

Introduction to Python 3

Pre-class Preparation

Neil Cherry

Joe Wilkes, PhD

Pre-class Preparation

- Install Python3 on laptop *
 - www.python.org/downloads
- Install Text Editor on laptop
 - Idle for Windows and Mac
 - gedit (<https://wiki.gnome.org/Apps/gedit>) for Linux
 - Your favorite editor
 - Not recommended: Visual Studio Develop environment
- The following slides contain information on installing python3 and Idle or gedit for:
 - Windows (slides 3-19)
 - Linux (slides 20-27)
 - Mac OS X (slides 28-36)
- You only need to do the install for the Operating System that is on your computer

*** Please note, make sure you select python 3 (not python 2). There are significant differences between the two and programs written for one version may not work on the other version!**

Windows Install Screen Shots

You only need to do this if your computer uses the Windows Operating
System

Python3 Download Site:

<https://www.python.org/downloads/>

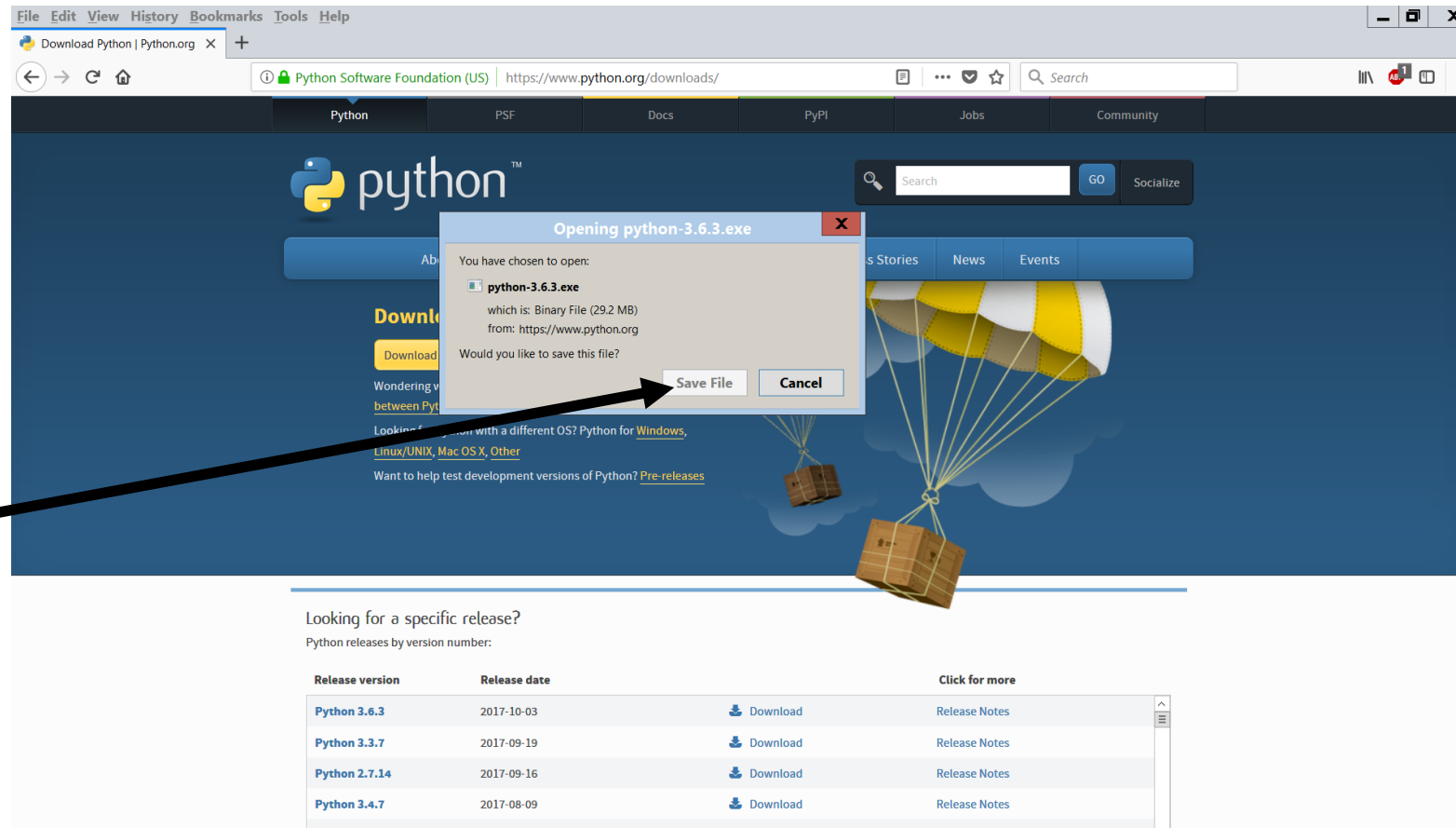
Download
This version

The screenshot shows the Python.org download page. A black arrow points from the text 'Download This version' to the 'Download Python 3.6.3' button. Another black arrow points from the text 'Do not Download this version' to the 'Download Python 2.7.14' button. The page features the Python logo, a search bar, and a navigation menu. Below the navigation menu, there is a section titled 'Download the latest version for Windows' with two buttons: 'Download Python 3.6.3' and 'Download Python 2.7.14'. Below these buttons, there is a paragraph of text: 'Wondering which version to use? [Here's more about the difference between Python 2 and 3.](#) Looking for Python with a different OS? Python for [Windows](#), [Linux/UNIX](#), [Mac OS X](#), [Other](#). Want to help test development versions of Python? [Pre-releases](#)'. At the bottom of the page, there is a section titled 'Looking for a specific release?' with a table of Python releases by version number.

