Introduction

About these release notes...

This is Version 15.0 of the release notes for release 3.2.2 of the ST microcontroller programming software, which is named **ST Visual Programmer** and abbreviated to **STVP**.

These release notes are updated periodically in order to keep you abreast of any problems or limitations found in this release. Check the ST microcontroller support web site at *www.st.com* to ensure that this is the latest version of these release notes.

Customer support

For more information or help concerning STVP, please contact the nearest sales office. You will find a complete and up-to-date listing of ST offices and distributors at *www.st.com.*

Software updates

You can get software updates from the ST internet web site ST microcontroller support web site at *www.st.com*.

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1 Read me first

1.1 Overview

STVP is a common standard programming interface used for ST microcontroller programming systems (programming boards (EPBs), development kits (DVPs), ST7-STICK, ICC add-on connected to a ST Micro Connect box, Raisonance STX-RLINK, STice, ST-LINK and ST-TSLINK.

STVP must be configured for each ST microcontroller programming hardware system and microcontroller device.

This tool allows you to read, program, verify and check ST microcontrollers. For more explanations on how to perform a typical programming session, refer to STVP's online help file `stvp.chm`.

1.2 System requirements

PC and compatibles running with Windows® 2000, XP, Vista or 7 operating systems.

In order to access STVP's online help (`*.chm` format), you must have installed Microsoft® Internet Explorer 4.0 or higher.

Note: *To install STVP, Windows® 2000, XP, Vista and 7 users must have administrator privileges.*

ST-Link dongle hardware users must have administrator privileges.

Raisonance RLink USB driver is not installed upon installation of STVP. RLink users must install RLink USB driver by selecting Start>Programs>ST Toolset>Setup>Install RLink driver.

2 What's new in STVP 3.2.2

2.1 Summary of changes in release 3.2.2

● Added support for STM8L162M8, STM8L162R8, STM8L15xM8, STM8L15xR8, STM8L15xC8, STM8L15xR6 on STice, STX-RLINK and ST-LINK hardware programming boards.

● Renamed STM8L151xx and STM8L152xx devices into STM8L15xC6, STM8L15xK6, STM8L15xG6, STM8L15xC4, STM8L15xK4 and STM8L15xG4.

● Added support for STM8S208M8 on STice, STX-RLINK and ST-LINK hardware programming boards.

● Added support for STM8AF52A, STM8AF528, STM8AF526, STM8AF62A, STM8AF628 and STM8AF6269 on STice, STX-RLINK and ST-LINK hardware programming boards.

● Added support for STM32F100xCxxB, STM32F100xDxxB and STM32F100xExxB on ST-LINK dongle hardware.

● Updated option bytes description on STM8T142 device.

● Enlarged "Configuration" window to select hardware tool and device.

2.2 Hardware and targets supported by this release

2.2.1 In-circuit programming

The following microcontrollers can be in-circuit programmed from STVP:

Table 1. Microcontrollers supported by STVP release 3.2.2

Product line	Microcontroller
STM32	STM32F100xx, STM32F101xx, STM32F102xx, STM32F103xx, STM32F105xx, STM32F107xx STM32W108xB
STM8	STM8AF51x, STM8AF52x, STM8AF61x, STM8AF62x, STM8AH51x, STM8AH61x, STM8S207xx, STM8S208xx, STM8S105xx, STM8S103xx, STM8S903K3, STM8S903F3, STM8L101xx, STM8L15x, STM8L16x
STM8T	STM8T141, STM8T142
ST7 LITE	ST7FLITEUSA2/5, ST7FLITEU02/05, ST7FLITEU09, ST7FLITEUSN, ST7FLITEUS2/5, ST7FLITES2/5, ST7FLITE0x, ST7FLITE1x, ST7FLIT1xB, ST7FLITE2x, ST7FLITE3x, ST7FLITE49, ST7FLI49M, ST7FOXA0, ST7FOXF1, ST7FOXK1, ST7FOXK2,ST7FLUx, ST7FL0x, ST7FL1x, ST7FL3x, ST7FDALI, ST72F260G1, ST72F262Gx, ST72F264Gx, ST72F34x
ST7 MID-RANGE	ST72F32AJ1, ST72F32AJ2, ST72F32AK1, ST72F32AK2, ST72F321xx, ST72F321Bxx, ST72F324xx, ST72F324Bxx, ST72F325xx, ST72F361xx, ST72F34xx, ST7FAUDIOxx
ST7 CAN	ST72F521xx, ST72F561xx
ST7 LCD	ST7FLCD1

Table 1.   Microcontrollers supported by STVP release 3.2.2

Product line	Microcontroller
ST7 MC	ST7FMCxx
ST7 HUB	ST7FHUB

The STM32 microcontrollers listed in *Table 1* can be in-circuit programmed from STVP using an **ST-LINK** dongle accessed from STVP as *ST-LINK.*

The STM8T14x devices listed in *Table 1* can be programmed in-circuit from STVP using an **ST-TSLINK** dongle accessed from STVP as *ST-TSLINK.*

All ST7 and STM8 microcontrollers listed in *Table 1* can be in-circuit programmed from STVP using the following ST development tools:

