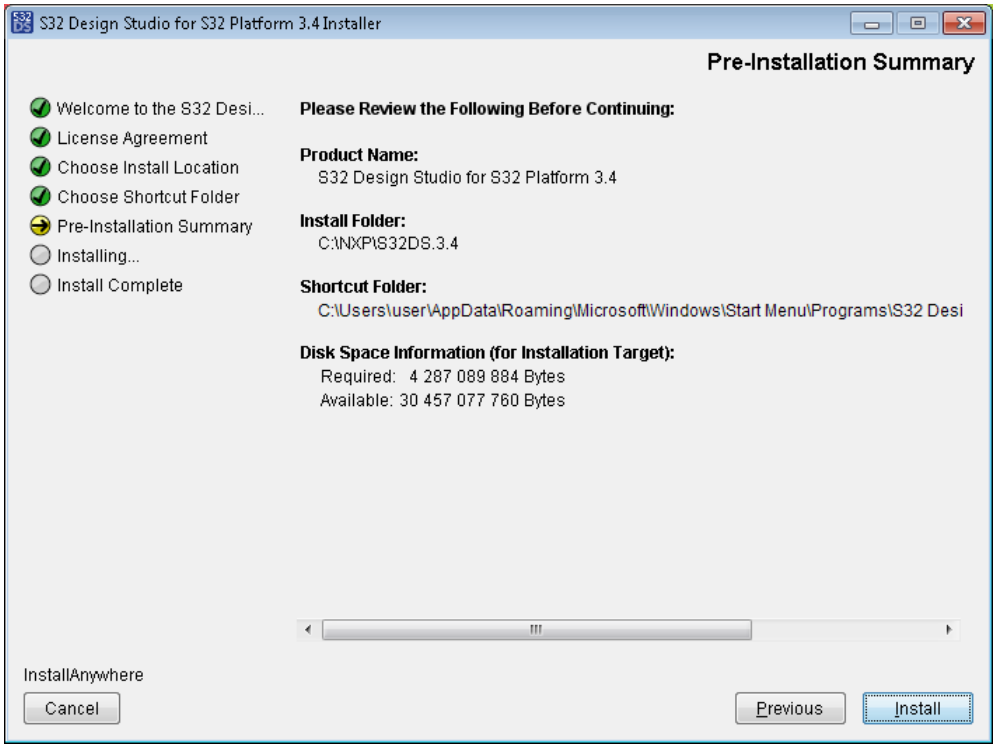
4. Specify the installation folder for S32 Design Studio for S32 Platform. Click **Next**:



5. Choose the folder for S32 Design Studio for S32 Platform program shortcuts. Select **Create Icons for All Users** if you want the shortcuts to be available for all users of this computer. Click **Next**:



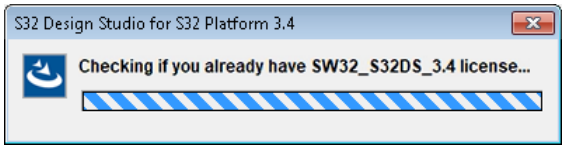
6. Review the pre-installation summary before installing:



7. Click **Install**. Depending on the target platform, you may need to confirm elevation of the installation process.

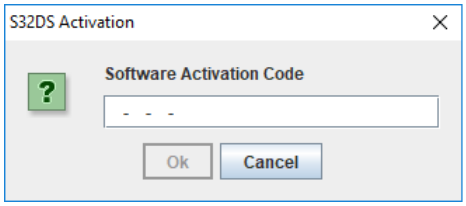
Platform	Action
Windows	The wizard checks for existence of C++ runtime installed, and, if necessary, start installing required libraries from the Microsoft Visual C++ 2010 and 2013 packages. No user input required.
Linux	The wizard prompts you to enter your password in the terminal window. When the **Enter your sudoer password in the Console...** message appears, switch to the terminal window and enter your user password.

8. The installation continues by checking your Windows permissions and installing the Flexera Windows licensing services on your computer. The services are required to license your instance of S32 Design Studio for S32 Platform.
9. The installer looks for the S32 Design Studio for S32 Platform license on your computer:



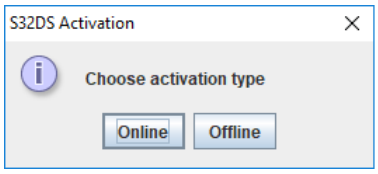
Note: A license issued for an earlier version of S32 Design Studio for S32 Platform cannot be used.

10. If no valid license is found on your computer, the installer notifies you about it and asks you to provide the activation code to obtain the license:



Note: If you click **Cancel**, the installation rolls back.

11. Enter the activation code and click **OK**.
12. Choose the activation type for S32 Design Studio for S32 Platform:



- *Online* activation

  If you click **Online**, the installer sends an activation request to a remote activation server and automatically activates your instance of S32 Design Studio for S32 Platform. If activation succeeds, S32 Design Studio for S32 Platform is licensed and registered on your computer automatically.