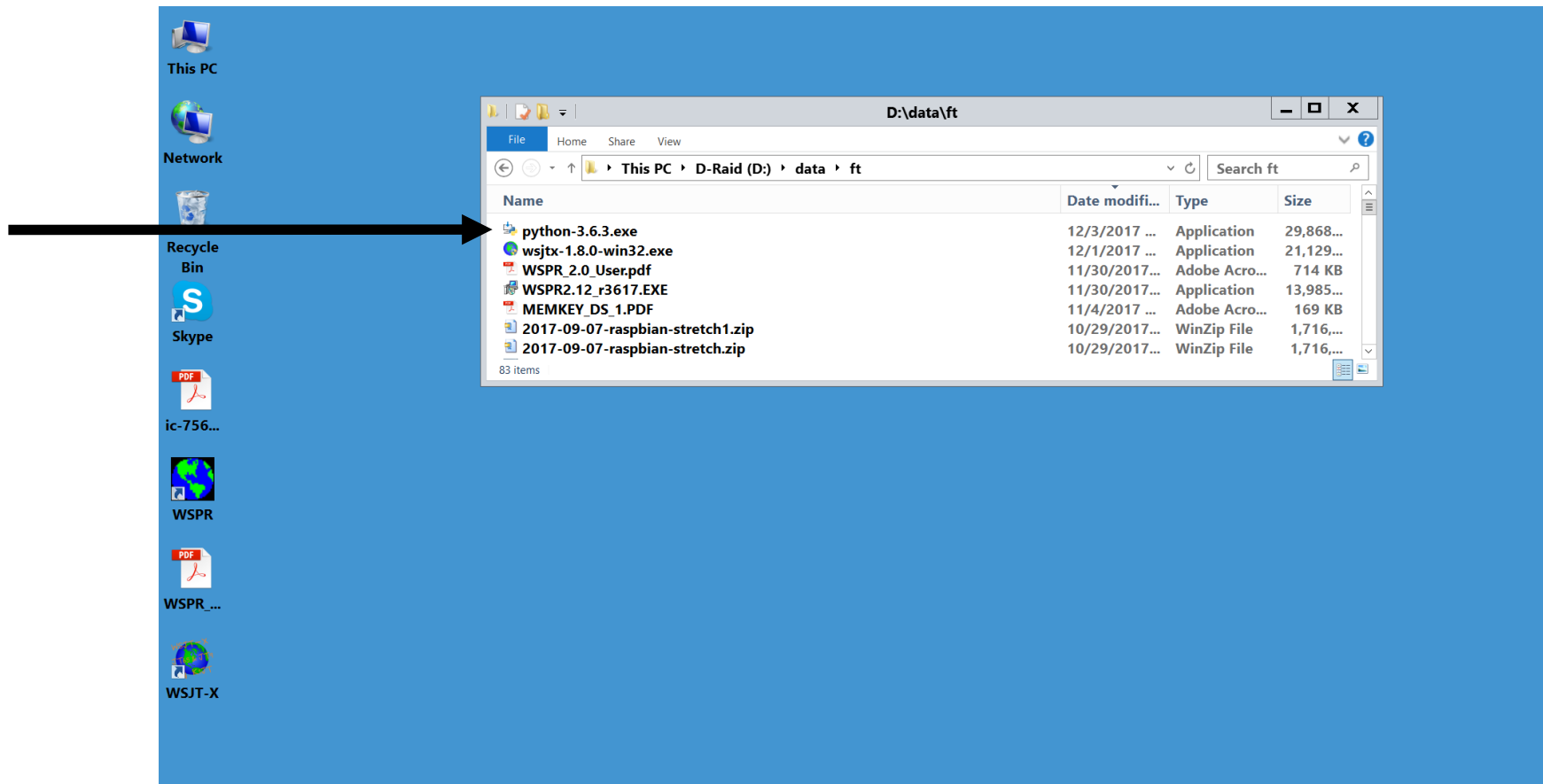
Release version	Release date	Click for more
Python 3.6.3	2017-10-03	Download Release Notes
Python 3.3.7	2017-09-19	Download Release Notes
Python 2.7.14	2017-09-16	Download Release Notes
Python 3.4.7	2017-08-09	Download Release Notes

Do not Download
this version

Save file



Open directory where file saved and click on it



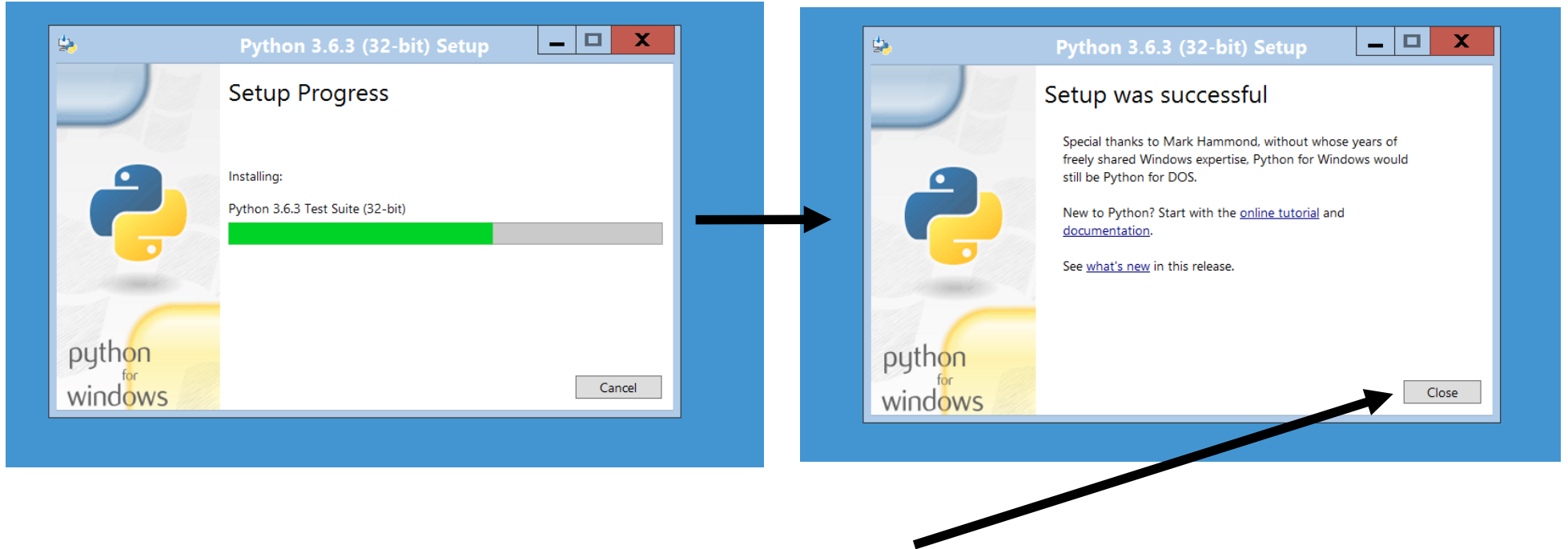
Say yes to install;
when new window opens,
Check boxes at bottom, if not checked then click
on Install Now