● **STice emulator** (accessed from STVP as *STice*)

● **STX-RLINK** from Raisonance (accessed from STVP as *RLINK*)

The STM8 microcontrollers listed in *Table 1* can also be in-circuit programmed from STVP using an **ST-LINK** dongle accessed from STVP as *ST-LINK.*

The ST7 microcontrollers listed in *Table 1* can also be in-circuit programmed from STVP using these ST7 development tools:

● **ST7-STICK** (accessed from STVP as *STICK*)

● **ST7MDT10-DVP3**, **ST7MDT20-DVP3**, **ST7MDT25-DVP3 series emulators** (all are accessed from STVP as *ST7-DVP3*)

● **ST7-EMU3 series emulators** – ST Micro Connect with ICC Add-on (All are accessed from STVP as *ST7-EMU3*)

2.2.2   ST7-EPB programming boards and ST7SB socket boards

This section provides a list of supported devices and packages by programming board – engineering programming board (ST7-EPB) and socket board (ST7SB):

Note: *Programming with socket boards (ST7SB) requires connection via a tool with in-circuit programming (ICP) capability (ST7-STICK, ST7-DVP3, ST7-EMU3, STice or STX-RLINK). In STVP select the ICP tool that you are using to connect to the socket board.*

Table 2.   Devices and packages supported by the ST7-EPB and ST7SB

EPB	SB	Packages	Supported targets	ISP/ICP mode
ST7MDT1-EPB2	None	SDIP32, SO28	ST72101G1/2, ST72212G2, ST72213G1, ST72251G1/2	Not present
			ST72104G1/2, ST72215G2, ST72216G1, ST72254G1/2	ISP

Table 2. Devices and packages supported by the ST7-EPB and ST7SB (continued)

EPB	SB	Packages	Supported targets	ISP/ICP mode
ST7MDT2-EPB2	None	TQFP44, SDIP42	ST72121J2/4, ST72311J2/4, ST72331J2/4	Not present
			ST72124J2, ST72314J2/4, ST72334J2/4	ISP
		SDIP56	ST72311N2/4, ST72331N2/4	Not present
			ST72314N2/4, ST72334N2/4	ISP
		TQFP64	ST72311N2/4, ST72311R6/7/9, ST72331N2/4, ST72511R6/7/9, ST72512R4, ST72532R4	Not present
			ST72314N2/4, ST72334N2/4	ISP
ST7MDT6-EPB2	None	SO34, SDIP32	ST72C171	ISP
ST7MDT7-EPB2	None	TQFP64	ST72C411	ISP
ST7MDP01-EPB	None	TQFP80	ST7MDP01	Not present
ST7MDT10-EPB[1]	ST7SB10-26x	SDIP32, SO28, TFBGA36	ST72F260G1, ST72F262Gx, ST72F264Gx	ICP
	ST7SB10-SU0	DIP16, SO16(150-mil), DIP8, SO8	ST7FLITE02/5/9, ST7FL05/9, ST7FLITES2/5, ST7FLITEUS2/S5, ST7FLITEUSA2/ 5, ST7FLITEU05/9, ST7FLUS5, ST7FLU05, ST7FLU09	
	ST7SB-123	DIP20, SO20, DIP16, SO16	ST7FLITE10/5/9, ST7FLIT10/15/19B, ST7FLITE20/5/9, ST7FLITE30/5/9, ST7FL15/9, ST7FL34/5/8/9, ST7FDALI	
ST7MDT20J-EPB	ST7SB20J	TQFP44, SDIP42	ST72F32AJ1/2, ST72F324J2/4/6, ST72F324BJ2/4/6, ST72F325J4/6/7/9	ICP
		TQFP44	ST72F321J7/9, ST72F321BJ6/7/9 ST72F340S2/4, ST72F344S2/4, ST7FAUDIOJ6/7/9	
		TQFP32, SDIP32	ST72F32AK1/2, ST72F324K2/4/6, ST72F324BK2/4/6, ST72F321BK6, ST72F325K4/6, ST72F340K2/4, ST72F344K2/4	
		TQFP48[2]	ST72F325C6/7/9, ST72F325S4/6	

