RESEARCH TOOLS 2011
Lecture 06

2011-Sep-15
Kurt Schwehr
http://schwehr.org

UNH CCOM/JHC
KeePassX and Dropbox
Periodically, Ubuntu will ask you to update. It is a very good idea to update!
Software updates are available for this computer. If you don't want to install them now, choose "Update Manager" from the Administration menu later.

New Ubuntu release '11.10' is available

Important security updates

Safe and easy web browser from Mozilla

Applying changes

Downloading firefox

Details

Description of update

Downloaded 384 KB of 17.7 MB

Research Tools VM

username: researchtools
password: lrt2011vm
IRC:
/attach irc.freenode.net
/join #unhresearchtools

INSTALL:
sudo apt-get install texlive-latex-extra
sudo apt-get install texlive
sudo apt-get install emacs-goodies-el
Class 6: KeePassX and Cloud storage with DropBox (DRAFT)

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  - Creating an account
  - Installing Drop Box
  - Getting dropbox via a web browser
  - run the installer
- Finish up
- Risks of the Cloud

Introduction

Today we will

Managing passwords with KeePassX  keepassx passwords

KeyPassX is a cross platform password manager that encrypts the data before saving it to disk. You can download a Windows or Mac version of the software [here]. The software is already installed in your Linux virtual machine.

There are other alternatives to KeyPassX, such as 1Password. They do not support linux, but give you a web version:
researchtools@ubuntu::~$ sudo apt-get install texlive-latex-extras

Introduction

Today we will

Managing passwords with KeePassX keepassx passwords

KeePassX is a cross platform password manager that encrypts the data before saving it to disk. You can download a Windows or Mac version of the software here. The software is already installed in your Linux virtual machine.

There are other alternatives to KeyPassX, such as 1Password. They do not support linux, but give you a web version:
The following command is being executed:

```
sudo apt-get install texlive-latex-extra
```

The output shows the installation of the following packages:

```
lacheck latex-beamer latex-xcolor lmodern luatex pgf preview-latex-style
prosper ps2eps tex-common texlive-base texlive-binaries texlive-common
texlive-doc-base texlive-extra-utils texlive-font-utils
texlive-generic-recommended texlive-latex-base texlive-latex-base-doc
texlive-latex-extra-doc texlive-latex-recommended
texlive-latex-recommended-doc texlive-luatex texlive-pictures
texlive-pictures-doc texlive-pstricks texlive-pstricks-doc
```

And the suggested packages include:

```
auctex perl-tk dvipdfm fragmaster latexmk purifyeps xindy t1utils texpower
```

The following new packages will be installed:

```
lacheck latex-beamer latex-xcolor lmodern luatex pgf preview-latex-style
prosper ps2eps tex-common texlive-base texlive-binaries texlive-common
texlive-doc-base texlive-extra-utils texlive-font-utils
texlive-generic-recommended texlive-latex-base texlive-latex-base-doc
texlive-latex-extra-doc texlive-latex-recommended
texlive-latex-recommended-doc texlive-luatex texlive-pictures
texlive-pictures-doc texlive-pstricks texlive-pstricks-doc
```

0 upgraded, 28 newly installed, 0 to remove and 220 not upgraded.

After this operation, 666 MB of additional disk space will be used.

Do you want to continue [Y/n]?

```
y
```

Today we will manage passwords using KeePassX.

KeePassX is a cross-platform password manager that encrypts the data before saving it to disk. You can download a Windows or Mac version of the software [here](#). The software is already installed in your Linux virtual machine.

There are other alternatives to KeePassX, such as 1Password. They do not support Linux, but give you a web version:
Managing passwords with KeePassX

KeePassX is a cross-platform password manager that encrypts the data before saving it to disk. You can download a Windows or Mac version of the software [here](https://keepassx.org/). The software is already installed in your Linux virtual machine.

There are other alternatives to KeePassX, such as 1Password. They do not support Linux, but give you a web version:
researchtools@ubuntu:~$ sudo apt-get install texlive

Reading package lists... Done
Building dependency tree
Reading state information... Done
The following extra packages will be installed:
texlive-fonts-recommended texlive-fonts-recommended-doc tipa
Suggested packages:
texlive-doc-en
The following NEW packages will be installed:
texlive-texlive-fonts-recommended texlive-fonts-recommended-doc tipa
0 upgraded, 4 newly installed, 0 to remove and 220 not upgraded.
Need to get 12.8 MB of archives.
After this operation, 31.9 MB of additional disk space will be used.
Do you want to continue [Y/n]?
y
Today we will

Managing passwords with KeePassX  

KeepassX is a cross platform password manager that encrypts the data before saving it to disk. You can download a Windows or Mac version of the software here. The software is already installed in your Linux virtual machine.