Check these two boxes first

Then click on Install Now



Click on close



End of Install of Python 3 for Windows

go to the next slide for gedit install procedures

gedit Windows Install

Do this after you install Python 3 for Windows

You do not need to do this for an Apple Computer

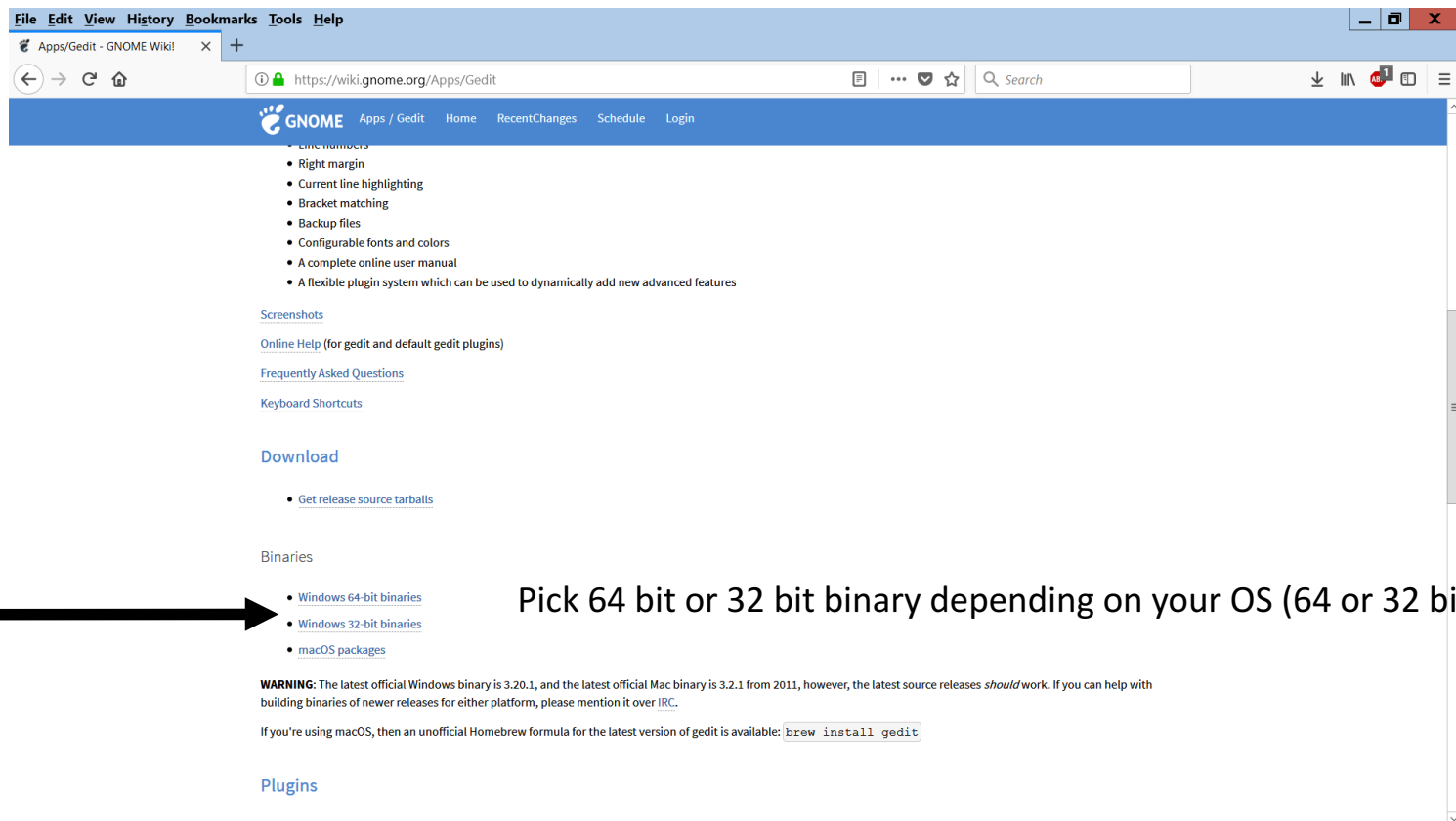
These are not the instructions for Linux Operating System!