Table 2. **Devices and packages supported by the ST7-EPB and ST7SB (continued)**

EPB	SB	Packages	Supported targets	ISP/ICP mode
ST7MDT20M-EPB	ST7SB20M	TQFP64 (14x14)	ST72F521R6/9, ST72F321R6/7/9, ST72F321BR6/7/9, ST72F325R6/7/9, ST7FAUDIOR6/7/9	ICP
		TQFP64[(3)] (10x10)	ST72F521AR6/9,ST72F321AR6/7/9, ST72F321BAR6/7/9, ST72F325AR6/7/9, ST7FAUDIOAR6/7/9	
		TQFP80	ST72F521M9, ST72F521M6, ST72F321M9, ST72F321M6	
ST7MDT25-EPB	ST7SB25	TQFP64 (14x14)	ST72F561R6/9, ST72F361R6/7/9	ICP
		TQFP64 (10x10)	ST72F561AR4/6/9, ST72F361AR6/7/9	
		TQFP44	ST72F561J4/6/9, ST72F361J6/7/9	
		TQFP32	ST72F561K4/6/9, ST72F361K6/7/9	
ST7MDT4-EPB	None	SDIP32	ST72272K2/4	Not present
		SO34	ST72272K2/4, ST7275	
		TQFP64	ST72371N4, ST72671N4/6, ST7277	
ST7MDT5-EPB	None	SO34, SDIP32	ST72141	Not present
ST7MDTH1-EPB	None	TQFP64 (10x10), TQFP44, SO34	ST7FHUB	ICP
ST7MDTS1-EPB	None	TQFP64	ST7FSCR1R4T1	ICP
		SO24	ST7FSCR1x4M1	
ST7MDTU2-EPB	None	DIP20, SO20	ST72F621F1, ST72F623F2	ICP
		SDIP32	ST72F622K2/4	
		SO34	ST72F622L2/4	
		SDIP42, TQFP44	ST72F621J2/4	
ST7MDTU3-EPB	None	SDIP32, SO34	ST72F63BK1/2/4/6	ICP
		SO24	ST72F63BE1/2/4/6, ST72F60E1/2	
		TQFP48	ST72F63BH2/4/6	
		QFN40[(4)]	ST72F63BD6, ST72F60K1/2	
ST7MDTU5-EPB	None	TQFP64 (10x10)	ST72F651AR6	ICP
ST7UD05 / UD13-EPB	None	HiQuad64	ST7UD05, ST7UD13	Not present

Table 2.   Devices and packages supported by the ST7-EPB and ST7SB (continued)

EPB	SB	Packages	Supported targets	ISP/ICP mode
ST72E55-EPB	None	SO28	ST7255A/B	Not present
ST72E589-EPB	None	QFP128, EQFP128	ST72589	Not present
ST72E6X-EPB	None	SDIP32, SO34	ST72631K4, ST72632K2, ST72633K1	Not present
ST727X4-EPB	None	SO34	ST72753	Not present
		SDIP42	ST72752, ST72774, ST72734	
		SDIP56	ST7277, ST72751	
		TQFP44	ST72774	
		TQFP64	ST7277	

1. ST7FLIT1(0/5/9)B, ST7FLITE3(0/5/9) and ST7FL3(5/9) DIP20 packages are not supported on ST7MDT10-EPB but only on ST7SB-123 socket board.

2. TQFP48 socket is present on version 3 and later versions of ST7SB20J socket board.

3. TQFP64 (10x10) socket is mounted on the new ST7MDT20M-EPB. If not supplied, the socket reference number is Yamaichi IC51-0644-807.

4. QFN40 socket is present on version 5 and later versions of ST7MDTU3-EPB.

2.3 Support of ICP mode

● Two ICP modes can be selected:

– ICP mode with **Option Bytes Enabled** on application.
Because option bytes are enabled before accessing the device, their settings must be compatible with application configuration. Incompatible settings (for example: 'PLLx2 enabled' programmed with a 16 MHz resonator on the application, or 'External Source' programmed with a resonator on the application) result in a failure to access the target device. In the case of failure, the device can still be accessed and option byte settings ignored using the ICP mode with Option Bytes Disabled. However, this requires either an in-application oscillator, a logic clock, or that the OSC pin of the HE10-type ICP connector be relayed to the device's clock pin. Also, in Option Bytes Enabled ICP mode, the **Hardware WatchDog** option is switched to Software type on all devices except the **ST7Lite0x** family. If it is programmed and you are using a ST7MDT10-EPB version 1.01 or earlier, you will no longer be able to access the device. You must use the other ICP mode with Option Bytes Disabled. See *Section 3.2 on page 12* to modify the board to v1.02 to solve this problem.

– ICP mode with **Option Bytes Disabled** on application.
All options are disabled, the clock source is 'External clock' coming **either** from the OSC pin connected to the HE10 ICP connector, **or** from the application board.

● VDD_Appli is now connected on the new ICP-enabled programming boards, **however you must ensure that the VDD_Appli pin is connected to the supply voltage of the application board**.

● On F6x devices, the Reset pin should have a capacitance lower than 330 nF (between the Reset pin and GND).

2.4 Support of ISP mode

The driver firmware S19 file has been included with STVP software since STVP v 1.4.1. The driver is an ST72C254G2 device, latest version 2.5, that is soldered on the EPB.

The ISP mode using this driver is only for ST7MDT1-EPB2, ST7MDT2-EPB2 and ST7MDT6-EPB2 boards. The ST7MDT1-DVP2 and ST7MDT2-DVP2 use a different driver code.

Updating the ISP driver

If the version indicated on your driver is lower than 2.5, you must update it as follows:

1. Plug in your EPB and launch STVP.
   The ISP cable must not be plugged in and there should be no devices in the sockets.
2. Put a jumper on JP3 (located near the voltage regulator) to access the driver.
3. Select ST7MDT1-EPB2 with socket mode and ST72254G2 device.
4. Open the **Driver.s19** file in program memory.
   The checksum for V2.5 must be 0xC433.
5. Select *Program -> Current Tab* and verify that the option bytes values are at FE FF (checksum 1FD). If they are different, program these values.
6. **Remove JUMPER JP3** and write the new version number (2.5) on the driver label.
   You can now use the EPB normally in socket or ISP mode.

