

REMOTE ACCESS -TUTORIAL

MobaXterm, Public Key Authentication and .bashrc Settings

MobaXterm CLIENT -TUTORIAL

A. MobaXterm Installation

1. Download MobaXterm from <https://mobaxterm.mobatek.net/download.html>
2. Install it with default settings.

B. MobaXterm Configuration

3. Click on "Sessions" and then on "SSH".

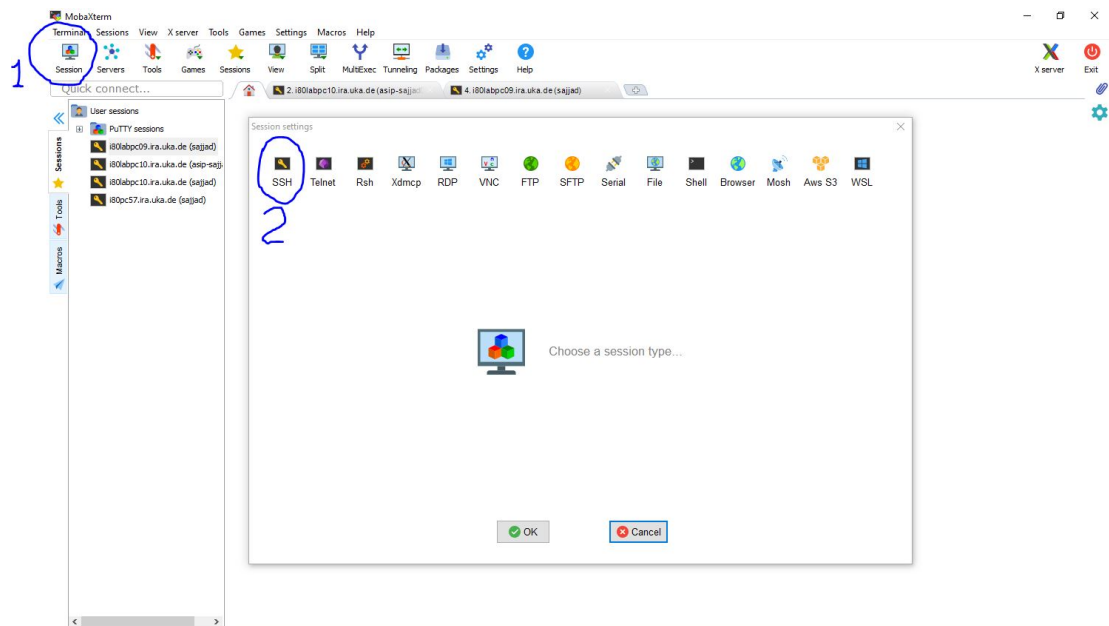


Figure : SSH Session

4. In the new windows "Session settings", enter **Remote host** as "*i80labpcXX.ira.uka.de*", tick the box "**Specify user name**" and then enter your user name as "*asip-abcdnn*".