Install screens for gedit

Mac

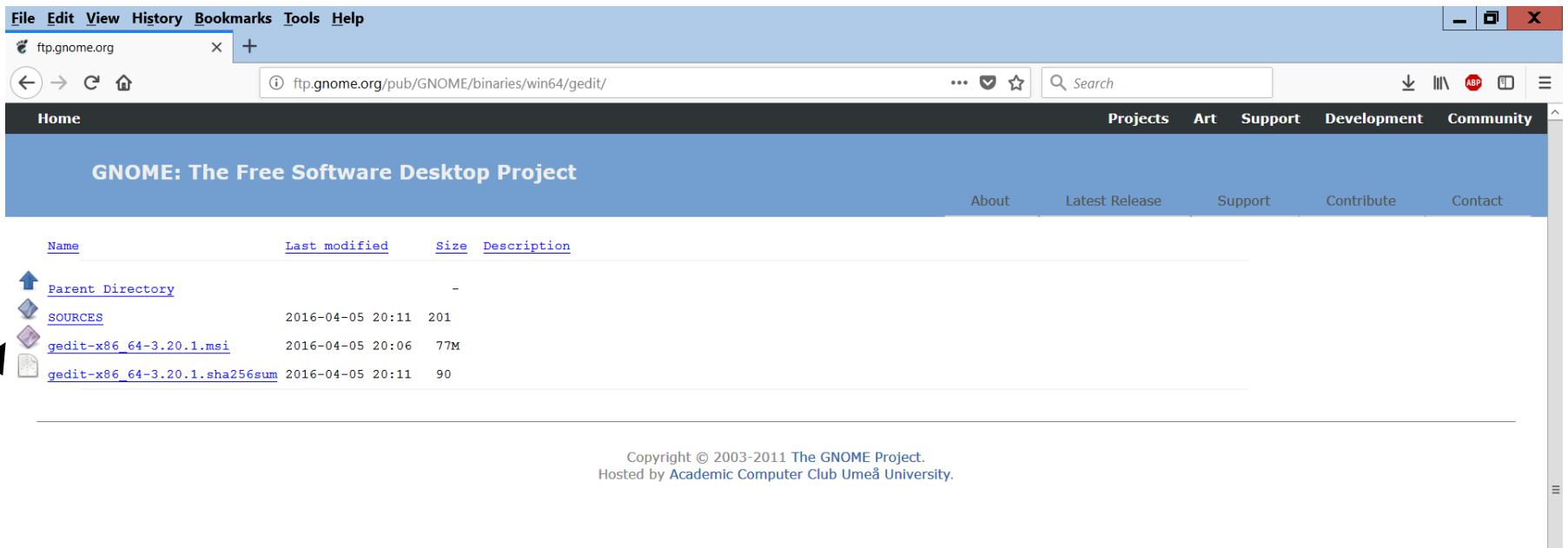
Windows

gedit download from
<https://wiki.gnome.org/Apps/Gedit>

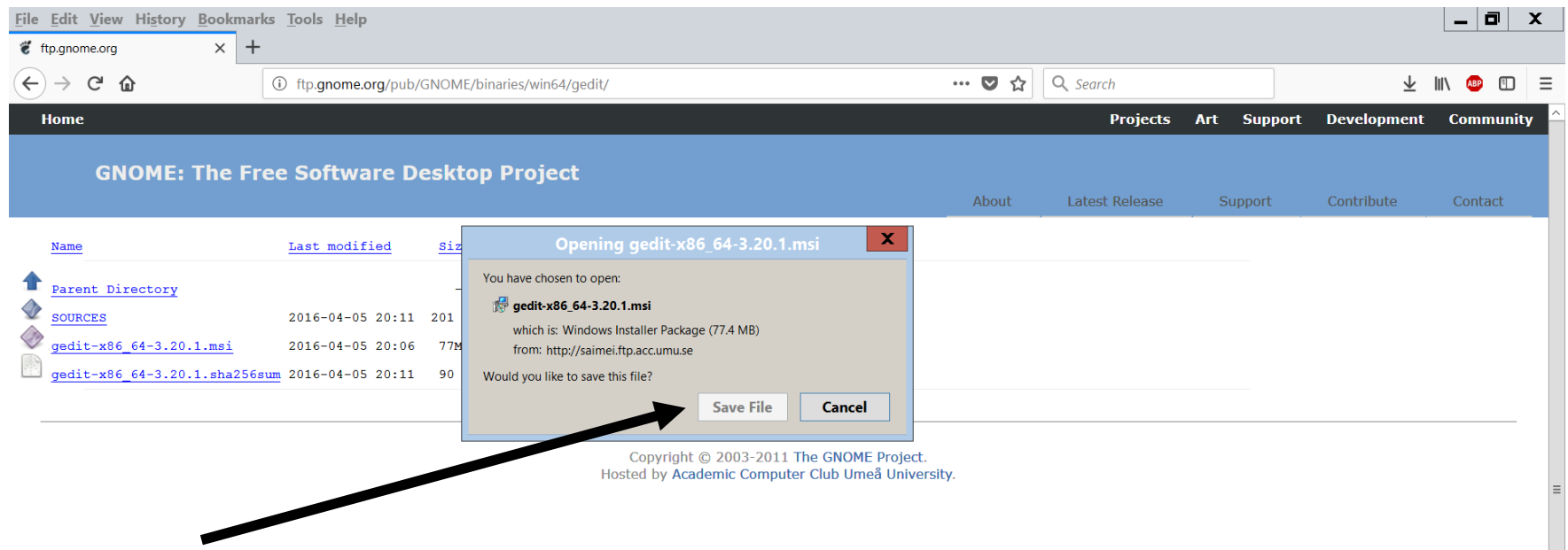


Pick 64 bit or 32 bit binary depending on your OS (64 or 32 bit)

