REST-for-Physics Framework

0.1 Installing Windows Subsystem for Linux

23/01/2023 - JuanAn García - juanangp@unizar.es

Outline

- Introduction to WSL

- Installation of WSL Ubuntu-22.04

- Set-up your environment

- MobaXterm terminal

- Windows Subsystem for Linux (WSL) allows developers to run a Linux environment in Windows
- Available on Windows 10, Windows 11, Windows Server 2019 and Windows Server 2022.
- In May 2019, WSL2 was released introducing important changes such as a real Linux kernel

https://linuxconfig.org/ubuntu-22-04-on-wsl-windows-subsystem-for-linux

- Turn on Windows features
- Install Ubuntu-22.04 from Microsoft Store

- ● Provide username and password

- Update linux packages "sudo apt-get update"
- Upgrade linux packages "sudo apt-get upgrade" (takes few minutes)
- Install common developer packages:
  "sudo apt-get install dpkg-dev cmake g++ gcc \
  binutils libx11-dev libxpm-dev git \
  libxft-dev libxext-dev python3 libssl-dev gedit"
- Install required packages for ROOT compilation
  "sudo apt-get install gfortran libpcre3-dev xlibmesa-glu-dev \
  libglew-dev libftgl-dev libmysqlclient-dev libfftw3-dev \
  libcfitsio-dev graphviz-dev libavahi-compat-libdnssd-dev \
  libldap2-dev python3-dev libxml2-dev libkrb5-dev \
  libgsl0-dev qtwebengine5-dev"
- Install required packages for REST and Geant4
  "sudo apt-get install libmpfr-dev libxerces-c-dev"
- **Congratulations, you have successfully installed WSL**

- Although you can use native Windows terminal it is highly recommended to use MobaXterm terminal to access your WSL https://mobaxterm.mobatek.net/download-home-edition.html
- Double click on "WSL-Ubuntu-22.04"
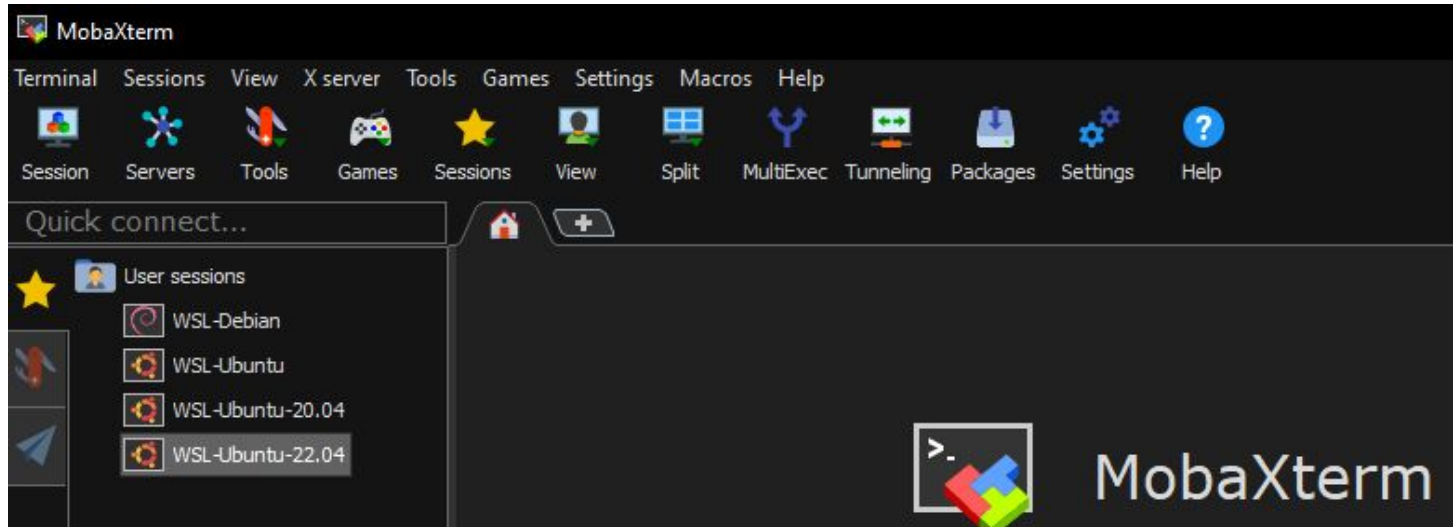
- Your terminal should look like this:
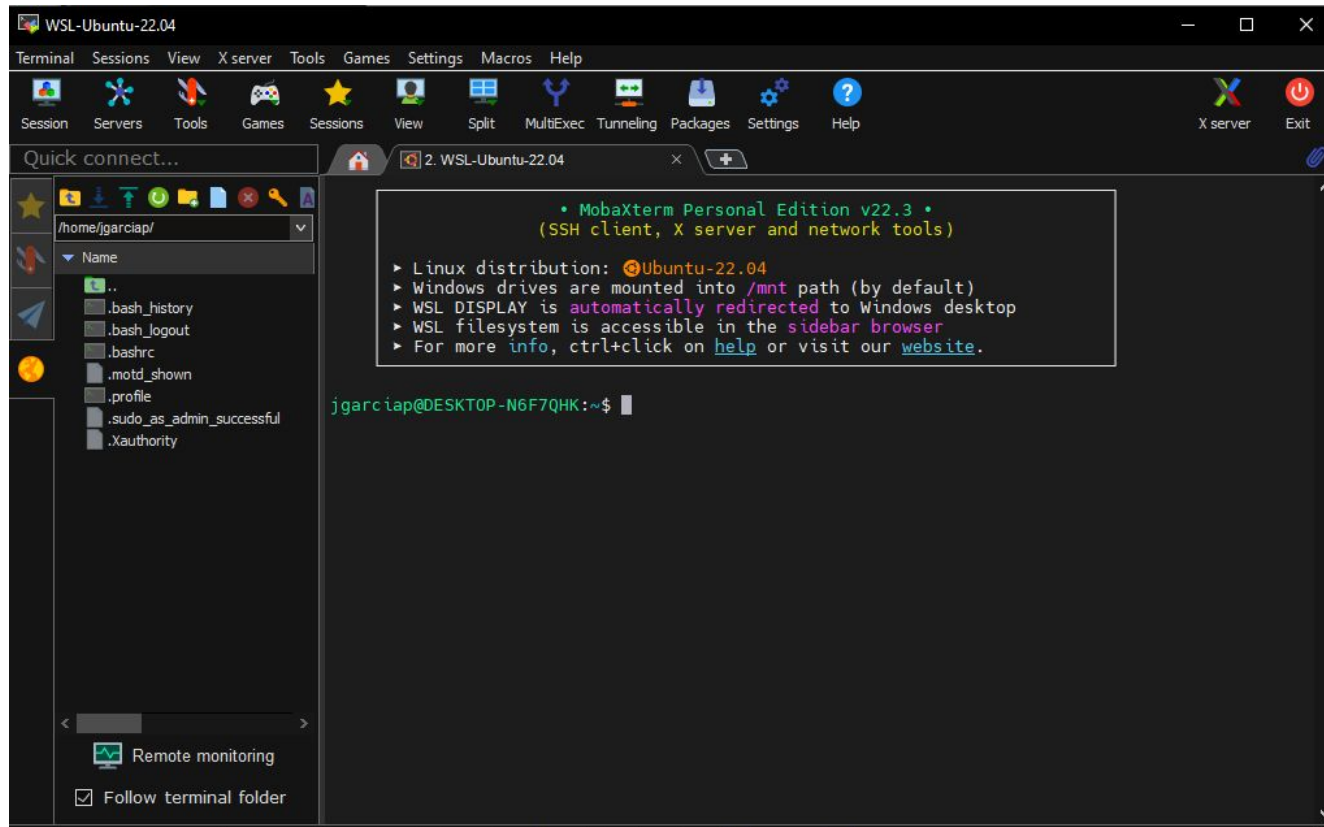
BACK-UP

