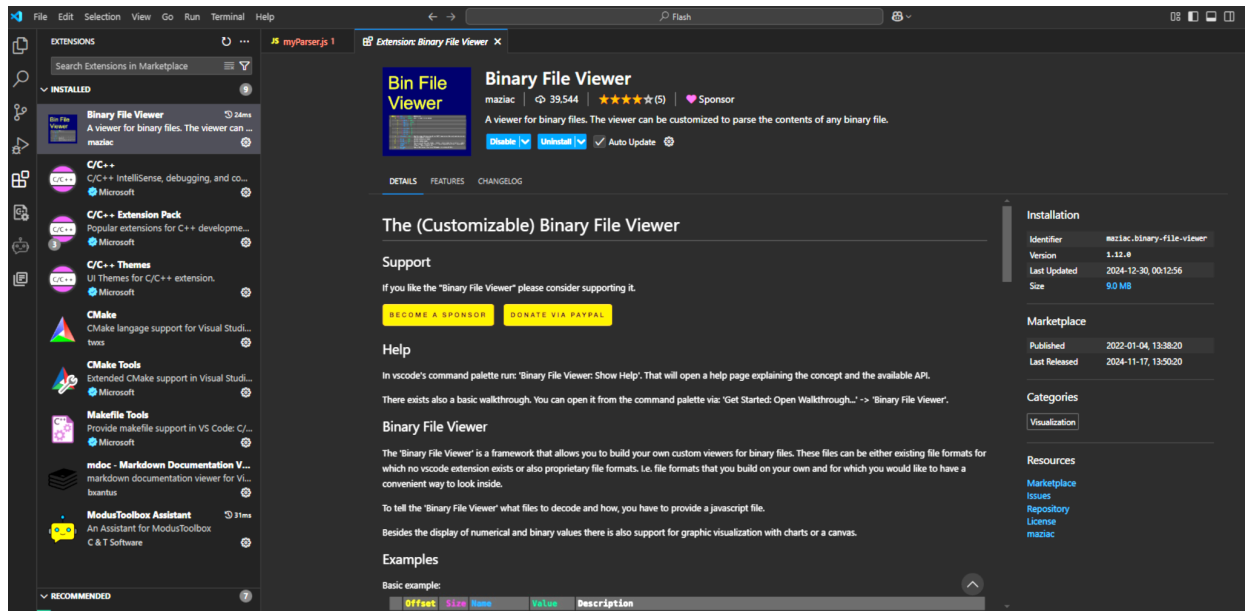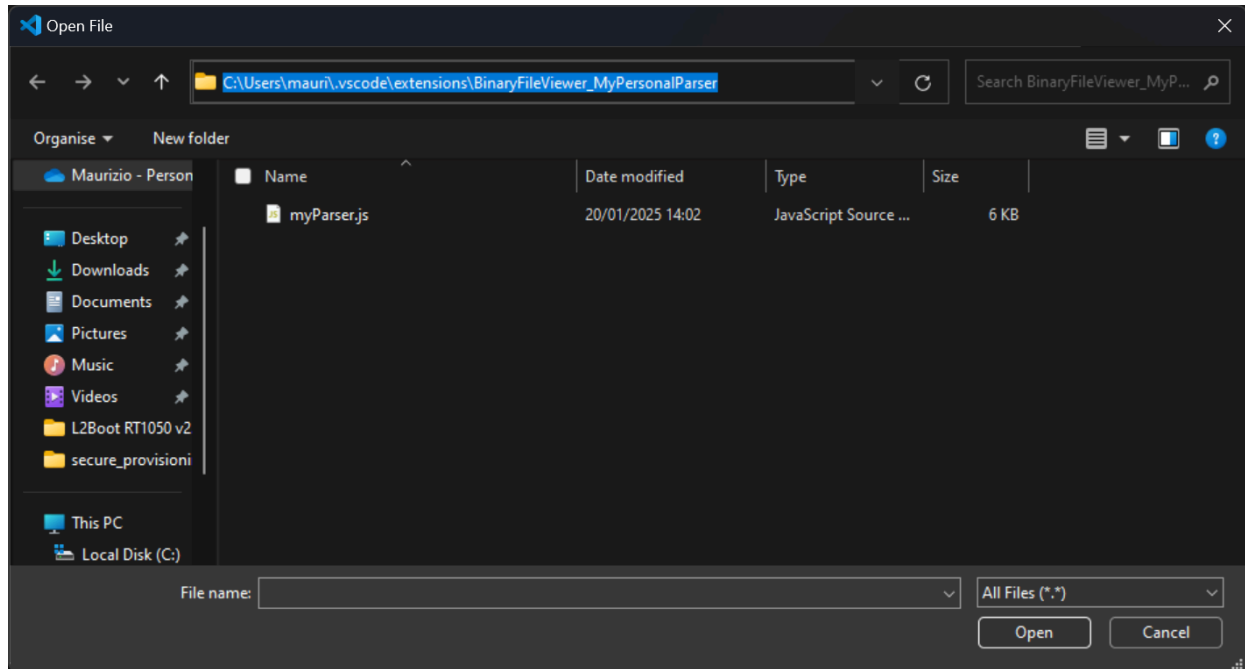Analysis of the binary via "Binary File Viewer" di VSCode