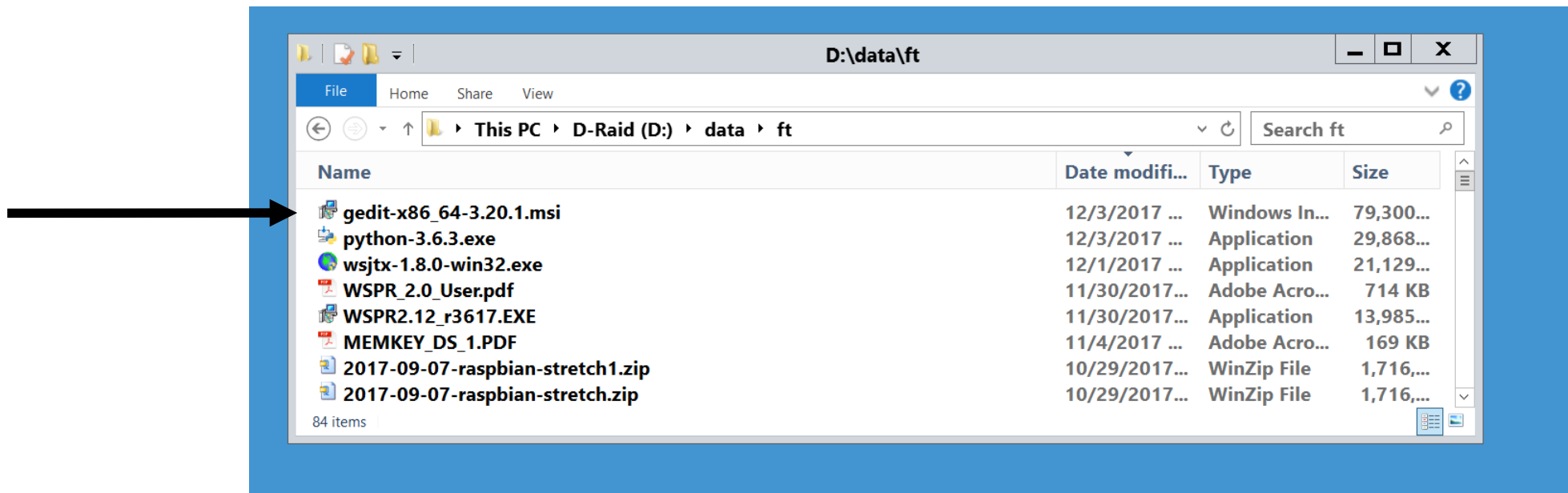
Select .msi file and click on it



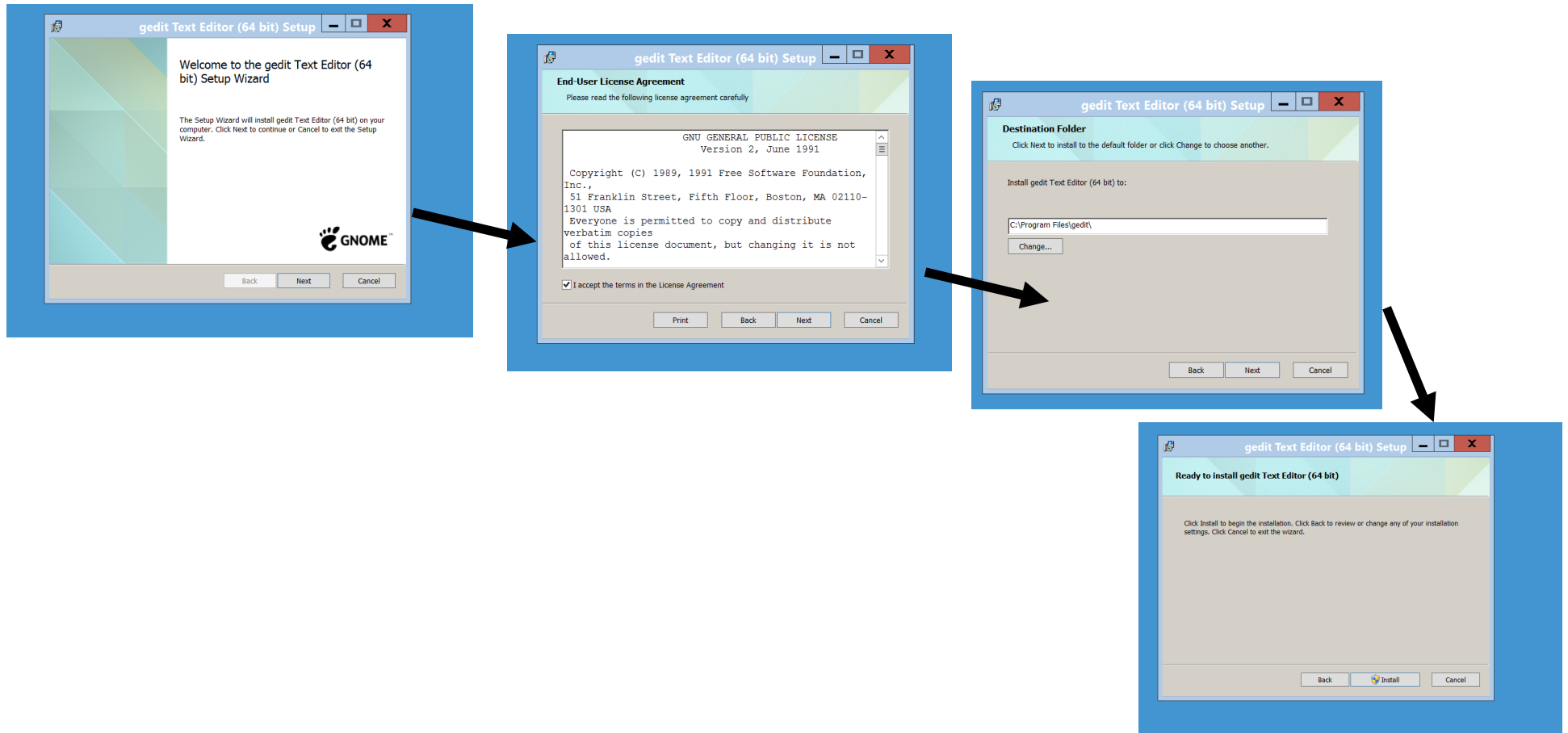
Click on save file



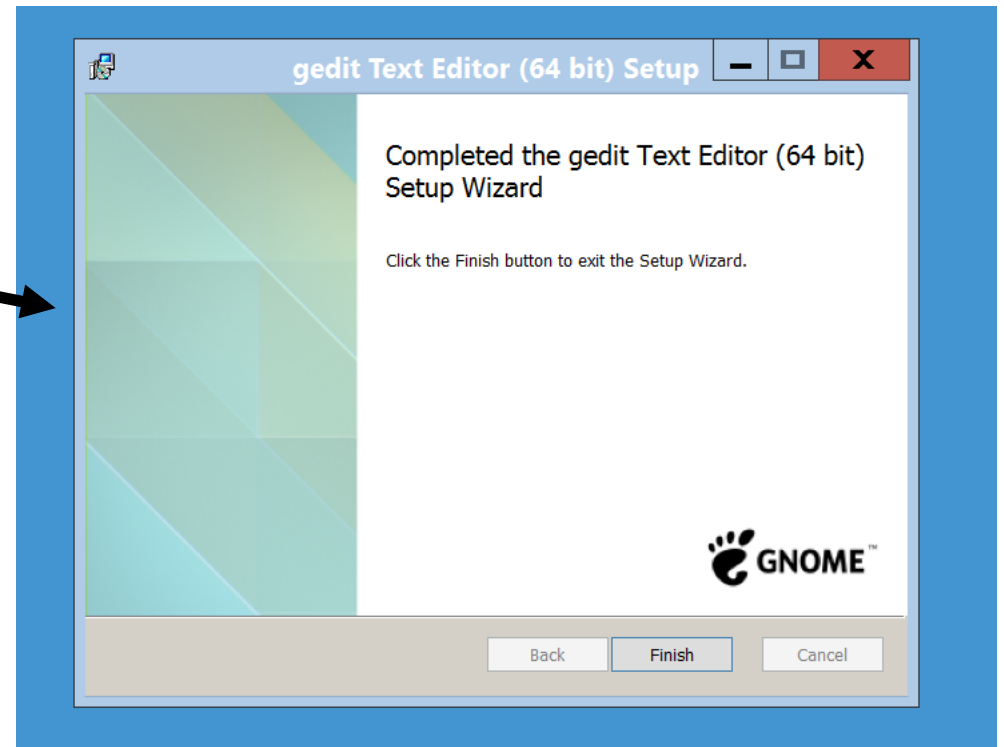
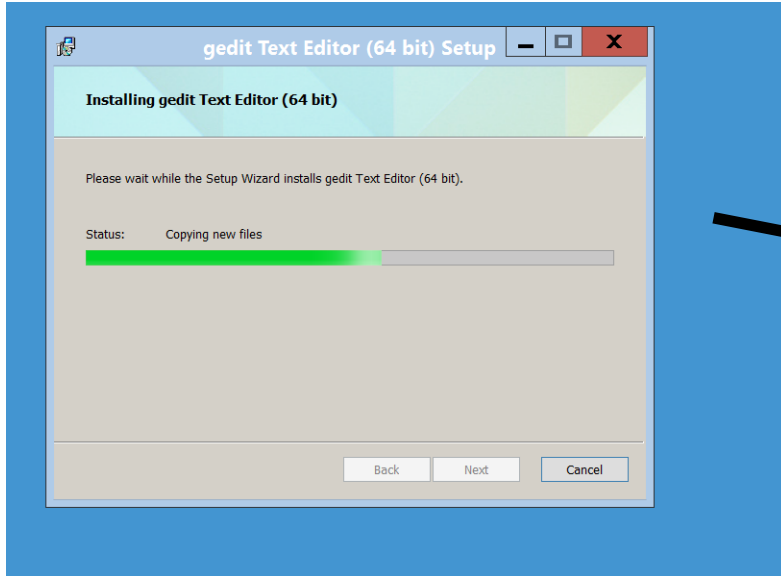
Open directory where file saved and click on it



