* **STM32MPU wiki user guide: THE MAIN ENTRIES links/keyword (right column)** *(among 400 articles*)

***The wiki is user manual of the* STM32MPU Embedded Software distribution**

**It** ***focuses on software and on practical getting started information.*** *Now availabe in* <https://wiki.st.com/stm32mpu>

*but before the wiki is stored on LeMans site* [*http://intranet.lme.st.com:8000/php-bin/ug\_mcdmpu/index.php/Main\_Page*](http://intranet.lme.st.com:8000/php-bin/ug_mcdmpu/index.php/Main_Page)

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| **Home page** | [Main Page](https://wiki.st.com/stm32mpu/index.php/Main_Page) |

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| ***Entry point to Reference documents***  **STM32MP1 getting started AN, Reference Manual, Data brief, Disco/Eval schematics, trainings, link to other release notes (tools, OpenSTLinux distribution, STM32CubeMPU)**  ***Training material from division***  ***RM0436 - reference manual - STM32MP157xxx advanced Arm®-based 32-bit MPUs***  ***DS12005 - STM32MP157Cxx datasheet***  ***E0438 - STM32MP15xx device errata***  ***STPMIC1x data sheet***  ***AN5031 – Getting started with STM32MP15 Series hardware development***  ***AN5109 - STM32MP15 Series using low-power modes***  ***AN5122 - STM32MP15 Series DDR Doubledata rate memory routing guidelines***  ***AN5089 - STM32MP15x and STPMU1x HW and SW integration (not yet on wiki)***  ***AN5168 - STM32MP1 series DDRDoubledata rate (memory domain) configuration***  ***UM2534 - STM32MP157x-DKx discovery board user manual***  ***License information*** | [**STM32MP15 ecosystem release note - v1.0.0**](https://wiki.st.com/stm32mpu/index.php/STM32MP15_ecosystem_release_note_-_v1.0.0)  [STM32MP15 ecosystem errata sheet - v1.0.0](https://wiki.st.com/stm32mpu/index.php/STM32MP15_ecosystem_errata_sheet_-_v1.0.0)  [**STM32MP15 ecosystem release note**](https://wiki.st.com/stm32mpu/index.php/STM32MP15_ecosystem_release_note)  [STM32MP15 resources - v1.0.0](https://wiki.st.com/stm32mpu/index.php/STM32MP15_resources_-_v1.0.0)  [STM32MP15 resources](https://wiki.st.com/stm32mpu/index.php/STM32MP15_resources)  [OpenSTLinux licenses](https://wiki.st.com/stm32mpu/index.php/OpenSTLinux_licenses) |
| **Cortex-A7 “world” "STM32MP15 OpenSTLinux" detailed (layers) release note** | [**STM32MP15 OpenSTLinux release note - v1.0.0**](https://wiki.st.com/stm32mpu/index.php/STM32MP15_OpenSTLinux_release_note_-_v1.0.0)  [**STM32MP15 OpenSTLinux release note**](https://wiki.st.com/stm32mpu/index.php/STM32MP15_OpenSTLinux_release_note) |
| **Cortex-M4 "world" in "STM32Cube MPU Package" (M4 side) detailed release note** | [**STM32CubeMP1 Package release note - v1.0.0**](https://wiki.st.com/stm32mpu/index.php/STM32CubeMP1_Package_release_note_-_v1.0.0)  [**STM32CubeMP1 Package release note**](https://wiki.st.com/stm32mpu/index.php/STM32CubeMP1_Package_release_note_-_v1.0.0) |
| **"STM32MP15 tools" detailed release note**  CubeProgrammer  CubeMx  SystemWorkbench IDE and M4 coproc eclipse plug-in | [STM32CubeProgrammer release note](https://wiki.st.com/stm32mpu/index.php/STM32CubeProgrammer_release_note)  [STM32CubeMX release note](https://wiki.st.com/stm32mpu/index.php/STM32CubeMX_release_note)  [STM32-CoPro-MPU plugin release note](https://wiki.st.com/stm32mpu/index.php/STM32-CoPro-MPU_plugin_release_note)  [KeyGen release note](https://wiki.st.com/stm32mpu/index.php/KeyGen_release_note)  [Signing tool release note](https://wiki.st.com/stm32mpu/index.php/Signing_tool_release_note) |

