REST-for-Physics Framework

0.2 ROOT compilation preparation

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Outline

- Introduction

- Installing ROOT binary (tested on Ubuntu 22.04 WSL)

- Installing ROOT from source (Linux and WSL)

- Installing ROOT in MacOs

- ROOT installation page https://root.cern/install/
- Check your distribution and install required packages (if you are using WSL Ubuntu-22.04 should be already done), otherwise check ROOT installation prerequisites https://root.cern/install/dependencies/
- We target to the latest stable ROOT release **6.26/10** https://root.cern/releases/release-62610/

Installation instructions:
- Open a terminal
- Download ROOT release **6.26/10** binary for Ubuntu-22.04 "wget https://root.cern/download/root_v6.26.10.Linux-ubuntu22-x86_64-gcc11.3.tar.gz"
- Untar the file "tar xvzf root_v6.26.10.Linux-ubuntu22-x86_64-gcc11.3.tar.gz"
- A folder named *root* must be created

Installation instructions:
- Source ROOT installation "source ~/root/bin/thisroot.sh"
- Run ROOT in the terminal using "root"

- **Congratulations, you have successfully installed ROOT binary**

If the pre-compiled version is not working you can attempt to install ROOT from source

Installation instructions:

- Open a terminal
- Download ROOT release **6.26/10**
  "wget
  https://root.cern/download/root_v6.26.10.source.tar.gz"
- Untar the file "tar xvzf root_v6.26.10.source.tar.gz"
- A folder named *root-6.26.10* must be created

Installation instructions:
- Navigate to the root source folder "cd root-6.26.10"
- Create build directory "mkdir root_build"
- Navigate to the build directory "cd root_build"
- Run *cmake* to check prerequisites and to generate "cmake -DCMAKE_INSTALL_PREFIX=../root_install -DCMAKE_CXX_STANDARD=17 ../"
- Check for errors if any
- Compile the code "make -j 8 install" (may take some time)
- Report compilation errors if any

Installation instructions:

- Source ROOT installation "source ~/root-6.26.10/root_install/bin/thisroot.sh"
- Run ROOT in the terminal using "root"

```
jgarciap@DESKTOP-N6F7QHK:~/root-6.26.10/root_build$ root
-------------------------------------------------------------------------
| Welcome to ROOT 6.26/10                        https://root.cern |
| (c) 1995-2021, The ROOT Team; conception: R. Brun, F. Rademakers |
| Built for linuxx8664gcc on Nov 16 2022, 10:42:54                 |
| From tags/v6-26-10@v6-26-10                                      |
| With c++ (Ubuntu 9.4.0-1ubuntu1~20.04.1) 9.4.0                   |
| Try '.help', '.demo', '.license', '.credits', '.quit'/'.q'      |
-------------------------------------------------------------------------
root [0] .q
```

- **Congratulations, you have successfully installed ROOT from source**