Timing Library

0.1.0

Project Overview – Source Code

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1.1 File List

Here is a list of all files with brief descriptions:

2 File Documentation

2.1 Changelog.md File Reference

2.2 delay.c File Reference

Implements functions used to abstract away interacting with Wii devices over I2C.

`#include "delay.h"`
Include dependency graph for delay.c:

2.3 delay.h File Reference

Defines public constants and prototypes related to delaying processing.

`#include <stdint.h>`
Include dependency graph for delay.h: This graph shows which files directly or indirectly include this file:

Macros

- #define MICRO_SECONDS_PER_TICK 1000000

  Number of microseconds that will occur within one tick of the system clock.
- #define MILLI_SECONDS_PER_TICK 1000

  Number of milliseconds that will occur within one tick of the system clock.

Functions

- void Delay_Init (uint32_t sysClk)

  Initializes internal variable(s) used to determine delay time in system ticks.
- void Delay_Us (uint32_t duration)

  Delays processing for the given number of microseconds.
- void Delay_Ms (uint32_t duration)

  Delays processing for the given number of milliseconds.

2.3.1 Detailed Description

Defines public constants and prototypes related to delaying processing.

2.3.2 Macro Definition Documentation

2.3.2.1 MICRO_SECONDS_PER_TICK

```
#define MICRO_SECONDS_PER_TICK 1000000
```

Number of microseconds that will occur within one tick of the system clock.

2.3.2.2 MILLI_SECONDS_PER_TICK

```
#define MILLI_SECONDS_PER_TICK 1000
```

Number of milliseconds that will occur within one tick of the system clock.

2.3.3 Function Documentation

2.3.3.1 Delay_Init()

```
void Delay_Init (
            uint32_t sysClk )
```

Initializes internal variable(s) used to determine delay time in system ticks.

[in] sysClk Current system clock value in Hz (e.g. 80000000).

2.3.3.2 Delay_Ms()

```
void Delay_Ms (
            uint32_t duration )
```

Delays processing for the given number of milliseconds.

Uses the number of core processor ticks to determine the number of ticks to execute a while-loop. This loop effectively delays non-interrupt driven processing. Bare in mind, this is not a precise implementation but will [minimally] provide the delay requested.

[in] duration Number of milliseconds to delay processing.

2.3.3.3 Delay_Us()

```
void Delay_Us (
            uint32_t duration )
```

Delays processing for the given number of microseconds.

Uses the number of core processor ticks to determine the number of ticks to execute a while-loop. This loop effectively delays non-interrupt driven processing. Bare in mind, this is not a precise implementation but will [minimally] provide the delay requested.

[in] duration Number of microseconds to delay processing.

2.4 README.md File Reference