  Note: Make sure that TLS 1.2 protocol is enabled:

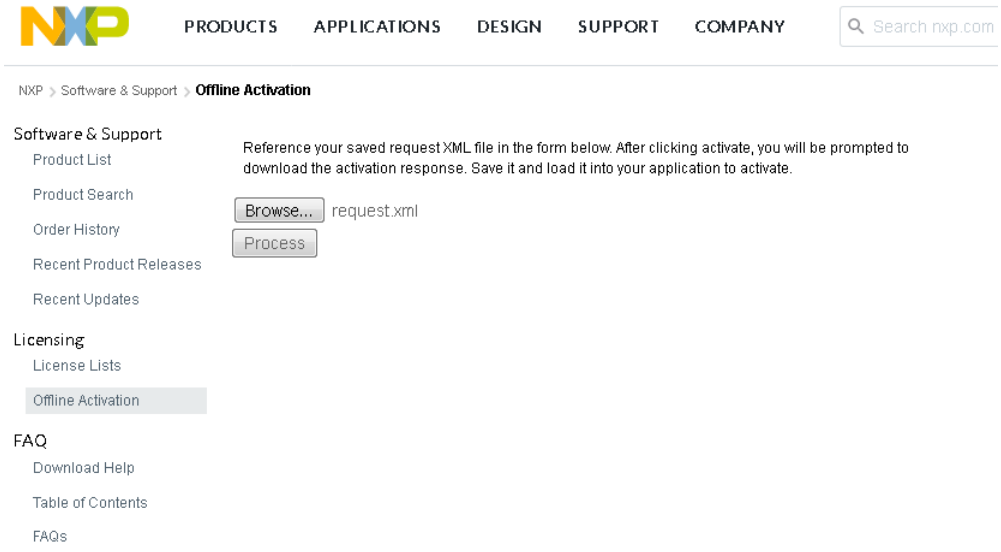
  - Open **Windows Control Panel** > **Network and Internet** > **Internet Options** > **Advanced** > **Settings**.
  - In the **Security** section make sure the **Use TLS 1.2** checkbox is checked. If not, check it and click the **Apply** button.

- *Offline* activation

  If you click **Offline**, the **Activation request** dialog box appears to let you to activate S32 Design Studio for S32 Platform without access to the Internet. You will need another device connected to the Internet to communicate with the NXP website.

a) After you click **Offline** in the **S32DS Activation** message box, the **Activation request** dialog box appears to let you save the XML file with the activation request.
b) Save the XML file with the request for offline activation.
c) Copy the saved **request.xml** file to the device connected to the Internet. On that device, sign in on the NXP website: www.nxp.com/security/login. The **My Account** page opens where you downloaded the installation package, then click **Software Licensing and Support**, then click **Software accounts** > **View accounts**. On the **Product List** page select the **Licensing** > **Offline Activation**.

Note: You do not necessarily have to license the S32 Design Studio for S32 Platform in this installation session. Once you have created the offline activation request file, you can close the installer.

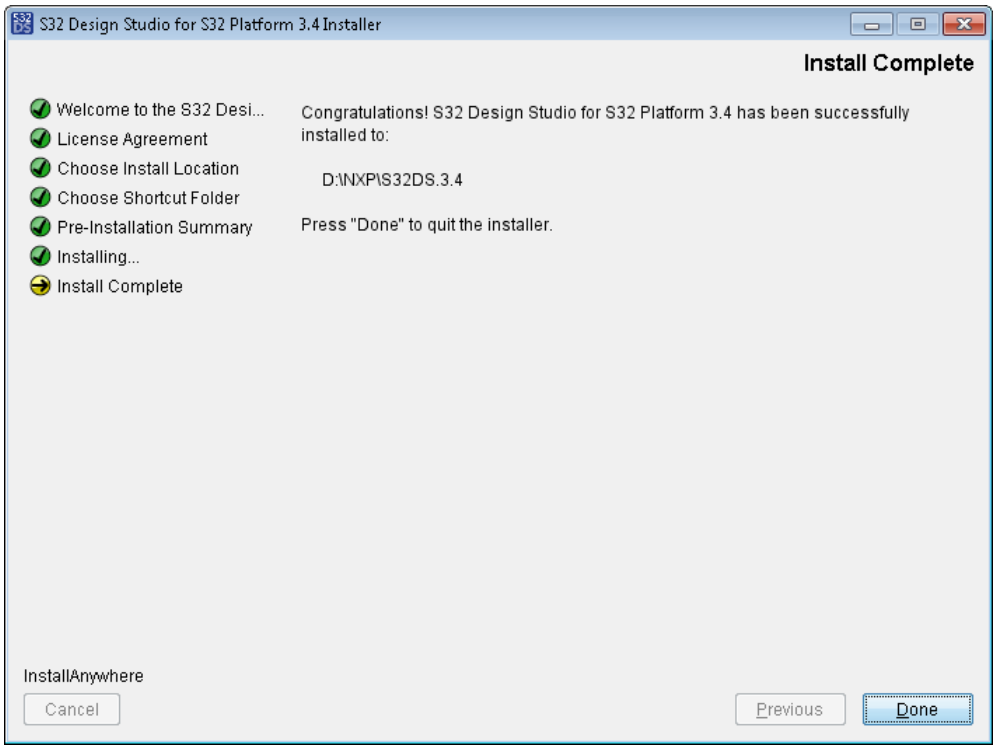


d) On the **Offline Activation** Web page, browse to the **request.xml** file on the device connected to the Internet. Click **Process** to submit the request file.
e) Save the generated **activation.xml** file from the website to the device.
f) Save the copy of the **activation.xml** file to your computer. If you have previously closed the installer, run it again and generate the **request.xml** file. Leave the generated request file intact.
g) After you save the activation request file, the **Activation response** dialog box appears. Browse to the **activation.xml** file and click **Load**.

