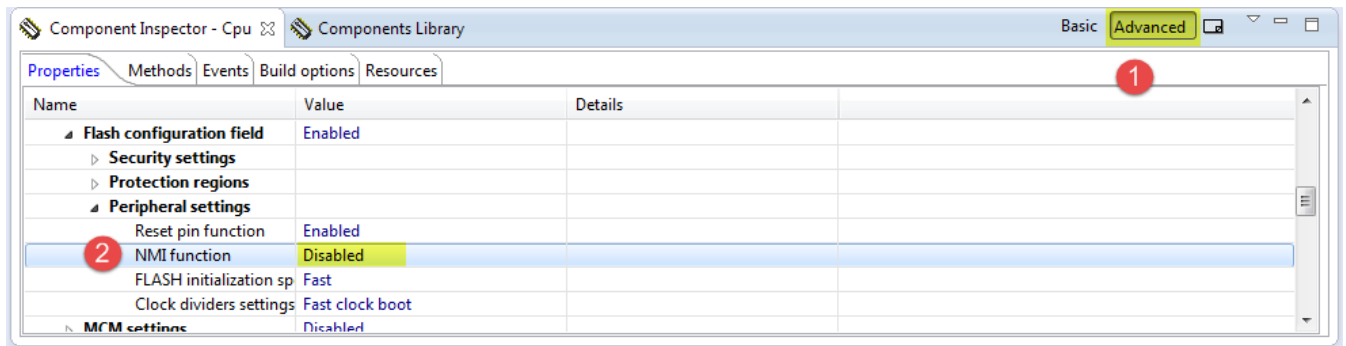


Processor Expert (with KDS or CodeWarrior)

- 1) Open the CPU component configurations.
- 2) Select “Advanced” mode and search for Internal Peripherals -> Flash Configuration Field -> Peripheral Settings -> NMI function. Set it to “Disabled”



- 3) Generate code. This change will be observed in the “_cfm” array at the end of “Cpu.c” file:

```
0x7EU,  
/* NV_FOPT: ??=1, ??=1, FAST_INIT=1, LPBOOT1=1, RESET_PIN_CFG=1, NMI_DIS=0, ??=1, LPBOOT0=1 */  
0xFBU,  
0xFFU,  
0xFFU  
};
```

- 4) Build the project and program the MCU. Now the NMI function is disabled and pin can be used as GPIO.

CodeWarrior (without Processor Expert)

- 1) Copy the entire array from below text box to any of your project source files, commonly in a startup file (e.g. "kinetis_sysinit.c").

```
__attribute__((section (".cfmconfig"))) const uint8_t _cfm[0x10] = {
/* NV_BACKKEY3: KEY=0xFF */
  0xFFU,
/* NV_BACKKEY2: KEY=0xFF */
  0xFFU,
/* NV_BACKKEY1: KEY=0xFF */
  0xFFU,
/* NV_BACKKEY0: KEY=0xFF */
  0xFFU,
/* NV_BACKKEY7: KEY=0xFF */
  0xFFU,
/* NV_BACKKEY6: KEY=0xFF */
  0xFFU,
/* NV_BACKKEY5: KEY=0xFF */
  0xFFU,
/* NV_BACKKEY4: KEY=0xFF */
  0xFFU,
/* NV_FPROT3: PROT=0xFF */
  0xFFU,
/* NV_FPROT2: PROT=0xFF */
  0xFFU,
/* NV_FPROT1: PROT=0xFF */
  0xFFU,
/* NV_FPROT0: PROT=0xFF */
  0xFFU,
/* NV_FSEC: KEYEN=1,MEEN=3,FSLACC=3,SEC=2 */
  0x7EU,
/* NV_FOPT: ??=1, ??=1, FAST_INIT=1, LPBOOT1=1, RESET_PIN_CFG=1, NMI_DIS=0, ??=1, LPBOOT0=1 */
  0xFBU,
  0xFFU,
  0xFFU
};
```

- 2) If you previously had custom flash configuration options (e.g. security enabled) just update the values in the array with those of your configuration.
- 3) Build the project and program the MCU. The NMI functionality is disabled now.

KDS (without Processor Expert)

- 1) From KDS project explorer open Project Settings -> Startup_Code -> "startup_MKL02Z4.S".
- 2) Search for the "Flash Configuration" definition and update it as next (pay attention to **FB** value).

```
/* Flash Configuration */  
    .section .FlashConfig, "a"  
    .long 0xFFFFFFFF  
    .long 0xFFFFFFFF  
    .long 0xFFFFFFFF  
    .long 0xFFFFFBFE
```

- 3) If you had custom flash configurations, just set the values according to your needs.
- 4) Build the project and program the MCU. Now the NMI pin functionality is disabled but you can still use it as GPIO.