

Technion Server Guide

Pre-requisites

VPN connection

You will need to be connected to the Technion Network for this step. Obtain a OTP token [English/Hebrew](#) then follow the guide here: [English/Hebrew](#).

Remote Desktop

Note: Only one user can use RDP at a time

- Windows: Install [MobaXTerm](#)
- Linux: Install [Remmina](#)

Moving large files

- Multi-platform [Filezilla](#)

Advanced users

In Terminal/PowerShell/CMD run `ssh [TECHNION USERNAME]@[REMOTE HOST]`, enter your Technion password, and accept the key.

Remote hosts

You'll need these in order to connect:

When asked, the **port is almost always 22**

DGX

- Create an account here: <https://reg-hpc.technion.ac.il/>
 - Under affiliations, make sure DGX users is checked
 - Under budget owner, click Another person. Ask Moti for his details

Remote host: `dgx-master.technion.ac.il`

Specify username: Your technion username

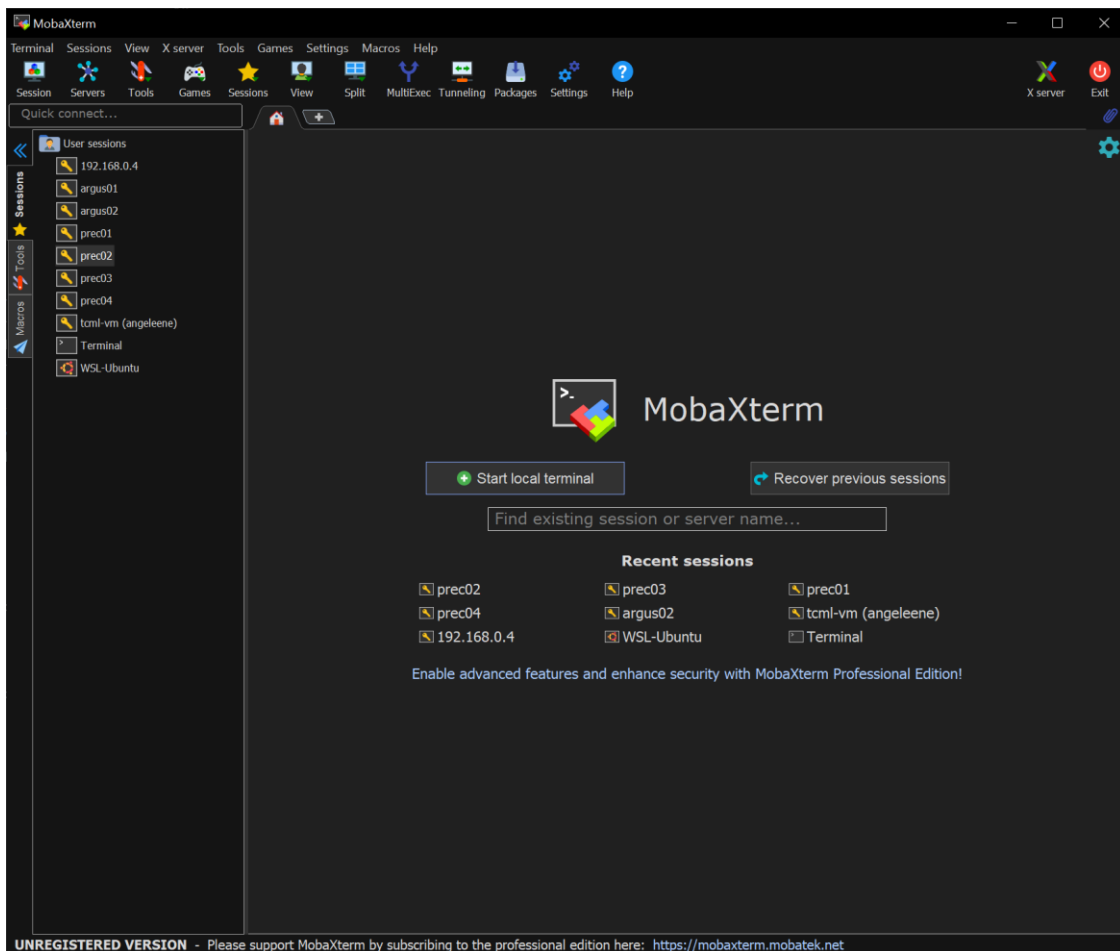
Precision / Argus

If you're a new student, you may need to ask Anne (anne@bm.technion.ac.il) for the permissions to connect to all of these.

