windows平台使用Microsoft Visual C++ Compiler for Python 2.7编译python扩展

在windows平台上安装python c extension的扩展包是件很痛苦的事情,一般通过安装vc/vs系列来编译C扩展,不过安装包都比较大。或者通过mingw编译,不过有时会在兼容性上出现点问题。

有个好消息就是微软为Python提供了专用的编译器Microsoft Visual C++ Compiler for Python 2.7(包含32位和64位)下载地址: http://aka.ms/vcpython27

提示:在此感谢@<u>ThunderEX</u>的提醒, setuptools 6.0及后续版本可以自动识别Microsoft Visual C++ Compiler for Python 2.7了,赶紧升级吧。如果不能升级,请参考下面的操作步骤。

1.下载完成并安装。以本机为例,安装完成后的路径为:

```
1 C:\Users\Administrator\AppData\Loca l\Programs\Common\Microsoft\Visual C++for Python\9.0
```

2.修改python安装目录下Lib\distutils\msvc9compiler.py文件(如有必要可能msvccompiler.py文件也需要做相应更改,视系统而定),找到get_build_version方法直接return 9.0

```
1
      def get_build_version():
 2
          """Return the version of MSVC
 3
      that was used to build Python.
 4
 5
          For Python 2.3 and up, the
      version number is included in
 6
 7
          sys.version. For earlier
 8
      versions, assume the compiler is
      MSVC 6.
 9
10
11
          return 9.0
          prefix = "MSC v."
12
          i = sys.version.find(prefix)
13
14
          if i == -1:
15
              return 6
          i = i + len(prefix)
16
17
      rest = sys.version[i:].split("
18
19
          majorVersion = int(s[:-2]) - 6
20
21
          minorVersion = int(s[2:3]) / 10
22
      .0
          # I don't think paths are
      affected by minor version in
      version 6
          if majorVersion == 6:
              minorVersion = 0
          if majorVersion >= 6:
```

```
return majorVersion +minorV
ersion

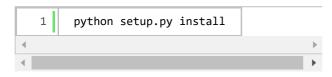
# else we don't know what
version of the compiler this is
return None
```

然后再找到find_vcvarsall方法直接返回vcvarsall.bat的路径(以自己机器安装后的路径为准)

```
1
      def find vcvarsall(version):
 2
          """Find the vcvarsall.bat file
 3
          At first it tries to find the
 4
 5
      productdir of VS 2008 in the
      registry. If
 6
          that fails it falls back to the
 7
 8
      VS90COMNTOOLS env var.
 9
          returnr'C:\Users\Administrator\
10
11
      AppData\Local\Programs\Common\Micro
      soft\Visual C++ for
12
13
      Python\9.0\vcvarsall.bat'
14
          vsbase = VS_BASE % version
15
          try:
              productdir =Reg.get_value(r
16
      "%s\Setup\VC" %vsbase,
17
18
      "productdir")
19
          except KeyError:
20
              productdir = None
21
22
          # trying Express edition
23
24
          if productdir is None:
25
              vsbase = VSEXPRESS_BASE %ve
      rsion
26
27
              try:
                   productdir =Reg.get val
28
29
      ue(r"%s\Setup\VC" %vsbase,
30
          "productdir")
31
32
              except KeyError:
                   productdir = None
33
                  log.debug("Unable to
34
      find productdir in registry")
35
36
37
          if not productdir or notos.path
      .isdir(productdir):
38
39
              toolskey = "VS%0.f0COMNTOOL
40
      S"% version
```

```
41
              toolsdir =os.environ.get(to
42
      olskey, None)
43
              if toolsdir andos.path.isdi
44
      r(toolsdir):
                  productdir =os.path.joi
      n(toolsdir, os.pardir,
      os.pardir, "VC")
                  productdir =os.path.abs
      path(productdir)
                  if notos.path.isdir(pro
      ductdir):
                      log.debug("%s is
      not a valid
      directory" % productdir)
                      return None
              else:
                  log.debug("Env var %s
      is not set or invalid" % toolskey)
          if not productdir:
              log.debug("No productdir
      found")
              return None
          vcvarsall =os.path.join(product
      dir, "vcvarsall.bat")
          if os.path.isfile(vcvarsall):
              return vcvarsall
          log.debug("Unable to find
      vcvarsall.bat")
          return None
```

3.上述完成之后就可以在windwos下正常编译python的C扩展。以pycrypto-2.6.1为例,执行如下命令



当然也可以建立一个windows的二进制包