There are other alternatives to KeyPassX, such as 1Password. They do not support linux, but give you a web version:
researchtools@ubuntu:~$ sudo apt-get install emacs-goodies-el
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following extra packages will be installed:
dict gawk libmaa2 librecode0 perl-doc recode
Suggested packages:
dictd dict-server
The following NEW packages will be installed:
dict emacs-goodies-el gawk libmaa2 librecode0 perl-doc recode
0 upgraded, 7 newly installed, 0 to remove and 220 not upgraded.
Need to get 9,371 kB of archives.
After this operation, 21.7 MB of additional disk space will be used.
Do you want to continue [Y/n]?
y
Get:1 http://us.archive.ubuntu.com/ubuntu/ natty/main gawk i386 1:3.1.7.dfsg-5 [530 kB]
Get:2 http://us.archive.ubuntu.com/ubuntu/ natty/main libmaa2 i386 1.2.0-1 [60.1 kB]
Get:3 http://us.archive.ubuntu.com/ubuntu/ natty/main librecode0 i386 3.6-17 [702 kB]
Get:4 http://us.archive.ubuntu.com/ubuntu/ natty/main recode i386 3.6-17 [122 kB]
Get:5 http://us.archive.ubuntu.com/ubuntu/ natty/main dict i386 1.11.2+dfsg-3 [45.2 kB]
Get:6 http://us.archive.ubuntu.com/ubuntu/ natty/main emacs-goodies-el all 34.1ubuntu1 [798 kB]
15% [6 emacs-goodies-el 0 B/798 kB 0%]}

Managing passwords with KeePassX

KeePassX is a cross platform password manager that encrypts the data before saving it to disk. You can download a Windows or Mac version of the software here. The software is already installed in your Linux virtual machine.

There are other alternatives to KeePassX, such as 1Password. They do not support linux, but give you a web version:
researchtools@ubuntu:$ apt-cache search python | less
kig - interactive geometry tool for KDE
krosspython - Python module for Kross
libdbus-1-3 - simple interprocess messaging system
libntrack0 - lightweight connectivity tracking library
libpython3.1 - Shared Python runtime library (version 3.1)
libpython3.2 - Shared Python runtime library (version 3.2)
libxml2-dbgs - Debugging symbols for the GNOME XML library
plasma-scriptengine-python - Python script engine for Plasma
python - interactive high-level object-oriented language (default version)
python-all - package depending on all supported Python runtime versions
python-all-dbgs - package depending on all supported Python debugging packages
python-all-dev - package depending on all supported Python development packages
python-apport - apport crash report handling library
python-apt - Python interface to libapt-pkg
python-apt-common - Python interface to libapt-pkg (locales)
python-apt-dbgs - Python interface to libapt-pkg (debug extension)
python-apt-dev - Python interface to libapt-pkg (development files)
python-apt-doc - Python interface to libapt-pkg (API documentation)
python-aptdaemon - Python module for the server and client of aptdaemon
python-aptdaemon-gtk - Transitional dummy package
python-aptdaemon-gtk3widgets - Python GTK+ 3 widgets to run an aptdaemon client
researchtools@ubuntu:~$ apt-cache search python | less
researchtools@ubuntu:~$ apt-cache search python | wc -l
2310
researchtools@ubuntu:~$
Managing passwords with **KeePassX**

KeePassX is a cross platform password manager that encrypts the data before saving it to disk. You can download a Windows or Mac version of the software [here](#). The software is already installed in your Linux virtual machine.

There are other alternatives to KeyPassX, such as 1Password. They do not support linux, but give you a web version: [1Password Support For Linux](#). KeyPassX is not available on the iPhone/iPad/Android devices, so if you have the Money, you might consider a tool like 1Password.

**Setup KeyPassX**

First add a quick link to the Panel across the top of Ubuntu. Right click on the gray bar at the top of the display and select "Add to Panel...". Double click "Application Launcher..." (the 2nd item from the top). Click the small arrow to the left of "Accessories", select KeePassX, and "Add". You can now close the "Add to Panel" tool.

Start KeePassX. Select "File" -> "New Database". You now need to create a "Master Key". This is the one password that will give you access to all the other passwords. If you forget this password, you will loose all your passwords!!!!

Save the KeePassX database! I named mine with my name. Later we will move this file to your DropBox file to share it with other computers that you use, but for now, put it in your home directory.

The program lets you organize passwords into groups. I have a number of passwords associated with CCOM systems and you do too. Let's create a group called "CCOM". "Groups" -> "Add New Group...". For title, put "CCOM". You can pick what ever icon you wish.

Select the CCOM group.

You can now create password entries for web pages, computers, and other software. I also often put license...
KeePassX is now on the iPhone / iPad / Android. http://keepass.info/download.html
The program lets you organize passwords into groups. I have a number of passwords associated with CCOM systems and you do too. Let's create a group called "CCOM". "Groups" -> "Add New Group...". For title, put "CCOM". You can pick what ever icon you wish.

