


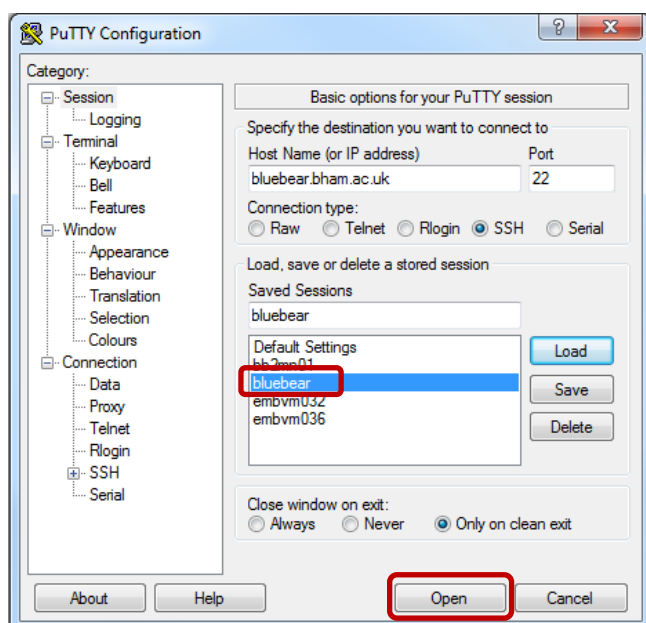
How to ...

Copy Data - RDS to/from BlueBEAR for Processing

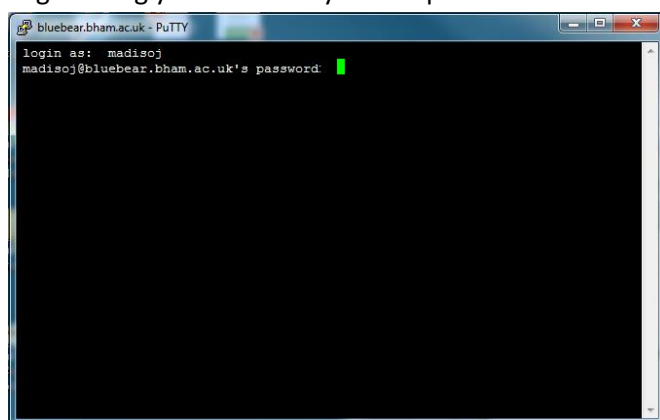
Copying Files using PuTTY on a Windows device **(Preferred Method)**:



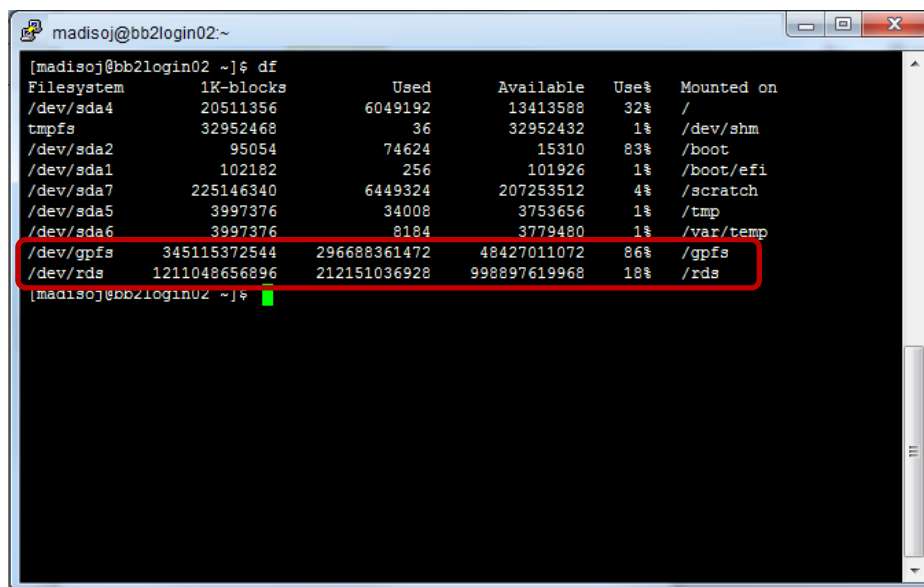
1. Use  to ssh into bluebear.bham.ac.uk. For information regarding the installation and configuration of PuTTY, see our web page (<https://intranet.birmingham.ac.uk/it/teams/infrastructure/research/bear/bluebear/accessing-bluebear-using-putty-and-exceed.aspx>).



