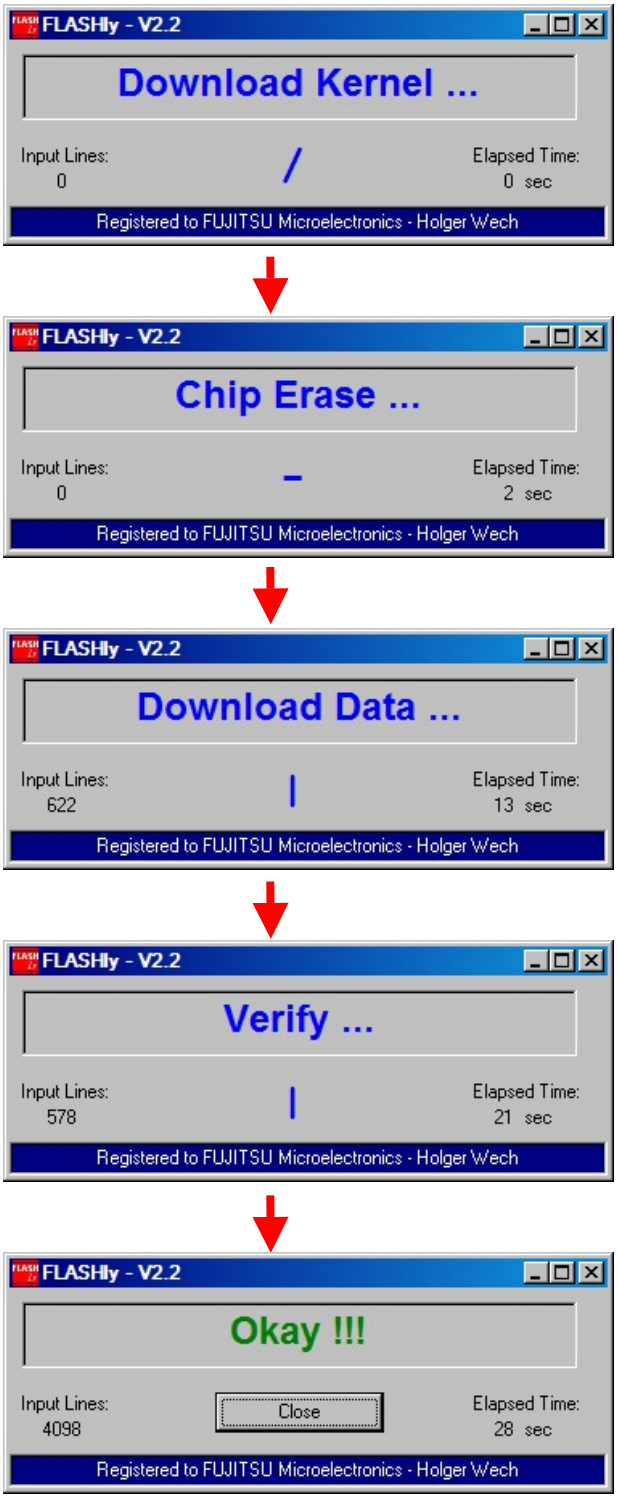
FLASH*ly* means …

- ✓ Simplest Flash-Programmer tool
- ✓ Freeware for standard version
- ✓ Execution without installation
- ✓ Command line controlled
- ✓ Exit code and Result Message
- ✓ DTR/RTS control for reset-/ mode-handling
- ✓ COM-port release
- ✓ USB/RS232-converter support
- ✓ Can be integrated easily into Softune
- ✓ Can be called by Windows 'SentTo' menu
- ✓ Log file



DISCLAIMER

This tool is allowed ONLY for evaluation purposes.
This tool is NOT allowed for mass production!
USE THIS TOOL AT YOUR OWN RISK!!!
No Responsibility or Liability will be accepted
for any Error or Damage.

