Starting with OMNotebook

Steps to Compile OMNotebook in VS 2010 with QT 4.7(qt-everywhere-opensource-src-4.7.0-beta2)

Following is a description how to compile OMNotebook in Visual Studio. The folder names can be selected according to one's own choice.

1) Download the source code from OpenModelica.org under OpenModelicaDocs folder.
Following link is for windows user.
http://openmodelica.org/index.php/download/download-windows
Linux and Mac can also be selected from the Download menu in the website OpenModelica.org.

2) Download OpenModelicaLibs from the following link:
http://www.ida.liu.se/~adrpo/omc/omdev/qtlibs/
In OpenModelicaLibs you will have files (coin3d, qt-everywhere-opensource-src-4.7.0-beta2 and soQt). Download the zipped file under OpenModelicaDocs folder and unzip it.

3) Open the project OMNotebook.vcxproj in visual studio ultimate 2010.
If you have the same folder names as used in this document then you can find OMNotebook.vcxproj under the folder.
C:\OpenModelicaDocs\OM_Source_Code\OMNotebook\OMNotebookQT4

Before compiling we have to set the paths:

Under advanced system setting go to environment variables and set the paths for the user variables:

Give the paths (Variable Value) according to your system path where these files are be located

Variable name   Variable Value

1. COINDIR   C: \OpenModelicaDocs \OpenModelicaLibs\coin3d
2. DRMODELICAHOME   "C:\OpenModelica1.5.0\DrModelica"

(Don't forget to put the double quotations "")

3. OMDEV   c:/OMDev

(Be careful about the / and the small c in the path c:/OMDev. It's not in the normal (\) way. Just use it as it is stated here).

4. OPENMODELICAHOME   C:\OpenModelica1.5.0\
5. OPENMODELICALIBRARY   C:\OpenModelica1.5.0\ModelicaLibrary
6. QNBHOME   C:\OpenModelicaDocs\OM_Source_Code\OMNotebook

7. QTHOME C:\OpenModelicaDocs\OpenModelicaLibs\qt-everywhere-opensource-src-4.7.0-beta2 \

In visual studio ultimate 2010,

Solution / Property Manager -> right click on OMNotebookQT4 -> Properties -> Configuration Properties

- C/C++ → General → Additional Include Directories. Al these paths should be included.
    1. $(QNBHOME)\NotebookParser
    2. $(OMDEV)\include\mico-win32-msvc
    3. $(OMDEV)\include
    4. $(QTHOME)\include
    5. $(QTHOME)\include\QTGui
    6. $(QTHOME)\include\QTCore
    7. $(QTHOME)\mkspecs\win32-msvc2010
    8. $(COINDIR)\include
    9. $(ProjectDir)
- Linker →General →Output File should be $(Configuration)\OMNotebook.exe
    →Additional Library Directories. You will have these paths:
    1. ..\3Dpkg\Release\
    2. $(COINDIR)\lib\
    3. $(OMDEV)\lib\mico-win32-msvc\
    4. ..\Pltpkg2\Release
    5. $(QTHOME)\lib
    6. $(OMDEV)\lib\antlr-win32-msvc\md-mdd\
    7. ..\NotebookParser\Release
- Linker ->Input →Additional Dependencies. Following dll files
    1. qtmain.lib
    2. QtGui4.lib
    3. QtNetwork4.lib
    4. QtXml4.lib
    5. NotebookParser.lib
    6. antlr.lib
    7. mico2313.lib
    8. QtCore4.lib
    9. QtOpenGL4.lib
    10. pltpkg2.lib
    11. ws2_32.lib
    12. imm32.lib
    13. winmm.lib
    14. coin3.lib
    15. soqt1.lib

We are compiling in Release mode with win32.

If you will get antlr.lib file errors that is which it will not found, following steps should be followed:

Click **visual studio command prompt** under **Tools** Menu in visual Studio 2010.

Go to the OMDev directory which is located (C:\OMDev). Execute following commands

1) C:\OMDev\lib\antlr-win32-msvc
2) nmake –f Makefile.win32 clean

del /Q .obj antlr.lib .idb .pdb

3) nmake –f Makefile.win32

1 file(s) moved.