13. If activation is successful, the installation continues automatically.

Note: During the installation process you may be prompted to proceed with the installation wizards of the specific drivers.

14. Wait until the S32 Design Studio for S32 Platform installer finishes the installation and shows the **Install Complete** page. Click **Done**:



15. For Debian 8 OS perform the Debian 8 post-installation settings.
16. To complete the installation:

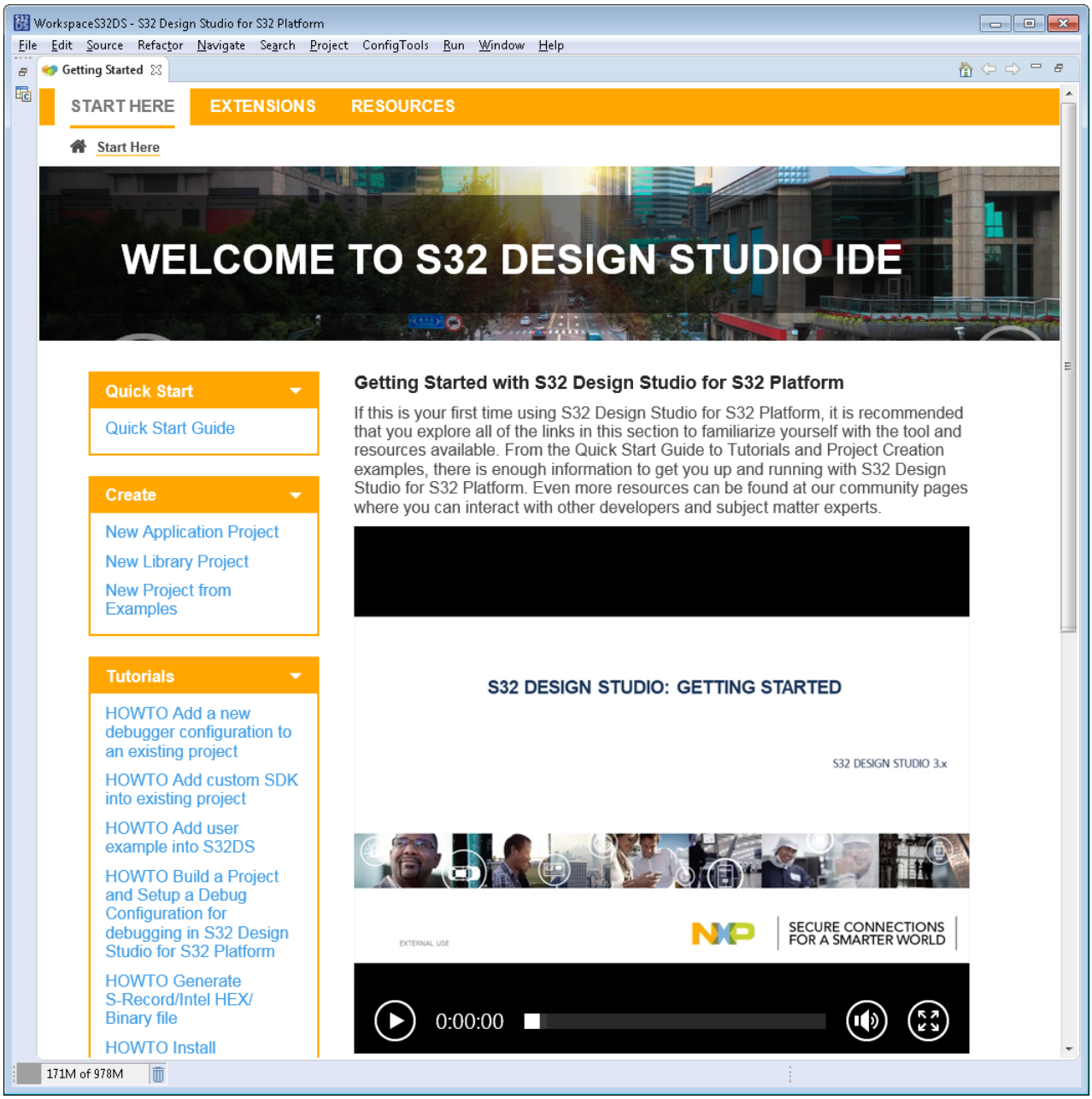
a. Launch S32 Design Studio for S32 Platform:

- In Windows, double-click the product icon on the desktop. Or, open the command prompt, go to the directory with the installed product, type `s32ds.bat`, and press `Enter`.
- In Linux, open the terminal, go to the directory with the installed product, type `./s32ds.sh`, and press `Enter`.

b. Specify the folder path where your workspace will be located. Click **OK**.