CONTACT

For questions, bug report or any other reason
please contact FLASH*ly*@gmx.de

DOWNLOAD

Please download the latest version from
www.holgerium.de/elektronik

SIMPLEST FLASH-PROGRAMMER TOOL

FLASH*ly* will erase, program and veify the Flash-microcontroller as simple as possible.

FREEWARE

FLASH*ly* is freeware for standard version.
For registered users:

- ✓ Disclaimer window will be skipped
- ✓ Email notification for new releases

EXECUTION WITHOUT INSTALLATION

No installation is required. Save '**FLASH*ly*.exe**' to any location on your harddisk.

COMMAND LINE CONTROLLED

All functions are invoked by command line options only:

-c:*n*	selects the COM-port (n=1,2,3… all available COM-ports)
-d:*ms*	insert delay after reset before connection (e.g.: -d:300)
-m:*line*	Mode-selection while programming (line=RTS+, RTS-, DTR+, DTR-)
-r:*line*	Reset-control while reset (line=RTS+, RTS-, DTR+, DTR-)
-h	Open help-menu
-M:*micro*	Selects microcontroller type/series, e.g.: -M:96340
-cpu *partnumber*	Selects microcontroller type/series, e.g.: -cpu MB96F348HSB alternativly to –M for compatibility reasons with SWB parameters
-M:filename	Extracts MCU-type from filename defined by –P:*file*
-Q:*crystal*	Selects external crystal frequency (default is 4MHz)
-E	Erase microcontroller before programming (Chip Erase)
-E:*address*	Erase defined sector before programming (Sector Erase) multiple erasing possible, e.g.: -E:FD0000 –E:FE0000 –E:FF0000 Only available for FM3, 16FX and MB90340, MB90350 Microcontroller In order to simplify the handling, no sector validation related to the MCU is done.
-P:*file*	Programs MHX- or Binary- File to FLASH-microcontroller In order to simplify the handling, neither address validation of the downloaded software neither a check of the correct address space for the microcontroller is done. A binary file is indicated by file extension *.bin and requires additional parameter *–bin:address*
-V	Verifies FLASH with the programmed file given by –P option
-V:*file*	Verifies FLASH with the given file (both –V options valid only for 16FX MCU)
-bin:*address*	Defines the start address in case a binary file (*.bin) is given by parameter –P:*file.bin* and/or -V:*file.bin*
-nolog	No logfile generation
-newlog	Overwriters old logfile
-msgok	Close application automatically after successful finish
-msgerr	Close application automatically after erroneous finish

Examples:

```
FLASHly.exe -M:MB90360 -Q:4 -E -P:demo.mhx -c:1 -r:DTR+ -m:RTS-
FLASHly.exe –c:1 -M:filename -E -P:90360_demo.mhx
```

If FLASHly is used within the Fujitsu Softune Workbench,
then the parameters %D%A can be used to handle the project filename:

```
FLASHly.exe –c:1 -M:filename -E -P:%D%A.MHX
```

EXIT CODE

When **FLASH*ly*** is started within a batch file then an exit code (errorlevel) is returned:
(Note: This feature may not work with all Windows versions)

Example: start.bat

```
echo off
call FLASHly.exe -M:MB90360 -Q:4 -E -P:demo.mhx -c:1 -msgerr -msgok
if errorlevel 1 goto error
goto ende
:error
echo FLASHly terminated with error
:ende
echo finished
```

RESULT MESSAGE BOX

By default a message box displays the result of the performed action (Okay / Error).
The message box 'Okay' can be skipped by using the parameter '**-msgok**'.
The message box 'Error' can be skipped by using the parameter '**-msgerr**'.

DTR/RTS CONTROL FOR RESET-/ MODE-HANDLING

COM-port lines DTR and RTS can be used for automatic reset and mode-selection.

COM-PORT RELEASE

When **FLASH*ly*** finishes the COM-port is closed automatically.