Installation of WSL Ubuntu-20.04

- Open "Command Prompt" as administrator
- List available distributions using "wsl --list --online"
- Install Ubuntu-20.04 distro "wsl --install -d Ubuntu-20.04"
- Restart your computer if needed

```
C:\windows\system32>wsl --list --online
The following is a list of valid distributions that can be installed.
Install using 'wsl --install -d <Distro>'.

NAME                    FRIENDLY NAME
Ubuntu                  Ubuntu
Debian                  Debian GNU/Linux
kali-linux              Kali Linux Rolling
SLES-12                 SUSE Linux Enterprise Server v12
SLES-15                 SUSE Linux Enterprise Server v15
Ubuntu-18.04            Ubuntu 18.04 LTS
Ubuntu-20.04            Ubuntu 20.04 LTS
OracleLinux_8_5         Oracle Linux 8.5
OracleLinux_7_9         Oracle Linux 7.9
```

```
C:\windows\system32>wsl --install -d Ubuntu-20.04
Installing: Ubuntu 20.04 LTS
Ubuntu 20.04 LTS has been installed.
Launching Ubuntu 20.04 LTS...
```

Ubuntu-20.04 required packages:

- Update linux packages "sudo apt-get update"
- Upgrade linux packages "sudo apt-get upgrade" (takes few minutes)
- Install common developer packages:
  "sudo apt-get install dpkg-dev cmake g++ gcc \
  binutils libx11-dev libxpm-dev git gedit\
  libxft-dev libxext-dev python libssl-dev "
- Install required packages for ROOT compilation
  "sudo apt-get install gfortran libpcre3-dev xlibmesa-glu-dev \
  libglew1.5-dev libftgl-dev libmysqlclient-dev libfftw3-dev \
  libcfitsio-dev graphviz-dev libavahi-compat-libdnssd-dev \
  libldap2-dev python-dev libxml2-dev libkrb5-dev \
  libgsl0-dev qtwebengine5-dev"
- Install required packages for REST and Geant4
  "sudo apt-get install libmpfr-dev libxerces-c-dev"