S32 Design Studio for S32 Platform 3.4 appears on the desktop and displays the **S32DS Extensions and Updates** window. This tool will assist you in installing additional software packages that are required for creating embedded software for the supported devices. Learn the details from the *S32 Design Studio for S32 Platform 3.4 User Guide*. To launch the tool again, click **Help** > **S32DS Extensions and Updates** from the menu.

To learn how to use informational resources of S32 Design Studio for S32 Platform 3.4, watch the video on the **Getting Started** page. The page is loaded by default when you launch the product. To open this page, click **Help** > **Getting Started** from the menu.



Note: To play back the video in Linux for the first time, select the multimedia plug-ins required by Java and click **Install**.

Debian 8 post-installation settings

Download source code, install build dependencies and build the components to update GTK 3.22.

1. Download the following components:
    - ftp://ftp.acc.umu.se/pub/gnome/sources/at-spi2-core/2.20/at-spi2-core-2.20.2.tar.xz

- ftp://ftp.acc.umu.se/pub/gnome/sources/atk/2.20/atk-2.20.0.tar.xz
- ftp://ftp.acc.umu.se/pub/gnome/sources/at-spi2-atk/2.20/at-spi2-atk-2.20.1.tar.xz
- http://ftp.gnome.org/pub/gnome/sources/glib/2.50/glib-2.50.3.tar.xz
- https://download.gnome.org/sources/pango/1.37/pango-1.37.5.tar.xz
- https://download.gnome.org/sources/gtk+/3.22/gtk+-3.22.11.tar.xz
- http://0pointer.de/lennart/projects/libcanberra/libcanberra-0.30.tar.xz
- https://webkitgtk.org/releases/webkitgtk-2.4.11.tar.xz

2. Install build dependencies:

```
sudo apt-get build-dep at-spi2-core atk1.0 at-spi2-atk glib2.0 pango1.0
 gtk+3.0 webkitgtk libcanberra
sudo apt-get install libepoxy-dev libmount-dev
```

3. Update environment variables:

```
export PKG_CONFIG_PATH="/opt/gtk/lib/pkgconfig:$PKG_CONFIG_PATH"
export LD_LIBRARY_PATH="/opt/gtk/lib:$LD_LIBRARY_PATH"
export PATH="/opt/gtk/bin:$PATH"
```

4. Build each component listed at step 1 and install to `/opt/gtk`, for example:

```
cd ~/Downloads
tar xfJ at-spi2-core-2.20.2.tar.xz
cd at-spi2-core-2.20.2
./configure --prefix=/opt/gtk
make
sudo make install
```

Note: For libcanberra additionally disable deprecated OSS support:

```
./configure --prefix=/opt/gtk --disable-oss
```

Note: For webkitgtk use parallel build if you have 2 CPU cores:

```
make -j2
```

Build may take up to 4 hours with a single core and 1.4 Gb of disk space.

5. Add `/opt/gtk/lib` to startup script `~/NXP/S32DS/s32ds.sh`:

```
if [ -z "$LD_LIBRARY_PATH" ]; then
export LD_LIBRARY_PATH="$CW_SA_HOME/bin:/opt/gtk/lib"
else
export LD_LIBRARY_PATH="$CW_SA_HOME/bin:/opt/gtk/lib:$LD_LIBRARY_PATH"
fi
```

6. Update gschema:
   a) Open a schema file:

```
sudo gedit /usr/share/glib-2.0/schemas/
org.gtk.Settings.FileChooser.gschema.xml
```

   b) Add the following structure to the beginning of the schema file after the `<schemalist>` tag:

```
<enum id='org.gtk.Settings.FileChooser.DateFormat'>
 <value nick='regular' value='0'/>
 <value nick='with-time' value='1'/>
</enum>
```

c) Add the following structure to the end of the schema file before the `</schema>` tag:

```
<key name="date-format" enum="org.gtk.Settings.FileChooser.DateFormat">
 <default>'regular'</default>
 <summary>Date format</summary>
 <description>
  The amount of detail to show in the Modified column.
 </description>
</key>
```

d) Save the file.

e) Compile schemas:

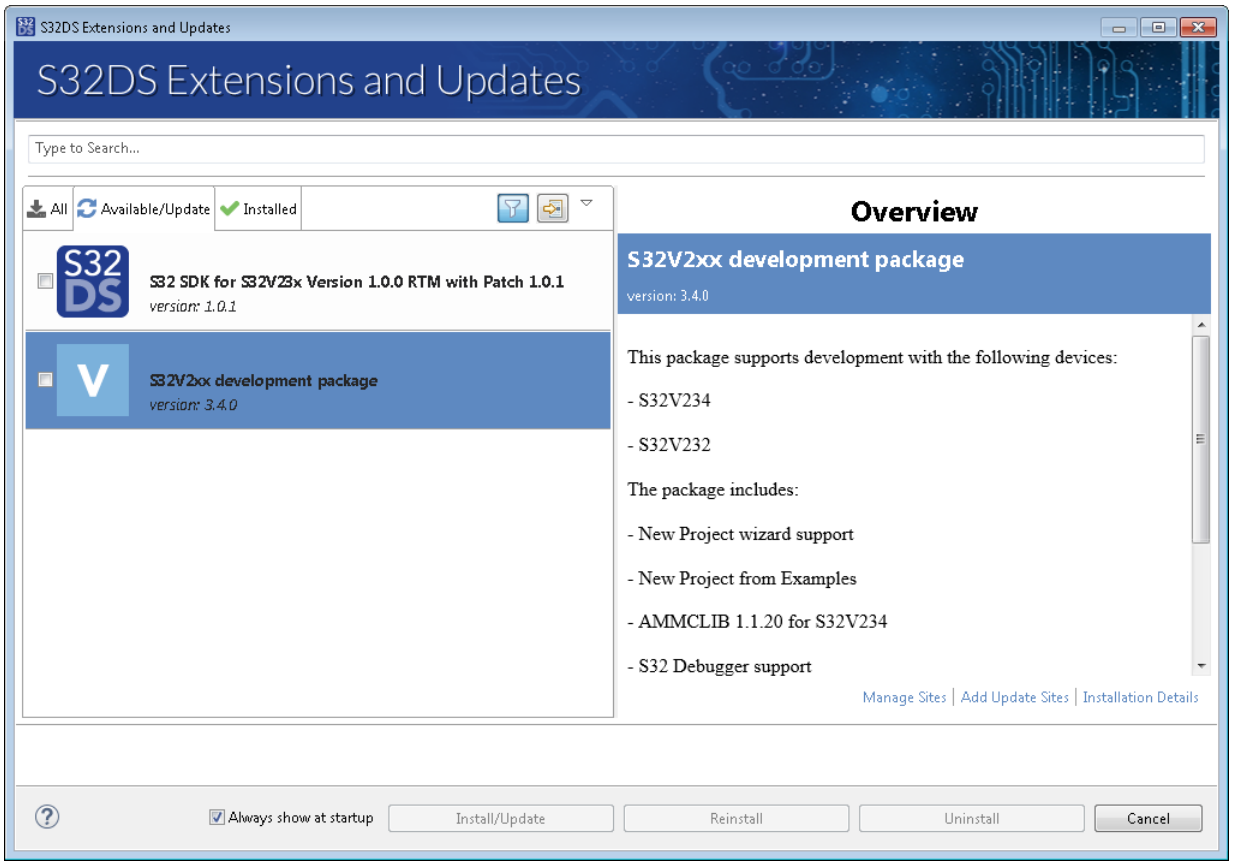
```
sudo /opt/gtk/bin/glib-compile-schemas /usr/share/glib-2.0/schemas/
```

Installing product updates and packages

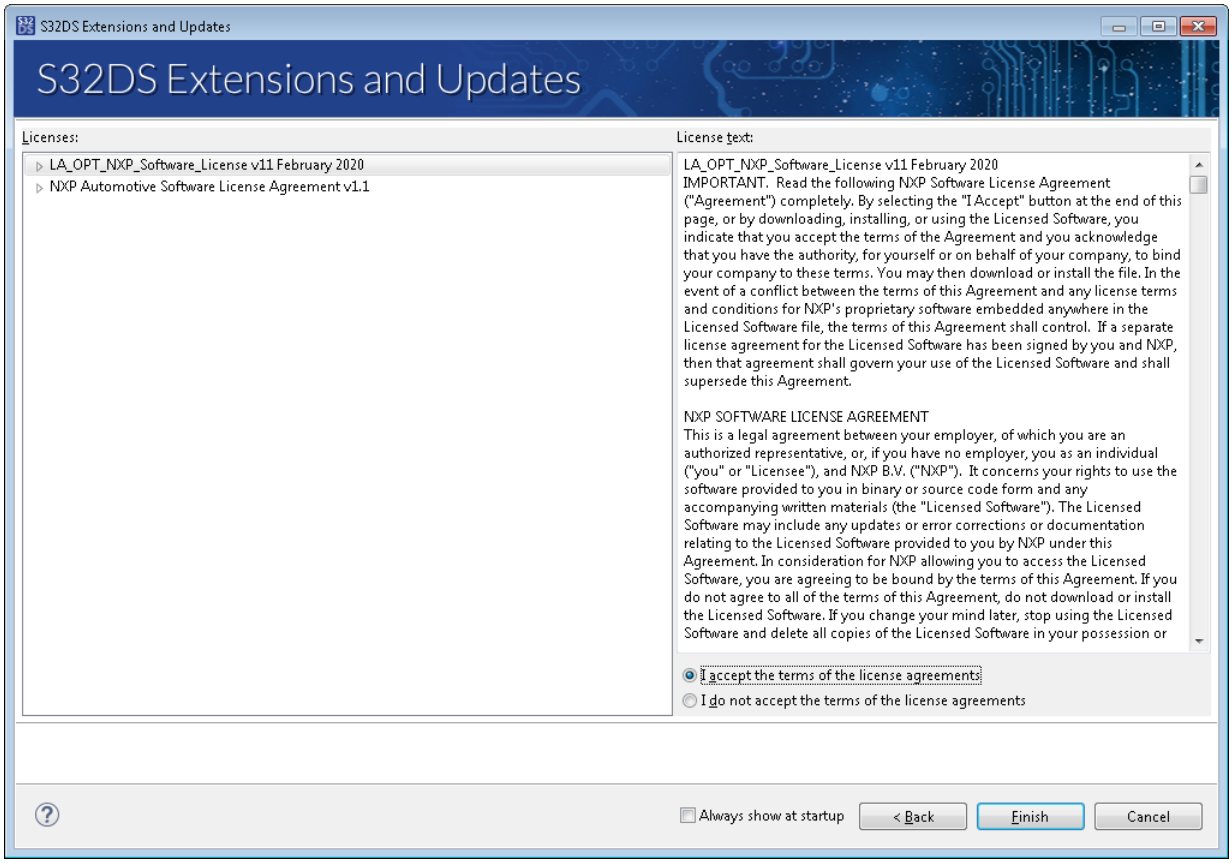
Support for the NXP ARM based processor families is provided with additional software packages. The S32DS Extensions and Updates tool helps you to find and install the latest product updates and software packages. The lookup is performed across the sites that are specified in the product preferences. For details, refer to S32 Design Studio for S32 Platform 3.4 User Guide.

