



## Requirements:

- A matlab installation with the C-compiler package (MingW is freely available from Mathworks)
- quTAG and its libraries
  - 32bit library is included in the daisy setup
  - 64bit library can be downloaded from our website
- USB3 driver and its header file
  - Driver is included in the daisy setup or download from our website

## Instructions:

### 1) Load the library in Matlab:

```
loadlibrary 'C:\Program Files (x86)\N-Hands\Daisy@quTAG\userlib64\lib\tdcbase.dll' 'C:\Program Files (x86)\N-Hands\Daisy@quTAG\userlib64\inc\tdcbase.h' alias tdcplib
```

### 2) You may need to manually load the USB3-driver library as well:

```
loadlibrary 'C:\Program Files (x86)\N-Hands\Daisy@quTAG\userlib64\lib\FTD3XX.dll' 'C:\Program Files (x86)\N-Hands\Daisy@quTAG\userlib64\inc\FTD3XX.h' alias tdcusblib
```

### 3) Use the library functions as described in the documentation.

(see [C:\Program Files \(x86\)\N-Hands\Daisy@quTAG\userlib64\documentation.html](C:\Program Files (x86)\N-Hands\Daisy@quTAG\userlib64\documentation.html))

## Examples:

- read the version of the library:

```
calllib('tdcplib', 'TDC_getVersion')
```

- set the threshold of channel 2 to 1.4V:

```
calllib('tdcplib', 'TDC_configureSignalConditioning', 2, 3, 0, 1.4)
```

- read coincidence counters:

```
pBuffer = libpointer('int32Ptr', zeros(31, 1))  
pUpdate = libpointer('int32Ptr', 0)  
calllib('tdcplib', 'TDC_getCoincCounters', pBuffer, pUpdate)
```

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