

# Analysis Methods in Atmospheric and Oceanic Science

## AOSC 652

### Intro to FORTRAN and Simple Computations: Day 3

- 1. Remote Access**
- 2. Assignment #1**

9 Sep 2016

# Remote Access

## 1. Install Virtual Private Network (VPN) (1 time)

<https://terpware.umd.edu/Windows/Title/1840>

## 2. Open VPN (every time)

- Enter vpn.umd.edu in box to right of padlock
- Select either UMD for Group
- Login using UMD username & psswr

## 3a. For PCs:

- download and install SSH secure shell client (1 time)

<http://ter.ps/c6t> (aosc/aosc)

- download and install Xming (1 time)

<http://ter.ps/c6u>

- open Xming
- open SSH client and enable X11 tunneling (1 time)

Edit → Settings

Profile Settings → Connection → Tunneling

Check box “Tunnel X11 Connections”

- connect to remote host halo.atmos.umd.edu }

aosc username  
&  
psswr

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## 3b. For Macs:

- download and install XQuartz (1 time)

<https://www.xquartz.org>

- applications / utilities/ “terminal” (every time)
- ssh -Y username@halo.atmos.umd.edu } aosc username  
&  
psswr

- metosrv8 cluster is designed to be accessed from this room only
- this design is motivated by past problems with grad students not in a class, taking over the metosrv8 CPUs during a class
- functionality of halo-vm should be identical to functionality of metosrv8

Please let me know if any problems arise.

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## Contents of my .htaccess file:

```
AuthUserFile /homes/metofac/rjs/www/aosc652/.htpasswd  
AuthGroupFile /dev/null  
AuthName "Restricted Access"  
AuthType Basic  
  
require valid-user
```

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## Helper website:

In the directory you want to protect, create a file called `.htaccess` and include the following lines:

```
% cat .htaccess
```

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## **.htpasswd file:**

Now you must use the htpasswd program to create a password entry.

If you want to create the password file with the user foo type:

```
% htpasswd -c /full/path/to/home/www/.htpasswd foo
```

```
New password: mypassword
```

```
Re-type new password: mypassword
```

```
Adding password for user foo
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**Can read more about “foo” at**

**<http://forum.statcounter.com/vb/archive/index.php/t-29926.html>**

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What are the permission privileges of the .htpasswd file?

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Can learn more about .htpasswd and web page security at:

<http://stackoverflow.com/questions/12291080/proper-htpasswd-usage>

Security experts recommend that the .htpasswd file be placed in a portion of your filespace inaccessible to the web.

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Why do you think this recommendation is made?

How would you implement this recommendation?

We will not dwell further on web page security.

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- Three students placed the .htaccess and .htpasswd files in /homes/metogra/student/www and the poem files in /homes/metogra/student/www/aosc652

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- Three students placed the .htaccess and .htpasswd files in /homes/metogra/student/www and the poem files in /homes/metogra/student/www/aosc652

Why might these students want to make a change to the location of the .htaccess & .htpasswd files ?

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**Try to use meaningful filenames (and variable names)**  
⇒ file1, file2, and file3 not particularly meaningful

# Rest of today devoted to in class work on Hw #2

- Exercise involves use of [Google Earth](#):
  - Google Earth application is available on computers in this room (Mac environment)
  - ***If you'd can complete the Google Earth portion prior to class on Friday, this will be appreciated 😊***
  - *Please have a look at the assignment prior to class; you are also welcome to start working on the entire assignment prior to class !*
- Assignment #2 will be the **last one** that we think can perhaps be completed during the ~1 hr class session (nonetheless, not due until Monday, 12 Sept)
- For efficient use of Friday portion of class  
**[please begin Assignment prior to class !](#)**

***Please resist temptation to use this building, or the campus football field and/or basketball arena as your chosen locations ... boring for your instructors to see these sites over and over again***