Click next several times and then click install



Click Finish when install completes



Running Python and gedit on Windows

- To run IDLE and Python find them
 - from the start bar (Win 7)
 - From the charms (Win 8.1 and Win 10)
- Make short cuts for the desktop if you use the desktop

End of gedit Install for Windows

You are now done

Please ignore instructions for Linux and Mac OS X installations

Linux Support for Python

You only need to do this if your computer uses the Linux Operating System

Ubuntu 16.04 LTS Linux

- Python 3 is current default
- gedit is the current default text editor
- To run python or gedit:
 - Open a Terminal window, then enter the following command:
 - `gedit file_name.py`
 - Open a second Terminal window then enter the following command:
 - `Python3 file_name.py`

Other versions of Ubuntu Linux

- To check if python3 and gedit are installed on other versions
 - Open a Terminal window, then enter the following commands:
 - `dpkg -l | grep python3`
 - `dpkg -l | grep gedit`
 - If the program is installed, it will be listed
 - If is not installed, the output will be blank
- If either program is not installed:
 - Open a Terminal window, then enter the following commands:
 - `sudo apt-get update`
 - `sudo apt-get install python3`
 - `sudo apt-get install gedit`

Example of Python and gedit install data using terminal window

```
joe@joe-sdr: ~  
joe@joe-sdr:~$ dpkg -l|grep "python3 "  
ii  libpython3-stdlib:amd64      3.5.1-3  
ri  python3                      3.5.1-3  
ii  python3-minimal             3.5.1-3  
ii  python3-plainbox            0.25-1  
joe@joe-sdr:~$ python3  
Python 3.5.2 (default, Nov 23 2017, 16:37:01)  
[GCC 5.4.0 20160609] on linux  
Type "help", "copyright", "credits" or "license" for more information.  
>>> exit()  
joe@joe-sdr:~$ dpkg -l|grep gedit  
ii  gedit                        3.18.3-0ubuntu4  
ii  gedit-common                3.18.3-0ubuntu4  
joe@joe-sdr:~$
```

amd64	interactive high-level object-oriented language (default python3 version)
amd64	interactive high-level object-oriented language (default python3 version)
amd64	minimal subset of the Python language (default python3 version)
all	toolkit for software and hardware testing (python3 module)

amd64	official text editor of the GNOME desktop environment
all	official text editor of the GNOME desktop environment (support files)

Fedora Linux

- Python 3 is current default
- gedit is the current default text editor

Fedora: Method to search for installed program and install if not present

Method 2: Using the command line

1. Open up a Terminal window.
2. To search for packages, use the yum search command. For example, to search for packages regarding gedit, use the command:

```
yum search gedit
```

3. After scanning that list, we suspect that the package that we want may be `gedit-plugins`, but we need more information about it. To get more information about a specific package use the command:

```
yum info gedit-plugins
```

To get further details about a specific package.

1. Now to install the `gedit-plugins` package use the command,

```
sudo yum install gedit-plugins
```

If your user has Administrator access. If not, use the command:

```
su -c "yum install gedit-plugins"
```

And use the root password.

Other versions of linux

- Google info on your version of linux to see the default version of python and gedit
- If either are not installed, google how to install new programs on your version of linux
- If you need help, contact one of the teachers of the class

End of Python 3 and gedit install for Linux

You are now do

Please ignore install procedures for Windows and Mac OS X

Mac Install Procedure

You only need to do this if you have an Apple Computer
(iMAC, Mac Mini, Macbook, Macbook Pro, Macbook Air)

Python3 Download Site:

<https://www.python.org/downloads/>

The screenshot shows the Python.org download page. A callout box on the left says "Download This version" with an arrow pointing to the "Download Python 3.6.3" button. Another callout box on the right says "Do not Download this version" with an arrow pointing to the "Download Python 2.7.14" button. Below the main banner, there is a section titled "Looking for a specific release?" which contains a table of Python releases by version number.

Download the latest version for Mac OS X

[Download Python 3.6.3](#) [Download Python 2.7.14](#)

Wondering which version to use? [Here's more about the differences between Python 2 and 3.](#)

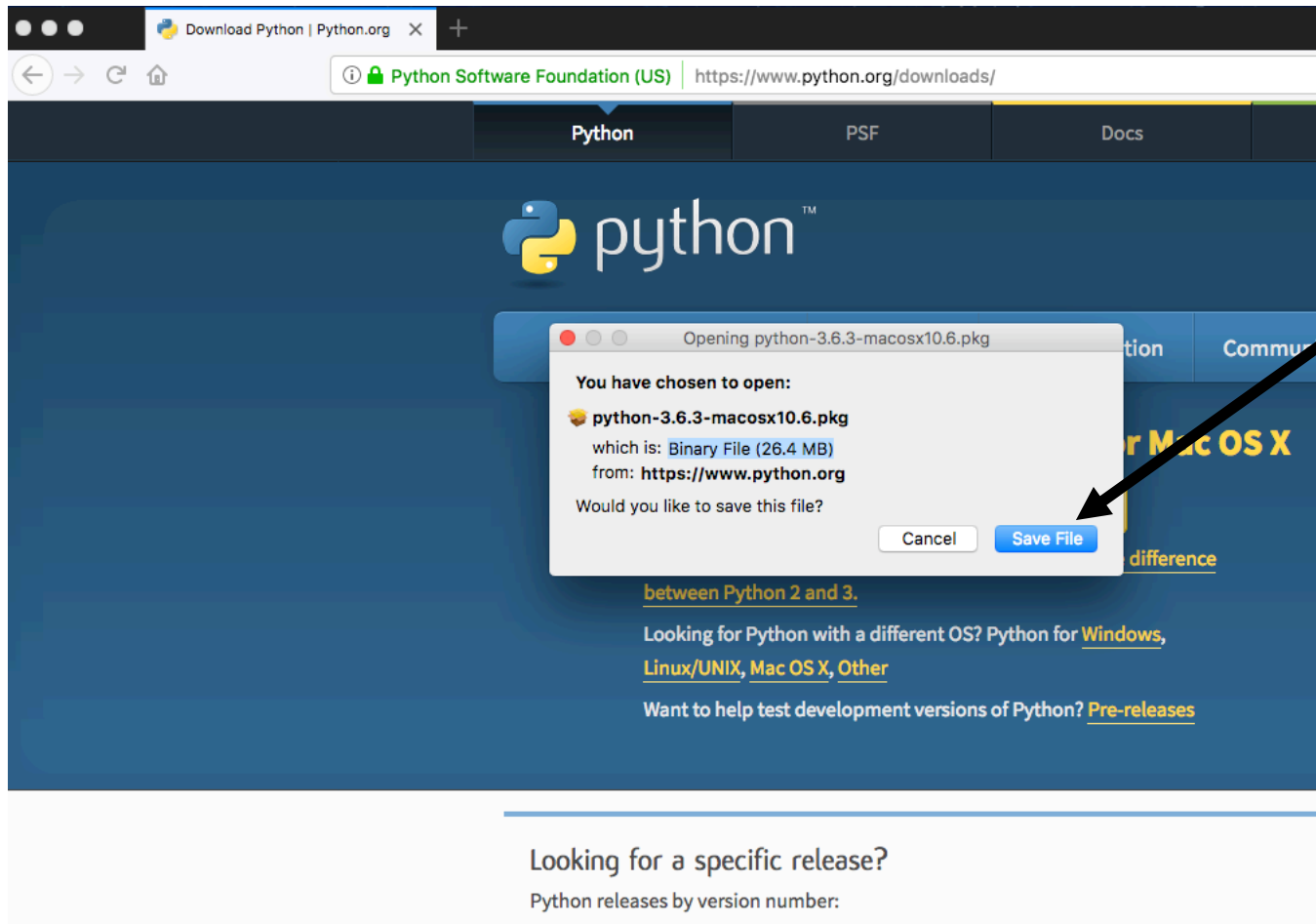
Looking for Python with a different OS? Python for [Windows](#), [Linux/UNIX](#), [Mac OS X](#), [Other](#)