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| **Linux PC installation** (PC or VM setup to be able to build distribution package) | [**PC\_prerequisites**](https://wiki.st.com/stm32mpu/index.php/PC_prerequisites) |

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| **Software delivery content**  Access to 3 software package main articles | [Getting started with ST boards](https://wiki.st.com/stm32mpu/index.php/Category:Getting_started_with_ST_boards)  [**STM32MPU Embedded Software distribution**](https://wiki.st.com/stm32mpu/index.php/STM32MPU_Embedded_Software_distribution) |

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| ***The hw board user guides,***  ***where to get the software starter images,***  ***how to use the board, flash with CubeProgrammer,***  ***how to open terminal window connected to st-link.***  *(use links "Fast links to essential commands"* at the very bottom of the following pages) | [**STM32MP157X-DKX - hardware description**](https://wiki.st.com/stm32mpu/index.php/STM32MP157X-DKX_-_hardware_description)  [STM32MP157C-EV1 - hardware description](https://wiki.st.com/stm32mpu/index.php/STM32MP157C-EV1_-_hardware_description)  [**STM32MP1 Starter Package - images**](https://wiki.st.com/stm32mpu/index.php/STM32MP1_Starter_Package_-_images)  [**STM32MP15 Discovery kits - Starter Package**](https://wiki.st.com/stm32mpu/index.php/STM32MP15_Discovery_kits_-_Starter_Package)  [STM32MP15 Evaluation boards - Starter Package](https://wiki.st.com/stm32mpu/index.php/STM32MP15_Evaluation_boards_-_Starter_Package) |

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| ***The developer software package main page (in bold),***  Sub pages on how to build components | [**STM32MP1 Developer Package**](https://wiki.st.com/stm32mpu/index.php/STM32MP1_Developer_Package)  [STM32MP1 Developer Package - SDK](https://wiki.st.com/stm32mpu/index.php/STM32MP1_Developer_Package_-_SDK)  [STM32MP1 Developer Package - Linux kernel](https://wiki.st.com/stm32mpu/index.php/STM32MP1_Developer_Package_-_Linux_kernel)  [STM32MP1 Developer Package - U-Boot](https://wiki.st.com/stm32mpu/index.php/STM32MP1_Developer_Package_-_U-Boot)  [STM32MP1 Developer Package - TF-A](https://wiki.st.com/stm32mpu/index.php/STM32MP1_Developer_Package_-_debug_symbol_files)  [STM32MP1 Developer Package - OP-TEE](https://wiki.st.com/stm32mpu/index.php/STM32MP1_Developer_Package_-_OP-TEE)  [STM32MP1 Developer Package - debug symbol files](https://wiki.st.com/stm32mpu/index.php/STM32MP1_Developer_Package_-_debug_symbol_files)  [Install the SDK](https://wiki.st.com/stm32mpu/index.php/Getting_started/STM32MP1_boards/STM32MP157x-EV1/Develop_on_Arm%C2%AE_Cortex%C2%AE-A7/Install_the_SDK)  [File:Linux.README.HOW TO.txt](https://wiki.st.com/stm32mpu/index.php/File:Linux.README.HOW_TO.txt)  [File:U-Boot.README.HOW TO.txt](https://wiki.st.com/stm32mpu/index.php/File:U-Boot.README.HOW_TO.txt)  [File:TF-A.README.HOW TO.txt](https://wiki.st.com/stm32mpu/index.php/File:TF-A.README.HOW_TO.txt)  [File:OP-TEE.README.HOW TO.txt](https://wiki.st.com/stm32mpu/index.php/File:OP-TEE.README.HOW_TO.txt) |

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| ***The distribution software package***  *How to build the distribution package* | [**STM32MP1 Distribution Package**](https://wiki.st.com/stm32mpu/index.php/STM32MP1_Distribution_Package)  [STM32MP1 Distribution Package - OpenSTLinux distribution](https://wiki.st.com/stm32mpu/index.php/STM32MP1_Distribution_Package_-_OpenSTLinux_distribution) |