Install the following extension in VSCode:

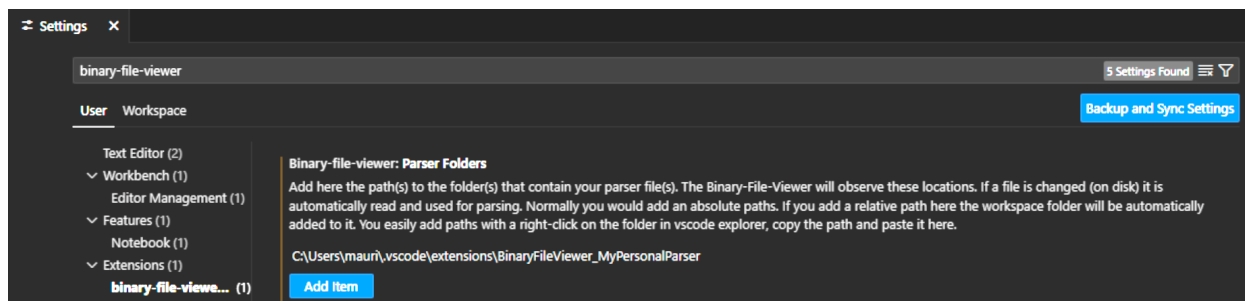Download the custom parser (two Javascript callback functions) to decode the binary, according to the fields described in the RM: LINK

create a folder "BinaryFileViewer_MyPersonalParser" in the corresponding local directory of your system and copy the file "myParser.js" into it, as in the following figure:

Now you need to set the path where the parser was saved.
Go to the menu "File → Preferences → Settings" (or "CTRL + ,") and do "Add Item" of the path:

At this point you are ready to open a .bin file:

Usage
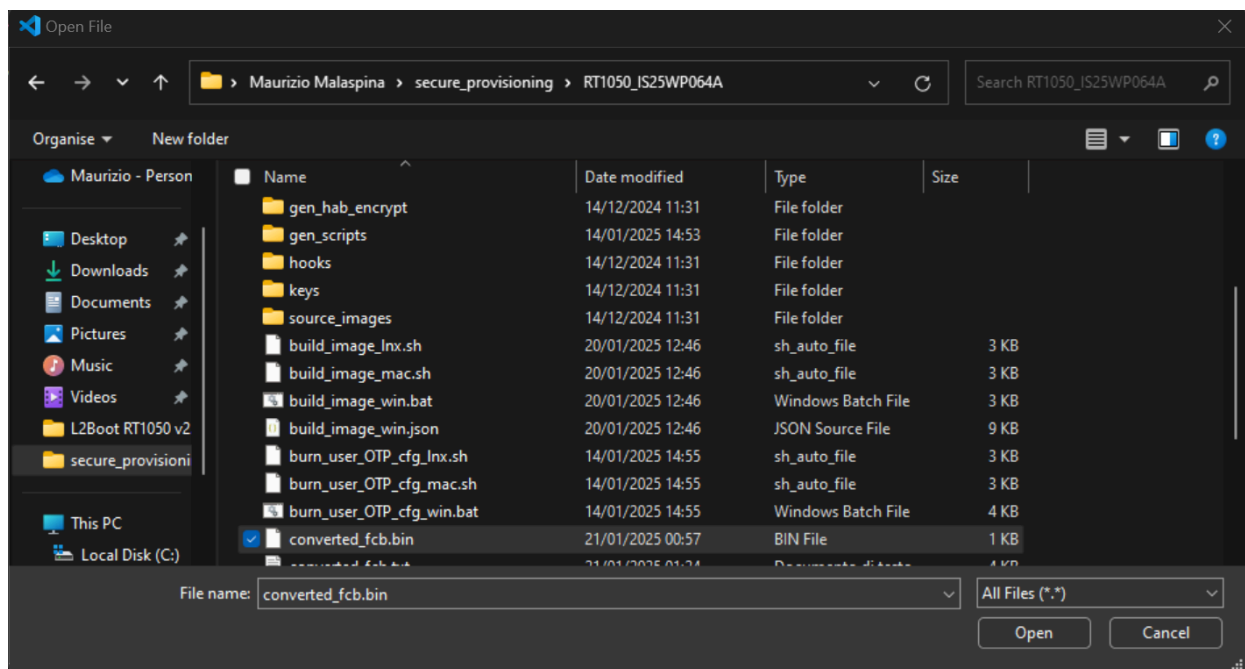
To understand how to build own parser scripts please refer to the Help.

