

FlashTool Main program

Subject: User guide

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1 Introduction

FlashTool is DWD's second generation of download systems.

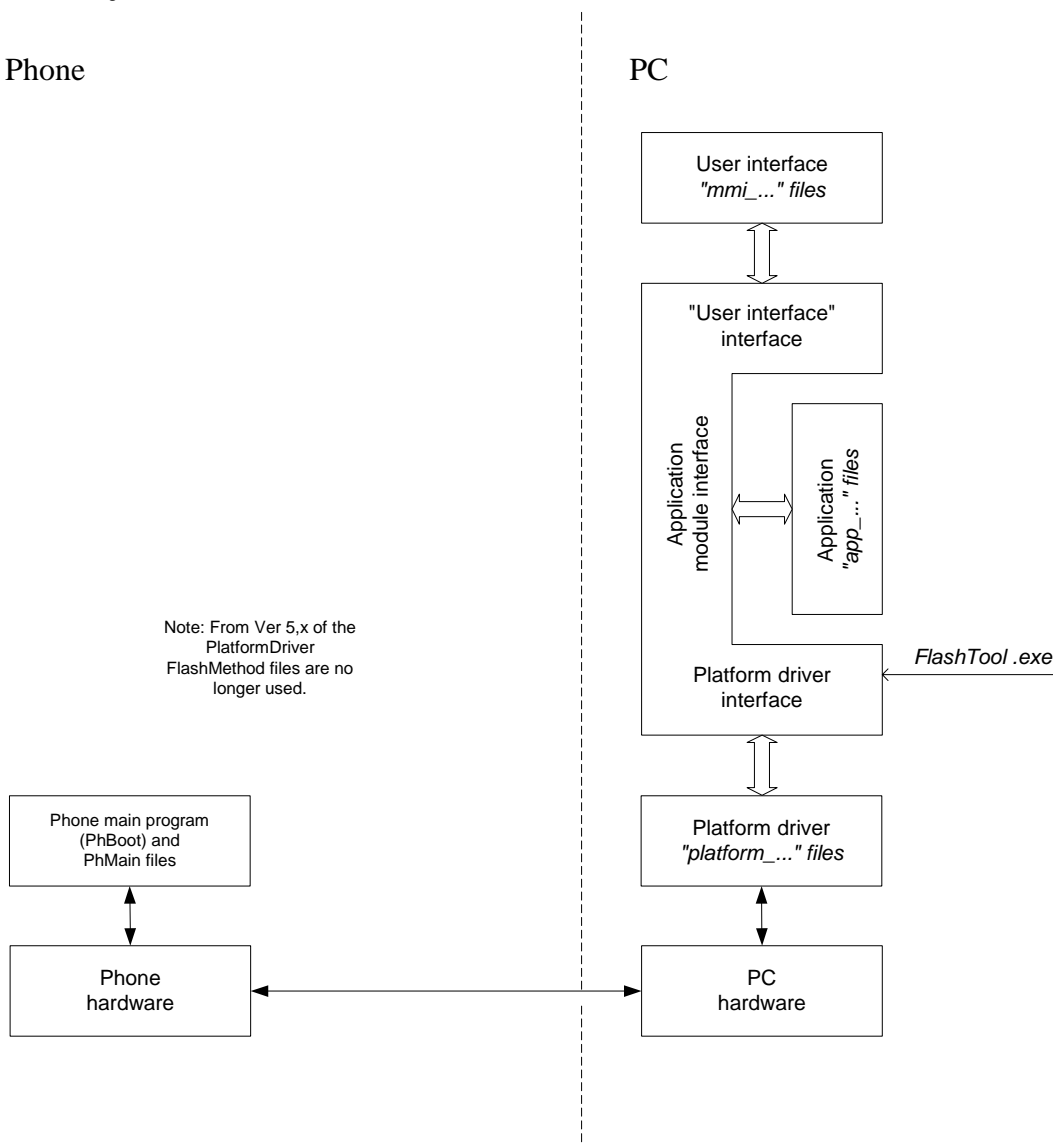
The system has been tested on the following platforms: Win2000, WinXP

The FlashTool system is different from the previous download system in the way it can be configured dynamically. New or updated functions are released as DLL's that should be kept in a common directory. The FlashTool system automatically detects new functions and provides them as a choice for the user.

This user guide covers the functions of the FlashTool.exe program.

User guides for the applications will be released separately.

1.1 System overview



1.2 System file types

1.2.1 Main program

“FlashTool_x_y.exe” is the main program and is responsible for selecting and loading the platform, application and MMI DLL’s. (‘x’ and ‘y’ is the major and minor part of the EXE files revision).

“BorIndmm.dll”, “cc3250mt.dll” and “vcl50.bpl” are third party DLL’s that are necessary for the system to run. They may be placed in the same directory as the “FlashTool.exe” file, or in the Windows system directory.

