# 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 |
|---|---|
| | • Go to the host PC directory where to install the Distribution Package (*<Distribution Package installation directory>*). Example, if following the proposition to organize the working directory: <br><br>`$ cd <working directory path>/Distri`<br><br> • Create the OpenSTLinux distribution installation sub-directory: <br><br>`$ mkdir openstlinux-4.19-thud-mp1-19`<br>`$ cd openstlinux-4.19-thud-mp1-19-10`<br><br> • Initialize repo in the current directory (More details on 'repo init' here). |
| **Installation** | |

| | STM32MP1 Distribution Package OpenSTLinux distribution - STM32MP15-Ecosystem-v1.1.0 release |
|---|---|
| | ```
$ repo init -u https://github.com/ST
```
Note: "ERROR 404" may appear during "repo init" command without any impact on the process<br>• Synchronize the local project directories with the remote repositories specified in the manifest (more details on 'repo sync' here)<br><br>```
$ repo sync
```<br>Note: *Distribution package* needs around 140MB to be installed (and around 25GB once *distribution package* is compiled). |
| Release note | Details about the content of this software package are available in the **associated** STM32MP15 ecosystem release note.<br><br>If interested in previous releases, go through the archives of the ecosystem release note. |

- 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
âââ layers
â   âââ meta-openembedded              Collection of layers for the OpenEmbedded-Core u
â   âââ meta-qt5                       QT5 layer for OpenEmbedded (standard)
â   âââ meta-st
â   â   âââ meta-st-openstlinux        STMicroelectronics layer that contains the frame
â   â   âââ meta-st-stm32mp            STMicroelectronics layer that contains the descr
â   â   â   âââ recipes-bsp
â   â   â   â   âââ alsa               Recipes for ALSA control configuration
â   â   â   â   âââ drivers            Recipes for Vivante GCNANO GPU kernel drivers
â   â   â   â   âââ trusted-firmware-a Recipes for TF-A
â   â   â   â   âââ u-boot             Recipes for U-Boot
â   â   â   âââ recipes-extended
â   â   â   â   âââ linux-examples     Recipes for Linux examples for STM32 MPU devices
â   â   â   â   âââ m4coredump         Recipes for script to manage coredump of cortexM
â   â   â   â   âââ m4projects         Recipes for firmware examples for Cortex M4
â   â   â   âââ recipes-graphics
â   â   â   â   âââ gcnano-userland    Recipes for Vivante libraries OpenGL ES, OpenVG
â   â   â   â   âââ [...]
â   â   â   âââ recipes-kernel
â   â   â   â   âââ linux              Recipes for Linux kernel
â   â   â   â   âââ linux-firmware     Recipes for Linux firmwares (example, Bluetooth
â   â   â   âââ recipes-security
â   â   â   â   âââ optee              Recipes for OPTEE
â   â   â   âââ recipes-st
â   â   â   â   âââ images             Recipes for the bootfs and userfs 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       âââ envsetup.sh              Environment setup script for Distribution Packag
â    â       âââ [...]
â    âââ meta-timesys                     Timesys layer for OpenEmbedded (standard)
â    âââ 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><li>Go to the host PC directory where to install the Distribution Package (*<Distribution Package installation directory>*). Example, if following the proposition to organize the working directory:</li></ul> `$ cd <working directory path>/Distri` <ul><li>Create the OpenSTLinux distribution installation sub-directory:</li></ul> `$ mkdir openstlinux-4.19-thud-mp1-19` `$ cd openstlinux-4.19-thud-mp1-19-02` <ul><li>Initialize repo in the current directory.</li></ul> **Details:** The below command downloads (in the *.repo* directory) the latest repo source code and a manifest file (*default.xml*)) that describes the directory structure of the repositories for OpenSTLinux. |

| | STM32MP1 Distribution Package OpenSTLinux distribution - STM32MP15-Ecosystem-v1.0.0 release |
|---|---|
| **Installation** | The *-u* option specifies the manifest repository location, while the *-b* option specifies its branch.<br><br>`$ repo init -u https://github.com/ST`<br><br>Note: "ERROR 404" may appear during "repo init" command without any impact on the process<br><br>• Synchronize the local project directories with the remote repositories specified in the manifest<br><br>**Details:**<br><br>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.<br><br>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.<br><br>`$ repo sync` |
| Release note | Details about the content of this software package are available in the **associated** STM32MP15 ecosystem release note. |

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

```
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â   â   â   âââ recipes-bsp
â   â   â   â   âââ alsa                 Recipes for ALSA control configuration
â   â   â   â   âââ drivers              Recipes for Vivante GCNANO GPU kernel drivers
â   â   â   â   âââ trusted-firmware-a   Recipes for TF-A
â   â   â   â   âââ u-boot               Recipes for U-Boot
â   â   â   âââ recipes-extended
â   â   â   â   âââ m4projects           Recipes for STM32Cube MPU Package within the Ope
â   â   â   â   âââ stlink               Recipes for STLink
â   â   â   âââ recipes-graphics
â   â   â   â   âââ gcnano-userland      Recipes for Vivante libraries OpenGL ES, OpenVG
â   â   â   â   âââ [...]
â   â   â   âââ recipes-kernel
â   â   â   â   âââ linux                Recipes for Linux kernel
â   â   â   â   âââ linux-firmware       Recipes for Linux firmwares (example, Bluetooth
â   â   â   âââ recipes-security
â   â   â   â   âââ optee                Recipes for OPTEE
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```
â    â    â    âââ recipes-st
â    â    â    â   âââ images            Recipes for the bootfs and userfs partitions bin
â    â    â    âââ [...]
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â    â        âââ envsetup.sh            Environment setup script for Distribution Packag
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