



Science and
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Facilities Council

Scientific Computing



CCP-WSI
a Collaborative Computational Project
in Wave Structure Interaction

Virtual Training Environment (DAaaS)

Dr Stephen Longshaw

OpenFOAM Parallel Performance Engineering Workshop

Register

Agenda

5 - 6 June 2023

Time TBC

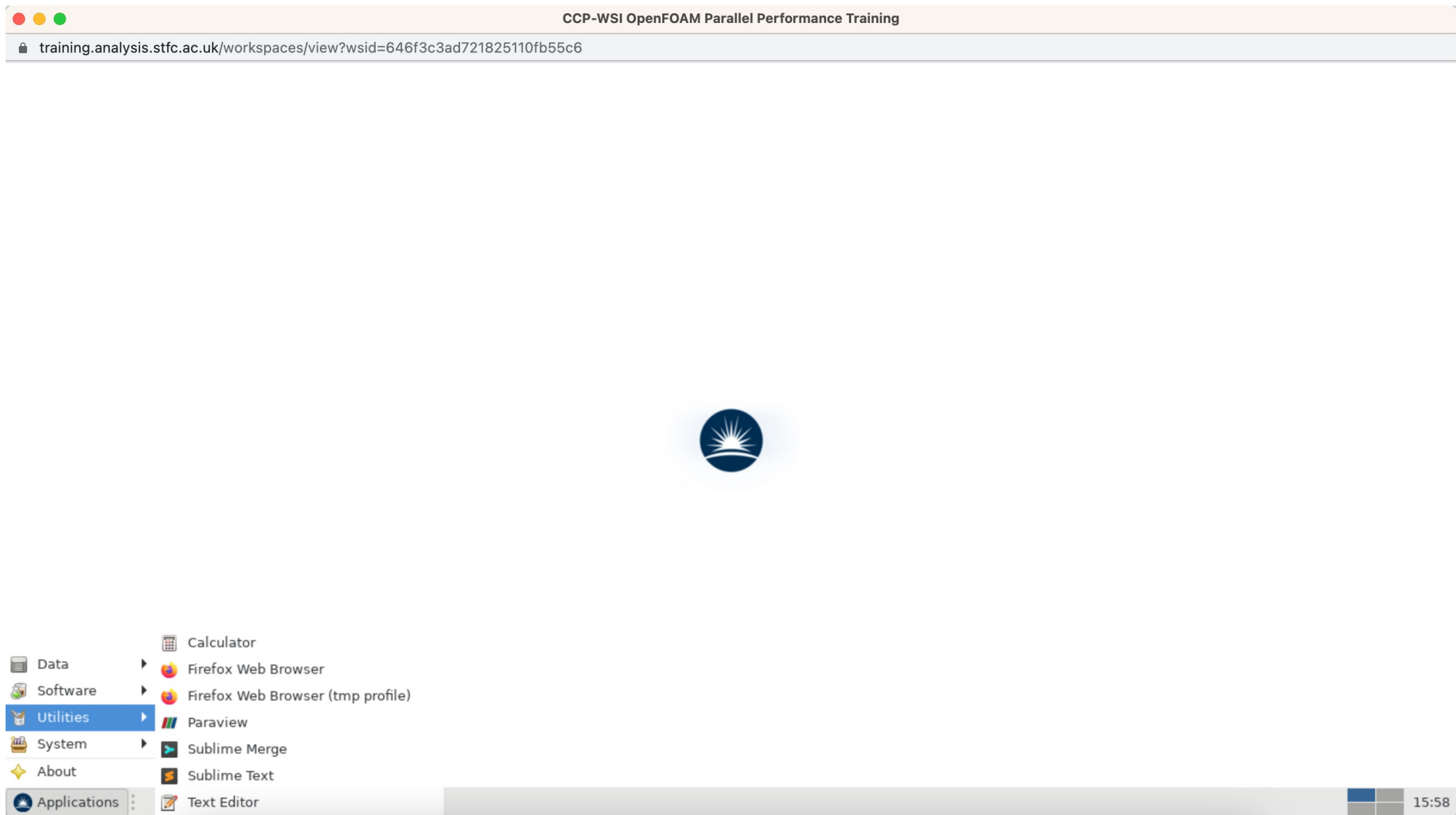
Daresbury Laboratory, Keckwick Lane, WA4 4AD



