

ecFlow

Final thoughts

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How to install ecFlowUI on MacOS and Linux (brew)

- Homebrew: **brew install ecflow-ui** (note: UI only!)

```
Iains-MacBook-Pro-2:~ % brew install ecflow-ui
➡ Downloading https://formulae.brew.sh/api/cask.jws.json
➡ Fetching ecflow-ui
➡ Downloading https://ghcr.io/v2/homebrew/core/ecflow-ui/manifests/5.10.0
Already downloaded: /Users/cgi/Library/Caches/Homebrew/downloads/edd5d1d7b0f7
➡ Downloading https://ghcr.io/v2/homebrew/core/ecflow-ui/blobs/sha256:3db59
Already downloaded: /Users/cgi/Library/Caches/Homebrew/downloads/35ee657f615d
➡ Pouring ecflow-ui--5.10.0.arm64_monterey.bottle.tar.gz
🍺 /opt/homebrew/Cellar/ecflow-ui/5.10.0: 40 files, 23.3MB
➡ Running `brew cleanup ecflow-ui`...
Disable this behaviour by setting HOMEBREW_NO_INSTALL_CLEANUP.
Hide these hints with HOMEBREW_NO_ENV_HINTS (see `man brew`).
Iains-MacBook-Pro-2:~ %
Iains-MacBook-Pro-2:~ %
Iains-MacBook-Pro-2:~ % ecflow-ui &
```

How to install ecFlow on MacOS and Linux (conda)

- Homebrew: `conda install ecflow -c conda-forge` (server, client and UI)

```
(work) Iains-MacBook-Pro-2:~ % conda install ecflow -c conda-forge
Collecting package metadata (current_repodata.json): done
Solving environment: done
```

The following packages will be downloaded:

package	build		
ecflow-5.10.0	py310h8344b3d_0	9.7 MB	conda-forge
gst-plugins-base-1.22.0	h8b7775e_2	1.8 MB	conda-forge
gstreamer-1.22.0	hcb7b3dd_2	1.3 MB	conda-forge
krb5-1.20.1	h69eda48_0	1.0 MB	conda-forge
libclang-14.0.6	default_hf5194b7_0	129 KB	

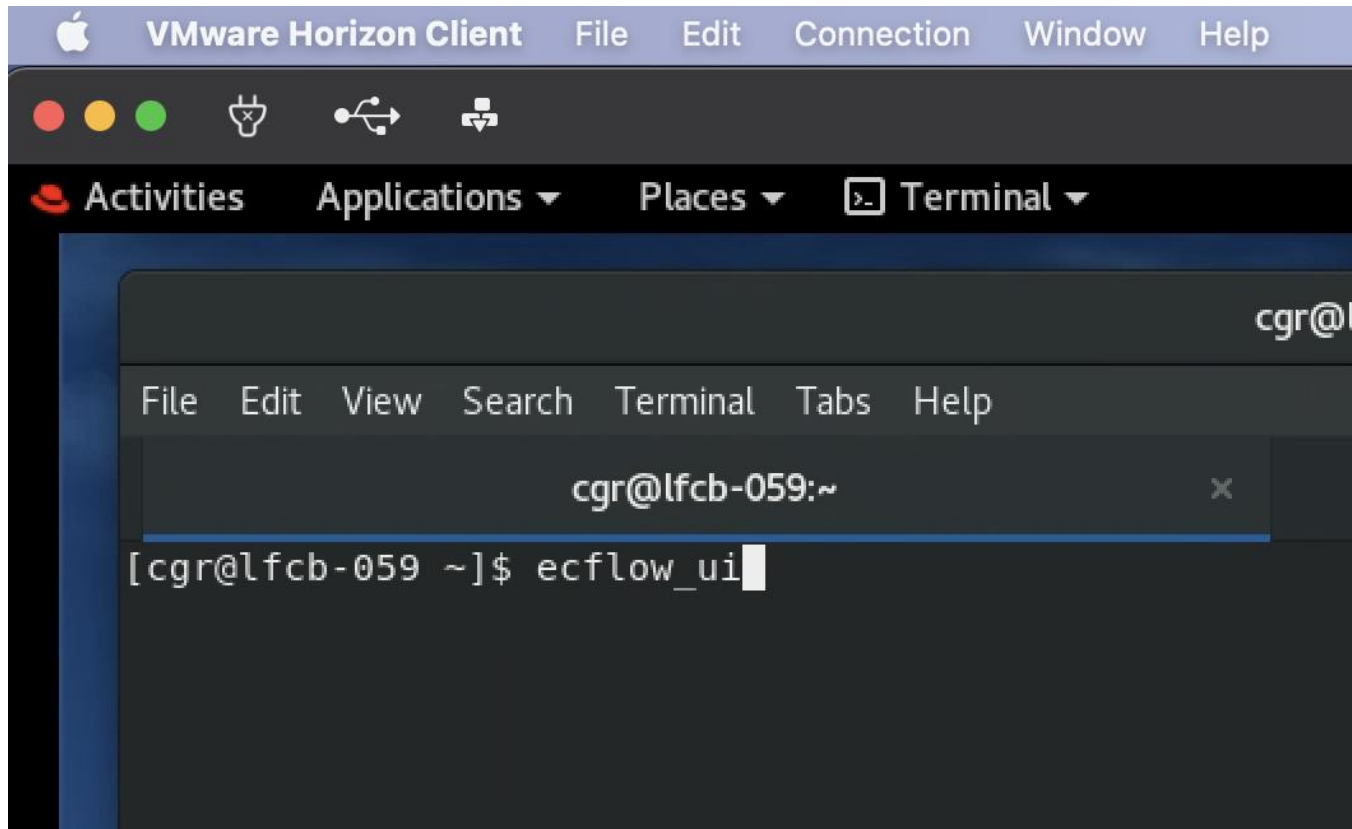
```
Executing transaction: done
(work) Iains-MacBook-Pro-2:~ %
(work) Iains-MacBook-Pro-2:~ % ecflow_ui &
```