3 Known problems and limitations

3.1 ST7MDT20x-EPB programming board versions

- For the following programming boards:
  - ST7MDT20J-EPB version 2.00
  - ST7MDT20M-EPB version 3.00

  You must perform a hardware patch in order to reliably program targets with these EPBs using ICP mode. Details on how to perform this hardware patch can be found in the application note, *AN 1483 Modifying your ST7MDT20J-EPB and ST7MDT20M-EPB to support STVP Release 1.3.1 and onwards*, available from the ST microcontroller support web site at *www.st.com*.

  This hardware patch is designed to solve a communication problem that can occur when attempting to program with these boards.

Note: *The version number of your EPB follows the serial number on a sticker attached to the top-face of the board.*

- For the **ST7MDT20J-EPB (versions 2.00 and 2.01)** and **ST7MDT20M-EPB (versions 3.00 to 3.02)**, you must provide an application VDD (5 V only) because the VDD **is not provided** by the programming board via the ICC connector. The application VDD is used by the programming board as a reference to generate the programming signal. A maximum of 10 µA is used for the VDD reference by the programming board.

- For the **ST72F321M** and **ST72F521M** MCU targets, programmed with the **ST7MDT20M-EPB**, when programming in ICP mode, during the RESET phase, certain I/Os are not always in the RESET configuration. These I/Os will move according to the following sequence:

  PG[1:7] and PH[0:1, 3:7]   RS/WPU ➜ PP High ➜ RS/WPU ➜ PP High ➜ RS

  PG[0]   RS/WPU ➜ PP Low ➜ RS/WPU ➜ PP Low ➜ RS

  PH[2]   RS/WPU ➜ PP Low ➜ RS/WPU ➜ PP High ➜ RS

  where the abbreviations are as follows:

RS	Reset state
WPU	Input weak pull-up
PP	Output push-pull
RS/WPU	RS if TQFP80 package is selected in option bytes. WPU otherwise.

Caution: Use extreme caution when using these I/O pins on the application board, because of their unstable state during RESET mode.

3.2 ST7MDT10-EPB

● When programming in ICP mode, you must provide an application VDD (between 3 V and 5 V) because the VDD **is not provided** by the programming board via the ICC connector. The application VDD is used by the programming board as a reference to generate the programming signal. A maximum of 10 μA is used for the VDD reference by the programming board.

● When programming the ST7LITE0x devices in "ICP OPT Enable" mode, if the Hardware Watchdog is enabled, the ST7MDT10-EPB must be modified to version 1.02 in order to operate without problems. If your board version is 1.01, you have to do these modifications to update it to version 1.02:

a) **Solder side**: Cut the track from RS1-3 to the via. Connect U1 pin 8 to U1 pin 11. Connect U1 pin 9 to U8 pin 11. Connect U1 pin 10 to W1 pin 6.

b) **Components side**: Cut the track from the via located at the right-top side of W1 (above the 10 mark).

3.3 ST7MDTUx-EPB programming board versions

● For the following programming boards (all versions):
  – ST7MDTU2-EPB
  – ST7MDTU3-EPB
  – ST7MDTU5-EPB

When programming in ICP mode, **do not connect** the OSC_IN pin on your application board to the OSC_CLK pin on the ICC connector.

3.4 ST7MDT25-EPB

● For the **ST72F561x9** or **ST72F561x6** MCU targets, programmed with the **ST7MDT25-EPB**, when programming in ICP mode, during the RESET phase, certain I/Os are not always in the RESET configuration. These I/Os will move according to the following sequence:

PE[1:7] and PF[4:7] RS/WPU ➜ PP High ➜ RS/WPU ➜ PP High ➜ RS

PE[0]   RS/WPU ➜ PP Low ➜ RS/WPU ➜ PP Low ➜ RS

PF[0:3]   RS/WPU ➜ RS/WPU ➜ RS/WPU ➜ PP High ➜ RS

where the abbreviations are as follows:

RS	Reset state
WPU	Input weak pull-up
PP	Output push-pull
RS/WPU	RS if TQFP80 package is selected in option bytes. WPU otherwise.

Caution: Use extreme caution when using these I/O pins on the application board, because of their unstable state during RESET mode.

3.5   MCU type-specific limitations

● With this release of STVP, you cannot program **ST72F264** MCUs with trace codes ending with 01XYA, where "XY" is less than or equal to "43". These devices must be programmed with Release 1.2.0 of STVP.

4 Release information for older releases

4.1 Release 3.2.1 (June 2010)

- Added support for STM32W108xB on ST-LINK dongle hardware.
- Added support for STM32F103xG and STM32F103xF on ST-LINK dongle hardware.
- Added support for STM8S903F3 on STice, STX-RLINK and ST-LINK hardware programming boards.
- Added support for STM8AF6268, STM8AF6266, STM8AF6248, STM8AF6246, STM8AF6226 on STice, STX-RLINK and ST-LINK hardware programming boards.
- Updated option bytes description on STM8T141 device.
- Improved progress bar advancement when programming STM32 devices.
- Improved PROGRAM MEMORY programming time for STM8L15xx6 devices.
- Fixed issue when using project mode with STM32 devices.
- Fixed issue when switching modes using STX-RLINK hardware in ICC mode.
- Fixed issue when programming STM8 application that uses Reset pin as output and activates watchdog.

