



# STM32MP1 Distribution Package - OpenSTLinux distribution



# STM32MP1 Distribution Package - OpenSTLinux distribution

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This article aims to give the following information:

- How to download and install the **latest** OpenSTLinux distribution for the STM32 microprocessors Series
- Where to find the associated release note
- Where to find the previous releases (archives)



For more specific information, go through the [Distribution Package article relative to your STM32 microprocessors Series: Category: Distribution Package](#)

## 1 STM32MP15-Ecosystem-v1.1.0 release

- The STM32MP1 OpenSTLinux distribution is delivered through a manifest repository location and a manifest revision (**openstlinux-4.19-thud-mp1-19-10-09**).
- The installation relies on the `repo` command. In case the Repo tool (a Google-built repository management tool that runs on top of Git) is not yet installed and configured on the host PC, refer to the [PC prerequisites](#) article.
- The OpenSTLinux distribution is massively using open source software (OSS) packages that are downloaded from a variety of open source repositories; so it is required that the IT infrastructure proxies do not forbid such accesses. If some proxy-related issues are suspected, refer to the [How to avoid proxy issues](#) article.
- Install the STM32MP1 OpenSTLinux distribution

STM32MP1 Distribution Package OpenSTLinux distribution - STM32MP15-Ecosystem-v1.1.0 release	
<b>Installation</b>	<ul style="list-style-type: none"><li>• Go to the host PC directory where to install the Distribution Package (<i>&lt;Distribution Package installation directory&gt;</i>). Example, if following the proposition to organize the working directory: <pre>\$ cd &lt;working directory path&gt;/Distribution</pre></li><li>• Create the OpenSTLinux distribution installation sub-directory: <pre>\$ mkdir openstlinux-4.19-thud-mp1-19-10-09 \$ cd openstlinux-4.19-thud-mp1-19-10-09</pre></li><li>• Initialize repo in the current directory (More details on 'repo init' <a href="#">here</a>).</li></ul>



STM32MP1 Distribution Package OpenSTLinux distribution - STM32MP15-Ecosystem-v1.1.0 release	
	<pre>\$ repo init -u https://github.com/ST</pre> <p>Note: "ERROR 404" may appear during "repo init" command without any impact on the process</p> <ul style="list-style-type: none"> <li>Synchronize the local project directories with the remote repositories specified in the manifest (more details on 'repo sync' <a href="#">here</a>)</li> </ul> <pre>\$ repo sync</pre> <p>Note: <i>Distribution package</i> needs around 140MB to be installed (and around 25GB once <i>distribution package</i> is compiled).</p>
Release note	<p>Details about the content of this software package are available in the <b>associated</b> STM32MP15 ecosystem release note.</p> <p> If interested in previous releases, go through the archives of the ecosystem release note.</p>

- The **OpenSTLinux distribution installation directory** is in the *<Distribution Package installation directory>*, and is named `openstlinux-4.19-thud-mp1-19-10-09`:

```

openstlinux-4.19-thud-mp1-19-10-09  OpenSTLinux distribution
ââ layers
â  ââ meta-openembedded          Collection of layers for the OpenEmbedded-Core u
â  ââ meta-qt5                   QT5 layer for OpenEmbedded (standard)
â  ââ meta-st
â  â  ââ meta-st-openstlinux      STMicroelectronics layer that contains the frame
â  â  ââ meta-st-stm32mp          STMicroelectronics layer that contains the descr
â  â  â  ââ recipes-bsp           Recipes for ALSA control configuration
â  â  â  â  ââ alsa                Recipes for Vivante GCNANO GPU kernel drivers
â  â  â  â  ââ drivers            Recipes for TF-A
â  â  â  â  ââ trusted-firmware-a  Recipes for U-Boot
â  â  â  â  ââ u-boot              Recipes for U-Boot
â  â  â  ââ recipes-extended      Recipes for Linux examples for STM32 MPU devices
â  â  â  â  ââ linux-examples      Recipes for script to manage coredump of cortexM
â  â  â  â  ââ m4coredump          Recipes for firmware examples for Cortex M4
â  â  â  â  ââ m4projects
â  â  â  ââ recipes-graphics      Recipes for Vivante libraries OpenGL ES, OpenVG
â  â  â  â  ââ gcnano-userland
â  â  â  â  ââ [...]
â  â  â  ââ recipes-kernel         Recipes for Linux kernel
â  â  â  â  ââ linux                Recipes for Linux firmwares (example, Bluetooth
â  â  â  â  ââ linux-firmware
â  â  â  ââ recipes-security
â  â  â  ââ optee                 Recipes for OPTEE
â  â  â  ââ recipes-st
â  â  â  â  ââ images              Recipes for the bootfs and userfs partitions bin
â  â  â  â  ââ [...]
â  â  ââ meta-st-stm32mp-addons  STMicroelectronics layer that helps managing the

```



â	â	ââ scripts	Environment setup script for Distribution Packag
â	â	ââ envsetup.sh	
â	â	ââ [...]	
â	ââ	meta-timesys	Timesys layer for OpenEmbedded (standard)
â	ââ	openembedded-core	Core metadata for current versions of OpenEmbedd

