Edit Linux Lab files remotely with Sublime Text

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# 1 Introduction

## 1.1 Purpose

The purpose of this instructions document is to allow students to use Sublime Text 3 to remotely edit files on the Linux Lab computers via another computer.

## 1.2 Audience

The intended audience is anyone that wishes to use Sublime Text 3 to edit files on Linux Lab computers.

## 1.3 Scope

This document will cover how to install the necessary SFTP package and configure it in Windows 7+, and OS X 10.8+. Some potential pitfalls will be addressed. It will *not* cover how to install Sublime Text 3, how to create directories in the Linux Lab, or how to create files in Sublime Text 3. It will likewise not cover any version of Sublime Text besides Sublime Text 3 (e.g., Sublime Text 2).

## 1.4 Definitions

**1.4.1 JSON** (JavaScript Object Notation)

A standard data format that allows for easy key-value pair storage and retrieval.

**1.4.2 SFTP** (Secure File Transfer Protocol)

A network protocol that uses SSH (i.e., a secure shell) to securely transfer files.

# 2 List of Materials

* You will need a computer with internet access.
* The computer you use must have Sublime Text 3 installed.
* You must have valid login credentials for the Linux Lab.
* You must know how to create files and directories on Linux Lab computers.
* You must know how to copy to and paste from the clipboard in your operating system.
* You must have RSA keys configured for access to the Linux Lab without a password.