4.2 Release 3.2.0 (February 2010)

- Added support for STM32 device family programming on ST-LINK dongle hardware (via JTAG or SWD communication protocol). STM32F100x, STM32F101x, STM32F102x, STM32F103x, STM32F105x, STM32F107x devices supported.

4.3 Release 3.1.4 (December 2009)

- Added support for STM8F/H6126 on STice, STX-RLINK and ST-LINK hardware programming boards.
- Removed STM8S207xx and STM8S208xx and added support for STM8S208MB, STM8S208RB, STM8S208CB, STM8S208SB, STM8S208R8, STM8S208C8, STM8S208S8, STM8S208R6, STM8S208C6, STM8S208S6, STM8S207MB, STM8S207RB, STM8S207CB, STM8S207SB, STM8S207M8, STM8S207R8, STM8S207C8, STM8S207S8, STM8S207R6, STM8S207C6, STM8S207S6, STM8S207K6 on STice, STX-RLINK and ST-LINK hardware programming boards.
- Renamed STM8T151 to STM8T142.
- Updated for STM8L15xx option bytes.

4.4 Release 3.1.3 (September 2009)

- Added support for STM8L152x6, STM8L152x4, STM8L151x6, STM8L151x4 on STice, STX-RLINK and ST-LINK hardware programming boards.
- Updated for STM8L101x2 option byte (DATASIZE option removed).
- Updated for Windows$^®$ 2000 on ICC and SWIM for STX-RLINK hardware programming board.

4.5 Release 3.1.2 (June 2009)

- Added support for ST-TSLINK programming tool for STM8Txxx devices.
- Added support for STM8T141and STM8T151 on ST-TSLINK hardware programming board.

4.6 Release 3.1.1 (February 2009)

- Added support for STM8S105x6, STM8S105x4 on STice, STX-RLINK and ST-LINK hardware programming boards.
- Added support for STM8S103K3, STM8S903K3, STM8S103F3, STM8S103F2 on STice, STX-RLINK and ST-LINK hardware programming boards.
- Added support for STM8L101x3, STM8L101x2 on STice, STX-RLINK and ST-LINK hardware programming boards.
- Updated to close communication when changing configuration or exiting STVP on STX-RLINK and ST-LINK hardware programming boards.
- Updated for Windows$^®$ Vista on ICC and SWIM for STX-RLINK hardware programming board.

4.7 Release 3.1.0 (December 2008)

- Added support for ST-LINK debugging/programming tool featuring SWIM programming mode.
- Improved SWIM communication on STice.
- Added support for STM8AH51x and STM8AH61x devices on STice, STX-RLINK and ST- LINK hardware programming boards.
- Renamed STM8SF20xx, STM8S207x and STM8S208x (removed 'F' identifier).
- Replaced STM8AF616 by STM8AF6166, STM8AF6168, and STM8AF6169.
- Replaced STM8AF614 by STM8AF6146 and STM8AF6148.
- Added support for ST7FMC2R9 and ST7FMC2S9 devices on STICK, ST7-DVP3, ST7-EMU3, STice and STX-RLINK hardware programming boards.
- Added support for ST7FLITEUSA2 and ST7FLITEUSA5 devices on STICK, ST7-DVP3, ST7-EMU3, STice and STX-RLINK hardware programming boards.

4.8 Release 3.0.1 (June 2008)

- Added support for STM8SF207x and STM8SF208x devices on STice and STX-RLINK hardware programming boards.
- New feature allowing to program memory with SWIM on non write-protected areas.
- Corrected SWIM programming error in project mode.
- Corrected reprogramming in SWIM mode, when reprogramming option bytes that are not complemented properly.
- Corrected SWIM connection problems with STice hardware on some devices.

4.9 Release 3.0.0 (March 2008)

● Added support for STice hardware programming board. STice hardware supports ICP or SWIM programming modes.

● Added support for SWIM protocol on STice and STX-RLINK hardware programming boards.

● Added support for STM8AF51x and STM8AF61x devices family on STice and STX-RLINK hardware programming boards.

● Renamed ST7FLI49, ST7FLITE49.

● Renamed ST7FOXU0, ST7FOXA0.

4.10 Release 2.0.6 (December 2007)

● Added support for ST7FLI49 device on STICK, ST7-DVP3, ST7-EMU3 and STX-RLINK hardware programming boards.

● Added support for ST7FLUS5, ST7FLU05, ST7FLU09 devices on STICK, ST7-DVP3, ST7-EMU3 and STX-RLINK hardware programming boards.

● Added support for ST7FOXU0, ST7FOXF1, ST7FOXK1, ST7FOXK2 devices on STICK, ST7-DVP3, ST7-EMU3 and STX-RLINK hardware programming boards.

