Microstate Analysis with keypy

Installation Guidelines

Installation Options

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- [Mac – easy (with Anaconda)](#)

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Windows – easy (with Anaconda) [1]

- Install Anaconda (includes interpreter and keypy dependencies)
  - Go to: https://www.continuum.io/downloads
  - Download: Python 2.7 Windows 64-Bit / 32-Bit Graphical Installer
  - Double-click the .exe file to install Anaconda and follow the instructions on the screen
  - Suggestion:
    - «add anaconda to my Path environment variable»
    - And
    - «register Ananconda as default Python 2.7»

- Install keypy
  - click on the Windows Key and R
  - Type «cmd» and enter
  - In the command window that opens, type «pip install keypy»
  - Make sure you have the latest version, type «pip install --upgrade keypy»

Windows – easy (with Anaconda) [2]

- ▶ Install HDFView (allows you to look at the keypy output hdf5 files)
  - ▶ Download location: https://www.hdfgroup.org/products/java/release/download.html#download

- ▶ Get example script and testing data
  - ▶ Go to: https://github.com/keyinst/keypy
  - ▶ Click on «Download ZIP»
  - ▶ Extract the downloaded folder (right click, extract all to your preferred destination)

- ▶ Run example script
  - ▶ Start spyder (new program that was installed with Anaconda)
  - ▶ Create a new Spyder Workspace in the directory where you extracted the keypy example files to (e.g. «C:\Users\...\keypy-master\keypy-master\example»)
  - ▶ Open the file «run_example_analysis.py» (click on File, Open)
  - ▶ Run script (click on the F5 key or on the green arrow right to the save all files button)
  - ▶ The script should now run.

Windows – easy (with Anaconda) [3]

- You should now have successfully installed keypy.
- You ran into problems? Check out the "Windows Problems" section at the end of this pdf.
- Does not help? Contact us: patricia.milz@key.uzh.ch
  - Please list which steps you took and where you get an error / problem.
  - Include the error message you get within the email!

Windows – no Anaconda [1]

▶ Install an interpreter / text editor option

  ▶ Visual Studio Community (with Python Tools for Visual Studio)

  ▶ Spyder (integrated in Anaconda)

  ▶ Sublime Text

  ▶ Notepad++

▶ Install Python 2.7

  ▶ Python 2.7 MSI Installer (select: Windows x86(-64) MSI installer for 64-bit PCs)

▶ Download packages that keypy relies on: numpy, hf5py, SciPy

  ▶ Download location: http://www.lfd.uci.edu

  ▶ Download file names:

    ▶ numpy-1.11.0+mkl-cp27-cp27m-win_amd64.whl

    ▶ h5py-2.5.0-cp27-none-win_amd64.whl

    ▶ scipy-0.17.0-cp27-none-win_amd64.whl

Windows – no Anaconda [2]

- Install packages via pip
  - Open Command Prompt (Win 10 click on Windows symbol ⊞, type cmd, enter)
  - navigate to the folder where you downloaded the ".whl"-files to
  - Type:
    - pip install numpy-1.11.0+mkl-cp27-cp27m-win_amd64.whl
    - pip install h5py-2.5.0-cp27-none-win_amd64.whl
    - pip install scipy-0.17.0-cp27-none-win_amd64.whl

- Update all packages to latest version (in the same command prompt, same folder)
  - pip install --no-index --upgrade scipy-0.17.0-cp27-none-win_amd64.whl
  - pip install --no-index --upgrade numpy-1.11.0+mkl-cp27-cp27m-win_amd64.whl
  - pip install --no-index --upgrade h5py-2.5.0-cp27-none-win_amd64.whl

- Install HDFView (allows you to look at the keypy output hdf5 files)
  - Download location:
    https://www.hdfgroup.org/products/java/release/download.html#download

Windows – no Anaconda [3]

- Install keypy
  - Download location: https://pypi.python.org/pypi/keypy
  - Download the latest version of keypy: keypy-1.*.*.win32.exe (md5)
  - Double click to install

- Get example script and testing data
  - Go to: https://github.com/keyinst/keypy
  - Click on «Download ZIP»
  - Extract the downloaded folder (right click, extract all to your preferred destination)

Windows – no Anaconda [4]

- Run example script (example with Spyder)

  - Start spyder (program)

  - Create a new Spyder Workspace in the directory where you extracted the keypy example files to (e.g. «C:\Users\...\keypy-master\keypy-master\example»)

  - Open the file «run_example_analysis.py» (click on File, Open)

  - Run script (click on the F5 key or on the green arrow right to the save all files button)

  - The script should now run.

Windows – no Anaconda [5]

▶ You should now have successfully installed keypy.

▶ You ran into problems? Check out the "Windows Problems" section at the end of this pdf.