Want to help test development versions of Python? [Pre-releases](#)

Looking for a specific release?
Python releases by version number:

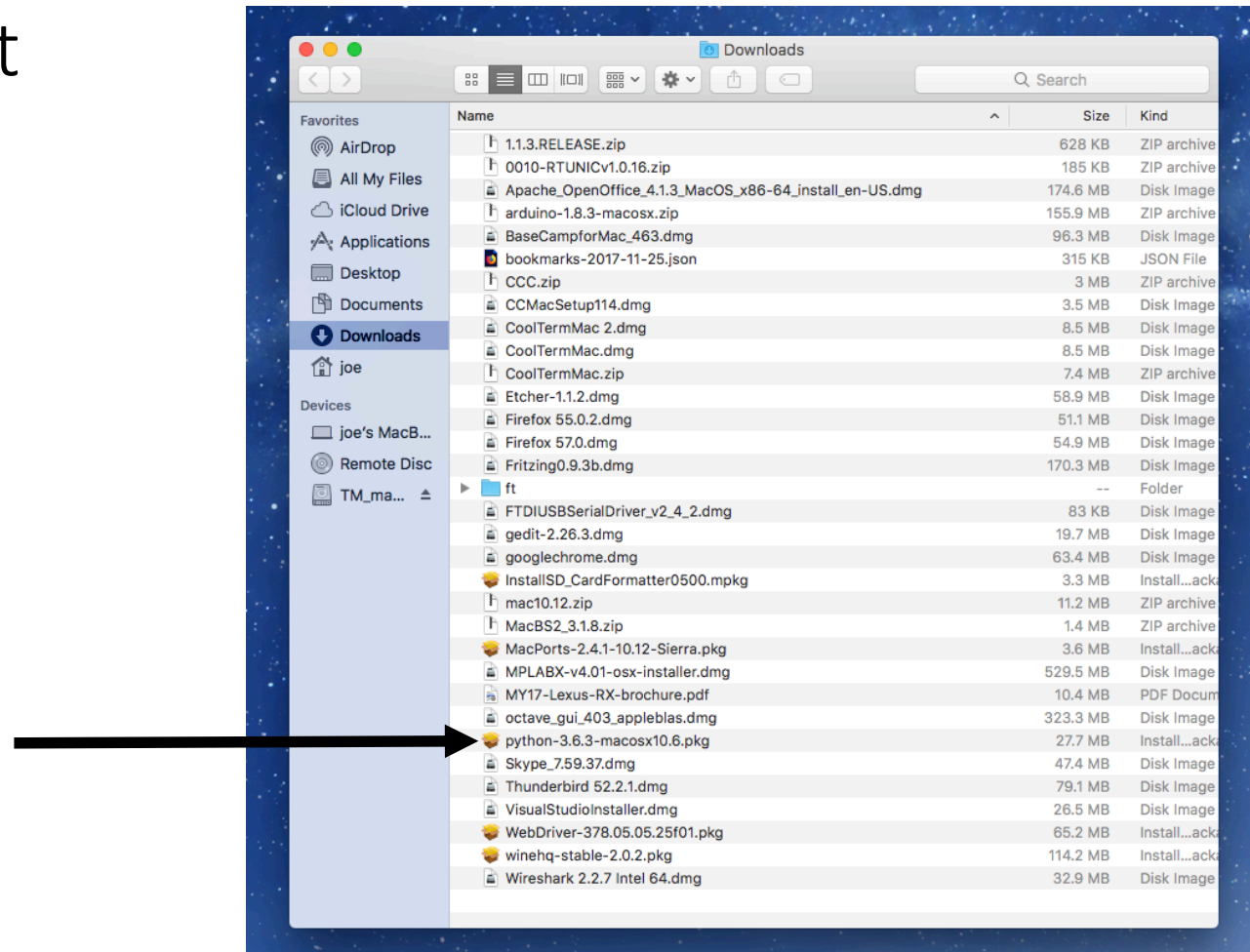
Release version	Release date		Click for more
Python 3.6.3	2017-10-03	Download	Release Notes
Python 3.3.7	2017-09-19	Download	Release Notes
Python 2.7.14	2017-09-16	Download	Release Notes
Python 3.4.7	2017-08-09	Download	Release Notes
Python 3.5.4	2017-08-08	Download	Release Notes
Python 3.6.2	2017-07-17	Download	Release Notes