● Renamed ST7FLITE49M, ST7FLI49M.

● Removed ST7FLITE54K4, ST7FLITE54S4, and ST7FLITE55C4 devices.

● Increased number of bytes of pattern in Search function.

4.11 Release 2.0.5 (August 2007)

● Added support for ST7FLITE49M device on STICK, ST7-DVP3, ST7-EMU3 and STX-RLINK hardware programming boards.

● Added support for ST7FLITE54K4, ST7FLITE54S4, ST7FLITE55C4 devices on STICK, ST7-DVP3, ST7-EMU3 and STX-RLINK hardware programming boards.

4.12 Release 2.0.4 (April 2007)

● Added support for ST7FLITEU02/05, ST7FLITEU09 devices on STICK, ST7-DVP3, ST7-EMU3 and STX-RLINK hardware programming boards.

● Added support for ST7FLITEUSN device on STICK, ST7-DVP3, ST7-EMU3 and STX-RLINK hardware programming boards (only "ICP OPT Disable" programming mode supported).

● Added support for ST72F63BH4 device on ST7MDTU3-EPB and STX-RLINK hardware programming boards.

● Added support for ST72F324Lxx low voltage devices on STICK, ST7-DVP3, ST7-EMU3 and STX-RLINK hardware programming boards (only "ICP OPT Disable" programming mode supported).

● Problem with STX-RLINK Hardware and capacitor on Reset line corrected.

4.13 Release 2.0.3 (November 2006)

● Added support for ST7FMC2S7 device on ST7MDT25-EPB, STICK, ST7-DVP3, ST7-EMU3 and STX-RLINK hardware programming boards.

● Updated option bytes description on ST72F325xx devices (LQFP48 package).

● Updated option bytes description on ST7FL05 and ST7FL09 devices.

● Updated option bytes description on ST7FL15F1 and ST7FL19F1 devices.

● Updated option bytes description on ST72F34x devices.

● Updated option bytes description on ST72F321x6 device (TQFP80 added).

● Split ST72F321x9 into 3 devices: ST72F321R/AR9, ST72F321J9 and ST72F321M9.

4.14 Release 2.0.2 (July 2006)

● Added support for ST72F340xx, ST72F344xx and ST72F345x4 devices on ST7MDT20J-EPB, STICK, ST7-DVP3, ST7-EMU3 and STX-RLINK hardware programming boards.

● Added support for ST7FLITEUS2/S5 device on STICK, ST7-DVP3, ST7-EMU3 and STX-RLINK hardware programming boards.

● Added support for ST72F63Bxx, ST72F60xx and ST72F62xx family devices on STX-RLINK hardware programming board.

● Added support for ST72F321BLJ6 and ST72F324BLx6 devices on STICK, ST7-DVP3, ST7-EMU3 and STX-RLINK hardware programming boards. These devices operate at 3.3V so the jumpers should be set to 3.3V position on STICK and Socket Board, ST7-DVP3 or ST7-EMU3 ICC Add-on board.

● When loading a S19 or Hex file, the bytes detected out of the memory mapping are ignored and a warning is displayed with the line in the file and address of the byte. The file loading now continues and doesn't stop anymore on first byte found not in the memory mapping.

4.15 Release 2.0.1 (June 2006)

● Added support for ST72F63BE1, ST72F63BE4 and ST72F63BD6 devices on ST7MDTU3-EPB hardware programming board.

● Added support for ST72F32AJ1, ST72F32AJ2 and ST72F32AK1 devices on ST7MDT20J-EPB, STICK, ST7-DVP3, ST7-EMU3 and STX-RLINK hardware programming boards.

● Added support for ST72F321Bx6, ST72F321Bx7 and ST72F321Bx9 devices on ST7MDT20J-EPB, ST7MDT20M-EPB, STICK, ST7-DVP3, ST7-EMU3 and STX-RLINK hardware programming boards.

● Added support for ST7FAUDIOx6, ST7FAUDIOx7 and ST7FAUDIOx9 devices on ST7MDT20J-EPB, ST7MDT20M-EPB, STICK, ST7-DVP3, ST7-EMU3 and STX-RLINK hardware programming boards.

● Removed ST72F361x4 device on ST7MDT25-EPB, STICK, ST7-DVP3, ST7-EMU3 and STX-RLINK hardware programming boards.

4.16 Release 2.0.0 (January 2006)

● Improved XFlash devices programming time (ST7FLITE1x/2x/3x, ST7FL1x/3x, ST7FDALI, ST72F34x).

● Added support for new hardware programming tool: STX-RLINK from Raisonance. Connection to this hardware is via USB port. STX-RLINK supports all devices that can be programmed with the STICK.

● Added support for ST72F561x4 devices on ST7MDT25-EPB, STICK, ST7-DVP3 and ST7-EMU3 hardware programming boards.

● Added support for ST72F60K1, ST72F60K2, ST72F60E1, ST72F60E2 devices on ST7MDTU3-EPB hardware programming board.

● Added support for ST7FL15F1, ST7FL19F1 devices on STICK, ST7-DVP3 and ST7-EMU3 hardware programming boards.

