Document created on Aug 7 2012, by Shyam.

Installing InVEx on Windows 7

This manual is meant to be used as a supplement to “How do I install InVEx?” page at broadinstitute.org, which explains installation on a Mac. This manual will assume you have read this page. Explanations are kept to a minimum.

The issues that you will encounter when installing InVEx on Windows relate to getting all the 64-bit dependencies installed and building the module c\_permute with a 64-bit C++ compiler. InVEx will NOT work with 32-bit of anything.

Installation of R and its dependencies is not covered here. It is straightforward.

List of files to download:

|  |  |  |
| --- | --- | --- |
| **Program/Package/Module** | **File type** | **Source Page** |
| Python 2.7 64-bit for Windows | EXE | <http://www.python.org/getit/> |
| Numpy-MKL for Python 2.7 64-bit | EXE | <http://www.lfd.uci.edu/~gohlke/pythonlibs/#numpy> |
| Scipyfor Python 2.7 64-bit | EXE | <http://www.lfd.uci.edu/~gohlke/pythonlibs/#scipy> |
| Cythonfor Python 2.7 64-bit | EXE | <http://www.lfd.uci.edu/~gohlke/pythonlibs/#cython> |
| Distribute (alt to setuptools)for Python 2.7 64-bit | EXE | <http://www.lfd.uci.edu/~gohlke/pythonlibs/#distribute> |
| Pyfasta (source) | TAR.GZ | <http://pypi.python.org/pypi/pyfasta> |
| Microsoft Visual C++ 2008 Express Edition with SP1 | EXE/ISO | <http://www.microsoft.com/visualstudio/en-us/products/2008-editions/express> |
| Microsoft Windows SDK for Windows 7 and .NET Framework 3.5 SP1 | EXE/ISO | <http://www.microsoft.com/en-us/download/details.aspx?id=3138> |
| InVEx source and reference files |  | <http://www.broadinstitute.org/software/invex/?q=download>(Account necessary) |
|  |  |  |

Numpy, Scipy, Cython and setuptools are not officially available in 64-bit for Windows; hence the use of unofficial ports.

MS SDK is needed for its 64-bit C++ compiler.

Adding a “path” to environment variables:

1. Right click on My Computer or on Computer in Start Menu; go to Properties.
2. Click on Advanced System Settings in left pane.
3. Under Advanced tab, click on Environment Variables.
4. Under System Variables, choose Path and click on Edit.
5. Add a **;** to the last path and enter new path to add.

You may want to add *C:\Program Files\R\R-2.15.0\bin\x64* and your Python installation folder here, for ease of use.

Installation steps:

1. Install Python 2.7 64-bit for Windows, with default settings. Add installation folder to “path” as explained above.
2. Install Numpy-MKL for Python 2.7 64-bit.
3. Install Scipy for Python 2.7 64-bit.
4. Install Cython and Distribute for Python 2.7 64-bit.
5. Untar/unzip “pyfasta-x.x.x.tar.gz” into a folder.
6. Open Command Prompt as Administrator (Start>All Programs>Accessories>Command Prompt (right click), Run as Administrator.
7. cd into the pyfasta folder made in 5)
8. Type *python setup.py install* and hit Enter. Pyfasta should be installed without errors.
9. Install Microsoft Visual C++ 2008 Express Edition with SP1 (with default settings) and then Microsoft Windows SDK for Windows 7 and .NET Framework 3.5 SP1, in that order. Make sure “Visual C++ compiler” is checked when installing the latter in the Installation Options dialog box (or just install everything).
10. Untar/unzip the InVEx source “InVEx-x.x.x.tar.gz” into a folder.
11. Open the SDK command window (Start>All Programs>Microsoft SDK v7.0>CMD Shell)
12. All the text must be in yellow now. Type *C:\Program Files\Microsoft SDKs\Windows\v7.0>set DISTUTILS\_USE\_SDK=1.* Hit Enter.
13. Type C:\Program Files\Microsoft SDKs\Windows\v7.0>setenv /x64 /release . Hit Enter.
14. All the text will turn green now (64-bit mode). *C:\Program Files\Microsoft SDKs\Windows\v7.0>*
15. cd into InVEx source folder made in 10)
16. Type python setup.py build\_ext --inplace . Hit Enter. That should build the c\_permute module without errors.

Note: python -c "import sys; print sys.maxint;” will output 32-bit values, even when you have 64-bit installed, on Windows. That can be ignored as everything will work fine, nevertheless.

That completes the installation parts unique to Windows.

Installation of R and its dependencies (for the final step of Report Generation) is explained on “How do I install InVEx?” page at broadinstitute.org.

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