

QGIS Application - Feature request #2370

Native and faster compilation of Python bindings

2010-01-15 03:10 AM - Martin Dobias

Status:	Closed	
Priority:	Low	
Assignee:	Martin Dobias	
Category:	Build/Install	
Pull Request or Patch supplied:		Resolution: fixed
Easy fix?:	No	Copied to github as #: 12430
Description		
<p>The attached patch cleans the way how python wrappers are compiled. Until now, the compilation was driven with custom generated makefiles that didn't integrate well with CMake.</p> <p>The patch uses macros from [[PyKDE]] project that make compilation native in CMake. The configuration is cleaner and it's possible to use multiple jobs (e.g. make -j3). Additionally the compilation runs several times faster: SIP is configured to generate only few (big) files instead of 100+ files (one for each class) - the compiler has to parse the headers fewer times.</p> <p>Tested on linux (ubuntu). Before applying to trunk it should be confirmed that it works with other platforms.</p>		

History

#1 - 2010-01-15 03:35 AM - Martin Dobias

Added a small change I've missed... apply also pyqgis_cleanup_addendum.diff

#2 - 2010-01-15 05:37 AM - Jürgen Fischer

Works with minor changes for the MSVC build:

cmake/SIPMacros.cmake:

```
< FILE(APPEND filename "")
> FILE(APPEND ${filename} "")
```

python/CMakeLists.txt:

```
> IF(MSVC)
> ADD_DEFINITIONS(-DNOMINMAX)
> ENDIF(MSVC)
```

```
<pre>
```

#3 - 2010-01-15 09:31 AM - William Kyngesburye

Works on OSX (10.6, system python 2.6, SIP 4.9, [[PyQt]] 4.6). It does seem to compile faster.



I need to take a closer look to see how well it will work in the Xcode project. Right now I just run the configure.py and make, instead of using Xcode compilation (too hard for this case). Looks like configure.py is dropped. It would be nice if I can now make the Xcode project generate the sip sources and compile, then compilation can benefit from progress feedback and multicores.

#4 - 2010-01-15 09:34 AM - William Kyngesburye

P.S. I wonder if the new findSIP could use the same Cmake variable names as the old one? This would make current build instructions still usable (OSX uses SIP_BINARY_PATH, now SIP_EXECUTABLE, to specify SIP).

#5 - 2010-01-15 04:43 PM - Martin Dobias

Juergen, thanks for testing and providing the tweaks. I'll apply them when committing the patch to trunk. I'm just wondering why it needs the -DNOMINMAX definition... maybe it should be fixed elsewhere?



William, thanks for the feedback. Original variable names can be preserved, there's no problem with it.

#6 - 2010-01-16 01:25 AM - Jürgen Fischer

Replying to [comment:5 wonder]:



Juergen, thanks for testing and providing the tweaks. I'll apply them when committing the patch to trunk. I'm just wondering why it needs the -DNOMINMAX definition... maybe it should be fixed elsewhere?

<pre>

#7 - 2010-01-16 03:08 AM - Martin Dobias

- Resolution set to fixed
- Status changed from Open to Closed

Applied in commit:87c53488 (SVN r12775), changed SIP_EXECUTABLE to SIP_BINARY_PATH in commit:6a0cd1ef (SVN r12776).

Files

| | | | |
|------------------------------|-----------|------------|---------------|
| pyqgis_cleanup.diff | 47.2 KB | 2010-01-15 | Martin Dobias |
| pyqgis_cleanup_addendum.diff | 423 Bytes | 2010-01-15 | Martin Dobias |