About this release note

This Release Note contains information about the firmware of the ST-LINK/V2.

The ST-LINK/V2 firmware upgrade application can be used to identify the version of the firmware currently running and, if necessary, to upgrade the firmware through the USB port.

The part number of the ST-LINK/V2 firmware upgrade application is STSW-LINK005.

1 Host PC system requirements

PC and compatibles running with:

- Windows 7, Windows 8 and Linux 32-bits operating systems
- Windows 7, Windows 8, Linux and MacOS-X 64-bits operating systems

The ST-LINK/V2 firmware upgrade application requires the Java Runtime Environment 7u51 (or more recent) being installed.

On Windows operating systems, the ST-LINK/V2 boards require a dedicated USB driver to be installed. In case the driver was not installed, it can be found on the ST-LINK/V2 web page on the company website at *www.st.com*.

On Linux, the application relies on libusb-1.0, which must be installed separately. For instance on Ubuntu, through the command "sudo apt-get install libusb-1.0".

On Linux, users must be granted with rights for accessing the ST-Link USB devices. To do that, it might be necessary to add rules into /etc/udev/rules.d. For instance on Ubuntu, through the command "sudo cp 49-stlinkv2-1.rules /etc/udev/rules.d".

2 Changes in version 2.24.4

On ST-Link/V2 boards, upgrade firmware to the version V2J24S4.

New features:

- Provide a command for JTAG clock frequency selection
- Added support for STM32F746

3 Information about major previous release

3.1 Summary of changes in version 2.23.4

On ST-LINK/V2 boards, upgrade firmware to the version V2J23S4.

Corrections:

- Fix SWV no more working after Stop Debug/Start Debug on ST-LINK/V2 boards

New features:

- Added management of SWCLK switch command
- Added support for Linux and MacOS-X operating systems (see *Section 1* for details)

3.2 Summary of changes in version 2.21.4

On ST-LINK/V2, upgrade firmware to V2J21S4.

Corrections:
- Set NRST pin high, when exiting the firmware update mode

3.3 Summary of changes in version 2.20.4

On ST-LINK/V2, upgrade firmware to V2J20S4.

Corrections:
- Fixed regression appeared in V2J19 in SWV trace management
- Fixed potential lockup condition in SWV trace management

3.4 Summary of changes in version 2.19.4

On ST-LINK/V2, upgrade firmware to V2J19S4.

New features:
- Fixed the issue about the RAM parity check error with some microcontrollers when reading misaligned RAM contents
- Enhanced the SWV data flow (loosing data at 1024-bytes boundaries more rarely)
- Enhanced the target TNRST signal management for low-powered targets

3.5 Summary of changes in version 2.16.4

- Added command for FPU registers access (STM32F3xxx and STM32F4xxx)
- Firmware compatible for boards with isolation
- Added command for board identification
- Added possibility of hot plug JTAG connection (without target hard reset)
- Fixed the limitation about power not activated in the debug domain during JTAG initialization sequence

4 Customer support

For more information or help concerning ST-LINK/V2, please contact the nearest sales office. For a complete list of ST offices and distributors, refer to *www.st.com*.

5   Revision history

Table 1. Document revision history

Date	Revision	Changes
16-Oct-2012	1	Initial release.
24-Feb-2014	2	Added content for new version 2.19.4.
18-Apr-2014	3	Added content for new version 2.20.4.
02-June-2014	4	Added content for new version 2.21.4.
23-Apr-2015	5	Added content for new version 2.23.4.
05-May-2015	6	Updated *Section : About this release note* and *Section 1: Host PC system requirements*.
22-Jul-2015	7	Added content for new version 2.24.4.

IMPORTANT NOTICE – PLEASE READ CAREFULLY