USB/RS232-CONVERTER COMPATIBLE

Most USB/RS232-converter will work with **FLASH*ly***.
With some USB/RS232-converters faster programming times can be reached by use of Alias Baud Rates (See appendix).

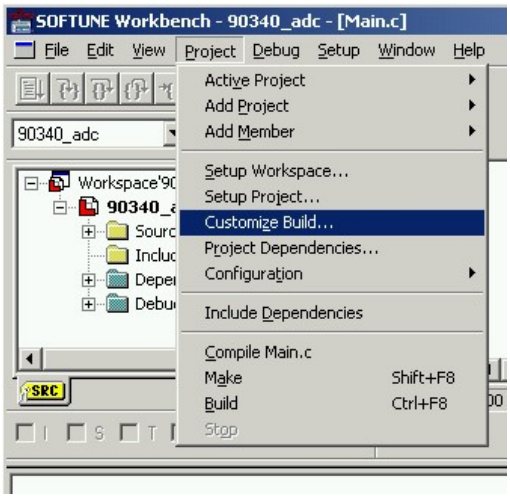
LOG FILE

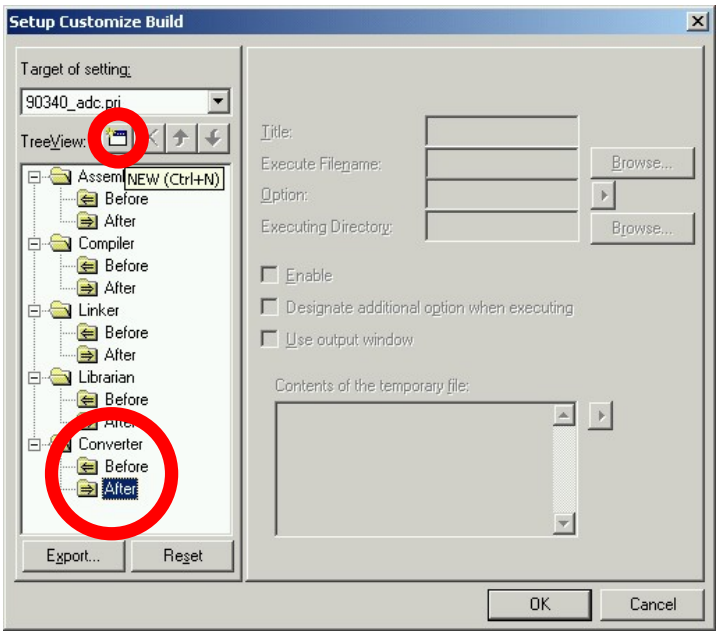
Each execution of **FLASH*ly*** is logged in textfile '**FLASH*ly***.log'.
Start- and endtime, parameters and result will be saved.
The log file generation is disabled by the parameter '**-nolog**'.
The parameter '**-newlog**' overwrites the old log file.

INTEGRATION TO SOFTUNE WORKBENCH

FLASH*ly* can be added to the FUJITSU development software SOFTUNE Workbench. After successful compilation and building of your software project the microcontroller is programmed automatically.