● Added support for ST7FL34, ST7FL38 devices on STICK, ST7-DVP3 and ST7-EMU3 hardware programming boards.

● Removed ST72F340xx, ST72F344xx, ST72F345x4 devices on ST7MDT20J-EPB, STICK, ST7-DVP3 and ST7-EMU3 hardware programming boards.

4.17 Release 1.9.5 (September 2005)

● Added support for ST7FLIT10Bx, ST7FLIT15Bx, ST7FLIT19Bx devices on ST7MDT10-EPB, STICK, ST7-DVP3 and ST7-EMU3 hardware programming boards. On ST7MDT10-EPB, the DIP20 socket is reserved for ST7FLITE2x devices ONLY and SO20 socket supports ST7FLIT1xBx, ST7FLITE2x and ST7FLITE3x devices. The Socket Board has the 2 different DIP20 sockets. The ST7FLIT15Bx and ST7FLIT19Bx devices are only supported in Socket and ICP programming mode, because the Internal RC oscillator clock is active whatever the option bytes programmed in the device. ST7FLIT10Bx devices are only supported in Socket and ICP OPT Disable programming mode. Since the RCCR default values are accessible in user mode, they aren't recopied in PROGRAM Memory or DATA Memory after Read-out Un-protection. Also, the protections choice of the RCCR values are not activated by default. if users have their own values (use a VDD other than 5V or 3.3V), these values can be programmed and protected.

● ST7FLITE30 device only supported in Socket and ICP OPT Disable programming mode.

● Added support for ST72F340xx, ST72F344xx, ST72F345xx devices on ST7MDT20J-EPB, STICK, ST7-DVP3 and ST7-EMU3 hardware programming boards.

● Added support for ST72F361x4, ST72F361x6, ST72F361x7, ST72F361x9 devices on ST7MDT25-EPB, STICK, ST7-DVP3 and ST7-EMU3 hardware programming boards.

● Added support for ST7FMC1K6 device on STICK, ST7-DVP3 and ST7-EMU3 hardware programming boards.

● Added support for ST72F324Bx6 device on ST7MDT20J-EPB, STICK, ST7-DVP3 and ST7-EMU3 hardware programming boards.

● Added support for ST72F325x6, ST72F325x7, ST72F325x9 devices on ST7MDT20J-EPB, ST7MDT20M-EPB, STICK, ST7-DVP3 and ST7-EMU3 hardware programming boards.

4.18   Release 1.9.4 (May 2005)

- Added support for ST7FLITE30/35/39, ST7FL35/39 on ST7MDT10-EPB, STICK, ST7-DVP3 and ST7-EMU3 hardware programming boards. On ST7MDT10-EPB, the DIP20 socket is reserved for ST7FLITE2x devices only and SO20 socket supports ST7FLITE2x and ST7FLITE3x devices. The Socket Board has the 2 different DIP20 sockets. The ST7FLITE3x and ST7FL3x devices are supported in "Socket" and "ICP" programming mode only, because the Internal RC oscillator clock is active whatever the option bytes programmed in the device. Since the RCCR default values are accessible in user mode, they aren't recopied in PROGRAM Memory or DATA Memory after Read-out Un-protection. Also, the protections choice of the RCCR values are not activated by default, if the user has its own values (if using a different VDD than 5V or 3.3V), they can be programmed and protected.

- Added support for ST7FL05/09 on ST7MDT10-EPB, STICK, ST7-DVP3 and ST7-EMU3 hardware programming boards.

- Added support for ST72F63BE2, ST72F63BH2, ST72F63BE6, ST72F63BH6, ST72F63BK6 devices on ST7MDTU3-EPB hardware programming board.

- Added support for ST7FMC1K4, ST7FMC2S6 on STICK, ST7-DVP3 and ST7-EMU3 hardware programming boards. Remove ST7FMC2S5 device support.

- Added support for ST72F32AK2, ST72F324Bx, ST72F325x devices on ST7MDT20J-EPB, STICK, ST7-DVP3 and ST7-EMU3 hardware programming boards. ST72F32AK2 and ST72F324Bx devices are NOT supported in "ICP OPT Enable" programming mode.

- Increased timeout for Erasing sectors to 170 seconds.

- Corrected bug on XFlash devices: when FMP_W option bit (Write Protection) is programmed ON, now, DATA Memory can still be programmed.

- Added RAM execution feature in ISP programming mode for all ST72Cxxx devices. There is a restriction on ram mapping, the program to execute in ram must start at address 0x90 and must not exceed address 0x17F.

- Removed ST72124J4 device from ST7MDT2-EPB2 and ST7MDT2-DVP2 hardware programming board.

- Removed CSS option bit choice on all ST72F321 and ST72F324 devices.

4.19   Release 1.9.3 (December 2004)

- Added support for ST7MDT25-DVP3 hardware programming board.

- Renamed STMC-ICC hardware programming board name to ST7-EMU3. If you were using a project with this hardware, you must recreate your project file with the ST7-EMU3 name.

- Updated Help.chm online help file to describe the original RC Calibration values restoring feature when Read-out Un-protection is performed on ST7FLITE0x and ST7FLITE2x devices.