Getting Started

- We will use the STFC Cloud provided Data Analysis as a Service (DAaaS) virtual machine (VM) environment for all practical work
- Provides you with a self-contained virtual machine with:
 - Ubuntu Linux based OS
 - 16 high-end cores
 - 60GB RAM
- Access is via any web browser
- Effectively this is like a virtual Linux based high-end workstation

Please now use the link provided when you registered to create your new workspace (if you haven't already) and ensure you can launch your new VM

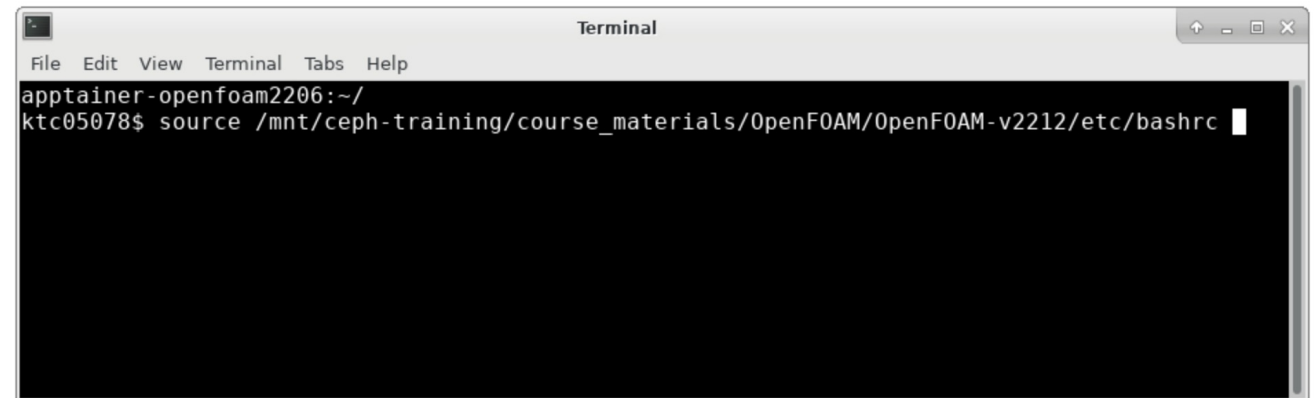
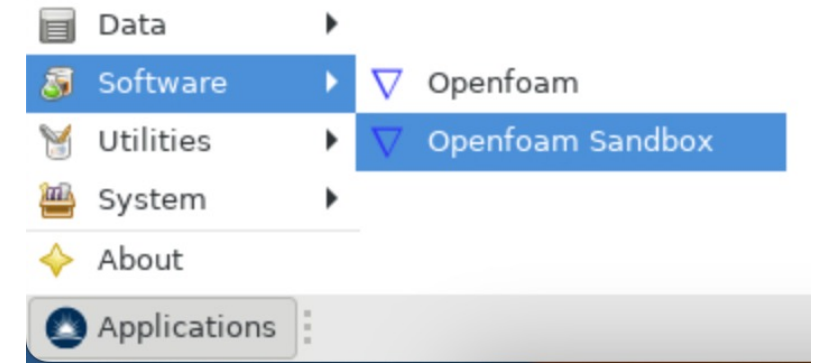


Using the Environment

- You can access two main locations within the VM:
 - */mnt/ceph-training/course_materials/* - **this is where all slides, handouts and OpenFOAM are kept and is read-only**
 - */home/[username]* – **this is your personal home directory where you should perform any work you do**
- The VM contains the following software that we will use:
 - ESI OpenFOAM v2212
 - Kitware ParaView 4.4.0

Using OpenFOAM

1. Open your VM
2. Launch the OpenFOAM Sandbox terminal environment
3. Source the precompiled OpenFOAM v2212 installation

A screenshot of a terminal window titled 'Terminal'. The terminal shows the command `source /mnt/ceph-training/course_materials/OpenFOAM/OpenFOAM-v2212/etc/bashrc` being executed. The prompt is `apptainer-openfoam2206:~/krc05078$`.

4. Create a new OpenFOAM user directory (`/home/[username]/OpenFOAM/[username]-v2212`)

A screenshot of a terminal window titled 'Terminal'. The terminal shows the command `mkdir -p $WM_PROJECT_USER_DIR` being executed. The prompt is `apptainer-openfoam2206:~/krc05078$`.



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Questions?