4) cd md-mdd
5) nmake –f Makefile.win32 clean
6) namke –f Makefile.win32

omc _communication.h and omc_communication.cc files

We have copied the files omc_communication.h and omc_communication.cc files into the OMNotebookQT4 project under the folder:

C:\OpenModelicaDocs\OM_Source_Code\OMNotebook\OMNotebookQT4

omc_communication.h and omc_communication.cc will be generated automatically. For generating these files go to msys.bat under the folder:

C:\OMDev\tools\msys

Double click msys.bat. You will get the command prompt, if writing cannot be performed on the command prompt then close and double click msys.bat again. Run the following commands:

1. cd OpenModelica
2. cd OpenModelicaDocs/OM_Source_Code

(The purpose of above two commands is to reach the folder where you have downloaded the source code from openmodelica.org. Therefore select the folder where you have the source code downloaded). Then run the following commands

1. make –f Makefile.omdevmingw clean
2. make –f Makefile.omdevmingw

After running the above two commands you can search for omc_communication.h and omc_communication.cc files in C:\OpenModelicaDocs\OM_Source_Code folder or in

C:\OpenModelicaDocs\OM_Source_Code\Compiler folder.

Copy and paste the files (omc_communication.h and omc_communication.cc) under the folder: C:\OpenModelicaDocs\OM_Source_Code\OMNotebook\OMNotebookQT4 if not done already.

Open the Visual Studio project and go to:

Project Pltpkg2 →Source Files →

Right click on moc_compoundWidget.cpp.

Change the properties for first moc_compoundWidget.cpp which is **Excluded from Build** as **No**

Change the properties for the second moc_compoundWidget.cpp which is **Excluded from Build** as **Yes**

 OMNotebook QT4 properties →code generation in C/C++   change the Floating Point Model as **No [**i.e Precise (/fp:precise)**]**

1. Copy all QT .dll files from Qt directory which is located under OpenModelicaLibs:

   C:\OpenModelicaDocs\OpenModelicaLibs\qt-everywhere-opensource-src-4.7.0-beta2\lib

   and paste it to:

   C:\OpenModelicaDocs\OM_Source_Code\OMNotebook\OMNotebookQT4\Debug

   C:\OpenModelicaDocs\OM_Source_Code\OMNotebook\OMNotebookQT4\Release

2. Copy the soqt1 .dll file from the following link:
   C:\OpenModelicaDocs\OpenModelicaLibs\soQt\build\msvc8
   And paste to:

   C:\OpenModelicaDocs\OM_Source_Code\OMNotebook\OMNotebookQT4\Debug

   C:\OpenModelicaDocs\OM_Source_Code\OMNotebook\OMNotebookQT4\Release

3. Copy the .lib files(coin3.lib and soqt1.lib) from the following link/directory:
   C:\OpenModelicaDocs\OpenModelicaLibs\coin3d\lib
   And paste it to:

   C:\OpenModelicaDocs\OM_Source_Code\OMNotebook\OMNotebookQT4\Debug

   C:\OpenModelicaDocs\OM_Source_Code\OMNotebook\OMNotebookQT4\Release

4. Copy the commands.xml, modelicacolors.xml and stylesheet.xml from [C:\OpenModelica1.5.0\bin] into
   C:\OpenModelicaDocs\OM_Source_Code\OMNotebook\OMNotebookQT4\Debug
   C:\OpenModelicaDocs\OM_Source_Code\OMNotebook\OMNotebookQT4\Release

Some Common Errors

   1. If you are getting an error of missing some mico2313.dll perform the following steps:
   a. Download the complete source for mico from http://mico.org/down.html .
   b. Open the visual studio prompt and go to mico directory where it is located and execute the command

nmake –f Makefile.win32

    c. Copy the mico2313.dll and pthreadvc2.dll files from the folder. C:\OpenModelicaDocs\mico\win32-bin (depends upon where you have downloaded mico) and paste it in
       C:\OpenModelicaDocs\OM_Source_Code\OMNotebook\OMNotebookQT4\Debug
       C:\OpenModelicaDocs\OM_Source_Code\OMNotebook\OMNotebookQT4\Release

2. If you are getting **nmake** problem, it means your command prompt is not recognizing nmake then go to visual studio 2010\common 7\Tools and then run vsvars32.bat file then your nmake will work.

3. After compiling if VS generates an error of "OMNotebook.exe not found" then check the properties of OMNotebookQT4 and give
    OMNotebook -> Properties -> Configuration Properties -> General
    Output directory: Debug\ (check if it is in debug mode)
    Select Target Name: OMNotebook (instead of project name)

4. If the OMNotebook is crashing after running once then delete the file openmodelica.objid file.

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