

# OASES 2.1 - Installation Guide

This is a friendly installation guide for the OASES 2.1 Base Package software made by the MIT using the Ubuntu App of the Microsoft Store.

**Warning 1** - It should take around 15 minutes to complete the installation. Only step 1. will make your computer reboot.

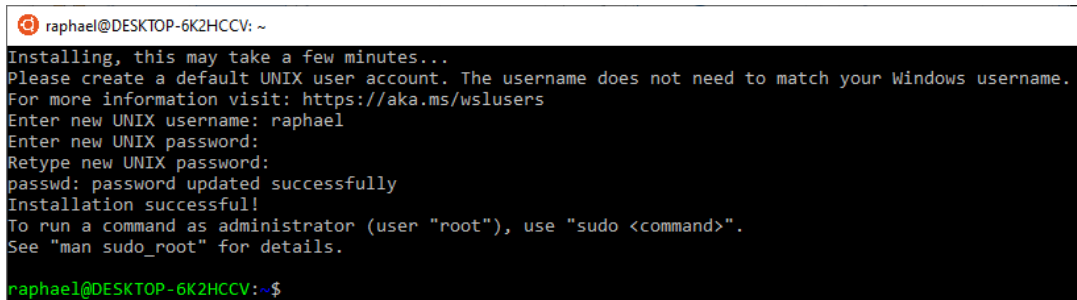
## 1.1 Installing Ubuntu from Microsoft Store

1. Enter the Windows PowerShell as an administrator, copy / paste the following command

```
Enable-WindowsOptionalFeature -Online -FeatureName Microsoft-Windows-Subsystem-Linux
```

and type *Y* in the PowerShell to restart the computer.

2. Download the Ubuntu 18.04 LTS application made by Canonical Group Limited from the Microsoft Store (should be around 230 MB) and then open it. It will install automatically and ask for a UNIX user name and password



```
raphael@DESKTOP-6K2HCCV: ~
Installing, this may take a few minutes...
Please create a default UNIX user account. The username does not need to match your Windows username.
For more information visit: https://aka.ms/wslusers
Enter new UNIX username: raphael
Enter new UNIX password:
Retype new UNIX password:
passwd: password updated successfully
Installation successful!
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.
raphael@DESKTOP-6K2HCCV: ~$
```

3. Enable the 'Show hidden files, folders, drives' on Windows 10. You can now access the Ubuntu installation folder in

```
C:\Users\USERNAME\AppData\Local\Packages\CanonicalGroupLimited.UbuntuonWindows_VERSION,
```

and access the home folder from it,

```
...\CanonicalGroupLimited.UbuntuonWindows_VERSION\LocalState\rootfs\home\UNIX_USERNAME,
```

where USERNAME, VERSION and UNIX\_USERNAME need to be replaced.

**Check 1** - For an easy access, it is strongly recommended to create a shortcut of the UNIX\_USERNAME folder wherever wanted (on the Windows Desktop for example).

4. Update Ubuntu by copying and pasting (with a right click !)

```
sudo apt-get update
sudo apt-get upgrade
```

5. Go to the UNIX\_USERNAME folder and open the .bashrc file with a notepad. In order to permanently have all the required user privileges for all folders and files in the home folder, add

```
sudo chmod -R +rwx ~/
```

at the end of the file and save it.

**Check 2** - Ubuntu is set up!

## 1.2 Installing OASES 2.1

6. In the Ubuntu Terminal, install many dependencies at once

```
sudo apt-get install cmake gfortran gcc g++ libx11-dev csh
```

7. Download VcXsrv<sup>1</sup> and install it with the default values. Install Plotmtv as well following this link <https://askubuntu.com/questions/679724/installing-plotmtv>.
8. Unzip the oases-public folder of oases-public.zip found in the Github repository into the C: folder. Copy / paste it into the home folder and create a folder Oases that will contain all the binaries to run the software.

```
cp -R /mnt/c/oases-public ~/
mkdir ~/Oases
```

**Warning 2** - For the software to run properly, both these folders should not in any case be deleted or tempered with.

9. Build the OASES software

```
cd ~/oases-public
./build.sh ~/Oases
```

There will be a lot of warnings but as long as the software continues to install, it is normal.

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<sup>1</sup>You can directly download it from <https://sourceforge.net/projects/vcxsrv/>

10. Exactly like in step 7., go to the UNIX\_USERNAME folder and open the .bashrc file with a notepad. In order to permanently have the environment variables of OASES set up<sup>2</sup>, add

```
export DISPLAY=localhost:0.0
export PATH=$PATH:~/Oases/bin
export OASES_SH=~/Oases/bin
export OASES_BIN=~/Oases/bin
export OASES_LIB=~/Oases/lib
export USRTERMTYPE=x
export MTV_COLORMAP=hot
export MTV_WRB_COLORMAP='ON'
export MTV_PRINTER_CMD='lpr'
export MTV_PSCOLOR='on'
export CON_BWCOL=COL
export CON_PACKGE=MTV
export CON_DEVICE=X11
```

at the end of the file and save it.

**Warning 3** - To make sure the environment variables are defined correctly, restart the Ubuntu terminal.

**Check 3** - OASES is set up!

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<sup>2</sup>Following the OASES 3.1 User Guide.