

# SPECT-DM API Integration Guide for Windows

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## Purpose

This document has been created to provide the user with some useful information with regards to integrating the SPECT-DM API into their own application.

The document explains how to build and run the code associated with the SPECT-DM demo application in QtCreator and how to link the SPECT-DM dll to a Qt application.

## Pre-requisites

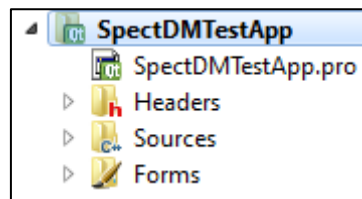
You must have followed the *Installation Instructions for Windows* prior to using this guide.

## Building and running the test application

- 1) Launch QtCreator
- 2) Select *File* followed by *Open File or Project...*
- 3) Locate the *SpectDMTestApp.pro* file in the TestCode directory of the SPECT-DM software download and select *Open*

If the *Configure Project* screen appears at this point, accept the defaults and click *Configure Project*

- 4) The project should have loaded and you should see the following:

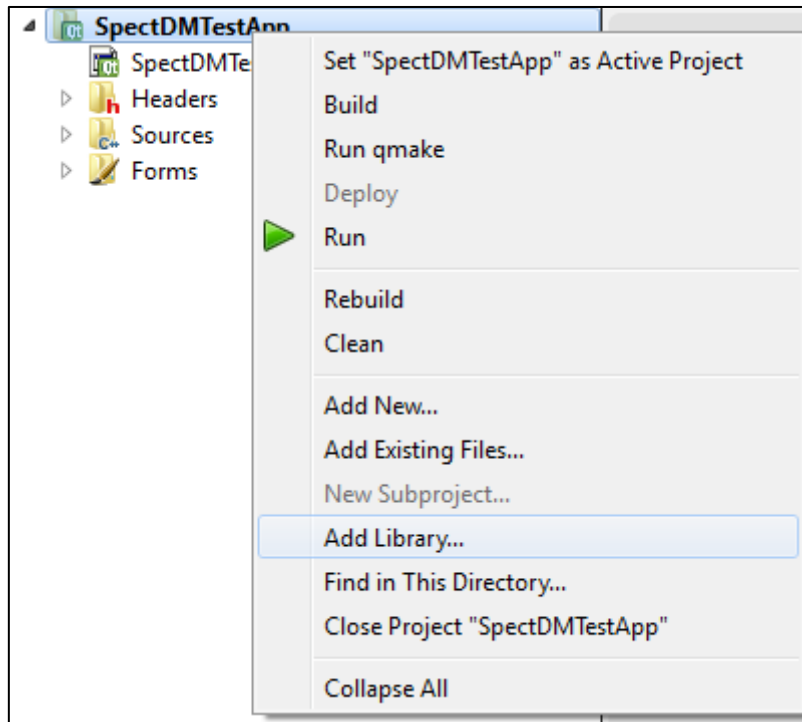


- 5) Select *Build* on the toolbar and hit *Rebuild All*
- 6) Once the project has built you can run it by selecting *Build* on the toolbar and then *Run*

## Linking against the API

This section will explain how to link the SPECT-DM API to an application using QtCreator, the process will be slightly different for other IDEs and will require consulting the documentation to find out how to do it for the one you plan to use.

- 1) Right-click on your project in QtCreator and select *Add library...*



- 2) Select *External library* as the *Type* and click *Next >*
- 3) Click the *Browse...* button next to the *Library file* label
- 4) Navigate to the *TestCode* directory of the SPECT-DM software download. The *Choose File* dialog should only display one file at this point, *libSpectDMSharedLib42.a*, select this file and click *Open*.

**Note:** The *SpectDMSharedLib.dll* file must be in the same directory as the *.a* file.

- 5) Untick *Linux* and *Mac* in the *Platform* group, leaving *Windows* ticked. Untick *Add "d" suffix for debug version* and click *Next >*
- 6) A summary screen should be displayed showing the following:

```
win32: LIBS += -L$$PWD/ -lSpectDMSharedLib42
INCLUDEPATH += $$PWD/
DEPENDPATH += $$PWD/
```

Click *Finish*

- 7) Finally, include the header containing all of the API functions:

```
#include "spectdmdll.h"
```