Remote hosts (IP): * prec01 - 132.68.176.200 * prec02 - 132.68.176.45 * prec03 - 132.68.177.52 * prec04 - 132.68.176.162 * argus01 - 132.68.176.117 * argus02 - 132.68.176.118

Screenshots

MobaXTerm (v21.0)

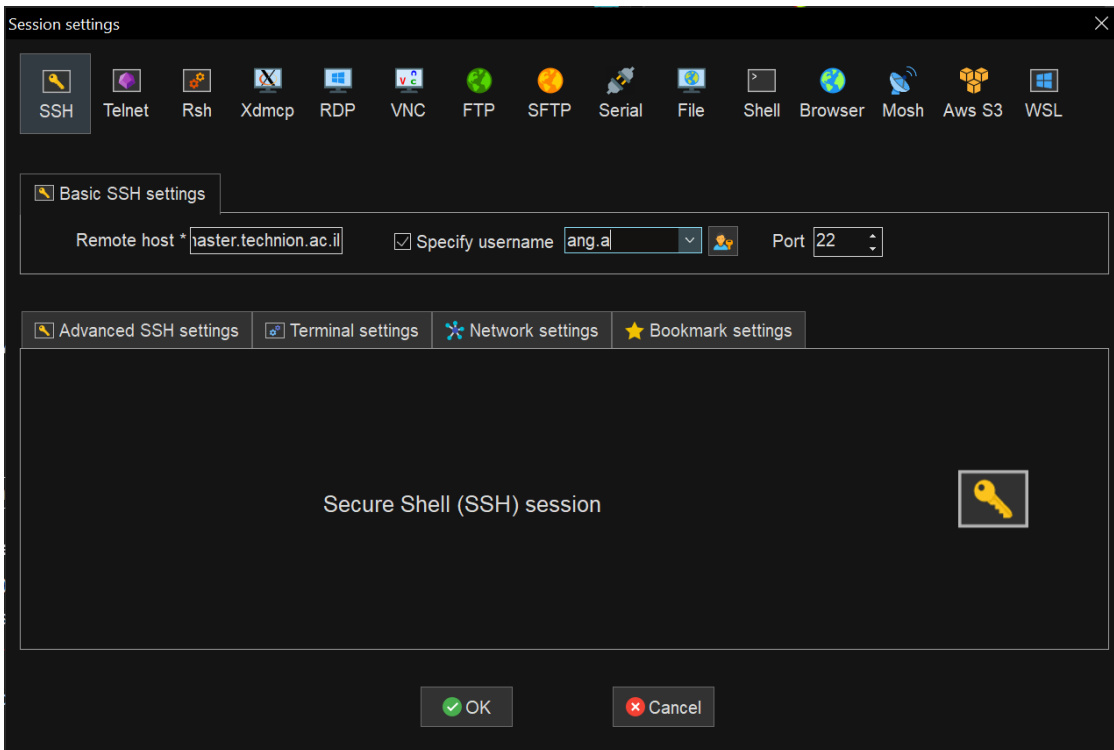


Initial screen: **UNREGISTERED VERSION** - Please support MobaXterm by subscribing to the professional edition here: <https://mobaxterm.mobatek.net>

Click Sessions on the upper left hand corner.

