

Building GDAL with MSVC Toolkit 2003

Last Updated vendredi, 09 mars 2007

Here is a little howto to build gdal 1.4.0 with MSVC Toolkit 2003, latest GEOS 3 lib and Python NG bindings. The built library is available [here](#) . The patch mentioned in the article is available [here](#) .

1. GEOS :

Latest svn release (3.0.0RC1 17/01/2007) of GEOS must be modified in order to be compiled :

- capi/geos_c.h.in -> capi/geos_c.h
- source\headers\geos\version.h.in --> source\headers\geos\version.h
- source\headers\geos\platform.h.vc --> source\headers\geos\platform.h

In the files geos_c.h and version.h, update the @VERSION_MAJOR@, @VERSION_MINOR@, @VERSION_PATCH@, @VERSION@ to the right values (3, 0, 0 and 3.0.0 in my case).

According to some info, I haven't updated @JTS_PORT@, nor the @CAPI_VERSION_MAJOR@, etc.

Then :

```
GEOS_SOURCE\source\>nmake -f makefile.vc
```

There is no install target in the makefile, so you should copy the produced dll into a directory in your PATH (or update your path ...).

2. GDAL 1.4.0

Update the nmake.opt to match your installation (GDAL_HOME, GEOS libs, Python install, etc),

```
GDAL_SOURCE\>nmake -f makefile.vc  
Install the files into your GDAL_HOME
```

```
GDAL_SOURCE\>nmake -f makefile.vc install  
After having built and installed gdal, build the new swig interface  
going in the swig directory :
```

```
GDAL_SOURCE\swig\>nmake -f makefile.vc python
```

! Your python installation must have a numpy version > 1 (I've added a test in the GDAL_SOURCE\swig\python\setup.py file)

I have modified the GDAL_SOURCE\swig\makefile.vc in order to install the python modules after having them built (see the attached patch). This will install the modules into your Python installation directory (C:\Python24\Lib\site-packages\ on my computer). Otherwise your PYTHONPATH must point to the pymod directory. Then, after having updated the PATH environment variables so that it includes \$GDAL_HOME\bin\ (path to the gdal14.dll), you can use GDAL 1.4 with its new-generation python interface.