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You can now create password entries for web pages, computers, and other software. I also often put license keys for software in as entries. "Entries" -> "Add New Entry"

Now create an entry for the virtual machine:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td>Virtual Machine, Research Tools 2011</td>
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</thead>
<tbody>
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<td>Virtual Machine, Research Tools 2011</td>
</tr>
</tbody>
</table>
Managing passwords with KeePassX

KeePassX is a cross platform password manager that encrypts the data before saving it to disk. You can use KeePassX to store all your login credentials, such as usernames, passwords, and links to websites. The software is already installed in your Linux system. To open it, simply type `keepassx` in your terminal and hit Enter. You will see a window with a list of databases. Click on the 'New Database' option, enter a name for your database, and then click 'OK'.

To create a group, click on the gray bar at the top of the window and select 'Add Group'. You can enter a name for your group and then click 'OK'.

Once you have added a group, you can add passwords to it. Click on the group and then click on the 'Add Entry' button. Enter a name, username, password, and any other notes you would like to include. Repeat this process for each password you need to store.

To create a Master Key, click on the 'File' menu and select 'Change Master Key'. Type in your current master key (if you have one) and then enter your new key. Make sure to keep this password safe. If you forget it, you will lose all your passwords.

You can now close the KeePassX window and move the file to your DropBox file directory. Then, any change made to KeePassX will be synchronized with your other devices. You can also use KeePassX to manage passwords associated with CCOM accounts. For example, if you have a CCOM computer, you can create a group named 'CCOM' and add all your passwords associated with your CCOM account.

Select the CCOM group.

You can now create password entries for web pages, computers, and other software. I also often put license information in KeePassX.
Managing passwords with KeePassX

keepersx passwords

The software is already installed in your Linux system. They do not support Linux, but give you a web interface available on the iPhone/iPad/Android devices, so if you need to use these devices. Right click on the gray bar at the top of the application, and add "KeePassX" and "Add". You can now close the "Add" button.

Later we will move this file to your Dropbox folder and open it in your home directory.

The program lets you organize passwords into groups. I have a number of passwords associated with CCOM systems and you do too. Let's create a group called "CCOM". "Groups" -> "Add New Group...". For title, put "CCOM". You can pick whatever name you wish.

Select the CCOM group.

You can now create password entries for websites, computers, and other software. I also often put license information.

Pick a good password

I am using "demo". You should use a very secure password. DO NOT LOOSE THIS PASSWORD!
Managing passwords with KeePassX

keepassx passwords

The software is already installed in your Linux

They do not support Linux, but give you a web
table on the iPhone/iPad/Android devices, so if

Right click on the gray bar at the top of the

You can now close the "Add

Later we will move this file to your DropBox file

The program lets you organize passwords into groups. I have a number of passwords associated with CCOM
systems and you do too. Let's create a group called "CCOM". "Groups" -> "Add New Group...". For title, put
"CCOM". You can pick what ever icon you wish.

Select the CCOM group.

You can now create password entries for web pages, computers, and other software. I also often put license

Pick a good password

I am using "demo". You should use a very secure password. DO NOT LOOSE THIS PASSWORD!
Managing passwords with KeePassX

Keepassx passwords

The software is already installed in your Linux system. They do not support Linux, but give you a web interface available on the iPhone/iPad/Android devices, so if you need to create a "Master Key". This is the one that you will use to access your KeePassX vaults. If you forget this password, you will lose all your passwords.

Right click on the gray bar at the top of the application "Launcher..." (the 2nd item from the top), click "Add New Group" and click "Add". You can now close the "Add New Group..." dialog box. You need to create a "Master Key". This is the one that you will use to access your KeePassX vaults. If you forget this password, you will lose all your passwords.

Later we will move this file to your DropBox file system and store it in your home directory.

The program lets you organize passwords into groups. I have a number of passwords associated with CCOM systems and you do too. Let's create a group called "CCOM". "Groups" -> "Add New Group...". For title, put "CCOM". You can pick what ever icon you wish.

Select the CCOM group.

You can now create password entries for web pages, computers, and other software. I also often put license...
researchtools@ubuntu:~$ apt-cache search python | less
researchtools@ubuntu:~$ apt-cache search python | wc -l
2310
researchtools@ubuntu:~$ apt-cache search keepassx
keepassx - Cross Platform Password Manager
researchtools@ubuntu:~$ 

Class 6: KeePassX and the CCOM

You can pick whatever icon you wish.

Select the CCOM group.

You can now create password entries for web pages, computers, and other software. I also often put license...
researchtools@ubuntu:~$ apt-cache search python | less
researchtools@ubuntu:~$ apt-cache search keepassx
keepassx - Cross Platform Password Manager
researchtools@ubuntu:~$ apt-cache search keepassx | wc -l
2310

/home/researchtools/kurt.kdb - KeePassX

Enter the password for the KeePassX database.

You can now create password entries for web pages, computers, and other software. I also often put license
numbers here. Later we will move this file to your DropBox file
put it in your home directory.

"CCOM". You can pick whatever icon you wish.

Select the CCOM group.