- Added support for ST72F264G1 device on all possible hardware programming boards.

- ST72F63B devices have the LVD Enabled option bit by default.

- Removed CSS option bit feature on all ST72F521, ST72F26x and ST72F561 devices.

- Removed obsolete JTAG EPB (ST72F264-EPB and ST7MDT00-EPB).

4.20 Release 1.9.2 (April 2004)

● Both ST7 Visual Develop (STVD7) and ST7 Visual Programmer (STVP) use the same installation package, ST7 Toolset.

● Windows 95 operating system no more supported.

● Added support for LPT2 parallel port for all programming boards hardware.

● Added support for "RAM execution from a file" feature in all ICP modes. Addresses 0x80 and 0x81 are reserved to load in RAM (ICC protocol). Beware, these two addresses are always skipped (not downloaded in RAM). Program is started from First RAM address of device or address 0x82 if first RAM address is 0x80. Once the RAM is loaded with the file's contents, a GO command is sent to the ST7 followed by a "ICC CLK Release" to execute the command.

● Changed behavior in project mode when reading a device area: the files previously loaded are not anymore removed from the list but a '*' character is displayed in the Device Status window.

● Removed ST72F652 device (only ROM device exist).

● Warning message box added if programming ST72F63 devices with LVD Option Bit "Disabled". USB will be disabled too (by hardware) in that case.

● Removed delay for all JTAG accessed devices.

4.21 Release 1.9.1 (December 2003)

● Added support for ST7MDT10-DVP3 programming hardware, board name to select is ST7-DVP3.

● Corrected bug on ST72F321x7 device: programming is now working.

● Corrected bug in Socket mode during automatic erasing of sectors after unprotection of HDFlash devices.

Note: *There was no bug in ICP mode.*

● Added Check of XFlash complementary option bytes (on ST7FLITExx & ST72F26x devices).

● Erasing HDFlash devices on EPB sockets should be faster.

● Added WDG SW option bit on ST7FSCR1 device. Silicon revision B minimum required, older silicon revisions (A, Z, Y and X) WDG option bit does not work. (Last letter of trace code on device marking indicates silicon revision).

● Changed to 32 bytes data per line when saving a file in S19 format, in order to have the same format than the file generated by the toolset for easy comparison if needed.

● Minor text changes on error and result strings displayed.

● Warning message boxes before programming Read-Out Protection on option bytes can be disabled when using STVP DLL API.

4.22   Release 1.9.0 (July 2003)

● Upgraded ParSTm parallel port driver to improve speed communication on windows NT, 2000 and XP operating systems. Version 1.5.0.0 of ParSTm driver. All ST7 EPBs (JTAG, ISP or ICP) and STICK programming hardware concerned.

● Added support for ST7FLITE10, ST7FLITE15, ST7FLITE19, ST7FLITES2/S5 devices on ST7MDT10-EPB, STICK, ST7-DVP3 and STMC-ICC programming hardware.

● Split ST7FLITE20/25 device into ST7FLITE20 and ST7FLITE25 devices.

● Renamed ST7FLITE05 device to ST7FLITE02/05 device.

● Regrouped ST72F321(A)R/Mx and ST72F321Jx devices into ST72F321xx devices.

● Renamed ST72F521(A)R/Mx devices into ST72F521xx devices.

● Removed ST72F521(A)R/M7 and ST7FSUPERLITE devices from all programming hardware.

● Removed all obsolete ST7MDTxx-EPBJTAG programming hardware names from list. If Read-out Protection is programmed on devices, these EPBs do not work in socket mode (JTAG is disabled). These boards are obsolete and not supported anymore.

● Added new feature: Automatic Restoring of RCCR values after Un-protection of XFlash devices.

● Added new feature: Automatic Erasing of sectors after Un-protection of HDFlash devices.

● Removed "External RC Oscillator" clock choice in option bytes settings for ST72F26x, ST72F521x, ST72F32xx and ST72F561x devices.

● Corrected inversion of DIV2 option bit description on all ST7FMCx devices.

5 Revision history

Table 3.   Document revision history

Date	Revision	Changes
20-Nov-2006	1	Release for STVP version 2.0.3.
17-Apr-2007	2	Release for STVP version 2.0.4.
22-Aug-2007	3	Release for STVP version 2.0.5.
05-Dec-2007	4	Release for STVP version 2.0.6.
03-Mar-2008	5	Release for STVP version 3.0.0.
07-May-2008	6	Release for STVP version 3.0.1.
10-Jun-2008	7	Additional updates for STVP version 3.0.1.
04-Dec-2008	8	Release for STVP version 3.1.0.
26-Feb-2009	9	Release for STVP version 3.1.1.
15-Jun-2009	10	Release for STVP version 3.1.2.
08-Sep-2009	11	Release for STVP version 3.1.3.
07-Dec-2009	12	Release for STVP version 3.1.4.
05-Feb-2010	13	Release for STVP version 3.2.0.
09-Jun-2010	14	Release for STVP version 3.2.1.
17-Sep-2010	15	Release for STVP version 3.2.2.

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