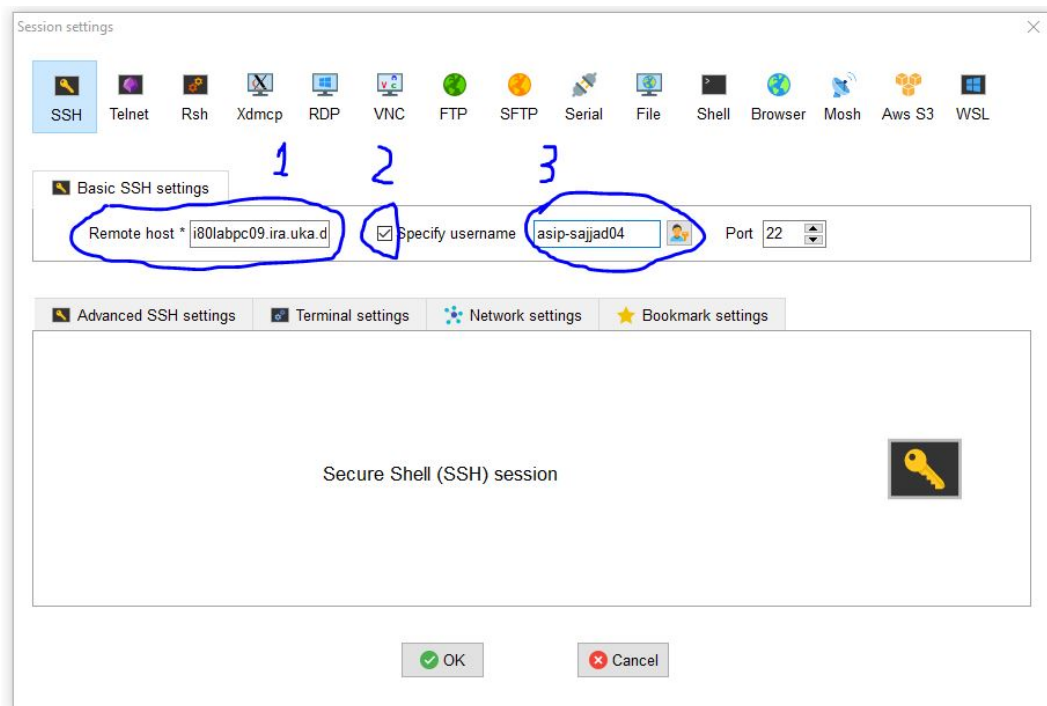


Figure : Session Settings

5. Press OK. It will ask for the user password.
6. Enter your password and press Enter.

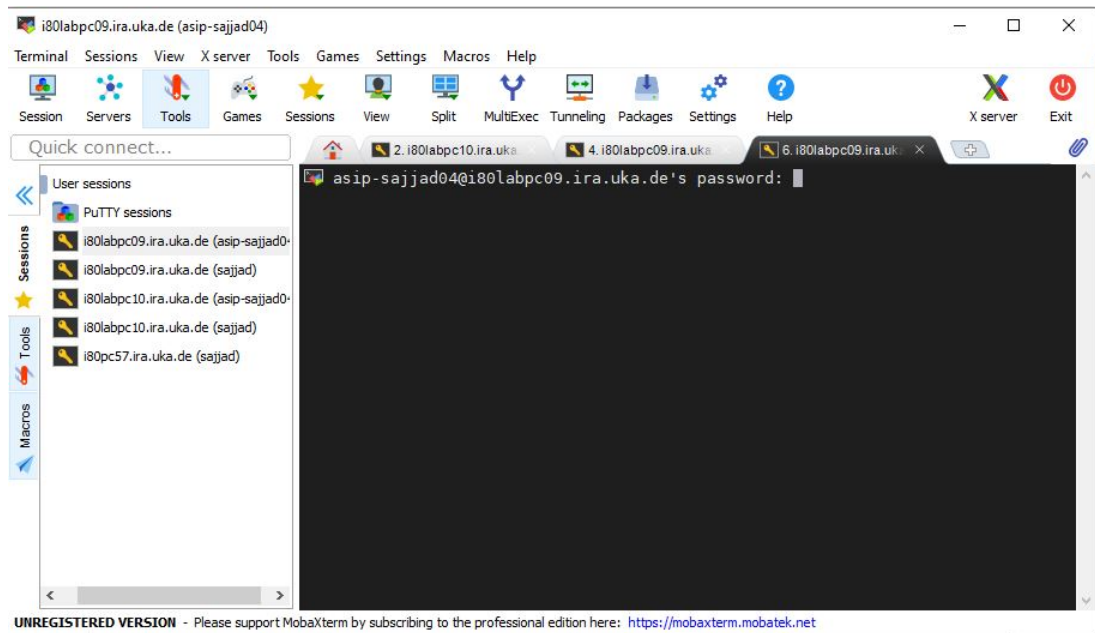


Figure : Logging in and Requiring Password

7. You are now logged into the lab PC using MobaXterm.

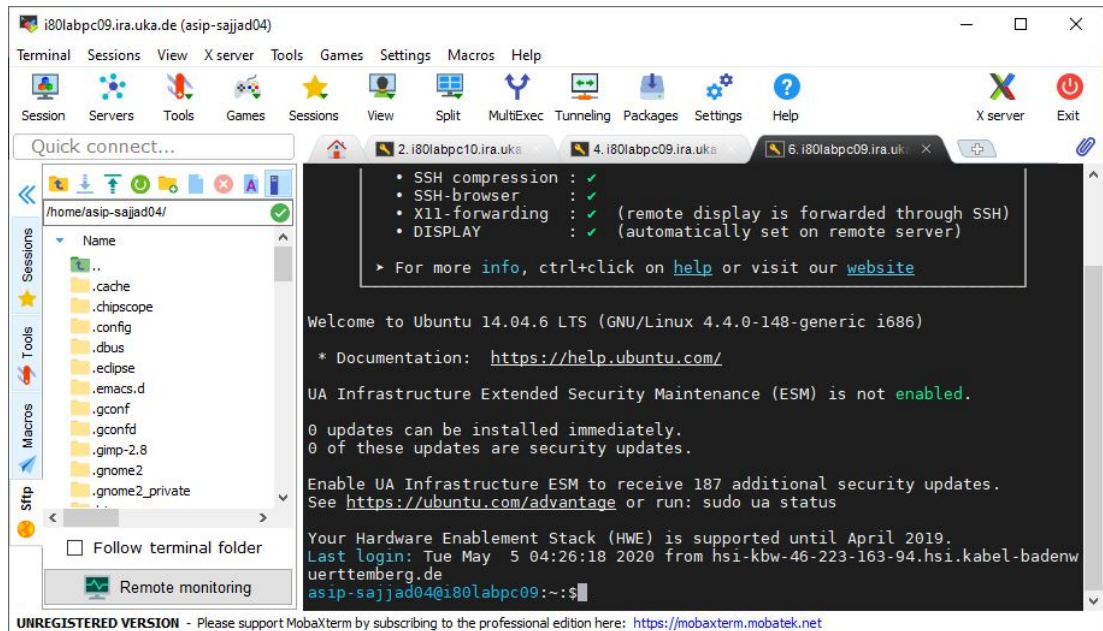


Figure : Logged into Remote PC

C. Recommended Practice.

8. It is **recommended** to log into **i80pc57** as this PC contains the ASIP-meister software. Try to perform lab on this PC. Use **i80labpc10** when you need to implement your applications on FPGA.
9. To repeatedly login to some PC and avoid password, use DSA-keys and copy to desired PC.
10. Type "**ssh-keygen -t dsa**" and press Enter. Leave the default options. Leave the password empty.

```
asip-sajjad04@i80labpc09:~:$ssh-keygen -t dsa
Generating public/private dsa key pair.
Enter file in which to save the key (/home/asip-sajjad04/.ssh/id_dsa):
/home/asip-sajjad04/.ssh/id_dsa already exists.
Overwrite (y/n)? y
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /home/asip-sajjad04/.ssh/id_dsa.
Your public key has been saved in /home/asip-sajjad04/.ssh/id_dsa.pub.
The key fingerprint is:
af:c3:84:62:4e:f4:e6:5e:cb:d1:03:19:ff:63:a9:ad asip-sajjad04@i80labpc09
The key's randomart image is:
+--[ DSA 1024]-----+
|
|             .
|          .  +
|        . . S .
|      + + .+ . .
|    + + oo + =
|  . . oo+ = .
| .. +.E..
|
+-----+
```

```
asip-sajjad04@i80labpc09:\textasciitilde:\$ssh-keygen -t dsa
Generating public/private dsa key pair.
Enter file in which to save the key (/home/asip-sajjad04/.ssh/id\_dsa):
/home/asip-sajjad04/.ssh/id\_dsa already exists.
Overwrite (y/n)? y
Enter passphrase (empty for no passphrase):
```

```
Your identification has been saved in /home/asip-sajjad04/.ssh/id\_dsa.
Your public key has been saved in /home/asip-sajjad04/.ssh/id\_dsa.pub.
The key fingerprint is:
```

The key's randomart image is:

$$\backslash\text{textbar}\{\} \quad \backslash\text{textbar}\{\}$$
$$\overline{} \quad . \quad \overline{}$$
$$\overline{} \cdot + \overline{}$$
$$\backslash\text{textbar}\{\} \quad . \quad . \quad .S \quad . \quad \backslash\text{textbar}\{\}$$
$$\overline{} + + .+ \quad . \quad . \quad \overline{}$$
$$\overline{\{ \}} + + oo + = \overline{\{ \}}$$
$$\text{\texttt{\textbackslash textbar\{}}} \cdot .00+ = . \text{\texttt{\textbackslash textbar\{}}}$$
$$\backslash\text{textbar}\{\} \quad .. \quad +.E.. \quad \backslash\text{textbar}\{\}$$
[illegible]

- ```
asip-sajjad04@i80labpc09:~:$ssh-copy-id -i ~/.ssh/id_dsa.pub asip-sajjad04@i80pc57
```

```
/usr/bin/ssh-copy-id: INFO: 1 key(s) remain to be installed -- if you are prompted
now it is to install the new keys
```

5

Number of key(s) added: 1

Now try logging into the machine, with: "ssh 'asip-sajjad04@i80pc57'"

and check to make sure that only the key(s) you wanted were added.

12. Now log into i80pc57 using "ssh -X" it will ask for the password.

```
asip-sajjad04@i80labpc09:~:$ssh -X i80pc57
```

```
Last login: Wed May 6 05:11:07 2020 from i80labpc09.irf.uni-karlsruhe.de
```

```
asip-sajjad04@i80pc57:~:$
```

#### D. Setting up .bashrc.user

13. Whenever you are logged into any PC, this file is executed at the login. Please set different variables in this file carefully. Usually the following variables should be like this:

```
asip-sajjad04@i80pc57:~:$cat .bashrc.user
```

```
export ASIPS_LICENSE=29000@i80asip.ira.uka.de
```

```
export PATH=/AM/ASIPmeister/bin:$PATH
```

```
export ASIP_APDEV_SRCROOT=/home/asip00/epp/AM_tools
```

```
export PATH=/usr/java/jre1.6.0_45/bin:$PATH
```

```
export ASIPmeister_Home=/AM/ASIPmeister
```

```
export ASIPmeister_HOME=/AM/ASIPmeister
```

```
. /home/adm/modelsim_66d.setup
```

```
. /home/adm/xilinx_13.2_32bit.setup
```

```
asip-sajjad04@i80pc57:~:$
```