You can now create password entries for web pages, computers, and other software. I also often put license
researchtools@ubuntu:~$ apt-cache search python | less
researchtools@ubuntu:~$ apt-cache search python | wc -l
2310
researchtools@ubuntu:~$ apt-cache search keepassx
keepassx - Cross Platform Password Manager
researchtools@ubuntu:~$ 

/home/researchtools/kurt.kdb - KeePassX

Groups
  Internet
  eMail

Title: CCOM
Icon:

Group Properties

Title: CCOM
Password
Comments

Cancel OK

Ready

"CCOM". You can pick what ever icon you wish.

Select the CCOM group.

You can now create password entries for web pages, computers, and other software. I also often put license
CCCX. You can pick whatever icon you wish.

Select the CCOM group.

You can now create password entries for web pages, computers, and other software. I also often put license

---

**Password Manager**

With CCOM, you can install it to disk. You can also install it to USB flash drive. If you are using a web browser, you can use the "Add Password" button to add password to the CCOM database. If you are using a desktop application, you can use the "Add Password" button to add password to the CCOM database.

---

**Add New Group**

You can add a new group to the CCOM database. To add a new group, click on the "Add New Group" button and enter the name of the group. Then, click on the "OK" button to create the new group.

---

**File**

You can create a new file or open an existing file. To create a new file, click on the "New" button and enter the name of the file. Then, click on the "OK" button to create the new file.

---

**Entries**

You can view the entries in your CCOM database. To view the entries, click on the "Entries" button and select the entry you want to view. Then, click on the "OK" button to view the entry.

---

**Groups**

You can add a new group to the CCOM database. To add a new group, click on the "Add New Group" button and enter the name of the group. Then, click on the "OK" button to create the new group.

---

**View**

You can view the entries in your CCOM database. To view the entries, click on the "View" button and select the entry you want to view. Then, click on the "OK" button to view the entry.
researchtools@ubuntu:~$ apt-cache search python | less
researchtools@ubuntu:~$ apt-cache search python | wc -l
2310
researchtools@ubuntu:~$ apt-cache search keepassx
keepassx - Cross Platform Password Manager
researchtools@ubuntu:~$ 

/home/researchtools/kurt.kdb* - KeePassX

Add New Entry...
- Clone Entry
- View/Edit Entry...
- Delete Entry
- Perform AutoType
- Copy Username to Clipboard
- Copy Password to Clipboard
- Open URL
- Copy URL to Clipboard
- Save Attachment As...
- Search in Database...
- Search in this Group...

Research Tools 2011 Virtual Machine (VM)
- Group: CCOM
- Username: ****
- Password: ****
- Creation: 06/30/2012
- Access: 06/30/2012
- Modification: 06/30/2012
- Attachment

"CCOM". You can pick what ever icon you wish.

Select the CCOM group.

You can now create password entries for web pages, computers, and other software. I also often put license
researchtools@ubuntu:~$ apt-cache search python | less
researchtools@ubuntu:~$ apt-cache search keepassx
keepassx - Cross Platform Password Manager
researchtools@ubuntu:~$ 

New Entry

Group: CCOM
Title: Research Tools 2011 Virtual Machine (VM)
Username: researchtools
Password: !rt2011vm
Repeat: !rt2011vm
Quality: 72 Bit
Comment: Ubuntu Linux 11.04 ESCI 893-03
Expires: 1/1/00 12:00 AM
Attachment:

"CCOM". You can pick what ever icon you wish.

Select the CCOM group.

You can now create password entries for web pages, computers and other software. I also often put license...
researchtools@ubuntu:~$ apt-cache search python | less
researchtools@ubuntu:~$ apt-cache search keepassx
keepassx - Cross Platform Password Manager
researchtools@ubuntu:~$ 

/home/researchtools/kurt.kdb* - KeePassX

Groups
Internet
email
CCOM

Title | Username | URL | Password | Comments
--- | --- | --- | --- | ---
Research Tools 2011 Virtual Machine (VM)
Group: CCOM
Username: ****
Password: ****

Select the CCOM group.

"CCOM". You can pick whatever icon you wish.

You can now create password entries for web pages, computers, and other software. I also often put the license in a number of passwords associated with CCOM. "Groups" -> "Add New Group...". For title, put
New Entry

Group: CCOM
Title: test
Username: test
URL:
Password:
Repeat:
Quality: 0 Bit
Comment:
Expires: 1/1/00 12:00 AM - Never
Attachment:

Password Generator

Random Pronounceable Custom

Use following character groups:
- Upper Letters
- Lower Letters
- Numbers
- White Spaces
- Minus
- Underline
- Special Characters
- Exclude look-alike characters
- Ensure that password contains characters from every group

Options

Length: 25
Quality: 163 Bits
Enable entropy collection
Collect only once per session

New Password: =ifg=ZKd%< A9i_B@IF^yf

Generate

Research Tools 2011 Virtual Machine (VM)

Group: CCOM
Username: ****
Password: ****
Attachment

"CCOM". You can pick what ever icon you wish.

Select the CCOM group.

You can now create password entries for web pages, computers and other software. I also often put license...
Research Tools 2011 Virtual Machine (VM)

Group: CCOM
Username: ****
Password: ****
Attachment

Ready

“CCOM”. You can pick what ever icon you wish.

Select the CCOM group.