Build ecFlow from source

- C++ code, builds on Linux and MacOS
- Dependencies: CMake, boost, Qt (for UI only), openssl (optional), python (optional)
- Download source from:
 - <https://github.com/ecmwf/ecflow> (GitHub source, requires ecBuild, also from ECMWF)
 - <https://confluence.ecmwf.int/display/ECFLOW/Releases> (source tarball, includes ecBuild)

Accessing ECMWF servers: from the VDI

- Linux VDI: **desktop.ecmwf.int**
- Just type **ecflow_ui** or **ecflow_client**
- There is only one version installed, no module selection available:



Accessing ECMWF servers: directly from the Atos

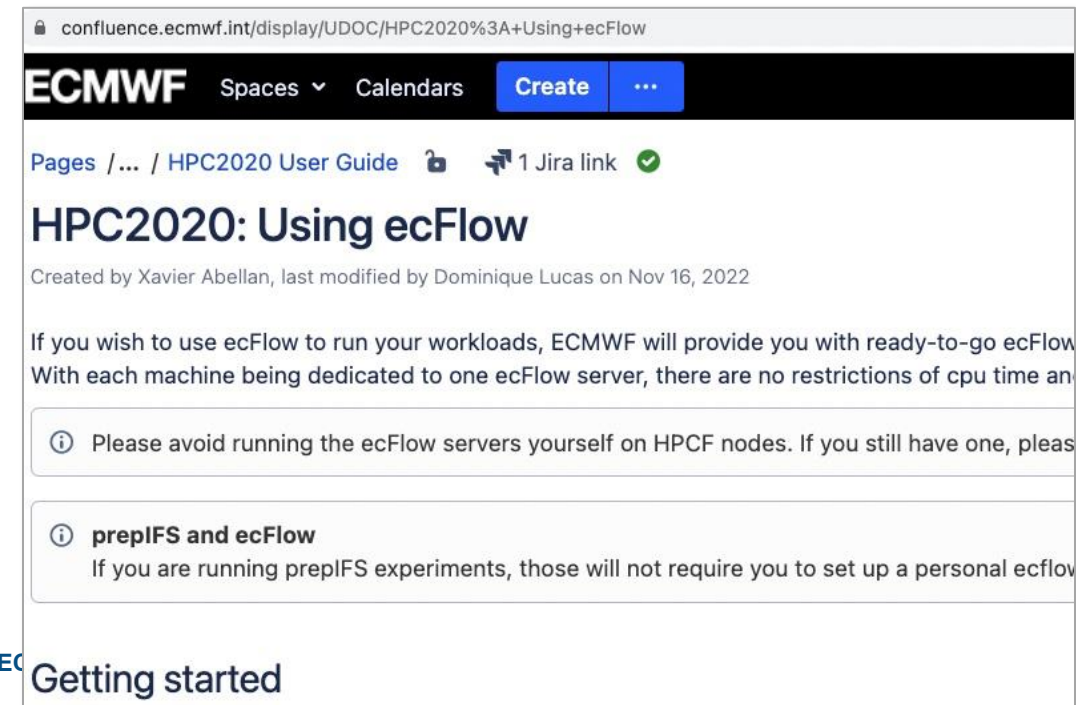
- Multiple versions installed and available through the module system

```
cgi@aa6-206:~>module avail ecflow

----- Global Aliases -----
----- /usr/local/apps/modulefiles/lmod/core -----
ecflow/5.7.0 (D:prepifs)  ecflow/5.7.3  ecflow/5.8.1  ecflow/5.9.0  ecflow/5.9.1  ecflow/5.9.2  ecflow/5.10.0 (5new:new)
```

```
cgi@aa6-206:~>module load ecflow/new
```

