

Read/write data storage into Flash Memory in STM32f407 discovery using HAL

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I am trying to store the data inside the Flash (non volatile memory) for further retrieve. So that when the power is off and on again , then I can read the data from memory.

```
uint32_t address = 0x0800C000;  
uint64_t data = 0x01;  
HAL_FLASH_Unlock();  
HAL_FLASH_Program(TYPEPROGRAM_WORD, address, data);  
HAL_FLASH_Lock();
```

But I am not able to store the data at this location, I dont know why?? And is there any function to read the data back from this location in HAL??

flash-memory

eprom

stm32f4

edited Apr 13 '16 at 18:45



akmozo

9,230 ● 3 ● 19 ● 34

asked Apr 13 '16 at 12:47



Aashram

8 ● 5

See also [Allocating memory in Flash for user data \(STM32F4 HAL\)](#) – phoenix Sep 24 '18 at 19:44

1 Answer



0



You have to erase Flash first, then you can write new data

```
/*  
 * write data to internal flash
```

```

* return: value if OK, 0 if Error
*/
uint32_t WriteToFlash(uint32_t address)
{
    uint32_t PAGEError = 0;
    uint32_t result = 0;

    /* Unlock the Flash to enable the
    HAL_FLASH_Unlock();

    /* Erase the user Flash area */
    EraseInitStruct.TypeErase = FLA
    EraseInitStruct.PageAddress = FLA
    EraseInitStruct.NbPages = 1;

    if (HAL_FLASHEx_Erase(&EraseInitS
    {
        HAL_FLASH_Lock();
        return 0;
    }

    /* Program the user Flash area wo
    if (HAL_FLASH_Program(FLASH_TYEP
    {
        HAL_FLASH_Lock();
        return 0;
    }

    /* Lock the Flash to disable the
    to protect the FLASH memory agai
    HAL_FLASH_Lock();

    /* Check if the programmed data i
    result = *(__IO uint32_t *)address

    if(result != value)
        return 0;

    return result;
}

```

edited Jun 15 '17 at 4:53

answered Jun 15 '17 at 3:22



Nguyen

21 ● 2