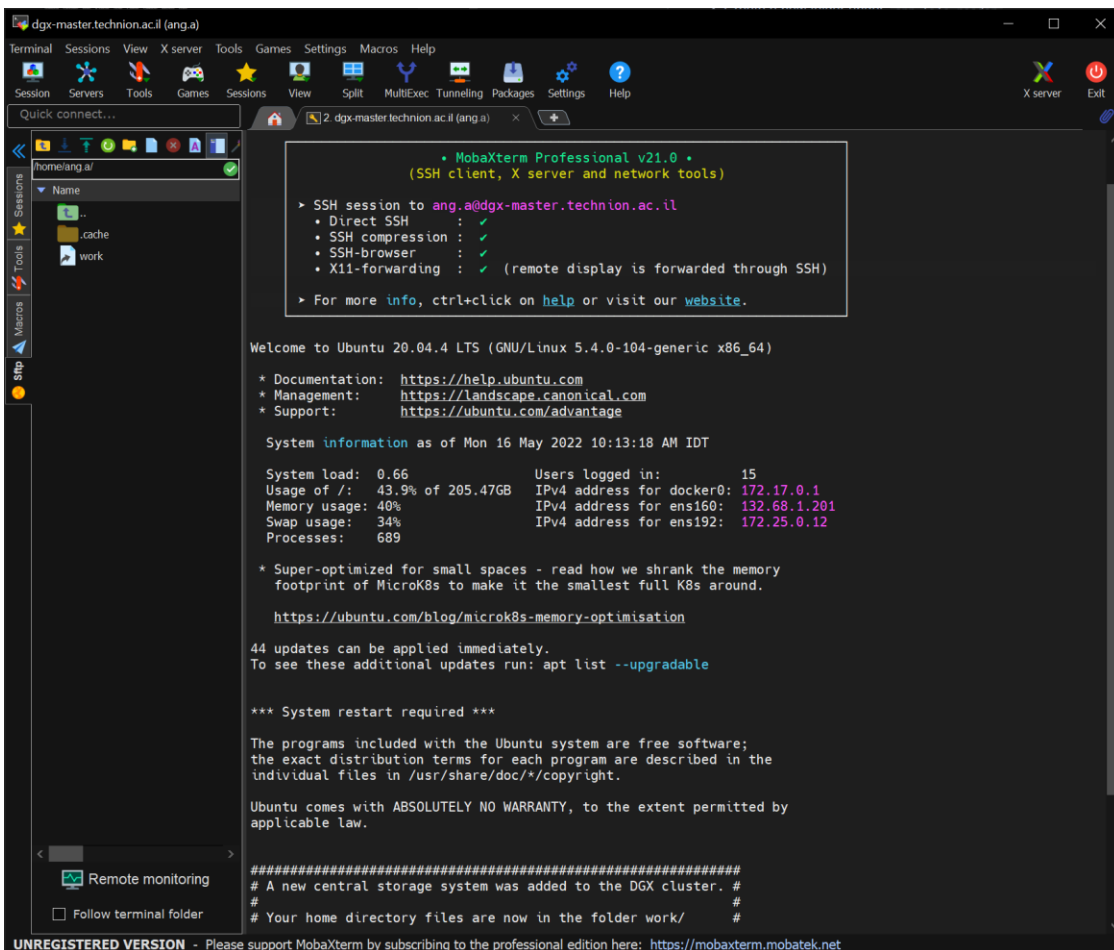
Select a connection type. SSH for command line only and RDP for remote desktop.

Enter the Remote Host and your Technion username in the appropriate fields.