This user guide is valid for EXE file version 6.3.

1.2.2 FlashTool Release (FTR) files

The FTR files contain the file path and file names of the FlashTool DLL’s.

The FTR file is an ordinary text file (except that the extension must be FTR). The files can be edited in a standard text editor such as Windows Notepad.

NOTE: The release files received from DWD should be kept unchanged, in order to avoid release number confusion.

The FTR files can be copied to a backup directory in order to clean up the list of selectable releases.

An example of a release file is shown below.

```
*DWD_FLASHTOOL_RELEASE*

[Release] = P2002 Globe Plus 128Mbit
[Version] = 7.6

[App]      = %EXE_PATH%\dlls\App_download_update_Standard_4.19.dll
[Mmi]      = %EXE_PATH%\dlls\Mmi_download_update_Standard_4.11.dll
[Product]  = %EXE_PATH%\dlls\Platform_P2002 Globe Plus 16Mb_Standard serial_3.5.dll
```

The first line must be exactly as shown. If this line is changed or removed, the release file will not be included in the list shown by FlashTool.

The Release and Version information’s are presented in the list from which the operator can select the wanted release.

The App, Mmi and Product information’s are the path and file names of the FlashTool DLL’s.

The string “%EXE_PATH%” is substituted by the path to the directory from where FlashTool program is executed.

It is legal to write the full path of a DLL.

1.2.3 FlashTool Configuration (FTC) files

The FTC files contain a complete copy of all FlashTool settings from the Windows registry database. These files can be saved from the application set-up when the full MMI is used.

As these files contain all file paths and port settings they are most useful as a *shortcut* on one PC, if the same configuration is used repeatedly.

1.2.4 Software pack (SPK) files

The SPK files contain all the file name and set-up information's needed for a specific download session. When a SPK file is used, the only settings the user can adjust are the port settings.

An example of a SPK file is shown below.

```
[System]
FTR = C:\Program Files\DWD\FlashTool\dlls\P2002_Globe_Plus_128Mbit_10_test.ftr
FTR_Mode = Strict

[Files]
FLS = D:\sw\System\P2002GlobePlus\progs.mfls
EEP = D:\sw\System\P2002GlobePlus\progs.m.eep
;DEP =
;CFG =
;ATE =
ProjectPrefix = P2002GP
CfgFilePath = D:\sw\System\P2002GlobePlus\

[Flags]
PhoneStartMode = Normal
DynEepErase = cond

[Ports]
FirstPort = COM3
NumberOfPorts = 2
Speed = 921600

[Eeprom]
```

It is only the 'system' section that is used during start-up, therefore the other sections is described in the user guide for the application.

The setting 'FTR' is the file name of the FlashTool release (FTR) file to be used.

The setting 'FTR_Mode' determines how the FTR file is handled. If this parameter is 'Strict', the FTR file must be found, and if it isn't FlashTool will issue an error message and stop. If this parameter isn't 'Strict', the user is prompted to select a FTR file if the one specified in the SPK file isn't found.

The 'Ports' section is optional. If it is present FlashTool will skip the set-up screen and go directly to the download screen. Likewise when the user exit the download screen FlashTool is closed without showing the set-up screen.

If the 'System' section isn't present in the SPK file or if it is empty, the user will always be prompted to select FTR file.

See the Application user guide for more information about the SPK file format.

1.2.5 FlashTool Pack (FTP) files.

FTP files are ZIP archives which can be created with standard tools such as WinZip. The file extension must be changed to 'FTP' for use with FlashTool. This is to make it possible to make an association between the FlashTool EXE file and the FTP file. When the windows association is setup FlashTool will start automatically with the correct configuration when the FTP file is double-clicked.

The FTP archive must contain a SPK file with the same file as the FTP file.
Furthermore the FTP archive should contain all the files specified by the SPK file.

The archive is unpacked to a folder named 'Temp' just below the folder where the FlashTool EXE file is located. Any file that may be in this folder is erased before the archive is unpacked, so it is kept clean.

In order to avoid confusion regarding the path to the 'Temp' folder a SPK file macro ('%TEMP_Path%') is added which is substituted with the actual path when FlashTool reads the SPK file.

Example:

```
[Files]
FLS  = %TEMP_Path%\progs.m.fls
EEP  = %TEMP_Path%\progs.m.eep
```

1.2.6 Platform DLL's

The platform DLL's take care of the communication to the phone or module.
Furthermore, it provides the load mechanism for the FlashMethods.

The two small boot programs (PhBoot and PhMain) that are needed to set-up the communication between the PC and the phone are embedded into the platform DLL.

The platform DLL's are named "Platform_.." and must be located in the "dlls" directory.

1.2.7 Application DLL's

The application type DLL's can be thought of as "the program", as they contains the code that actually downloads data to the phone or module.

