# **Installing PyLucene**

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### **1. Building PyLucene**

PyLucene is completely code-generated by JCC whose sources are included with the PyLucene sources.

#### **1.1. Requirements**

To build PyLucene a Java Development Kit (JDK) and <u>Ant</u> are required; use of the resulting PyLucene binaries requires only a Java Runtime Environment (JRE).

The <u>setuptools</u> package is required to build and run PyLucene on Python 2.3.5. With later versions of Python, setuptools is only required for shared mode. See JCC's <u>installation</u> <u>instructions</u> for more information.

#### **1.2.** For the Impatient Ones

- 1. pushd jcc
- 2. <edit setup.py to match your environment>
- 3. python setup.py build
- 4. sudo python setup.py install
- 5. popd
- 6. <edit Makefile to match your environment>
- 7. make
- 8. sudo make install
- 9. make test (look for failures)

#### **1.3. For the Rest of Us**

Before building PyLucene, JCC must be built first. See JCC's <u>installation instructions</u> for building and installing it.

Once JCC is built and installed, PyLucene is built via make which invokes JCC. See PyLucene's Makefile for configuration instructions.

There are limits to both how many files can fit on the command line and how large a C++ file the C++ compiler can handle. By default, JCC generates one large C++ file containing the source code for all wrapper classes.

Using the --files command line argument, this behaviour can be tuned to workaround various limits, for example:

to break up the large wrapper class file into about 2 files:
 --files 2

- to break up the large wrapper class file into about 10 files:
  --files 10
- to generate one C++ file per Java class wrapped:
  --files separate

#### 2. Notes for Solaris

PyLucene's Makefile is a GNU Makefile. Be sure to use gmake instead of plain make.

Just as when building JCC, Python's distutils must be nudged a bit to invoke the correct compiler. Sun Studio's C compiler is called cc while its C++ compiler is called CC.

To build PyLucene, use the following shell command to ensure that the C++ compiler is used:

\$ CC=CC gmake