- VDI is recommended way to invoke the UI
- See Confluence pages for details on how to set up an ecFlow server at ECMWF



The screenshot shows a web browser displaying a Confluence page from the ECMWF website. The page title is "HPC2020: Using ecFlow". The breadcrumb trail is "Pages / ... / HPC2020 User Guide". The page content includes a note about not running ecFlow servers on HPCF nodes and a section titled "prepIFS and ecFlow" which states that prepIFS experiments do not require a personal ecFlow setup. The page also has a "Getting started" section visible at the bottom.

Accessing remote servers: from your personal computer

- Install ecFlow or ecFlowUI and proxychains
- Follow the instructions here:
 - https://ecflow.readthedocs.io/en/latest/ug/ecflow_ui/using_ecflowui_via_the_ecmwf_teleport_gateway.html

Using ecFlowUI via the ECMWF Teleport gateway

You can use the native ecFlowUI client on your End User device to access remote servers via an SSH tunnel. The recommended way is using dynamic port forwarding.

Dynamic port forwarding

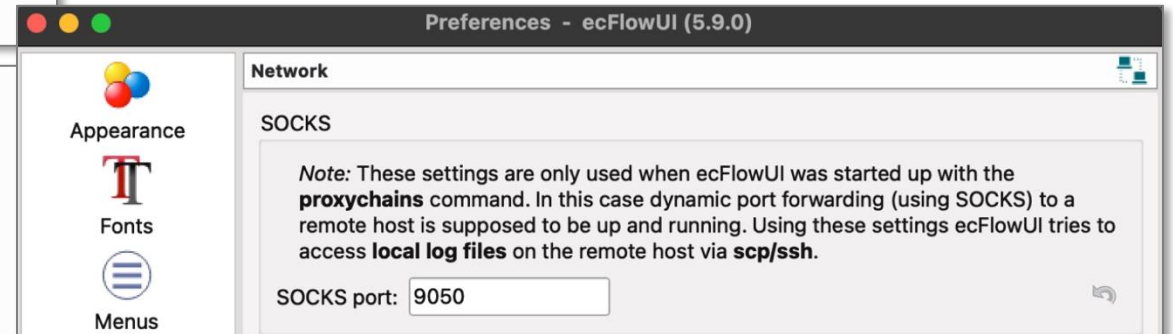
Authenticate via teleport

First you need to authenticate via [Teleport](#) on your End User device.