To use it:

    1. In the vscode explorer right-click the binary file.
    2. Choose 'Open with Binary File Viewer'.

To use the 'Binary File Viewer' as default for some file extension:

    1. In the vscode explorer right-click the binary file.
    2. Choose 'Open With...'.

Click on "Open anyway":

The file is not displayed in the text editor because it is either binary or uses an unsupported text encoding.

Open Anyway

Select editor for 'converted_fcb.bin'

Text Editor Active and Default
Built-in

Binary File Viewer
Binary File Viewer

Configure default editor for '*.bin'...

Offset	Size	Name	Value	Description
0	4	TAG	FCFB	FlexSPI Configuration Block
4		Version	0x56010400	V.1.4.0 --> ASCII: 'V', Major: 1, Minor: 4, BugFix: 0
8	4	Reserved	0x00000000	Reserved field
12		readSampleClkSrc	0x01	0 - internal loopback, 1 - loopback from DQS pad, 3 - Flash provided DQS
13	1	csHoldTime	0x03	Serial Flash CS Hold Time
14		csSetupTime	0x03	Serial Flash CS Setup Time
15	1	columnAddressWidth	0x00	Column Address Width: 3 - HyperFlash, 12/13 - Serial NAND, 0 - Others
16		deviceModeCfgEnable	0x00	0 - Disabled, 1 - Enabled
17	1	Reserved	0x00	Reserved field
18		waitTimeCfgCommands	0x0000	Wait time for all configuration commands, unit 100us
20	4	deviceModeSeq	0x00000000	Sequence for device mode configuration
24		deviceModeArg	0x00000000	Device Mode argument, effective only when deviceModeCfgEnable = 1
28	1	configCmdEnable	0x00	0 - Disabled, 1 - Enabled
29		Reserved	0x000000	Reserved field
32	12	configCmdSeqs	000000000000000000000000	Sequences for Config Command, allow 3 separate configuration commands
44		Reserved	0x00000000	Reserved field
48	12	cfgCmdArgs	000000000000000000000000	Arguments for each separate configuration command sequence
60		Reserved	0x00000000	Reserved field
64	4	controllerMiscOption	0x00000010	Miscellaneous options for controller: Bit0 - differential clock enable Bit1 - CK2 enable, must set to 0 in this silicon Bit2 - ParallelModeEnable, must set to 0 for this silicon Bit3 - wordAddressableEnable Bit4 - Safe Configuration Frequency enable set to 1 for the devices that support DDR Read instructions Bit5 - Pad Setting Override Enable Bit6 - DDR Mode Enable, set to 1 for device supports DDR read command
68		deviceType	0x01	1 - Serial NOR, 2 - Serial NAND
69	1	sflashPadType	0x04	1 - Single pad, 2 - Dual pads, 4 - Quad pads, 8 - Octal pads
70		serialClkFreq	0x07	1 - 30 MHz, 2 - 50 MHz, 3 - 60 MHz, 4 - 75 MHz, 5 - 80 MHz, 6 - 100 MHz, 7 - 133 MHz, 8 - 166 MHz, Other values - 30 MHz
71	1	lutCustomSeqEnable	0x00	0 - Use pre-defined LUT sequence index and number, 1 - Use LUT sequence parameters provided in this block
72		Reserved	0000000000000000	Reserved field
80	4	sflashA1Size	0x00000000	Actual size for SPI NOR / Size * 2 for SPI NAND
8A		sflashA2Size	0x00000000	Same as above
88	4	sflashB1Size	0x00000000	Same as above
92		sflashB2Size	0x00000000	Same as above
96	4	csPadSettingOverride	0x00000000	Set to 0 if not supported
100		sclkPadSettingOverride	0x00000000	Set to 0 if not supported
104	4	dataPadSettingOverride	0x00000000	Set to 0 if not supported
108		dqsPadSettingOverride	0x00000000	Set to 0 if not supported
112	4	timeoutInMs	0x00000000	Maximum wait time during read busy status
116		commandInterval	0x00000000	Unit: ns, used for SPI NAND only at high frequency
120	4	dataValidTime	0x00000000	Time from clock edge to data valid edge, unit ns
124		busyOffset	0x0000	Busy bit offset, range: 0-31
126	2	busyBitPolarity	0x0000	0 - busy bit is 1 if device is busy, 1 - busy bit is 0 if device is busy
128	256	lookupTable	000000000000000000000000000000...	Lookup table
384	48	lutCustomSeq	000000000000000000000000000000...	Customized LUT sequence
432		Reserved	000000000000000000000000	Reserved for future use

This is the official help that explains how the parser works: [LINK](#)