QGIS Application - Bug report #4507
GEOS spatialindex.h conflicts with SpatialIndex.h

2011-11-08 05:43 PM - William Kyngesburye

Status:	Closed		
Priority:	High		
Assignee:			
Category:	Build/Install		
Affected QGIS version:		**Regression?:**	No
Operating System:	OS X	**Easy fix?:**	No
Pull Request or Patch supplied:		**Resolution:**	fixed
Crashes QGIS or corrupts data:		**Copied to github as #:**	14430

Description

When compiling qgsspatialindex.cpp, the there are a lot of parsing errors after the SpatialIndex namespace declaration.

The compile command has the GEOS include path before the SpatialIndex include path, and GEOS has a "spatialindex.h" (all lowercase). If the SpatialIndex include path is before GEOS, it finds the correct SpatialIndex.h (caps/lowercase) and compiles.

I couldn't find any definite info on whether the precompilation is supposed to be case sensitive or not, but it appears to be dependent on the file system. If so, HFS+ is case-aware, but not case-sensitive.

The solution appears to be to just move the SpatialIndex include path to before GEOS. GEOS uses subfolder include setup (ie #include <geos/spatialindex.h>) so this shouldn't interfere with GEOS includes.

History

#1 - 2011-11-09 07:23 AM - William Kyngesburye

- Resolution set to fixed

Ah, the OS X framework has geos_c.h along with the C++ headers. This is so that the framework include method works for C++ headers (OS X framework headers can be specified with the framework name/header without -I flags, say <GEOS/spatialindex.h>, and the compiler knows to look in the framework's headers folder, ie GEOS.framework/Headers/spatialindex.h), and so the C header also has a place to be (there are no other header folders in a framework and a subfolder for the C++ headers would break the framework include method. IOW, the C++ headers can't be isolated like they are on other systems.

Putting the SpatialIndex include path before GEOS is then an acceptable solution. Applied in b9d26e4 (thanks Juergen).

#2 - 2011-12-09 08:51 AM - Paolo Cavallini

- Status changed from Open to Closed