FlashUploader

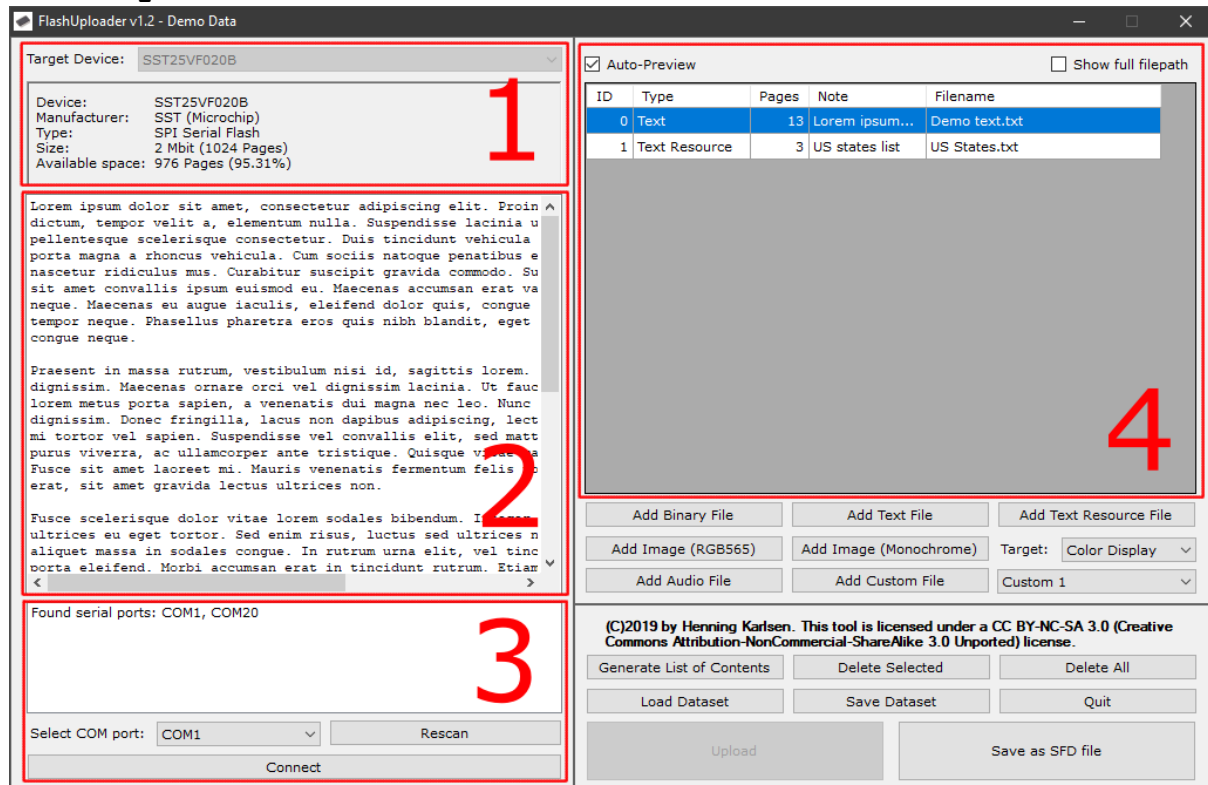**Part of the SPIflash Tools suite**

Manual

FlashUploader.exe:

1 Target Device: Select the chip the data is intended to fit into.

The text below the Target Device drop-down list will show information about the selected target device including how much of the space that are available for files. Available space will be continously updated when you add and remove files. Selecting a device will enable most other buttons.

2 Preview area. If Auto-Preview (4) is checked this area will show a preview of the currently selected file.

3 Select COM port: Select which COM port your development board is connected to if you are going to upload data over a serial link.

Rescan — Click this button to rescan the COM ports if the COM port of your development board is not listed.

Connect — Click this button to connect to your development board using the selected COM port. Clicking this button when already connected will disconnect from your development board.

Connecting to a development board requires that the "SPIflash_FlashUploader" is loaded and running on the development board. Connecting will also identify the flash chip and try to set the currently selected target device (1) to this chip.

The text area will show information about what COM ports were detected and status messages while connecting to a development board.

NOTE: Uploading Data Sets over a serial link is **very** slow and it is highly recommended that you upload data by using an SDF ("SPIflash Dump File") and an SD card. Use the "SPIflash_Restore" sketch to upload from an SD card.

4 File list. This will show a list of the currently added files in your Data Set. The file notes can be edited by double-clicking in the Note field for the desired file.

Auto-Preview: When checked a preview of images, text and text resources will automatically be shown in the preview area (2) when you select a file in the list.

Show full filepath: When checked the full file path will be shown instead of just the file name. Note that full file paths are not saved in Data Sets so checking this box will only show useful information on newly created Data Sets, and not on loaded ones.

Adding files

To add files to the flash image you simply click the appropriate button:

Button	Description
Add Binary File	Add a binary file. The file will be stored exactly as it is read from the disk.
Add Text File	Add a text file to the list.
Add Text Resource File	Add a text file as a text resource. Each line in the text file will be counted as a separate resource.
Add Image (RGB565)	Add a color image for use on color displays.
Add Image (Monochrome)	Add a monochrome image. Use the Target drop-down list to select the target display type.
Color Display	Select the target display type for monochrome images. Select the desired target before adding a monochrome image.
Add Audio File	Add an audio sample file.
Add Custom File	For future expansion.
Custom 1	For future expansion.

When adding a color image it will be converted to the proper RGB565 format but you will have to make sure the dimensions are correct before adding the image. No resizing will be performed by the FlashUploader.

Adding monochrome images is best done if the image being added is monochrome (black and white). FlashUploader will convert color or grayscale images to monochrome but the conversion is pretty simple. Make sure you select the appropriate target device before adding your image. Like the color images you must resize your image before adding it.

Only 8-bit, mono, PCM-encoded .wav format audio files are supported.
It is recommend using a bitrate between 8000 and 11025, but feel free to experiment with other values. If the bitrate is too high the libray may not be able to play the sample at the correct speed. See "Converting Wav files with Audacity.pdf" for help with converting samples to a suitable format.

Note that loading and displaying images is not directly supported by the SPIflash library. There are add-on libraries for both the UTFT and the LCD5110_Graph libraries available so images can be utilized.
Playing audio samples requires the use of the SPIflash_Audio add-on library.

Remaining buttons

Button	Description
Generate List of Contents	Generate a PDF file with a list of the files in the image. By default the PDF file will also contain all Text, Text Resources and Images. This can be deselected before the PDF file is generated by removing the check-mark in the pop-up window. In the pop-up you can also disable auto-opening the PDF file after is it generated.
Delete Selected	Delete the selected file in the File List (4). This will only remove the file from the image and not delete the source file on the disk.
Delete All	Delete all the files in the current image. The source files on the disk will not be deleted.
Load Dataset	Load a Dataset from disk.
Save Dataset	Save the current image as a Dataset.
Quit	Exit FlashUploader.
Upload	Upload the current image over a serial link. See (3) for more information on serial links and the limitations of using it.
Save as SFD file	Save the current image as an SDF file ("SPIflash Dump File").