You can now create password entries for web pages, computers, and other software. I also often put license
"CCOM". You can pick whatever icon you wish.

Select the "CCOM" group.

You can now create password entries for web pages, computers, and other software. I also often put license
<table>
<thead>
<tr>
<th>Title</th>
<th>Url</th>
<th>Password</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>github</td>
<td><a href="https://github">https://github</a>...</td>
<td>******</td>
<td>paper with ESR</td>
</tr>
<tr>
<td>gitorious</td>
<td><a href="https://gitorio">https://gitorio</a>...</td>
<td>******</td>
<td></td>
</tr>
<tr>
<td>MB-System svn</td>
<td></td>
<td>******</td>
<td>svn co svn://s...</td>
</tr>
<tr>
<td>osgeo</td>
<td></td>
<td>******</td>
<td></td>
</tr>
<tr>
<td>sf</td>
<td><a href="https://sf.net">https://sf.net</a></td>
<td>******</td>
<td>fink sourceforge</td>
</tr>
</tbody>
</table>
researchtools@ubuntu:~$ apt-cache search python | less
researchtools@ubuntu:~$ apt-cache search python | wc -l
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/home/researchtools/kurt.kdb* - KeePassX

<table>
<thead>
<tr>
<th>Group</th>
<th>Title</th>
<th>Username</th>
<th>URL</th>
<th>Password</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCOM</td>
<td>test</td>
<td>*****</td>
<td></td>
<td>*****</td>
<td>Ubuntu LIN...</td>
</tr>
</tbody>
</table>

Ready

Copy Username to Clipboard: Ctrl+B
Copy Password to Clipboard: Ctrl+C
Open URL: Ctrl+U
Copy URL to Clipboard: Ctrl+Y
Save Attachment As: Ctrl+E
Perform AutoType: Ctrl+V
Add New Entry: Ctrl+Y
View/Edit Entry: Ctrl+X
Clone Entry: Ctrl+K
Delete Entry: Ctrl+D
researchtools@ubuntu:~$ apt-cache search python | less
researchtools@ubuntu:~$ apt-cache search python | wc -l
2310
researchtools@ubuntu:~$ apt-cache search keepassx
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researchtools@ubuntu:~$ apt-cache search keepassx
keepassx - Cross Platform Password Manager
researchtools@ubuntu:~$ test
researchtools@ubuntu:~$ bbd3q7wyrhg69x5

/home/researchtools/kurt.kdbx - KeePassX

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<thead>
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<th>Username</th>
<th>URL</th>
<th>Password</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet</td>
<td>Research...</td>
<td>*****</td>
<td>*****</td>
<td>Ubuntu Lin...</td>
<td></td>
</tr>
<tr>
<td>eMail</td>
<td>test</td>
<td>*****</td>
<td>*****</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>test</th>
</tr>
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<tbody>
<tr>
<td>Group:</td>
</tr>
<tr>
<td>Username:</td>
</tr>
<tr>
<td>Password:</td>
</tr>
<tr>
<td>Creation:</td>
</tr>
<tr>
<td>Access:</td>
</tr>
<tr>
<td>Modification:</td>
</tr>
<tr>
<td>Expiration:</td>
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researchtools@ubuntu:~$ bbd3q7wyrh69x5

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<tr>
<td>test</td>
<td>test</td>
<td></td>
<td>test</td>
<td>Ubuntu Lin...</td>
</tr>
</tbody>
</table>

Ready
Setting up drop box

Being able share files easily can make or break your work. There are many many services to automatically sync files between computers. There are many of these services:

http://en.wikipedia.org/wiki/List_of_online_backup_services

As a student at UNH, you have access to a Microsoft Live SkyDrive with 25GB of space via WildcatsMail! SkyDrive. However, this service only supports Linux via a web browser. Be warned, faculty and staff do not have access to a SkyDrive through UNH, so they might not have experience with it if you need help.

Common services that support Linux are:

- https://www.jungledisk.com/
- http://www.sugarsync.com/
- https://spideroak.com/

One of the most popular services is DropBox. If you do not have a drop box account, you can either click this link below (this will both you and me a referral credit) or if you have someone else who can send you a referral, then you can both get a little extra free storage space over the default 2GB free account. If you have a .edu email address, be sure to use that email address as dropbox gives more space to education accounts.

Limitations of dropbox

Sadly, if you don't have internet, dropbox will not work. Even if you have multiple machines on a ship network that can talk to each other, dropbox does not currently support synchronization unless it can talk back to the company's main servers. There are other ways to share files on a ship than range from mounting network drives, to portable drives/usb sticks, and more.

It is possible that some of the OpenSource alternatives to DropBox that are being developed may become useful in restricted network environments, but I cannot yet offer any advice. See for example:
Security warning for cloud storage

Remember that this is a company storing your files on their servers. They have a privacy policy that says they will not look at your files, but that does not guarantee that they will not be hacked or that a government agency might force them to reveal your files. Additionally, it might be illegal to save certain types of data to the cloud (for example, confidential personal data or restricted data such as ITAR controlled material).