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| ***Get the STM32Cube firmware software package***  *How to use the firmware examples, build and debug with system workbench IDE, how to build in distribution package* | [**STM32MP1 Developer Package - STM32Cube MPU Package**](https://wiki.st.com/stm32mpu/index.php/STM32MP1_Developer_Package_-_STM32CubeMP1_Package)  [STM32CubeMP1 Package](https://wiki.st.com/stm32mpu/index.php/STM32CubeMP1_Package_release_note_-_v1.0.0) |

**Package Installation**

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| ***The directory structure template***  *(When you start to install the developer and distribution package on your Linux host)* | [Example of directory structure for Packages](https://wiki.st.com/stm32mpu/index.php/Example_of_directory_structure_for_Packages)  [OpenSTLinux directory structure](https://wiki.st.com/stm32mpu/index.php/OpenSTLinux_directory_structure)  [Example of directory structure for tools](https://wiki.st.com/stm32mpu/index.php/Example_of_directory_structure_for_tools) |

**OpenSTLinux software (To understand further the software architecture)**

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| **List of the frameworks and APIs**  Boot chain component  Device tree config  **Linux kernel components**  Linux API component link  **Example Analog ADC**  ST driver with source location  Linux driver API  **Example Low speed interface I2C**  ST driver with source location  Linux I2C driver API | [**Embedded software components**](https://wiki.st.com/stm32mpu/index.php/Category:Embedded_software_components)  [**Platform boot**](https://wiki.st.com/stm32mpu/index.php/Category:Platform_boot)  [**Platform configuration**](https://wiki.st.com/stm32mpu/index.php/Category:Platform_configuration)  [**Linux Operating System**](https://wiki.st.com/stm32mpu/index.php/Category:Linux_Operating_System)  <https://www.kernel.org/doc/html/latest/>  <https://www.kernel.org/doc/html/latest/driver-api/index.html>  [**Linux Operating System**](https://wiki.st.com/stm32mpu/index.php/Category:Linux_Operating_System)  [Analog](https://wiki.st.com/stm32mpu/index.php/Category:Analog)  [IIO](https://wiki.st.com/stm32mpu/index.php/Category:IIO)  [ADC Linux driver](https://wiki.st.com/stm32mpu/index.php/ADC_Linux_driver)  [IIO overview](https://wiki.st.com/stm32mpu/index.php/IIO_overview)  <https://www.kernel.org/doc/html/latest/driver-api/iio/index.html>  [Low speed interface](https://wiki.st.com/stm32mpu/index.php/Category:Low_speed_interface)  [I2C driver](https://wiki.st.com/stm32mpu/index.php/Category:I2C)  https://www.kernel.org/doc/html/latest/driver-api/i2c.html |

**How to run OpenSTLinux Use Cases**

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| How to play a vide stream, use camera, display picture,….  Some examples wit associated framework overiew  play video  gstreamer  camera  v4l2  display picture  Weston-wayland  GTK demo (starter package demo) | [**How to run use cases**](https://wiki.st.com/stm32mpu/index.php/Category:How_to_run_use_cases)  [**How to play a video**](https://wiki.st.com/stm32mpu/index.php/How_to_play_a_video)  [**Gst-play**](https://wiki.st.com/stm32mpu/index.php/Gst-play)  [**Gstreamer overview**](https://wiki.st.com/stm32mpu/index.php/GStreamer_overview)  [**How to make a camera preview**](https://wiki.st.com/stm32mpu/index.php/How_to_make_a_camera_preview)  [**V4L2 camera overview**](https://wiki.st.com/stm32mpu/index.php/V4L2_camera_overview#Fullscreen_preview)  [**How to display an image using Weston**](https://wiki.st.com/stm32mpu/index.php/How_to_display_an_image_using_Weston)  [**Wayland Weston overview**](https://wiki.st.com/stm32mpu/index.php/Wayland_Weston_overview#Display_some_images)  [**GTK demo launcher**](https://wiki.st.com/stm32mpu/index.php/GTK_demo_launcher) |