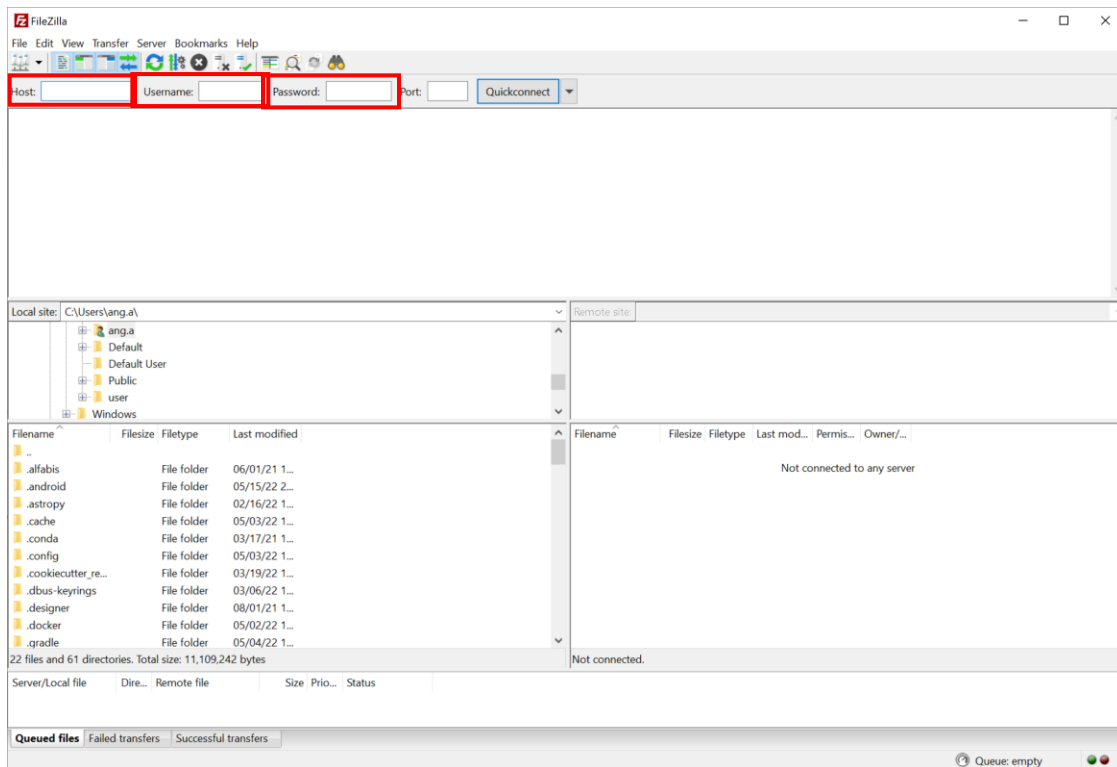
SSH

It will ask for your password - just type it when you're prompted, there will be nothing shown on the screen as you type for security reasons.

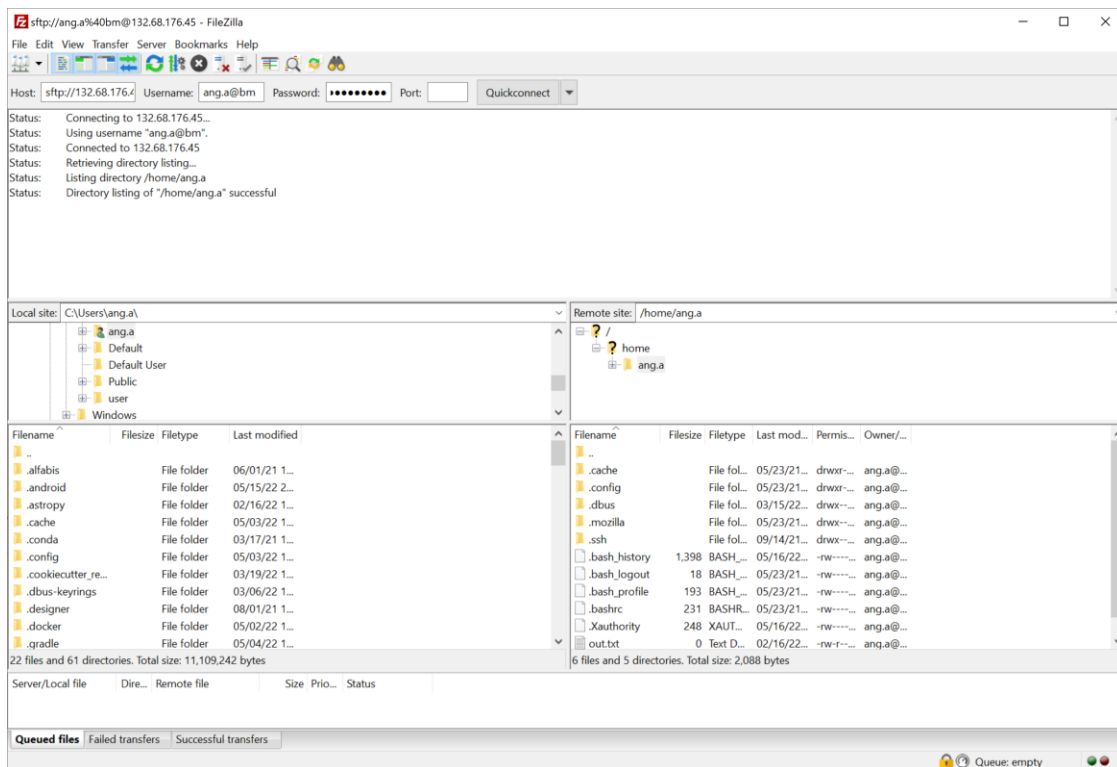


RDP:

FileZilla



Enter the host (Remote hosts (IPs) listed above), username (with @bm for precision/argus, without for DGX), your password, and the port



Usage

New prec user

To get conda: open .bashrc and paste the following at the end

```
# >>> conda initialize >>>
# !! Contents within this block are managed by 'conda init' !!
__conda_setup="$('/home/tcml/anaconda3/bin/conda' 'shell.bash' 'hook' 2> /dev/null)"
if [ $? -eq 0 ]; then
    eval "$__conda_setup"
else
    if [ -f "/home/tcml/anaconda3/etc/profile.d/conda.sh" ]; then
        . "/home/tcml/anaconda3/etc/profile.d/conda.sh"
    else
        export PATH="/home/tcml/anaconda3/bin:$PATH"
    fi
fi
unset __conda_setup
# <<< conda initialize <<<
```

then close the connection and reconnect. You should get (base) [USERNAME@bm.technion.ac.il@tcml-precision02 ~]\$. Transfer your files, create a new conda env, etc.

DGX :

Support

- [Technion Sysaid support](#) - For DGX + Prec/Argus issues (e.g., is it down?) and VPN-related problems. Also useful for Technion-related problems in general. Response time varies.

Use the following categories for DGX:

 Submit Incident

Category *		
<div>אגף מחשוב ומערכות מידע ▼</div>	<div>קלסטרי HPC GPU ▼</div>	<div>▼</div>
Phone *		
Title *		

Select third level category

נושאי docker

כללי

Slurm מערכת תורים

DGX Sysaid in Hebrew

Submit Incident

Category *

Division of Computing and Information Systems ▼ HPC GPU Clusters ▼

Phone *

Title *

Description *

Select third level category

- General
- Docker issues
- Slurm reservation system

DGX Sysaid in English

For English-only speakers: [Changing Sysaid language can be found in the settings](#), but not everything is translated.

- “I need permissions to access a folder” - Ask Anne at anne@bm.technion.ac.il
- “I need something installed” - **Only for precision servers**. Ask whoever it is who has the admin rights, but I recommend just using conda.
- “My software needs to be compiled*” - Ask whoever it is who has the admin rights.
- “My password doesn’t work” - This can happen if you were ever prompted to ask to change your password in the Technion system. Try using your previous password or any previous passwords you have used. Alternatively, ask Sysaid and/or Anne for help.

Misc

DGX-specific commands

- `squeue` - displays the current queue of all running jobs, including the user, the status, the time since the run began and additional parameters
- `srun` - starts a job running in interactive mode.
- `sbatch` - submits a run for a batch job. See section 4 for details.
- `nvidia-smi` - when running in interactive mode, this command can be used to get elaborate data regarding your cards, including utilization and electricity consumption.
- `sacct` - check your run history

Basic Linux commands

- `pwd` - Print the current directory
- `cd [DIRECTORY]` - Change the current directory
- `ls` - Print the contents of the current directory
- `ls -a` - Print the contents of the current directory, including hidden files
- `ls -la` - Print the contents of the current directory with file creation times, file owner, and permissions
- `du -h` - Print the size of the files in the current directory in human-readable format (1K, 5M, etc)
- `cat [FILENAME]` - Print the contents of the file to terminal. Useful for checking small files
- `cp [SOURCE] [DESTINATION]` - Copy a file or directory

- `mv [SOURCE] [DESTINATION]` - Move a file or directory
- `mkdir [DIRECTORY]` - Create a directory
- `rm [FILENAME]` - Delete a file. **Warning: Cannot be undone**
- `rm -r [DIRECTORY]` - Delete a directory. **Warning: Cannot be undone**
- `touch [FILENAME]` - Create an empty file
- `wget [URL]` - Download file from the internet
- `man [COMMAND]` - Opens the manual for certain commands. Press q to exit
- `clear` - Clears the terminal. Useful when things get cluttered

References

<https://cis.technion.ac.il/en/dgx-user-guide/>