Set up dynamic port forwarding

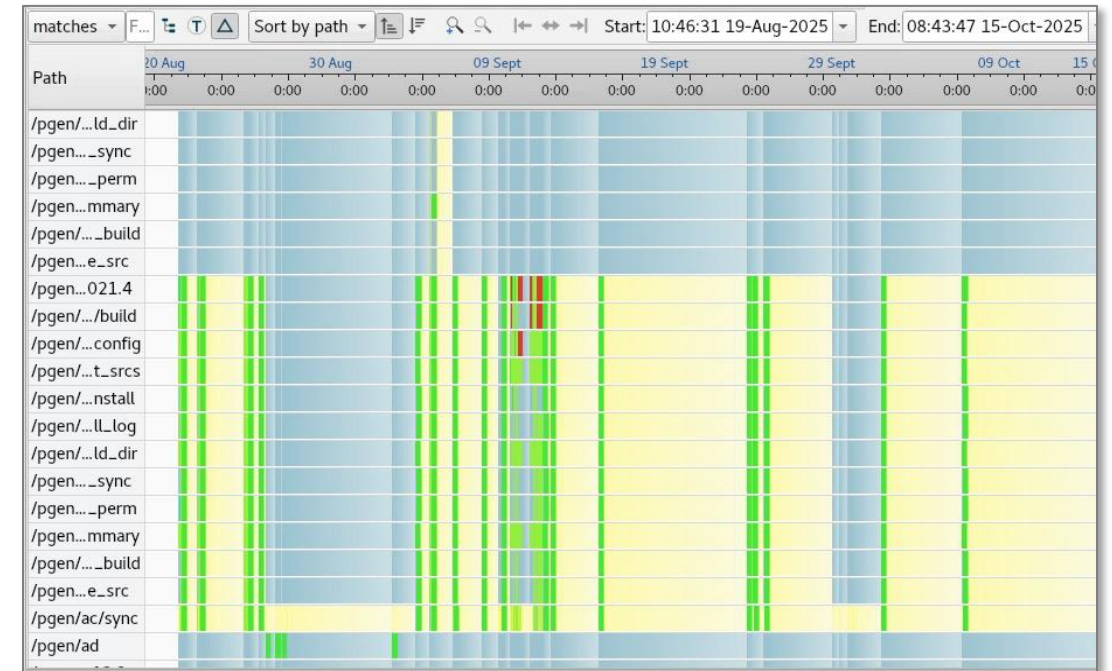
The next step is to start dynamic port forwarding using the SOCKS (Secure Socket) protocol. Let us suppose the target host you want to access is hpc-login. In a terminal on your End User device type:

```
ssh -v -C -N -D 9050 -J myecuser@jump.ecmwf.int myecuser@hpc-login
```



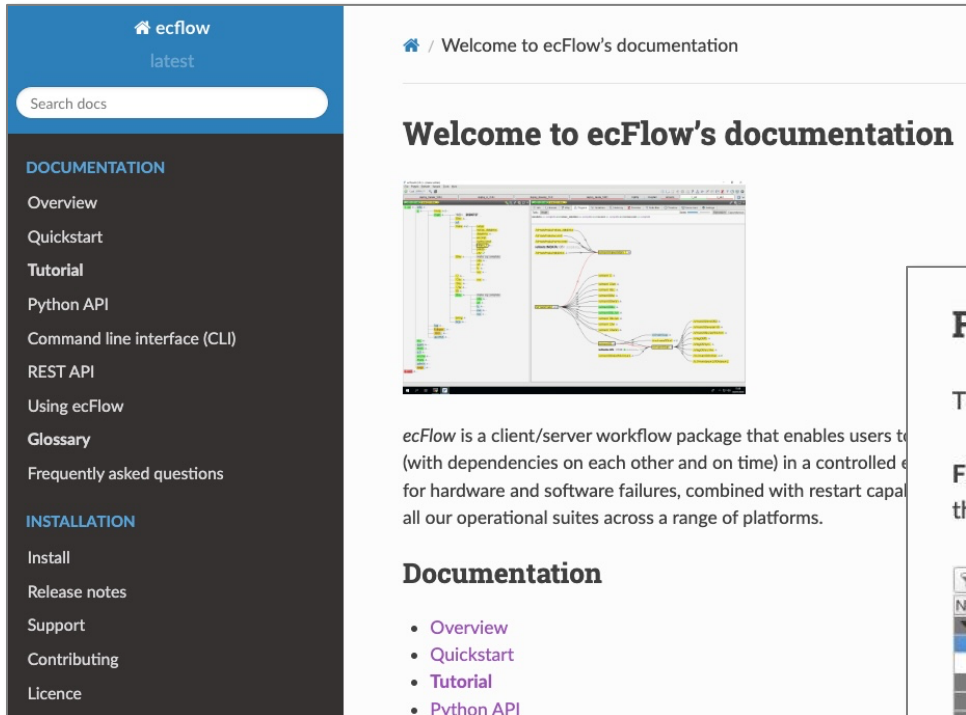
And...

- Many more things we have not covered in this course, including:
- Zombies!
- Advanced security
- Triggers from external entities
 - Other ecFlow servers
 - Aviso servers
- Timeline and server status panels in ecFlowUI



Thank you!