To install updates and additional packages to S32 Design Studio for S32 Platform:

1. From the menu, click **Help** > **S32DS Extensions and Updates**.
2. In the left pane of the **S32DS Extensions and Updates** wizard, find all software packages already installed and ready to be installed.
    - Use the **All**, **Available/Update** and **Installed** toggle buttons to show and hide packages of a respective type.
    - Use the filter buttons to show packages of the required hardware type or category. Removing the filter clears the package selection.



   Click a package in the left pane. The right pane loads the description of the package.
3. Check the box on each package that you need to install or update. Click **Install/Update**.
4. On the next page, verify the selected packages and click **Next**.
5. Accept the license terms. Click **Finish**.



6. After the installation is complete, restart S32 Design Studio for S32 Platform.

Installing Synopsys tools

S32 Design Studio for S32 Platform enables you to debug embedded software in the simulation environment. The Synopsys company provides the Virtualizer Development Kits (VDKs) for all processor families supported by S32 Design Studio for S32 Platform. A VDK consists of a virtual prototype (a simulation model of an embedded system) as well as embedded software samples and debugging tools in a packaged installer. Thus, a VDK provides a self-contained environment that supplies everything needed for software engineers to get going.

Note: Find the information about the latest versions of Synopsys Virtualizer Studio and VDK packages in S32 Design Studio for S32 Platform 3.4 Release Notes.

To start using VDKs with S32 Design Studio for S32 Platform, perform the steps described in the table below.

Table 14: Steps to install the Synopsys simulation tools

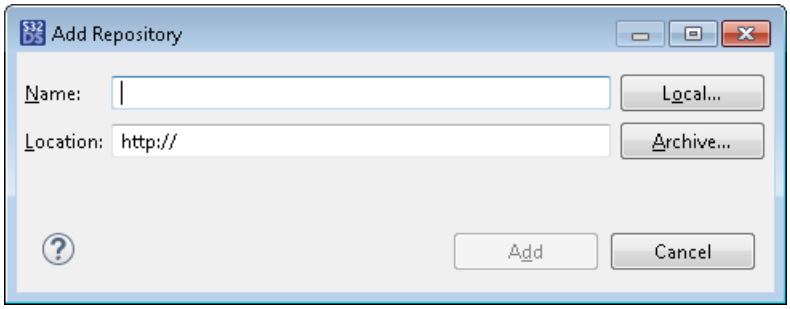
Step	Description	Notes
1	Copy the VDK packages to a local disc.	VDKs come as ZIP files. You need a specific VDK for each processor family. The installation instructions for VDK packages are also available in the VDK Tool Training manual.
2	Install Synopsys Virtualizer Studio. If you have performed the previous step, the installer will automatically unzip the VDK packages and make them available on the Welcome screen of Virtualizer Studio.	Synopsys Virtualizer Studio comes as a Windows installer.
3	Specify the environment variables in your Windows system.	Find instructions in topic Post-installation settings.
4	Run Virtualizer Studio and create a workspace.	
5	Install the VP Explorer plug-in to S32 Design Studio for S32 Platform. If you have installed Synopsys Virtualizer Studio prior to installing S32 Design Studio for S32 Platform, this step is not required. The S32 Design Studio for S32 Platform installer automatically detects the Synopsys software and installs the VP Explorer plug-in.	The plug-in comes with the Synopsys Virtualizer Studio. Find the installation instructions in topic Installing VP Explorer.

Note: To get the installation packages for Synopsys tools, contact your manager.

