Installation guide: Compiling OpenLB with Linux Bash for Windows

Jesse Ross-Jones, Simon Englert

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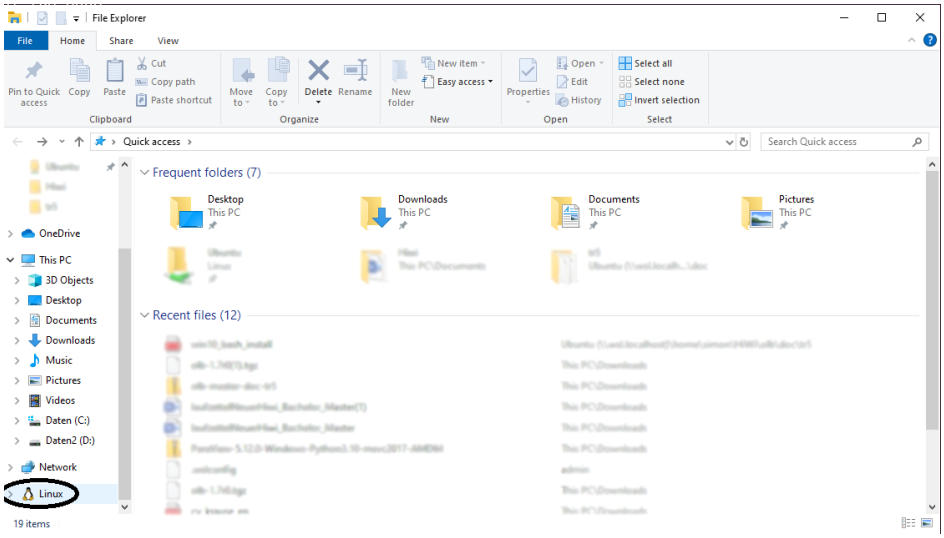
The here described installation procedure has been tested with OpenLB 1.7 and Windows 10 x64.

1. Install Windows subsystem for Linux (WSL) with the Unbuntu distribution like described on `https://learn.microsoft.com/en-us/windows/wsl/install`
2. Open your terminal (CMD) and type **wsl** to start the subsystem
3. Before installing the required libraries run:
   sudo apt-get update
4. Next, install the g++ compiler, which you will need to compile C++ programs:
   sudo apt-get install g++ make
5. To benefit from the efficient parallelization, you will probably want to run the program on more than one core, so it is recommended to install Open-MPI:
   sudo apt-get install openmpi-bin openmpi-doc libopenmpi-dev
6. Download the latest OpenLB release from `http://www.openlb.net/download/`
7. Copy the downloaded file in your Linux user directory
   (a) Open your file explorer
   (b) Open your Linux filesystem found here:



(c) Go into Ubuntu/home/<Username> and copy the file

8. Type **cd** to get into your user directory
9. Type **tar xvfz <filename>** to unpack the folder [1]
10. Finally, go into the root folder of OpenLB and type **make** to compile the software library and all examples. If your system is set up correctly, you should see a lot compiler messages but no errors.
11. For further instructions consult the user manual found on `https://www.openlb.net/wp-content/uploads/2023/06/olb_ug-1.6r0.pdf`

[1] <filename> need to be replaced with the filename of the .tgz file