The application DLL's are named "App_.." and must be located in the "dlls" directory.

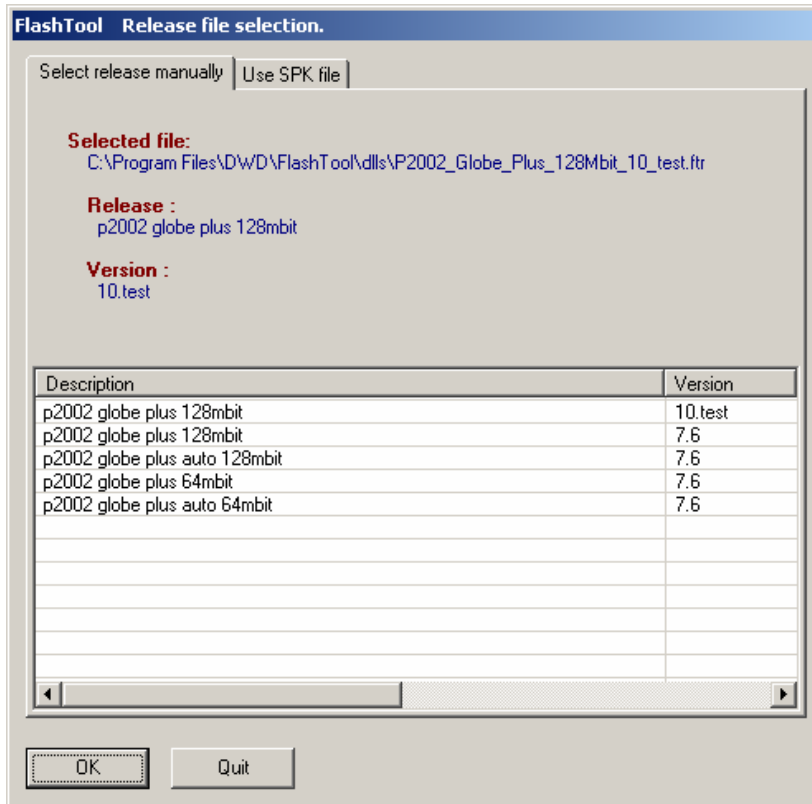
1.2.8 User interface DLL's

The user interface is the part of the program the user can see on the screen.

The user interface DLL's are named "Mmi_.." and must be located in the "dlls" directory.

2 System set-up

When the FlashTool program is executed without any parameter, one of the following screens appears, depending of the mode that was used last time.

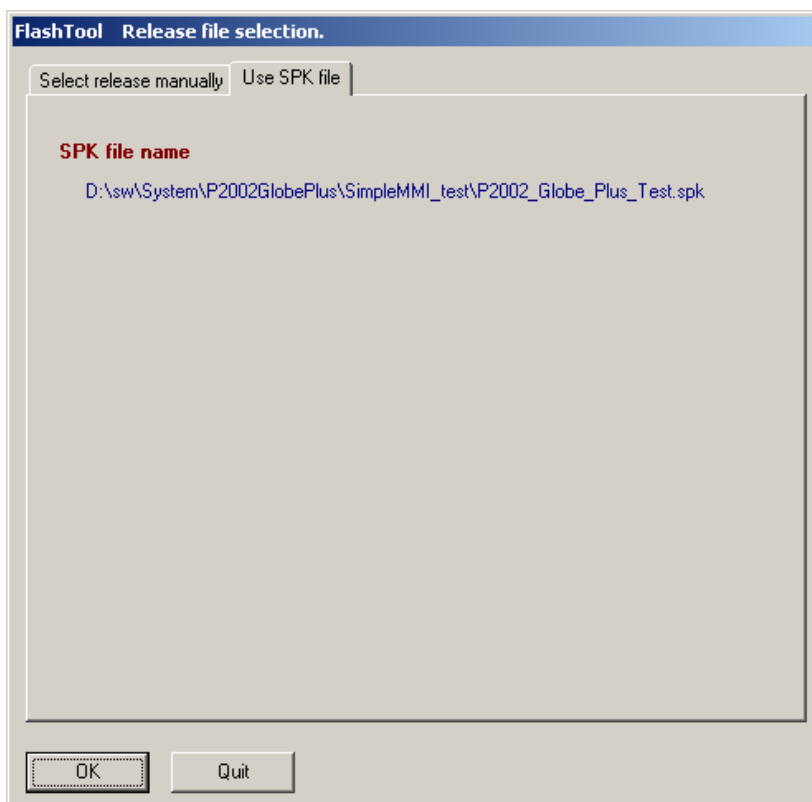


In this example there are four FlashTool releases (plus a test version) installed on the computer.

Each release is represented by one FTR (FlashTool Release) file. These files must be placed in the dll's directory below the directory in which the FlashTool .EXE file is placed.