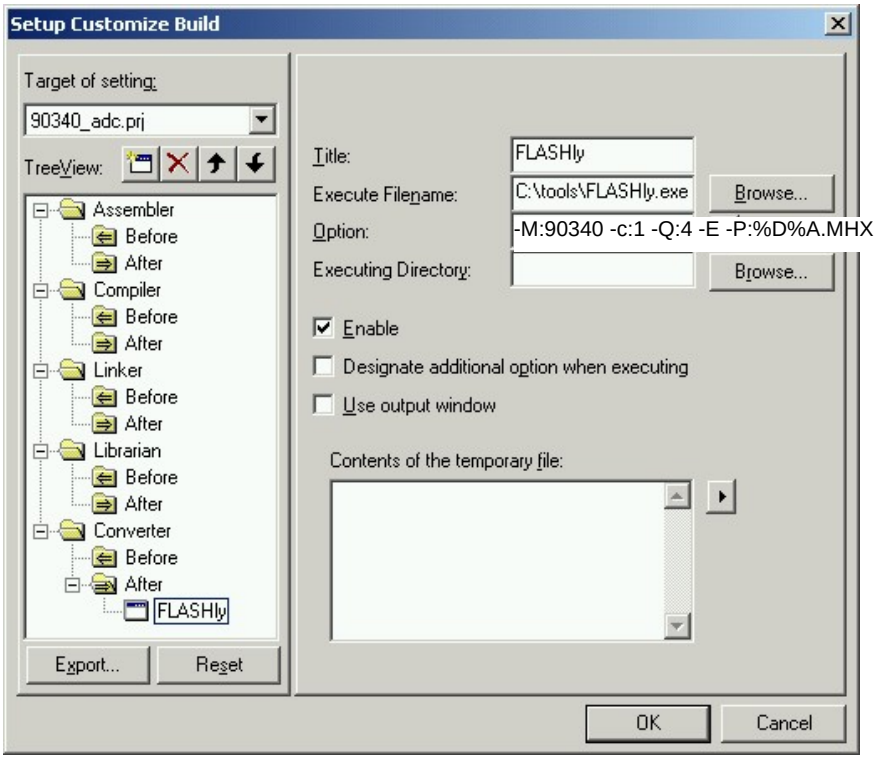
Open the 'Customize Build…'-Setup (Project / Customize Build…)





Select Converter/After and add a new module (Ctrl+N)

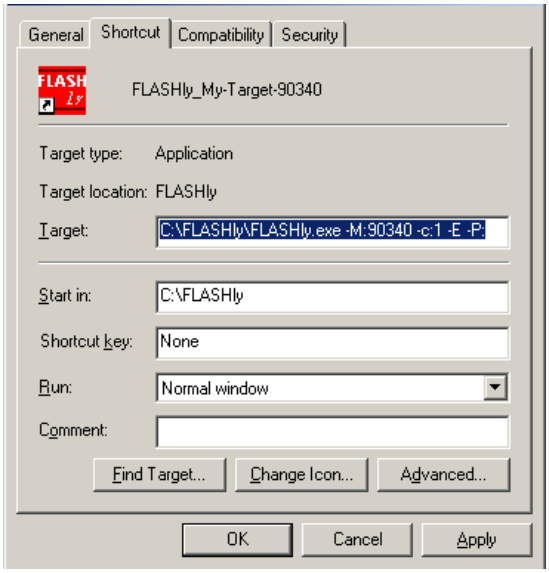
Add title '**FLASH*ly***' and browse to '**FLASH*ly*.exe**' for executable filename.
Define command-line parameters as options. The SOFTUNE workbench macro %D%A.MHX is used to address the MHX-file for command-line parameter '-P:%D%A.MHX'