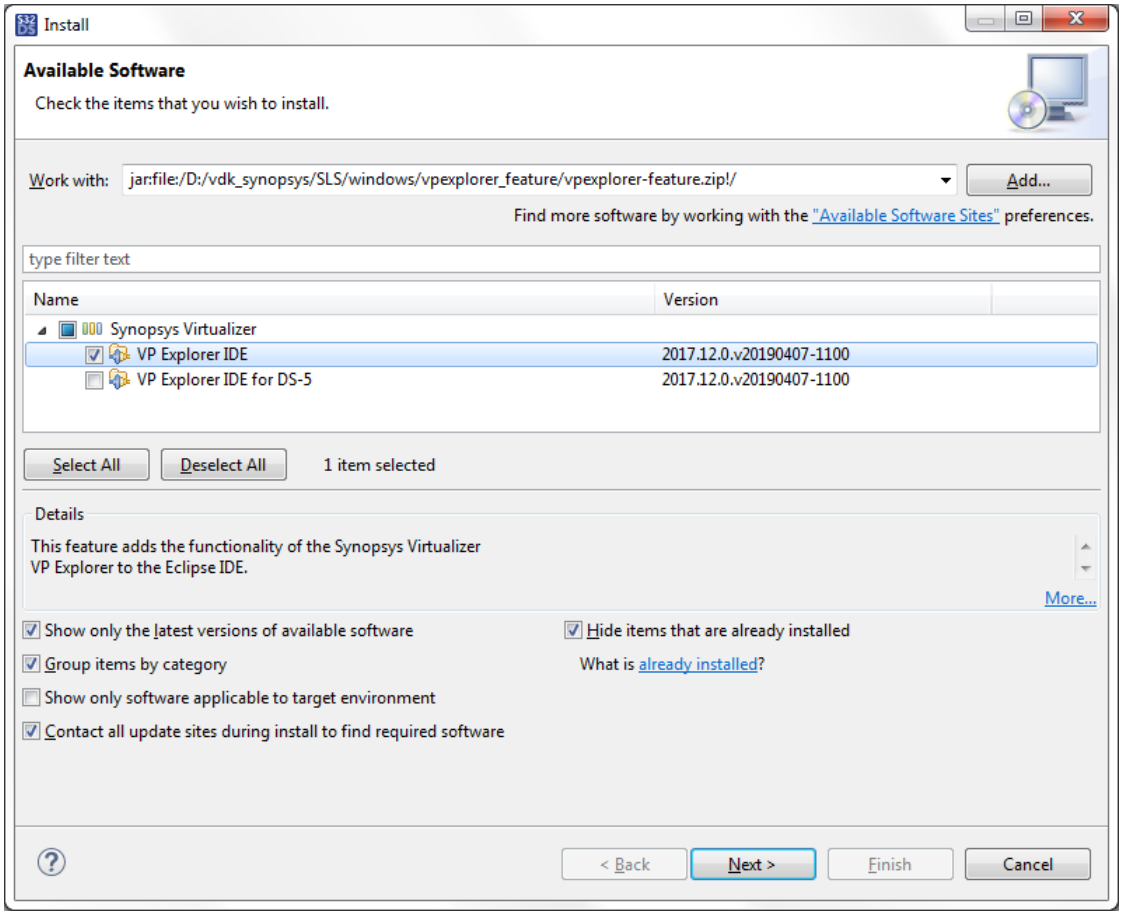
Installing VP Explorer

To install the VP Explorer plug-in to S32 Design Studio for S32 Platform:

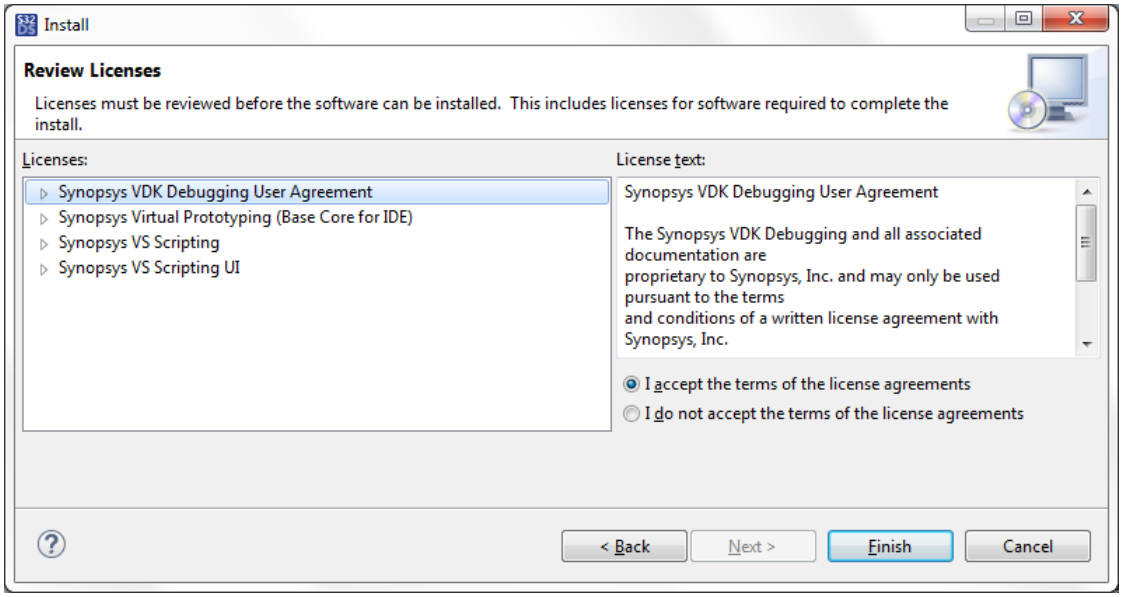
1. On the main menu, click **Help** > **Install New Software**.
2. In the **Install** dialog box, click **Add**.
3. In the **Add Repository** dialog box, click **Archive**.



