

# Data Collection System Troubleshooting

## Experiment Storage Folders Inaccessible

The experiments are stored in `/data/cat` on the CAT server, and `/data/tom` on the TOM server, both of which should be accessible through NFS protocol on the TOM and CAT server computers as well as Lion, Tiger, Leopard, and Cheetah iMacs. If the experiment storage folders `/data/cat` and `/data/tom` are inaccessible, there are 2 main causes:

1. RAID0 memory is not mounted on `/data/cat` on CAT computer, and `/data/tom` on TOM computer.
2. NFS mount has not been established between the computers and the iMacs.

## Mounting RAID0 Drives

CAT computer has multiple hard drives installed: one hard drive for hosting the Ubuntu operating system, and the other two hard drives are combined using RAID0 protocol. The RAID0 memory location is `/dev/md0` and needs to be mounted to `/data/cat`. To do so, run the following command in the terminal of CAT computer (might need `sudo` to have permission for mounting):

```
mount /dev/md0 /data/cat
```

In the situation where the `/data/cat` mount is stale, unmount it with

```
umount /data/cat
```

and then re-mount `/dev/md0` to it using the `mount` command above.

Similarly for TOM computer, the commands are the same, simply replace `cat` with `tom` in all the commands above.

The NFS drives might need to be re-mounted to `/data/cat` and `/data/tom` (see section below).

## Mounting NFS Drives

NFS is a file-sharing protocol that allows other computers to access a folder of another computer. We need to allow all lab computers and iMacs to have access to `/data/cat` and `/data/tom` on CAT and TOM computers respectively.

Make sure that `/data/cat` and `/data/tom` are already mounted to RAID0 drives (see section above).

To give TOM computer access to `/data/cat`, we mount `/data/cat` on CAT computer to the folder `/data/cat` on TOM computer. Let `192.168.0.25` be the local IPv4 address of CAT computer in the network, run the following command on TOM computer (might need `sudo` to have permission for mounting):

```
mount -o rw -t nfs 192.168.0.25:/data/cat /data/cat
```

Similarly, to give CAT computer access to `/data/tom`, we mount `/data/tom` on TOM computer to the folder `/data/tom` on CAT computer. Let `192.168.0.24` be the local IPv4 address of TOM computer in the network, run the following command on CAT computer:

```
mount -o rw -t nfs 192.168.0.24:/data/tom /data/tom
```

In the situation where `/data/cat` or `/data/tom` mount is stale, unmount it with the `umount` command (see the command in the section above), and then re-mount using the `mount` command in this section.

Lion, Tiger, and Leopard iMacs should already have access to the `/data/cat` and `/data/tom` folders at startup. If they are unable to access these folders, restart the iMacs to run the auto-mounting script at startup.

## Unable to Launch Minecraft Client

Minecraft Clients need to be launched on the TOM computer and the Lion, Tiger, and Leopard iMacs while the iMacs have access to the internet. There are several reasons for why the Minecraft Client fails to launch on the iMacs:

1. The iMacs do not have access to the internet.

# Giving Internet Access to iMacs

The credential for accessing the UAWifi is shared privately to the members of the lab. Use this credential to sign in on to the UAWifi on the iMacs. Then, re-launch the Minecraft Client.

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