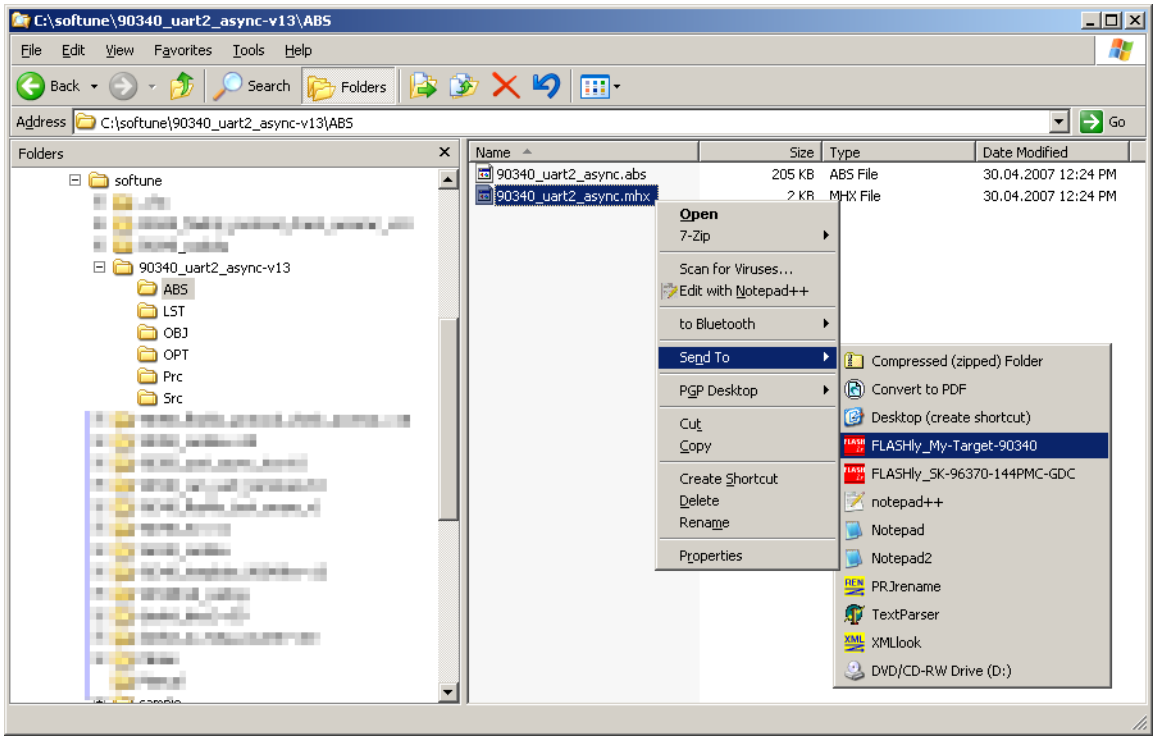
INTEGRATION TO WINDOWS 'SendTo' MENU

FLASH*ly* can be called by the „Send To" menu from the file explorer:

1. Copy a shortcut of FLASHly to the Windows "SendTo" folder
2. Rename the shortcut to an adequate name referring to your application, e.g.: FLASHly_My-Target-90340
3. Open the properties of the shortcut
4. Add all target specific parameter, like COM-Port, MCU type, Erase e.g.: -c:1 –M:90340 –E
5. Finally place parameter '-P:'
6. Apply these settings and press OK



- Within the file explorer make right mouse click to any MHX-file
- Select 'Sent To' and choose your defined shortcut



The name of the MHX-file will be added to the predefined parameters and FLASHly will start immediately programming the target application.

USING ALIAS BAUD RATES

Standard COM-ports allow Baud rates up to 115kBaud. Some USB/RS232-CONVERTERs allow 'Alias Baud rates', which means lower Baud rates, can be replaced by higher ones. The USB/RS232 windows driver has to be modified accordingly. Details can be found here:

http://www.ftdichip.com/Documents/AppNotes.htm

AN232B-05 : Configuring FT232R, FT2232 and FT232BM Baud Rates

FLASH*ly* V2.0 or newer supports alias Baud rates by two parameters:

-baud:*rate* 'Official Baud rate' that will be replaced by alias Baud rate
-bgr:*divisor* 'Baud rate Generator Reload' value for Alias Baud rate
(Note: The divisor must fit to the requirements (hardwaremanual, datasheet) of the microcontroller.)

Example: USB/RS232-CONVERTER patches 300Baud to 500kBaud
(Note: The USB/RS232 windows driver has to be modified accordingly)
MCU is running with 4MHz
'Baud rate Generator Reload' = MCU-Frequency / Alias Baud rate – 1
'Baud rate Generator Reload' = 4.000.000 / 500.000 – 1 = 7

```
FLASHly.exe –c:1 -M:MB96340 –Q:4MHz -E -P:test.mhx –baud:300 –bgr:7
```

FLASH*ly* V2.0 or newer supports alias Baud rates for dedicated microcontroller only.
Please see the `_ReadMe.txt` of your **FLASH*ly*** version.