Think before putting files into a cloud drive!!!

You can encrypt data before putting it into the service for extra protection. For example, KeyPassX does not store your raw passwords, so it should be safe for use with DropBox.

An example of one of the security issues:


Creating an account

This is my referral link. Please feel free to use a referral from someone else.

http://db.tt/qi5etLX

NOTE: I am not sure if it really is okay for a professor to give out a referral URL in class. If you are not comfortable with that, get a referral from someone you know who already has a dropbox account. You do not want to miss out on a little extra free space.

You can get extra space by referring other people you know (be warned that other people might not appreciate the invite). Once you have signed in, make sure to go to this address to verify that are getting credit for your educational account and to get extra free space.

https://www.dropbox.com/edu

You can pay for more space if you desire, but for this class, I am assuming that you only have the base free account. You will not need more space than that for the class.
Referral URL for dropbox:

http://db.tt/ql5etLX
Welcome to Dropbox!

Bring your photos, docs and videos anywhere. Take a tour.

First name

Last name

Email

Password

I agree to Dropbox Terms

Create account
Install Dropbox via command line

The Dropbox daemon works fine on all 32-bit and 64-bit Linux servers. To install, run the following command in your Linux terminal:

32-bit:

```bash
$ cd ~ && wget -O - "https://www.dropbox.com/download?plat=lnx.x86" | tar xzf -
```
researchtools@ubuntu:~$ wget -O dropbox_1.4.0_i386.deb https://www.dropbox.com/download?dl-packages/ubuntu/dropbox_1.4.0_i386.deb
--2012-06-30 09:09:12 -- https://www.dropbox.com/download?dl-packages/ubuntu/dropbox_1.4.0_i386.deb
Resolving www.dropbox.com... 199.47.216.170, 199.47.216.171, 199.47.217.170, ...
Connecting to www.dropbox.com|199.47.216.170|:443... connected.
HTTP request sent, awaiting response... 302 FOUND
Location: https://linux.dropbox.com/packages/ubuntu/dropbox_1.4.0_i386.deb [following]
--2012-06-30 09:09:12 -- https://linux.dropbox.com/packages/ubuntu/dropbox_1.4.0_i386.deb
Resolving linux.dropbox.com... 174.36.30.74
Connecting to linux.dropbox.com|174.36.30.74|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 92720 (91K) [application/octet-stream]
Saving to: `dropbox_1.4.0_i386.deb'
100%[==============================================] 92,720 512K/s in 0.2s
2012-06-30 09:09:13 (512 KB/s) - `dropbox_1.4.0_i386.deb' saved [92720/92720]

It is a good idea to verify that what we downloaded is what we expected. First, we can use the file command from the last class to ask if it knows what type of file this is:

```
file *.deb
nautilus-dropbox_0.6.9_i386.deb: Debian binary package (format 2.0)
```

We will talk more about checksums, but there the basic idea is that you can run an algorithm on the contents of a file to make sure that the file probably contains the same bytes that you expect it to. The `md5` algorithm is one of the most commonly used today. Give it a try and see if you get the same results:
NAME
md5sum - compute and check MD5 message digest

SYNOPSIS
md5sum [OPTION]... [FILE]...

DESCRIPTION
Print or check MD5 (128-bit) checksums. With no FILE, or when FILE is
-, read standard input.

-b, --binary
read in binary mode

-c, --check
read MD5 sums from the FILEs and check them

-t, --text
read in text mode (default)

Manual page md5sum(1) line 1

researchtools@ubuntu:~$ ls -l dropbox_1.4.0_i386.deb
-rw-r--r-- 1 researchtools researchtools 92720 2012-04-25 20:40 dropbox_1.4.0_i386.deb
researchtools@ubuntu:~$ md5sum dropbox_1.4.0_i386.deb
    c03ff22e43c706f8ee4fe6fc3ab79400  dropbox_1.4.0_i386.deb
86.deb

root@ubuntu:~$ **file *.deb**

researchtools@ubuntu:~$ **Debian binary package (format 2.0)**

researchtools@ubuntu:~$ **sudo dpkg -i dropbox_1.4.0_i386.deb**

[sudo] password for researchtools:

Selecting previously deselected package dropbox.
(Reading database ... 248074 files and directories currently installed.)
Unpacking dropbox (from dropbox_1.4.0_i386.deb) ...
Setting up dropbox (1.4.0) ...

Please restart all running instances of Nautilus, or you will experience problems. i.e. nautilus --quit

Dropbox installation successfully completed! You can start Dropbox from your applications menu.