▶ Does not help? Contact us: patricia.milz@key.uzh.ch

  ▶ Please list which steps you took and where you get an error / problem.

  ▶ Include the error message you get within the email!

Windows –experience with Github [1]

- Get keypy (from Github Repository) and its dependencies

  - Install a text editor, Python 2.7 and keypy dependencies
    (see Windows easy / Windows (no Anaconda))

  - Go to keypy github repository main page: https://github.com/keyinst/keypy

  - Clone the current master branch of keypy

  - For more info see on what to do afterwards, see Windows easy / Windows (no Anaconda)

Mac – easy (with Anaconda) [1]

- Install Anaconda (includes interpreter and keypy dependencies)
  - Go to: https://www.continuum.io/downloads
  - Download: Python 2.7 Windows 64-Bit / 32-Bit Graphical Installer
  - Double-click the .exe file to install Anaconda and follow the instructions on the screen
  - Suggestion:
    - «add anaconda to my Path environment variable»
    - And
    - «register Ananconda as default Python 2.7»

- Install keypy
  - Open a terminal
  - In the terminal, type «pip install keypy»
  - Make sure you have the latest version, type «pip install --upgrade keypy»

Mac – easy (with Anaconda) [2]

▶ Install HDFView (allows you to look at the keypy output hdf5 files)

  ▶ Download location:
    https://www.hdfgroup.org/products/java/release/download.html#download

▶ Get example script and testing data

  ▶ Go to: https://github.com/keyinst/keypy

  ▶ Click on «Download ZIP»

  ▶ Extract the downloaded folder (right click, extract all to your preferred destination)

▶ Run example script

  ▶ Start spyder (new program that was installed with Anaconda)

  ▶ Create a new Spyder Workspace in the directory where you extracted the keypy example files to (e.g. «C:\Users\...\keypy-master\keypy-master\example»)

  ▶ Open the file «run_example_analysis.py» (click on File, Open)

  ▶ Run script (click on the F5 key or on the green arrow right to the save all files button)

  ▶ The script should now run.

Mac – easy (with Anaconda) [3]

- You should now have successfully installed keypy.

- You ran into problems? Check out the "Windows Problems" section at the end of this pdf. Similar problems might occur on Macs.

- Does not help? Contact us: patricia.milz@key.uzh.ch

  - Please list which steps you took and where you get an error / problem.

  - Include the error message you get within the email!

Linux [1]

- Install a text editor
  - Visual Studio Community (with Python Tools for Visual Studio)
  - Spyder (integrated in Anaconda)
  - Sublime Text
  - Notepad++
- Install Python
  - Version 2.7
- Download and install pip and keypy dependencies
  - numpy, scipy, h5py
- Install keypy
  - Open a command window and type:
    - sudo pip install keypy

Linux [2]

▶ Get example script and testing data

- ▶ Go to: https://github.com/keyinst/keypy

- ▶ Click on «Download ZIP»

- ▶ Extract the downloaded folder (right click, extract all to your preferred destination)

Linux [3]

- Run example script (example with Spyder)

  - Start spyder

  - Create a new Spyder Workspace in the directory where you extracted the keypy example files to (e.g. «C:\Users\...\keypy-master\keypy-master\example»)

  - Open the file «run_example_analysis.py» (click on File, Open)

  - Run script (click on the F5 key or on the green arrow right to the save all files button)

  - The script should now run.

Linux [4]

- You should now have successfully installed keypy.

- You ran into problems? Check out the "Windows Problems" section at the end of this pdf. Similar problems might occur on Linux.

- Does not help? Contact us: patricia.milz@key.uzh.ch

  - Please list which steps you took and where you get an error / problem.

  - Include the error message you get within the email!

Windows – Problems? [1]

- Testing installations
  - Open a command window and type:
    - python
      - #should start Python
      - if not: make sure you have the folder with your Python Installation added to your Windows Path
        (see How to add Python to Windows Path)
    - import numpy
      - #should import numpy with no errors
      - If not, reinstall numpy and upgrade numpy to the latest version
    - import scipy
      - #should import scipy with no errors
      - If not, reinstall scipy and upgrade scipy to the latest version
    - Import h5py
      - #should import h5py with no errors
      - If not, reinstall h5py and upgrade h5py to the latest version

Windows – Problems? [2]

- Testing installations
  - Open a command window and type:
    - python
      - #should start Python
      - if not: make sure you have the folder with your Python Installation added to your Windows Path
      (see How to add Python to Windows Path)
    - import keypy
      - should import keypy with no errors
      - If not, reinstall keypy as described in the tutorial
      - If it still does not work, copy the keypy folder within the folder you can download from github (keypy-master zip file) to your local library path (e.g. C:\...\Anaconda\Lib\site-packages).