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# 3 Directions

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| 3.1 Install Package ControlStep 1 Go to https://packagecontrol.io/installation in a web browser (see Figure 1).  **Step 2**  Copy all the text from the grey box to your clipboard.  **Caution**  If you select the wrong tab (wrong version of Sublime Text), you will get an error in step 4. | | Screen Shot 2015-03-06 at 7.54.06 AM.png  Figure 1, Package Control Website. Source: screenshot taken by our team |
| Step 3 Open the console in sublime text by selecting “View” > “Show Console” in Sublime Text 3’s main menu bar (see Figure 2). The console will appear at the bottom of the window. | | Screen Shot 2015-03-06 at 8.34.29 AM.png  Figure 2, Show Console. Source: screenshot taken by our team |
| **Step 4**  Paste your clipboard contents into the console and press enter (see Figure 3).  **Info**  You should get a dialog window prompting you to restart Sublime Text.  If you get an error, you probably incorrectly performed step 2, and need to begin again from that point. | | Screen Shot 2015-03-16 at 2.50.02 PM.png  Figure 3, Sublime Text Console. Source: screenshot taken by our team |
| **Step 5**  Close Sublime Text and open it again. If you are prompted again, repeat this step until you are no longer prompted (see Figure 4).  **3.2 Install SFTP Package** | | Screen Shot 2015-03-06 at 2.22.59 PM.png  Figure 4, Restart Prompt. Source: screenshot taken by our team |
| **Step 6**  Open the command palette by selecting “Tools” > “Command Palette” from the main menu (see Figure 5). | | command palette.png  Figure 5, Open Command Palette. Source: screenshot taken by our team |
| **Step 7**  Type “Install Package” and press enter (see Figure 6).  **Info**  The control palette will disappear while the list of available packages populates. | | Screen Shot 2015-03-06 at 7.58.29 AM.png  Figure 6, Install Package. Source: screenshot taken by our team |
| **Step 8**  Wait for the list of packages to load (this should take under a minute).  **Caution**  If you are not connected to the internet, this step will fail. If this occurs, verify your connection, and begin again at step 6. | | |
| **Step 9**  In the dialog that opens, type “sftp” and press enter (see Figure 7).  **Step 10**  Close Sublime Text 3 and open it again. | | Screen Shot 2015-03-06 at 8.04.24 AM.png   |  | | --- | | Figure 7, Install SFTP. Source: screenshot taken by our team | |
| **3.3 Prepare Systems For Sync**  **Step 11**  Create a directory on your account in the Linux Lab (You will sync Sublime Text to this directory).  **Step 12**  Create a directory on your local computer to hold your school files.    **Step 13**  Use Sublime Text to open the directory you just created by clicking “File” > “Open Folder” in Sublime Text’s main menu. | | |
| **Info**  In OS X, you won’t have the “Open Folder” option. Instead, select “Open…” (see Figure 8). | | open.png  Figure 8, Open Folder. Source: screenshot taken by our team |
| **Step 14**  Select “Project” > “Save Project As…” in Sublime Text’s main menu and provide a name for it (see Figure 9). | | save project.png  Figure 9, Save Project. Source: screenshot taken by our team |
| **3.4 Configure Systems to Sync**  **Step 15**  In Sublime Text’s sidebar, right click on the directory you created in step 13 and select “SFTP/FTP” > “Map to Remote…” A new configuration file will open. | | |
| **Step 16**  Edit the JSON configu**ration file with the code below,** replacing the words in ALL CAPS as directed (see Figure 10 for reference). { "type": "sftp",   "save\_before\_upload": true,  "upload\_on\_save": true,  "sync\_down\_on\_open": false,  "sync\_skip\_deletes": false,  "sync\_same\_age": true,  "confirm\_downloads": false,  "confirm\_sync": false,  "confirm\_overwrite\_newer": false, | Screen Shot 2015-03-16 at 2.29.57 PM.png  Figure 10, Configure Sublime. Source: screenshot taken by our team | |
| "host": "157.201.194.220",  "user": "USERNAME",  "port": "215",   "remote\_path": "/home/ BYUI EMAIL BEFORE THE @ / DIRECTORY /",  "ignore\_regexes": [  "\\.sublime-(project|workspace)", "sftp-config(-alt\\d?)?\\.json",  "sftp-settings\\.json", "/venv/", "\\.svn/", "\\.hg/", "\\.git/",  "\\.bzr", "\_darcs", "CVS", "\\.DS\_Store", "Thumbs\\.db", "desktop\\.ini"  ],"connect\_timeout": 30,  "ssh\_key\_file": " ABSOLUTE PATH TO SSH KEY",}Replace “USERNAME” with the username you use to access the Linux Lab.Replace “BYUI EMAIL BEFORE THE @” with the first 8 characters in your BYU-I email address and “DIRECTORY” with the directory you created on the Linux Lab in step 11. Replace “ABSOLUTE PATH TO SSH KEY” with the absolute path to your ssh key. Save the configuration file by pressing CTRL + S (or ⌘ + S on OS X).   **Caution**  The comma at the end of each edited line is important. If you exclude it you will not be able to sync. | | |
| Step 17 Right click on the name of the directory in Sublime Text’s sidebar and select “New File”. Enter “Hello” in the editor. | | |
| Step 18 Select “File” > “Save As” from Sublime Text’s main menu. Enter the name “hello.txt” as the file name, and click “Save”. The file on the computer you are using, and an identical file will be created in the directory you linked Sublime Text to on the Linux Lab computer. | | |
| Step 19 Log on to a Linux Lab computer. Navigate to the directory you created and connected Sublime Text to in steps 11 and 12. Verify that the files are identical. | | |

# 4 Troubleshooting

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| **4.1 Console Error**  If Sublime gives you the error ImportError: No module named 'urllib2, you probably selected the wrong version of Sublime Text in step 2. Go back to step 2 and be sure the tab labelled “SUBLIME TEXT 3” is selected. Continue the directions from there. |  |
| **4.2 Invalid Credentials**  If you receive an error dialog stating that you have invalid login credentials, (see Figure 11) go back to step 16 and ensure you entered all the information correctly. | credentials.png  Figure 11, Invalid Credentials. Source: screenshot taken by our team |
| **4.3 Connection Timeout**  If you receive the error “Sublime SFTP connection timeout” when you save a file, you are likely not connected to the internet. Verify your internet connection and try the save again. |  |