Processing triggers for bamfdaemon ...
Rebuilding /usr/share/applications/bamf.index...
Processing triggers for desktop-file-utils ...
Processing triggers for python-gmenu ...
Rebuilding /usr/share/applications/desktop.en_US.utf8.cache...
Processing triggers for hicolor-icon-theme ...
Processing triggers for man-db ...
Processing triggers for python-support ...

run the installer

Then you need to install the software:

```
sudo dpkg -i nautilus-dropbox_0.6.9_i386.deb
```

Answer yes to what it asks and then click the button to "Restart Nautilus". Click the "Next" button. Then click "Start Dropbox". You can then sign in and dropbox will start to synchronize your files. There will now be a icon on the top right of your screen that is supposed to look like a box with an open top. This will give you a short cut to see what files have recently been changed in your account and see other dropbox functions.
run the installer

Then you need to install the software:

```bash
sudo dpkg -i nautilus-dropbox_0.6.9_i386.deb
```

Answer yes to what it asks and then click the button to "Restart Nautilus". Click the "Next" button. Then click "Start Dropbox". You can then sign in and Dropbox will start to synchronize your files. There will now be an icon on the top right of your screen that is supposed to look like a box with an open top. This will give you a short cut to see what files have recently been changed in your account and see other Dropbox functions.
run the installer

Then you need to install the software:

```
sudo dpkg -i nautilus-dropbox_0.6.9_i386.deb
```

Answer yes to what it asks and then click the button to "Restart Nautilus". Click the "Next" button. Then click "Start Dropbox". You can then sign in and Dropbox will start to synchronize your files. There will now be an icon on the top right of your screen that is supposed to look like a box with an open top. This will give you a short cut to see what files have recently been changed in your account and see other Dropbox functions.
run the installer
Then you need to install the software:

```
sudo dpkg -i nautilus-dropbox_0.6.9_i386.deb
```

Answer yes to what it asks and then click the button to "Restart Nautilus". Click the "Next" button. Then click "Start Dropbox". You can then sign in and dropbox will start to synchronize your files. There will now be an icon on the top right of your screen that is supposed to look like a box with an open top. This will give you a short cut to see what files have recently been changed in your account and see other dropbox functions.
Saturday, June 30, 12

```
researchtools@ubuntu:~

86.deb
researchtools@ubuntu:~$ file *.deb
dropbox_1.4.0_i386.deb: Debian binary package (format 2.0)
researchtools@ubuntu:~$ sudo dpkg -i dropbox_1.4.0_i386.deb
[sudo] password for researchtools:
Selecting previously deselected package dropbox.
(Reading database ... 248074 files and directories currently installed.)
Unpacking dropbox (from dropbox_1.4.0_i386.deb) ...
Setting up dropbox (1.4.0) ...
Please restart all running instances of Nautilus; i.e. nautilus --quit
Dropbox installation successfully completed.
Processing triggers for bamfdaemon ...
Rebuilding /usr/share/applications/bamf-Qt.desktop ...
Processing triggers for desktop-file-util ...
Processing triggers for python-gmenu ...
Rebuilding /usr/share/applications/desktop ...
Processing triggers for hicolor-icon-theme ...
Processing triggers for man-db ...
```

```
Then you may run the installer:

```
sudo dpkg -i nautilus-dropbox_0.6.9_i386.deb
```

Answer yes to what it asks and then click the button to "Restart Nautilus". Click the "Next" button. Then click "Start Dropbox". You can then sign in and dropbox will start to synchronize your files. There will now be an icon on the top right of your screen that is supposed to look like a box with an open top. This will give you a short cut to see what files have recently been changed in your account and see other dropbox functions.
```
86.deb

researchtools@ubuntu:~ $ file *.deb
dropbox 1.4.0 i386.deb: Debian binary package (format 2.0)
researchtools@ubuntu:~ $ sudo dpkg -i dropbox 1.4.0_i386.deb
[sudo] password for researchtools:
(Reading database ... 248074 files and directories already installed)
Setting up dropbox (1.4.0) ...
Please restart all running instances of "Nautilus --quit"
Dropbox installation successfully completed.

Processing triggers for bamfdaemon ...
Rebuilding /usr/share/applications/bamf-...
Processing triggers for desktop-file ...
Processing triggers for python-gammenu ...
Rebuilding /usr/share/applications/python-gmenu ...

Log in to Dropbox

Email: schwehr@ccom.unh.edu
Password: ********
Forgot password?

Computer name: ubuntu-rt-2011

Dropbox Setup

Click the button to "Restart Nautilus". Click the "Next" button. Then click
on your user's name in the top-left corner of the Dropbox window. This will allow you
to see what files have recently been changed in your account and see other Dropbox functions.
researchtools@ubuntu:~$ file *.deb
dropbox_1.4.0_i386.deb: Debian binary package (format 2.0)
researchtools@ubuntu:~$ sudo dpkg -i dropbox_1.4.0_i386.deb
[sudo] password for researchtools:
Selecting previously deselected package dropbox.
(Reading database ... 248074 files and 48 directories currently installed.)
Unpacking dropbox (from dropbox_1.4.0_i386-deb) ... 
Setting up dropbox (1.4.0) ... 
Please restart all running instances of nautilus --quit
Dropbox installation successfully completed.
Processing triggers for bamfdaemon ...
Processing /usr/share/applications/bamf-0.10-1.bm
Processing triggers for desktop-file-utils ...
Processing /usr/share/applications/bamf-0.10-1.bm
Processing triggers for python-gmenu ...
Processing /usr/share/applications/bamf-0.10-1.bm
Processing triggers for hicolor-icon-theme ...
Processing /usr/share/applications/bamf-0.10-1.bm
Processing triggers for man-db ...
Processing triggers for python-support ...
researchtools@ubuntu:~$ 