2. Log in using your University ID and password.



- The Research Data Store (RDS) is mapped automatically on BlueBEAR login and worker nodes. To verify this, type **df** for a listing of mapped drives.



```

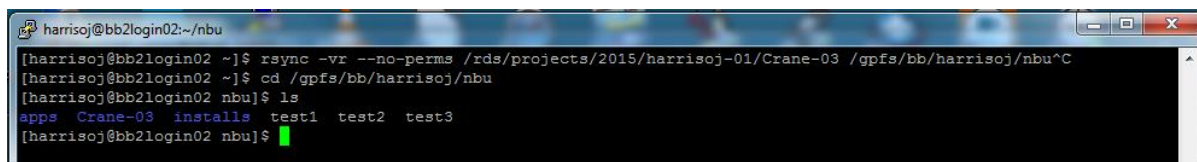
[madisoj@bb2login02 ~]$ df
Filesystem      1K-blocks      Used    Available   Use%    Mounted on
/dev/sda4        20511356    6049192    13413588     32%     /
tmpfs            32952468      36      32952432      1%     /dev/shm
/dev/sda2         95054       74624      15310      83%     /boot
/dev/sda1        102182       256      101926      1%     /boot/efi
/dev/sda7        225146340   6449324   207253512      4%     /scratch
/dev/sda5        3997376     34008     3753656      1%     /tmp
/dev/sda6        3997376     8184     3779480      1%     /var/temp
/dev/gpfs        345115372544 296688361472 48427011072    86%     /gpfs
/dev/rds         1211048656896 212151036928 998897619968    18%     /rds
[madisoj@bb2login02 ~]$

```

- To copy the directory Crane-03 from the Remote Data Store (RDS) to the BlueBEAR HPC, type the following command replacing <userID> with your login ID.

`rsync -vr --no-perms /rds/projects/2015/<userID>-01/Crane-03 /gpfs/bb/<userID>/nbu`

For example:



```

[harrisoj@bb2login02:~/nbu]
[harrisoj@bb2login02 ~]$ rsync -vr --no-perms /rds/projects/2015/harrisoj-01/Crane-03 /gpfs/bb/harrisoj/nbu^C
[harrisoj@bb2login02 ~]$ cd /gpfs/bb/harrisoj/nbu
[harrisoj@bb2login02 nbu]$ ls
apps  Crane-03  installs  test1  test2  test3
[harrisoj@bb2login02 nbu]$

```

NOTE: Helpful options which you may want to include are:

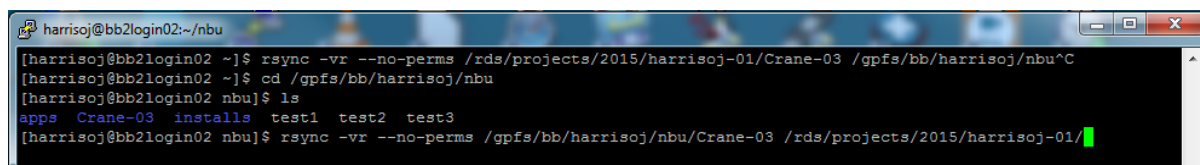
-r	Recursive, so copies all files and directories
-v	Verbose which tells rsync to report information
--no-perms	ignore owner, group, time, and permissions

`rsync -vr --no-perms /rds/projects/2015/<userID>-01/Crane-03 /gpfs/bb/<userID>/nbu`

- When your job has completed, copy the files back to the Research Data Store by typing the following using your login ID credentials in place of <userID>.

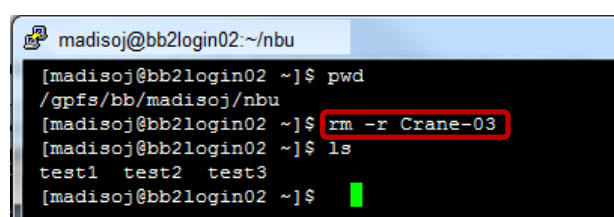
```
rsync -vr --no-perms /gpfs/bb/<userID>/nbu/Crane-03 /rds/projects/2015/<userID>-01/
```