4. In the **Repository archive** window, browse to the Synopsys installation path and go to folder `/SLS/windows/vpexplorer_feature/`. Select the `vpexplorer-feature.zip` file and click **Add**.
5. In the software list, select **VP Explorer IDE** and click **Next**.



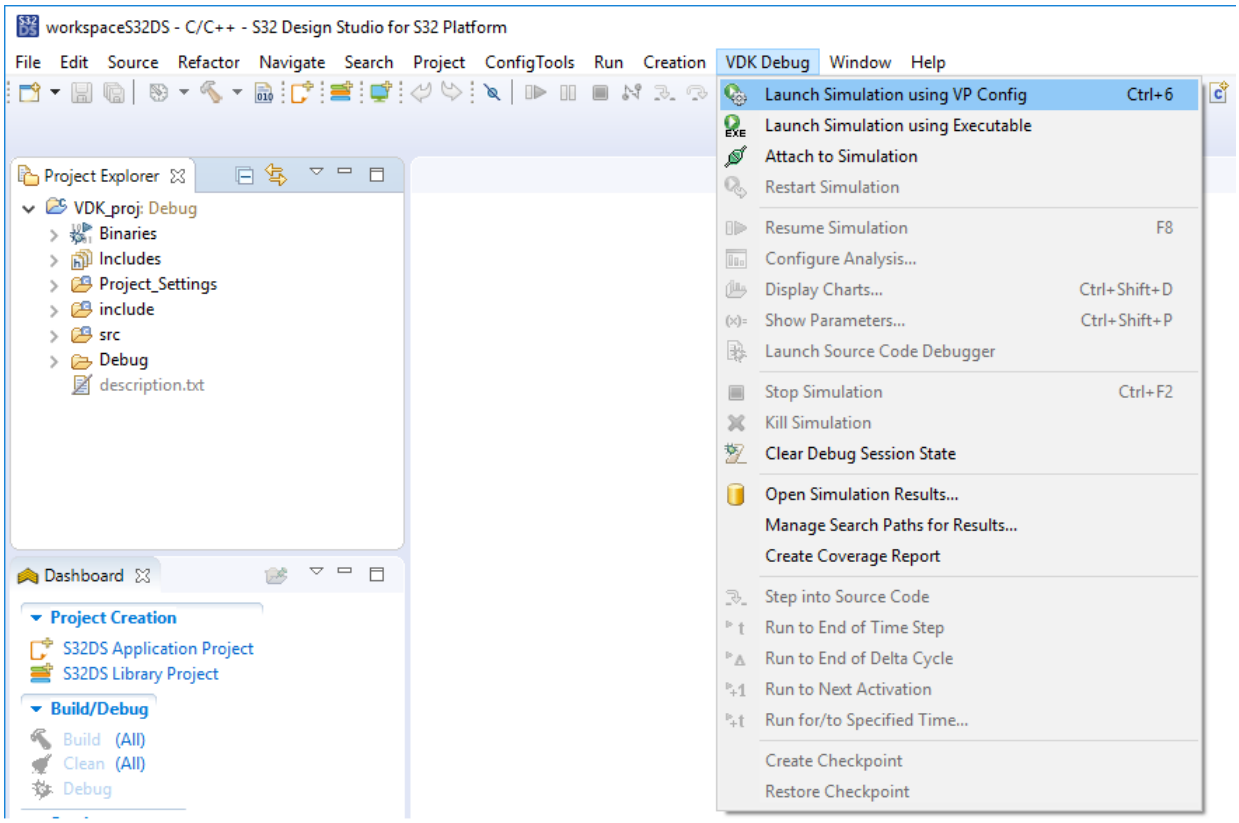
6. Verify the installation details and click **Next**.
7. Accept the license terms and click **Finish**.



Note: You may get a security warning about unsigned content. Click **Install anyway** to continue the installation.

8. When the installation is complete, restart S32 Design Studio for S32 Platform.

The integrated VP Explorer appears on the main menu of S32 Design Studio for S32 Platform:



Post-installation settings

After having installed the Synopsys Virtualizer Studio, go to **Control Panel** > **System** > **Advanced system settings** > **Environment Variables...** and specify the following environment variables in your Windows system:

```
SNPS_VP_HOME=<Synopsys Installation Directory>/SLS/windows
```

```
SNPS_VP_PRODUCT=VSDK
```

If you have several Synopsys Virtualizer Runtime versions, make sure the `SNPS_VP_HOME` value is set for the currently used version.

You may need to specify the *SNPSLMD_LICENSE_FILE* environment variable as well. The necessity depends on your license plan. Consult your administrator for details.

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