

OpenIFS workshop 2019: Connecting to ECMWF and transferring files to Reading University

This short tutorial explains how to connect to ECMWF from the University of Reading computers and transfer files from ECMWF to Reading University using ftp.

Before you begin

- i** You must have been given a training account username, beginning with the letters 'troifs' and the security password in order to log into ECMWF computers.
You must be logged on to a classroom computer at the university

Possible problem

If you see this error message when attempting to connect to ECMWF:

```
% ssh troifs0@ecaccess.ecmwf.int
Unable to negotiate with 193.61.196.110 port 22: no matching key exchange method found. Their offer:
diffie-hellman-group1-sha1
Couldn't read packet: Connection reset by peer
```

Make sure you have the following in your \$HOME/.ssh/config file (create it if needed):

```
Host ecaccess.ecmwf.int
  KexAlgorithms=diffie-hellman-group1-sha1
  HostKeyAlgorithms=ssh-dss
```

Login to ECMWF

OpenIFS runs on the ECMWF Cray high performance computer. Login to ECMWF computers is a two stage process.

The first connection is made with ssh after which you choose the host you need, 'cca' and 'ccb' are the two ECMWF Cray high performance computers. You will be instructed which of cca and ccb to use during the workshop.

The password for the training account 'troifs' will be provided.

Login to ECMWF Cray (replace with your given training account id)

```
% ssh troifs1@ecaccess.ecmwf.int
Authorized access only.

*****
For further information, read the ECaccess documentation at:

https://software.ecmwf.int/wiki/display/ECAC/ECaccess+Home

You can also use ECaccess to load & download files from your
EChome, ECscratch or ECfs directories using the ECaccess FTP
server:

ftp://uid@ecaccess.ecmwf.int/

Please note you must use your UID and ActivID code to login!
*****

troifs1@racc-1.rdg.ac.uk's password: *****
Select hostname (ecgate, cca, ccb) [ecgate]: ccb
```

Transfer files from ECMWF CCA to classroom PC

This example shows how to transfer a file or several files from the training account "scratch" directory. Note that both Cray computers 'cca' and 'ccb' see the same filesystems.

Before you start make sure you are in the correct local directory on the classroom PC at Reading University!

Create the ftp connection **using sftp** (not ftp) and then navigate to the correct directory:

Retrieve files from cray from scratch directory (replace with your training ID username!)

```
sftp troifs1@ecaccess.ecmwf.int
Authorized access only.

*****
For further information, read the ECaccess documentation at:

https://software.ecmwf.int/wiki/display/ECAC/ECaccess+Home

You can also use ECaccess to load & download files from your
EChome, ECscratch or ECfs directories using the ECaccess FTP
server:

ftp://uid@ecaccess.ecmwf.int/

Please note you must use your UID and ActivID code to login!
*****

troifs1@140.105.20.128's password: *****
Connected to ecaccess.ecmwf.int.
sftp> ls
CSOMARS  ECFS      ECHOME    ECHOST    ECJOBS    ECMARS    ECSCRATCH
ECTMP    TMP
sftp> cd ECHOST
sftp> ls
cca      ecgate
sftp> cd cca
sftp> cd scratch/ectrain/troifs1/myexpt/output
sftp> get mslp.grib
sftp> bye
```

To transfer more than 1 file at once.. e.g.

```
sftp> mget mslp_*.grib
```

Retrieve files from PERM directory

To retrieve files from the \$PERM directory on the training account is very similar to the above sequence.

Instead of:

```
sftp> cd ECHOST/cca/scratch/ectrain/troifs1
```

use the following pathname:

```
sftp> cd ECHOST/cca/perm/ectrain/troifs1
```