For example:



```
harrisoj@bb2login02:~/nbu
[harrisoj@bb2login02 ~]$ rsync -vr --no-perms /rds/projects/2015/harrisoj-01/Crane-03 /gpfs/bb/harrisoj/nbu^C
[harrisoj@bb2login02 ~]$ cd /gpfs/bb/harrisoj/nbu
[harrisoj@bb2login02 nbu]$ ls
apps  Crane-03  installs  test1  test2  test3
[harrisoj@bb2login02 nbu]$ rsync -vr --no-perms /gpfs/bb/harrisoj/nbu/Crane-03 /rds/projects/2015/harrisoj-01/
```

- Remember to remove the directory from BlueBEAR when you have completed your work.



```
madisoj@bb2login02:~/nbu
[madisoj@bb2login02 ~]$ pwd
/gpfs/bb/madisoj/nbu
[madisoj@bb2login02 ~]$ rm -r Crane-03
[madisoj@bb2login02 ~]$ ls
test1  test2  test3
[madisoj@bb2login02 ~]$
```


The -r option will remove the entire directory and all of its contents including subdirectories.

Other Methods for Copying Files on a Windows Device

IMPORTANT INFORMATION: Moving files on Windows should only be used as a last resort; it is quicker and more efficient to use rsync via PuTTY (see the [recommended method](#)!!!). Using rsync when logged onto a BlueBEAR login server keeps the data within the BEAR environment making the transfer fast, efficient and secure. The alternative Windows drag and drop method exports data from the data centre, through firewalls and across the campus network to the Windows device and back to make the transfer.

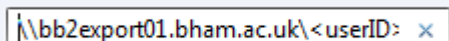
Copying files using two Windows Explorer windows


In the first Windows Explorer window, open or map a drive to \\bb2export01.bham.ac.uk\<userID> and one for the RDS.

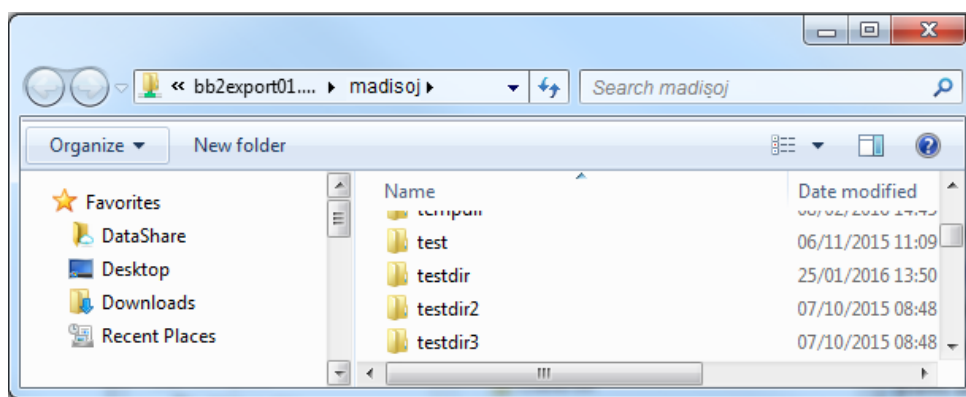
1. To open the first Windows Explorer window, click on the Start button  and type:


\\bb2export01.bham.ac.uk\madisoj-01


For example:



Press . This will open an explorer window to BlueBEAR.



2. To open the second Windows Explorer window, click on the Start button  and type:

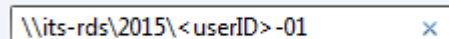
3. Click on the Start button  and type:


\\its-rds\2015\madisoj-01

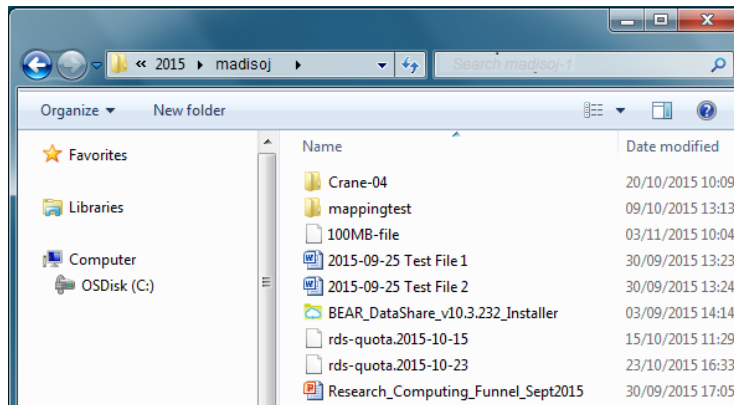
or

\\its-rds.bham.ac.uk\2015\madisoj-01

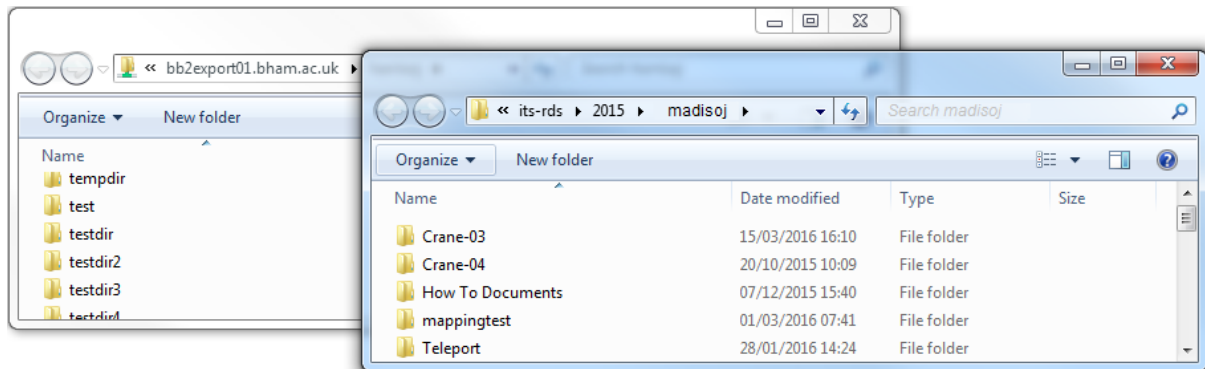
For example:




Press . This will open an explorer window to the Research Data Store.

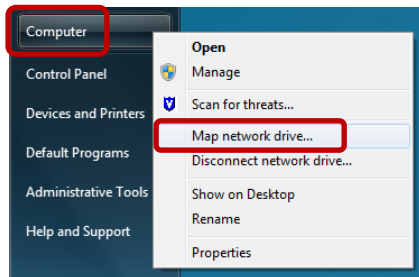


4. You can drag and drop files from one Explorer window to the other.

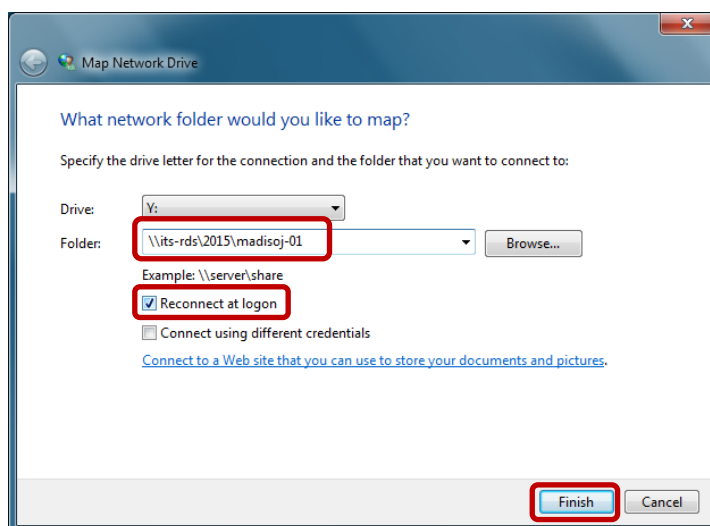


You can also map this drive by:

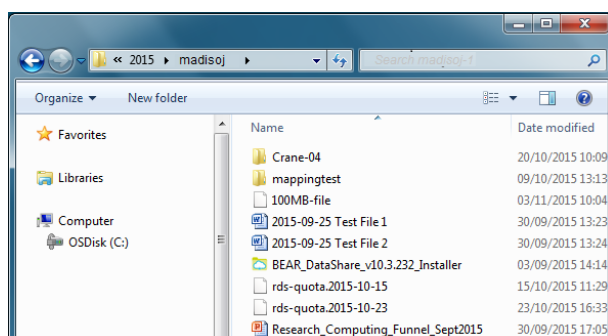
1. Click on the Start button 
2. Right-click on My Computer and select Map Network Drive



3. Type the link that was provided to you via IT Services which should be similar to: \\its-rds\2015\<userID>-01 and verify that the Reconnect at logon is selected. This allows the drive to map after you restart your machine. Click Finish to continue.



4. A window similar to the one below should be shown.



Reminder: Don't forget to delete directories/files from BlueBEAR (HPC) after moving files onto the Research Data Store.