**How to Tools & Debug**

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| **Flashing**  **Hyperterminal**  Connection with st-link (virtual comport)  **OpenEmbedded Commands**  Bitbake commands  **How to get the trace from linux software components**  How to get trace in each framework (example DRM KMS) look for “**How to trace and debug the framework**  **Linux kernel driver traces**  **Debug tools main useful articles**  **Perf monitoring** | [STM32CubeProgrammer](https://wiki.st.com/stm32mpu/index.php/STM32CubeProgrammer)  [How to populate a microSD card with a script](https://wiki.st.com/stm32mpu/index.php/How_to_populate_a_microSD_card_with_a_script)  [ST-LINK](https://wiki.st.com/stm32mpu/index.php/ST-LINK)  [Serial/TTY overview](https://wiki.st.com/stm32mpu/index.php/Serial_TTY_overview)  [How to use TTY with User Terminal](https://wiki.st.com/stm32mpu/index.php/How_to_use_TTY_with_User_Terminal)  [Trace and debug scenario - UART issue](https://wiki.st.com/stm32mpu/index.php/Trace_and_debug_scenario_-_UART_issue)  [OpenEmbedded](https://wiki.st.com/stm32mpu/index.php/OpenEmbedded)  [Bitbake\_cheat\_sheet](https://wiki.st.com/stm32mpu/index.php/BitBake_cheat_sheet)  [OpenEmbedded – devtool](https://wiki.st.com/stm32mpu/index.php/OpenEmbedded_-_devtool)  [**DRM KMS overview**](https://wiki.st.com/stm32mpu/index.php/DRM_KMS_overview)  [**How to use the kernel dynamic debug**](https://wiki.st.com/stm32mpu/index.php/How_to_use_the_kernel_dynamic_debug)  [How to find Linux kernel driver associated to a device](https://wiki.st.com/stm32mpu/index.php/How_to_find_Linux_kernel_driver_associated_to_a_device)  [**Trace and debug tools**](https://wiki.st.com/stm32mpu/index.php/Trace_and_debug_tools)  [**STM32MP1 Platform trace and debug environment overview**](https://wiki.st.com/stm32mpu/index.php/STM32MP1_Platform_trace_and_debug_environment_overview)  [**Linux tracing, monitoring and debugging**](https://wiki.st.com/stm32mpu/index.php/Linux_tracing,_monitoring_and_debugging)  [**Linux\_tracing\_tools**](https://wiki.st.com/stm32mpu/index.php/Category:Linux_tracing_tools)  [**Linux\_monitoring\_tools**](https://wiki.st.com/stm32mpu/index.php/Category:Linux_monitoring_tools)  [Linux\_Debugging\_tools](https://wiki.st.com/stm32mpu/index.php/Category:Linux_debugging_tools)  [**Debugging tools**](https://wiki.st.com/stm32mpu/index.php/Category:Debugging_tools)  [GDB](https://wiki.st.com/stm32mpu/index.php/GDB)  [GDB commands](https://wiki.st.com/stm32mpu/index.php/GDB_commands)  [Gdbgui](https://wiki.st.com/stm32mpu/index.php/Gdbgui)  [Debugging the Linux kernel using the GDB](https://wiki.st.com/stm32mpu/index.php/Debugging_the_Linux_kernel_using_the_GDB)  [U-Boot-How to debug](https://wiki.st.com/stm32mpu/index.php/U-Boot_-_How_to_debug)  [TF-A-How to debug](https://wiki.st.com/stm32mpu/index.php/TF-A_-_How_to_debug)  [OP-TEE-How to debug](https://wiki.st.com/stm32mpu/index.php/OP-TEE_-_How_to_debug)  [STM32-CoPro-MPU plugin for SW4STM32](https://wiki.st.com/stm32mpu/index.php/STM32-CoPro-MPU_plugin_for_SW4STM32)  [Netdata](https://wiki.st.com/stm32mpu/index.php/Netdata) |