On Ubuntu, running the installer:

Then you need to run:
sudo dpkg --install dropbox_0.8.7_i386.deb

Answer yes to what it asks and then click the button to "Restart Nautilus". Click the "Next" button. Then click "Start Dropbox". You can then sign in and dropbox will start to synchronize your files. There will now be a icon on the top right of your screen that is supposed to look like a box with an open top. This will give you a short cut to see what files have recently been changed in your account and see other dropbox functions.
86.deb
researchtools@ubuntu:~$ file *.deb
dropbox_1.4.0_i386.deb: Debian binary package (format 2.0)
researchtools@ubuntu:~$ sudo dpkg -i dropbox_1.4.0_i386.deb
[sudo] password for researchtools:
Selecting previously deselected packages:
(Reading database ... 248074 files and directories currently installed.)
Unpacking dropbox (from dropbox_1.4.0_i386.deb)
Setting up dropbox (1.4.0) ...
Please restart all running instances of Nautilus, i.e. nautilus --quit
Dropbox installation successfully completed.
Processing triggers for bamfd daemon ...
Processing triggers for desktop-file-utils ...
Processing triggers for python-gnomeextensions ...
Processing triggers for hicolor-icon-theme ...
Processing triggers for man-db ...

Choose setup type

- Typical (recommended)
  Set up Dropbox with normal settings.

- Advanced
  Choose your Dropbox's location, which folders will be synced,
  and if extended attributes should be synced.

Then you need to run the installation.

sudo dpkg -i nautilus-dropbox_1.4.0_i386.deb

Answer yes to what it asks and then click the button to "Restart Nautilus". Click the "Next" button. Then click "Start Dropbox". You can then sign in and Dropbox will start to synchronize your files. There will now be a icon on the top right of your screen that is supposed to look like a box with an open top. This will give you a shortcut to see what files have recently been changed in your account and see other Dropbox functions.
run the installer

Then you need to install the software:

```
sudo dpkg -i nautilus-dropbox_0.6.9_i386.deb
```

Answer yes to what it asks and then click the button to "Restart Nautilus". Click the "Next" button. Then click "Start Dropbox". You can then sign in and Dropbox will start to synchronize your files. There will now be a icon on the top right of your screen that is supposed to look like a box with an open top. This will give you a short cut to see what files have recently been changed in your account and see other Dropbox functions.
Then you need to install the software:

```
sudo dpkg -i nautilus-dropbox_0.6.9_i386.deb
```

Answer yes to what it asks and then click the button to "Restart Nautilus". Click the "Next" button. Then click "Start Dropbox". You can then sign in and dropbox will start to synchronize your files. There will now be an icon on the top right of your screen that is supposed to look like a box with an open top. This will give you a short cut to see what files have recently been changed in your account and see other dropbox functions.
researchtools@ubuntu:~$ ls -l ~/Dropbox/kurt.kdb*
-rw-r--r-- 1 researchtools researchtools 46396 2012-06-12 19:09 /home/researchtools/Dropbox/kurt.kdb
-rw-r--r-- 1 researchtools researchtools 0 2012-06-30 08:17 /home/researchtools/Dropbox/kurt.kdb.lock
researchtools@ubuntu:~$ ls ~/Dropbox/rt/
22.org homeworks.org pod-1-intro.org video-19.org vm-ubuntu.org
class next-video.org tutorial.org video-19.org~
FromVM old video video-8.html
researchtools@ubuntu:~$
Dropbox running on an Apple iPhone viewing an org-mode text file from my dropbox account.

My computers
These are the computers and devices currently linked to your Dropbox.

<table>
<thead>
<tr>
<th>Computer name</th>
<th>Last activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>ubuntu-rt-2011</td>
<td>14 mins ago</td>
</tr>
<tr>
<td>iPhone</td>
<td>N/A</td>
</tr>
</tbody>
</table>
Class 6: KeePassX and Cloud storage with DropBox (DRAFT)

#AUTHOR: Kurt Schwehr
#EMAIL: schwehr@ccon.unh.edu
#DATE: <2011-09-15 Thu>
#DESCRIPTION: Marine Research Data Manipulation and Practices
#LANGUAGE: en
#OPTIONS: H:3 num:nil toc:t \ni:nil @:t ::l @:t A@:t -i f:t *:t <:<t
#EXPORT_SELECT_TAGS: export
#EXPORT_EXCLUDE_TAGS: noexport
#LINK_HOME: http://vislab-ccon.unh.edu/~schwehr/Classes/2011/esci895-researchtools/

* Introduction

Today we will

* Managing passwords with KeePassX :keepassx:passwords:
Make sure to save your KeePassX database. You will see the lock file in dropbox disappear and dropbox will notify you.