Click on the release to be used. The selected file is shown on the top of the screen.

Please consult the application user guide for instructions regarding the selected version.

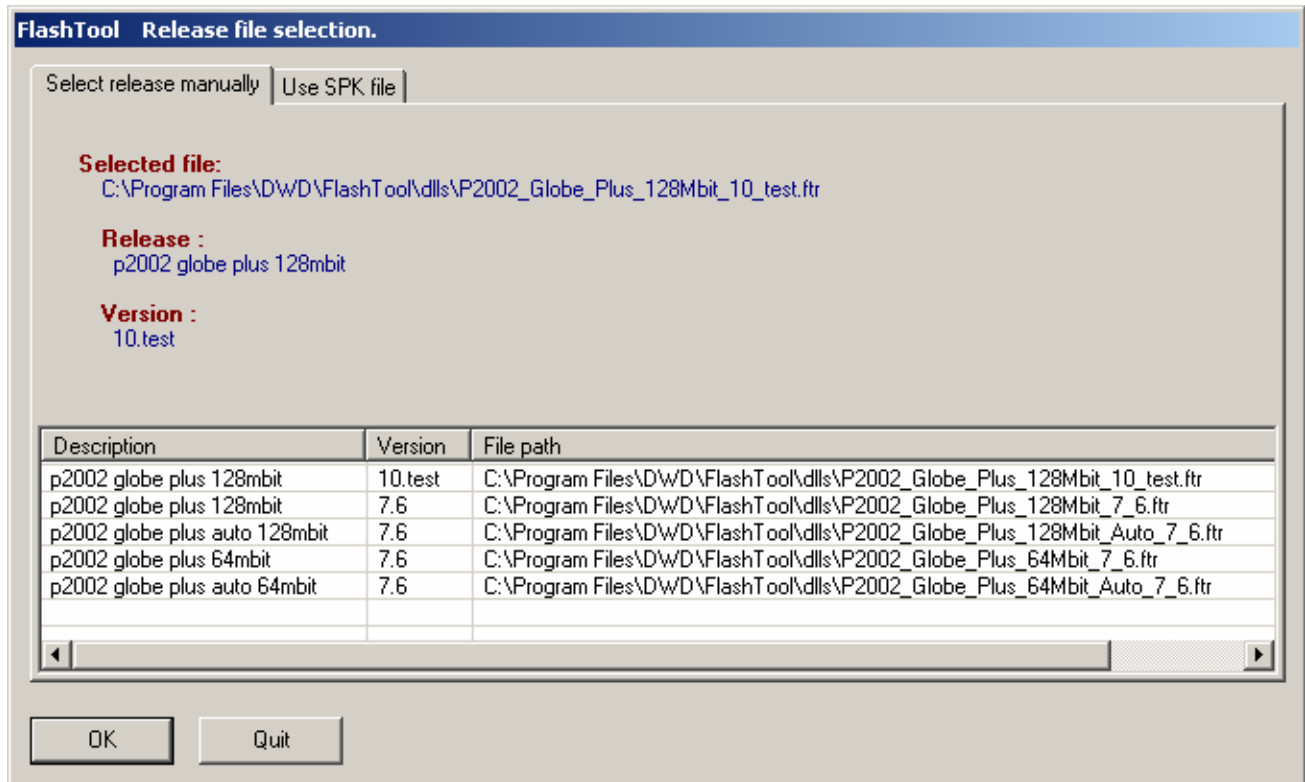


Place the mouse pointer over the blue text and click to change the file name.

Note that the pointer changes from an arrow to a pointing finger when it is on items that can be changed by clicking.

The file view can be scrolled horizontally to reveal the path and file name of the release file.

The window can be resized to give a better view of the release files.



Click OK or press the Enter key to execute the selected revision.

Click Quit to terminate the program.

2.1 Using the keyboard to navigate and select

Use the 'Tab' key to move the focus around on the form.

Use the arrow-keys to change selection.

The 'Space'-key have the same effect as a mouse click when an item is selected.

Use the 'Enter'-key to accept the selection and go to the next setup screen.

2.2 Using parameters

The file name of a FTC, FTR or SPK file can be given as parameter when FlashTool is started. Because of this, these files can be 'dragged' and 'dropped' on the FlashTool icon. In this case, and if no errors are found, the FTR or SPK file selection is skipped.

This is also true if these file types are associated with the FlashTool program in Windows. In this case, double clicking on the files will start FlashTool and the file selection is skipped.

3 Troubleshooting

Because the update procedure demands that relatively big blocks of data is transferred from the phone to the PC, is necessary to use hardware handshake on the PC com-port.

This is to prevent that the buffer in the com-port overflows.

Great effort has been taken to make the com-port set-up automatic, but still, in some cases it is necessary for the operator to enable the hardware handshake via the Windows set-up.