

User Workflows

CAMERA allows users to run their own [Kepler workflows](#) on the CAMERA cluster in a special **Sandboxed** environment. Kepler workflows are a flexible tool for accessing scientific data (metagenomics, streaming sensor data, medical and satellite images, simulation output, observational data, etc.) and executing complex analysis on the retrieved data.

Why would I want to make a workflow?

For a lot of problems it is an easier way to create a program than writing software in a traditional programming language.

Why would I want to run a workflow on the CAMERA cluster?

There are several reasons to run a workflow on the CAMERA cluster:

- Highspeed access to CAMERA data and to other services on the internet
- Ability to share workflow & data results with collaborators
- Access to CAMERA webservice
- Processing can be offloaded to CAMERA
- Access to data anywhere an internet connection exists

How do I make a workflow?

How do I run a workflow on the CAMERA cluster?

What are the limitations for running workflows on the CAMERA cluster?

By default an individual user workflow job run is limited to:

- 12 hour run time,
- 2 gigabytes of ram and
- 10 gigabytes disk space.

Exceeding these constraints will cause the termination of the workflow and possibly loss of any results. Currently there is no limit to the number of user workflow jobs that can be run, but this is a shared resource and activity deemed as abuse or overuse may result in termination of jobs.

What is a Sandboxed environment?

It is the name of the environment we use to run the workflows in on the CAMERA cluster. Every workflow job is run under a special restricted environment we call a "**sandbox**" with limited access to linux binaries and filesystems. This is done for security reasons and prevents a workflow job from seeing data it is not supposed to access or from effecting any other workflow job or the cluster.

Does provenance work?

Not for user workflows, but we are working on it.

My workflow failed, whats wrong and can you fix it?

Who owns the workflow once I upload it?

You do. We only run the job for you. Hence any action your workflow performs, malicious or not is your responsibility. Uploading a workflow implies your agreement to this.

How do I define the inputs displayed when running a workflow on the portal?

What if I need help or have a problem?

Send email to camera-help@calit2.net or use this [form](#)

Where can I download Kepler?

[Kepler Download](#)