- <https://ecflow.readthedocs.io/>
- <https://github.com/ecmwf/ecflow/>



ecflow
latest

Search docs

DOCUMENTATION

- Overview
- Quickstart
- Tutorial
- Python API
- Command line interface (CLI)
- REST API
- Using ecFlow
- Glossary
- Frequently asked questions

INSTALLATION

- Install
- Release notes

Support

- Contributing
- Licence

Welcome to ecFlow's documentation

ecFlow is a client/server workflow package that enables users to... (with dependencies on each other and on time) in a controlled e... for hardware and software failures, combined with restart capa... all our operational suites across a range of platforms.

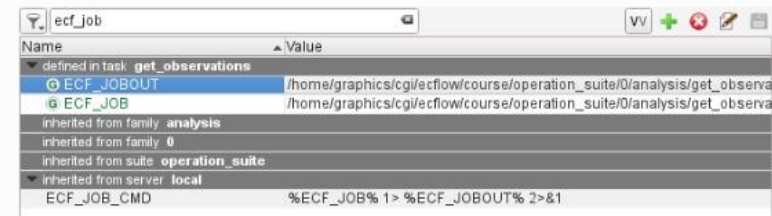
Documentation

- Overview
- Quickstart
- Tutorial
- Python API

Finding variables

The controls at the top of the panel provide two different ways to find variables.

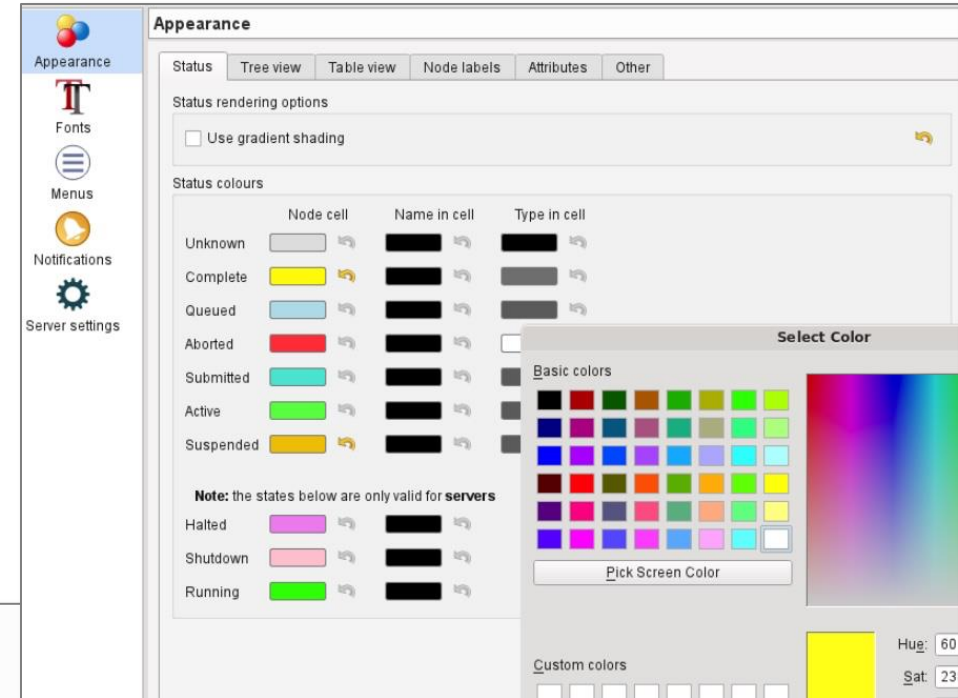
Filter mode reduces the list of variables shown, displaying only those whose name or value match the filter term.



ecf_job

Name	Value
defined in task: get_observations	
ECF_JOBOUT	/home/graphics/cg/ecflow/course/operation_suite/0/analysis/get_observa
ECF_JOB	/home/graphics/cg/ecflow/course/operation_suite/0/analysis/get_observa
inherited from family: analysis	
inherited from family: 0	
inherited from suite: operation_suite	
inherited from server: local	
ECF_JOB_CMD	%ECF_JOB% 1> %ECF_JOBOUT% 2>&1

Search mode shows the whole list of variables, but highlights those that match the search term.



Appearance

Status Tree view Table view Node labels Attributes Other

Status rendering options

☐ Use gradient shading

Status colours

	Node cell	Name in cell	Type in cell
Unknown			
Complete			
Queued			
Aborted			
Submitted			
Active			
Suspended			
Note: the states below are only valid for servers			
Halted			
Shutdown			
Running			

Select Color

Basic colors

Pick Screen Color

Custom colors

Hue: 60 Sat: 23