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();
```

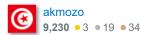
But I am not able to store the data at this location, I dont know why?? And is there any function to read the data back from this location in HAL??

flash-memory

eeprom

stm32f4

edited Apr 13 '16 at 18:45



asked Apr 13 '16 at 12:47

Aashram

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

1 Answer



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 addres
   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
   if (HAL_FLASHEx_Erase(&EraseInitS
   {
        HAL_FLASH_Lock();
        return 0;
   }
    /* Program the user Flash area wo
   if (HAL_FLASH_Program(FLASH_TYPEP
        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 *)addres
   if(result != value)
        return 0;
   return result;
}
```

edited Jun 15 '17 at 4:53

answered Jun 15 '17 at 3:22

Nguyen **21 ●** 2