## 2 Archives

### 2.1 STM32MP15-Ecosystem-v1.0.0 release

- The STM32MP1 OpenSTLinux distribution is delivered through a manifest repository location and a manifest revision ([openstlinux-4.19-thud-mp1-19-02-20](#)).
- The installation relies on the `repo` command. In case the Repo tool (a Google-built repository management tool that runs on top of Git) is not yet installed and configured on the host PC, refer to the [PC prerequisites](#) article.
- The OpenSTLinux distribution is massively using open source software (OSS) packages that are downloaded from a variety of open source repositories; so it is required that the IT infrastructure proxies do not forbid such accesses. If some proxy-related issues are suspected, refer to the [How to avoid proxy issues](#) article.
- Install the STM32MP1 OpenSTLinux distribution

STM32MP1 Distribution Package OpenSTLinux distribution - STM32MP15-Ecosystem-v1.0.0 release	
	<ul style="list-style-type: none"> <li>• Go to the host PC directory where to install the Distribution Package (<i>&lt;Distribution Package installation directory&gt;</i>). Example, if following the <a href="#">proposition to organize the working directory</a>:</li> </ul> <pre style="border: 1px dashed black; padding: 5px;">\$ cd &lt;working directory path&gt;/Distri</pre> <ul style="list-style-type: none"> <li>• Create the OpenSTLinux distribution installation sub-directory:</li> </ul> <pre style="border: 1px dashed black; padding: 5px;">\$ mkdir openstlinux-4.19-thud-mp1-19 \$ cd openstlinux-4.19-thud-mp1-19-02</pre> <ul style="list-style-type: none"> <li>• Initialize repo in the current directory.</li> </ul> <p><b>Details:</b></p> <p>The below command downloads (in the <code>.repo</code> directory) the latest repo source code and a manifest file (<code>default.xml</code>) that describes the directory structure of the repositories for OpenSTLinux.</p>



STM32MP1 Distribution Package OpenSTLinux distribution - STM32MP15-Ecosystem-v1.0.0 release	
<b>Installation</b>	<p>The <b>-u</b> option specifies the manifest repository location, while the <b>-b</b> option specifies its branch.</p> <pre style="border: 1px dashed black; padding: 5px;">\$ repo init -u https://github.com/ST</pre> <p>Note: "ERROR 404" may appear during "repo init" command without any impact on the process</p> <ul style="list-style-type: none"> <li>Synchronize the local project directories with the remote repositories specified in the manifest</li> </ul> <p><b>Details:</b></p> <p>If a local project does not yet exist, the command clones a new local directory from the remote repository and sets up tracking branches as specified in the manifest.</p> <p>If the local project already exists, the command updates the remote branches and rebases any new local changes on top of the new remote changes.</p> <pre style="border: 1px dashed black; padding: 5px;">\$ repo sync</pre>
<b>Release note</b>	<p>Details about the content of this software package are available in the <b>associated</b> STM32MP15 ecosystem release note.</p>

- The **OpenSTLinux distribution installation directory** is in the *<Distribution Package installation directory>*, and is named `openstlinux-4.19-thud-mp1-19-02-20`:

openstlinux-4.19-thud-mp1-19-02-20 OpenSTLinux distribution	
<pre> âââ layers â   âââ meta-openembedded â   âââ meta-qt5 â   âââ meta-st â   â   âââ meta-st-openstlinux â   â   âââ meta-st-stm32mp â   â   â   âââ recipes-bsp â   â   â   â   âââ alsa â   â   â   â   âââ drivers â   â   â   â   âââ trusted-firmware-a â   â   â   â   âââ u-boot â   â   â   â   âââ recipes-extended â   â   â   â   âââ m4projects â   â   â   â   âââ stlink â   â   â   â   âââ recipes-graphics â   â   â   â   âââ gcnano-userland â   â   â   â   âââ [...] â   â   â   â   âââ recipes-kernel â   â   â   â   âââ linux â   â   â   â   âââ linux-firmware â   â   â   â   âââ recipes-security â   â   â   â   âââ optee </pre>	<pre> Collection of layers for the OpenEmbedded-Core u QT5 layer for OpenEmbedded (standard)  STMicroelectronics layer that contains the frame STMicroelectronics layer that contains the descr  Recipes for ALSA control configuration Recipes for Vivante GCNANO GPU kernel drivers Recipes for TF-A Recipes for U-Boot  Recipes for STM32Cube MPU Package within the Ope Recipes for STLink  Recipes for Vivante libraries OpenGL ES, OpenVG  Recipes for Linux kernel Recipes for Linux firmwares (example, Bluetooth  Recipes for OPTEE </pre>



## STM32MP1 Distribution Package - OpenSTLinux distribution

â	â	â	âââ recipes-st	
â	â	â	âââ images	Recipes for the <i>bootfs</i> and <i>userfs</i> partitions bin
â	â	â	âââ [...]	
â	â	âââ	meta-st-stm32mp-addons	STMicroelectronics layer that helps managing the
â	â	âââ	scripts	
â	â	â	âââ envsetup.sh	Environment setup script for Distribution Packag
â	â	â	âââ [...]	
â	âââ		meta-timesys	Timesys layer for OpenEmbedded (standard)
â	âââ		openembedded-core	Core metadata for current versions of OpenEmbedd