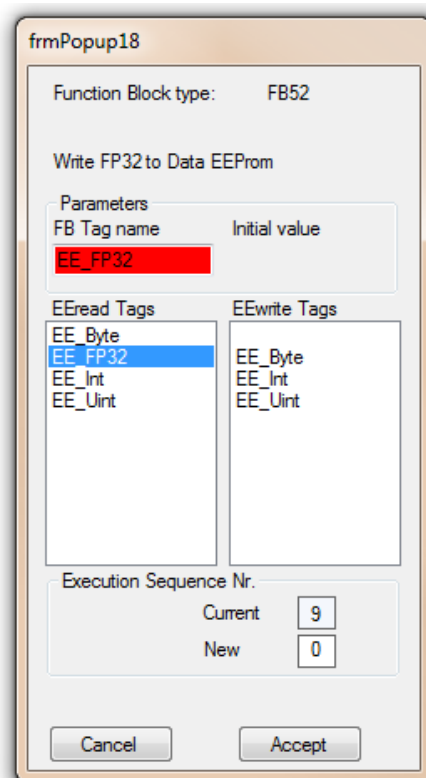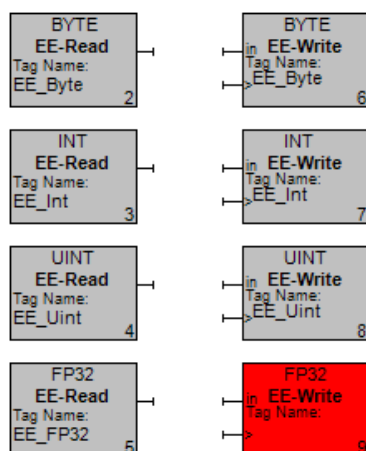# Function Block 45, 47, 49, 51.   Read data from Data EEPROM
Function Blocks 46, 48, 50, 52.   Write data to Data EEPROM

Function Description

Read and write data values from and to PIC Data EEProm memory. For the read blocks the user must supply an initial value. For read function blocks the EEProm value can be changed when VPS_P18 is on-line or in simulator mode. To synchronize EEProm addresses a system of tag names is used. Assign the same tag name to a pair of EE-Read and EE-Write function blocks will assign the same EEProm address to both.

Popup Parameters

- FB Tag name: Unique name assigned to function block.
- Initial value: Initial value of Data EEProm variable. (EE-Read blocks only)
- Execution sequence number.

Data Types

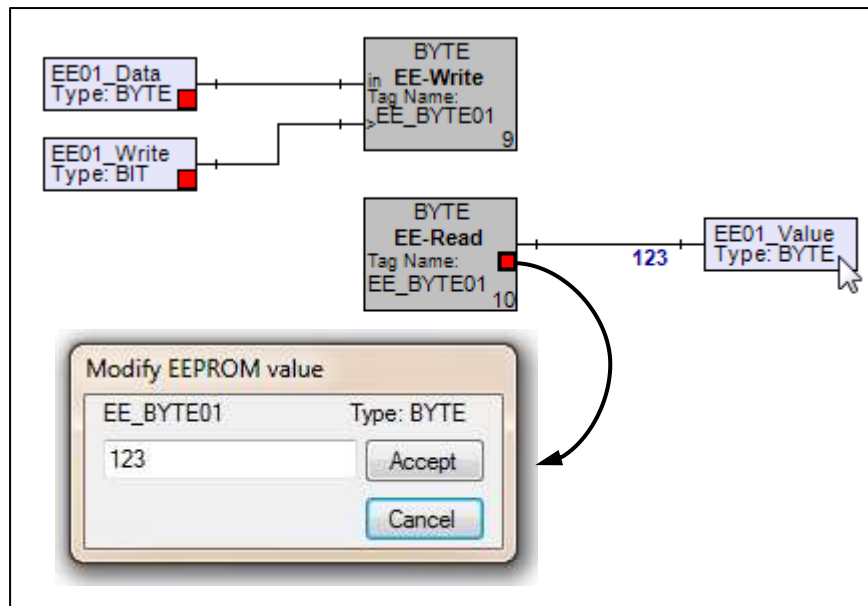|	
Function block 45	Read Byte data from data EEProm
Function block 47	Read INT data from data EEProm
Function block 49	Read UINT data from data EEProm
Function block 51	Read FP32 data from data EEProm
Function block 46	Write Byte data to data EEProm
Function block 48	Write INT data to data EEProm
Function block 50	Write UINT to from data EEProm
Function block 52	Write FP32 data to data EEProm

Input/output and Parameters

Type	Description	Data Type	Range
Output	Output signal	Depends on FB	Depends on FB

Application

Read from and write to nonvolatile Data EEProm memory. For read-blocks an initial value is specified at configuration time. When in on-line or simulator mode these values can be modified with VPS_P18's Graphical user interface. In simulator mode the virtual data EEProm memory is modified.

The following shows an example of how an EE_Write Function Block writes a byte value on signal EE01_Data into EEProm on the leading edge of signal EE01_Write. This byte value is continuously retrieved from EEProm by an EE_Read Function Block and written to the signal named EE01_Value. Because the two EE_Read/Write blocks have the same Tag Name the same data written by the EE_Write function block will be produced at the output of the EE_Read function block.

The small red rectangle on some of the blocks indicates their values can be changed on-line. The Modify EEPROM value pop-up was obtained by a click on the EE_Read's red rectangle.

The user is referred to the PIC18F Technical Manual regarding Data EEPROM endurance when writing values on a regular basis to Data EEPROM.

Notes:
Function block 45… 52 can be executed in Cycle and Time tasks. EE_Write function blocks execute in 6 cycles when not activated to write.