Download Mac version of Python3

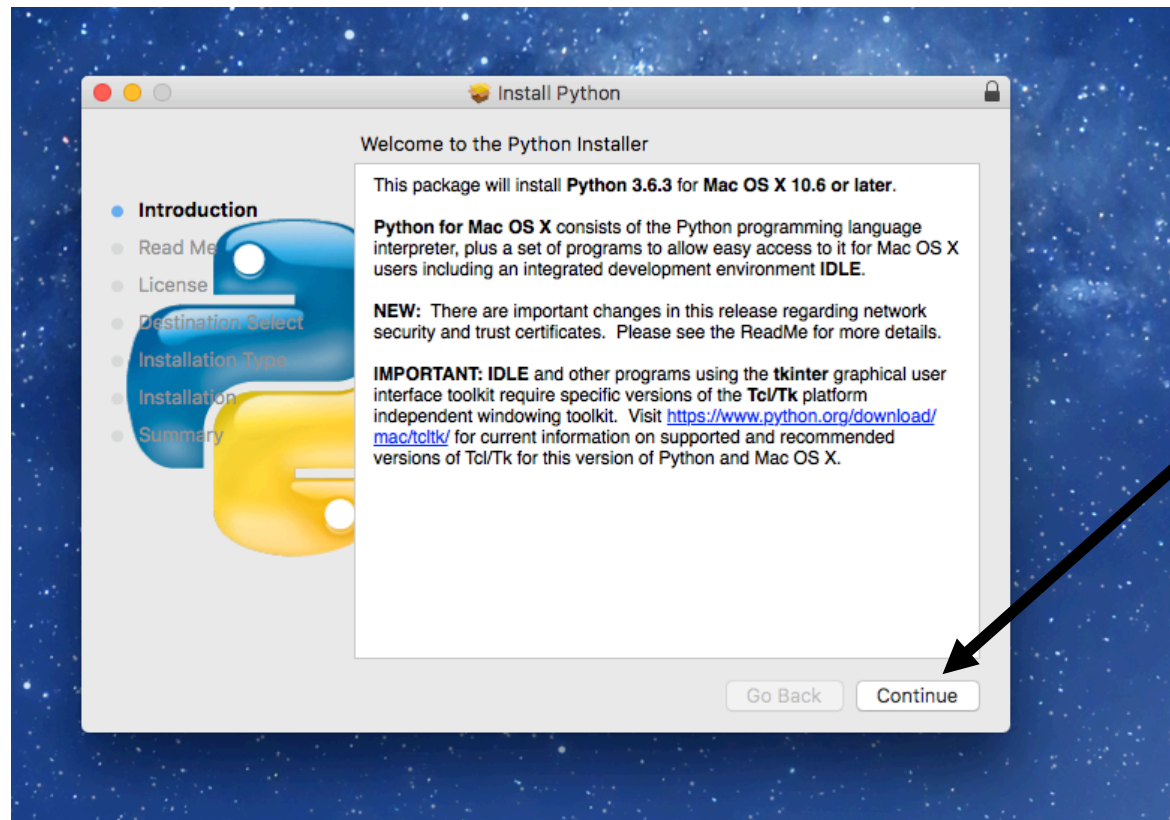


Click on
Save File

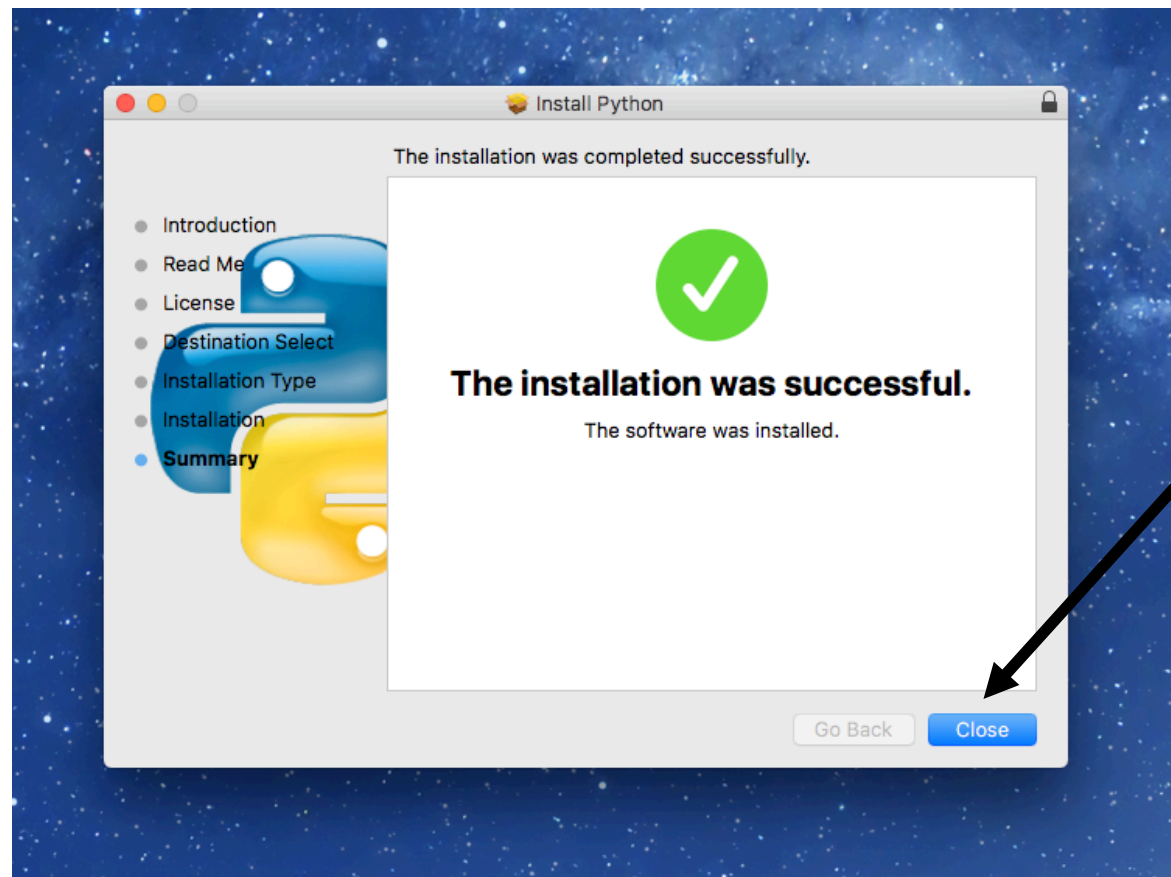
Find Python pkg in Downloads folder and click on it



Click Continue or Agree until installation starts



Click close



Python is on launcher



development



OpenOffice



Google Chrome



Skype



Thunderbird



IDLE



Python Launcher



IDLE is also installed

gedit Version Issue

- As of the writing of these notes
 - There is no current working version of gedit for MAC OS X 10.12.6
 - We will use IDLE

End of Mac install for Python 3 and IDLE

You are now done

Please ignore the install instructions for Windows and Linux

Useful Reference Materials

- “Learning Python,” O’Reilly, Mark Lutz
- “Learn Python the Hard Way,” Zed Shaw
 - <https://learnpythonthehardway.org/python3/>
- <https://www.nostarch.com/pythoncrashcourse>
- <http://www.diveintopython.net/>
 - This book is published under the GNU Free Documentation License
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- [https://en.wikibooks.org/wiki/Non-Programmer%27s Tutorial for Python 3](https://en.wikibooks.org/wiki/Non-Programmer%27s_Tutorial_for_Python_3)
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