

Introduction

This release note contains information about the latest version of the ST-LINK server application for ST-LINK, ST-LINK/V2 and ST-LINK/V2-1 boards. The part number for this application is ST-LINK-SERVER.

Customer support

For more information or help concerning ST-LINK, ST-LINK/V2 and ST-LINK/V2-1 boards, contact the ST nearest sales office. For a complete list of ST offices and distributors, refer to the www.st.com web page.

Software updates

Software updates and all the latest documentation can be downloaded from the ST microcontroller support www.st.com web page.

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1 General information

1.1 Overview

The ST-LINK server is an application to share the debug interface of a single ST-LINK board among several host applications, typically a debugging tool and a monitoring tool. Of course, two debugging tools cannot simultaneously control the same target, but both may have access to it, if appropriate connection settings are chosen.

The ST-LINK server also has access to several boards with one single tool to launch and control the debug of these boards.

The host application must have the ability to connect to the ST-LINK server instead of connecting directly to the ST-LINK USB interface.

Other ST-LINK interfaces (such as Virtual COM port and Mass Storage, if provided) are not managed through the ST-LINK server, but may be used simultaneously.

The ST-LINK server supports STM32 32-bit microcontrollers based on the Arm[®] Cortex[®]-M processor.



1.2 Host PC system requirements

PC and compatibles running with:

- Windows[®] 7, 8 32-bit operating systems
- Windows[®] 7, 8, 10, Linux[®] and macOS[®] X 64-bit operating systems

On Windows operating system, the ST-LINK board requires to install a dedicated USB driver. In case the driver is not installed by the used toolset, it can be found at the www.st.com/stm32nucleo web page.

On Linux, the application relies on libusb-1.0, which must be installed separately: for instance on Ubuntu this is done 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, this is done through the command “sudo cp 49-stlinkv2-1.rules /etc/udev/rules.d”. The rule files are provided by the ST-LINK, ST-LINK/V2, ST-LINK/V2-1 firmware upgrade package (STSW-LINK007).

2 ST-LINK server 1.0

2.1 Toolset first version supporting the ST-LINK server:

- SW4STM32 2.2.0

2.2 Software package content

The zip file contains 5 packages:

1. for Windows st-stlink-server.1.0.6-1.msi
2. for macOS X st-stlink-server.1.0.6-1.pkg
3. for Linux Debian st-stlink-server-1.0.6-1-linux-amd64.deb
4. for Linux Red Hat st-stlink-server-1.0.6-1-linux-amd64.rpm
5. for other Linux OS st-stlink-server-1.0.6-1

2.3 What's new

- Fix SWO trace issue
- Normalized error log

3 Known problems and limitations

1. The ST-LINK server provides simultaneous communication channels to a single ST-Link board (and target microcontroller behind), but does not manage priorities between client applications. As a consequence, a new connection attempt might disturb or kill a previously established connection if for instance the second client application drives the target reset or stops the core.
The typical use case for sharing target accesses is one application controlling the target (a debugger for instance), and one application monitoring the target (and connecting without impacting the target state).
2. The SWV (Serial Wire Viewer) feature can not be shared between applications. Only one application is allowed to control it. The behavior in case of conflicting applications is not predictable.
3. When connecting to a STM32 target, the protocol (SWD or JTAG) is selected by the first client application connecting. In further connections, the protocol has to be the same (if a JTAG connection is attempted while a SWD one is already set, the connection will fail).
Conversely, the protocol frequency is enforced by the last caller. Any attempt modifying the frequency of one protocol has no impact on the other protocol.
4. The default connection setting is localhost port 7184. The server only accepts sockets from localhost. The port may be modified (implementation dependent), however for correct behavior all clients must use the same port. Only one instance of the server must run.

4 Revision history

Table 1. Document revision history

Date	Document revision	Product revision	Changes
13-Sep-2017	1	1.0	Initial version
28-Nov-2017	2	2.0	Updated Chapter 2.2: Software package content Added Chapter 2.3: What's new

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