

Drona WorkFlow Engine

ACES Workshop 2025



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7/19/2025



Outline

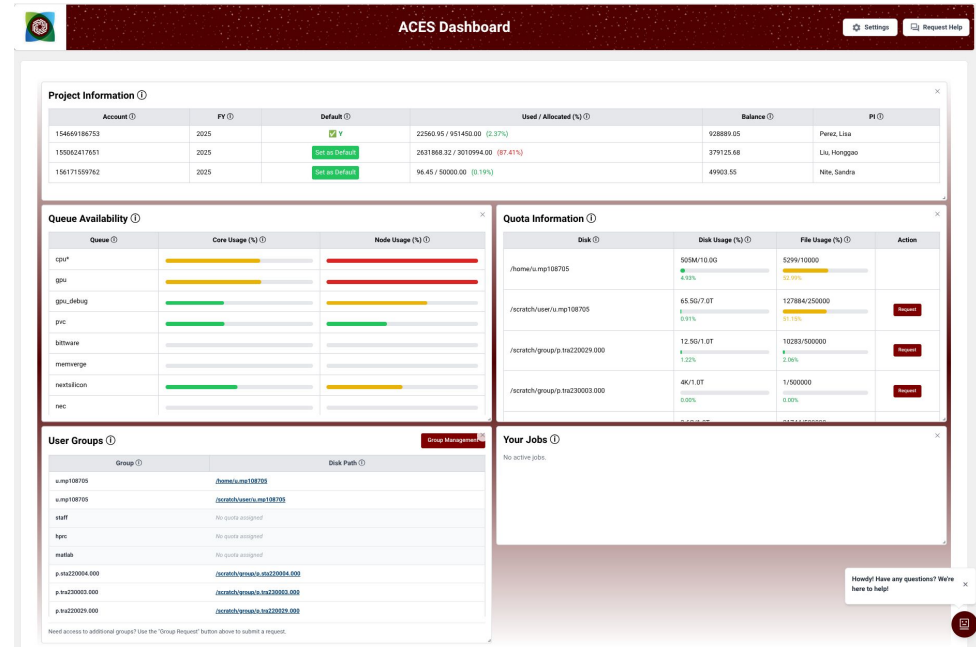
- Preview new ACES Dashboard 
- Drona WorkFlow Engine
 - Overview 
 - Create and submit a job 
 - Example Drona Envs 
- Drona Environments
 - Analyze a simple workflow 



New ACES Dashboard

Demo

- Manage resources
- Preferred way to request help
- New version
 - Improved user experience
 - Drag and drop
 - Chatbot integration



Drona Workflow Engine

Demo

- 100% GUI to create and submit jobs
- Allows researchers to focus on their science
- Sets up environment for various accelerators and program environments available on ACES
- Reproducibility



Drona Environments

- Create new envs in mostly declarative manner
 - schema.json
 - map.json
 - [utils.py](#) (optional)
 - one or more templates
- Everything done in user space (researcher's directory)
- Drona support library



Drona Workflow Engine

Schema.json

```
"INPUT1": {  
  "type": "number",  
  "label": "Input param",  
  "name": "param",  
  "help": "Enter input value"  
},  
:
```



Job Name

Location Change

Environments ▼ +

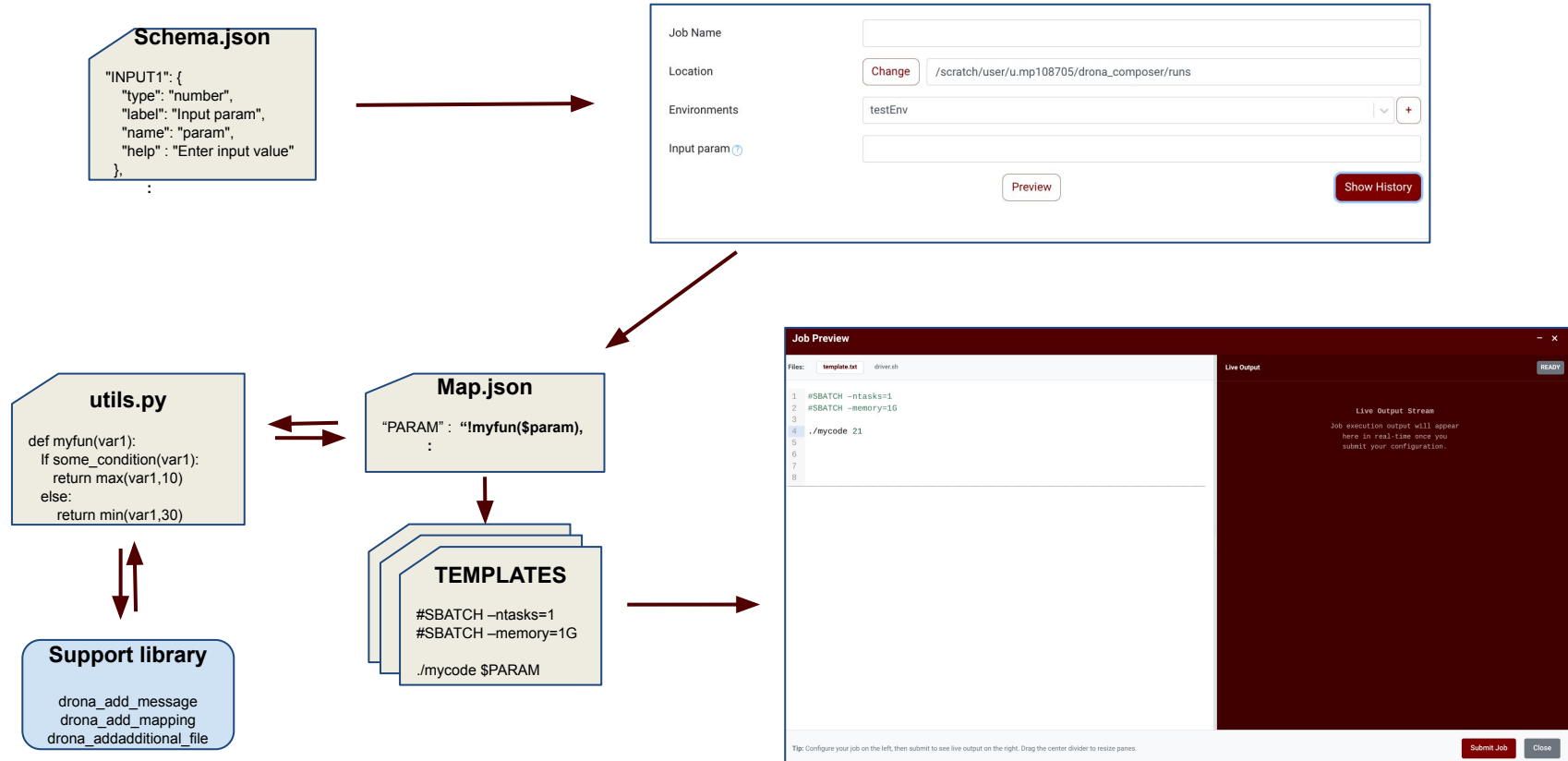
Input param ?

Preview Show History



Drona Workflow Engine

Demo



Texas A&M at PEARC25

Tutorials and Workshop	Date/Time	Room
Tutorial: ACES Tutorial for using Graphcore Intelligence Processing Units (IPUs) for AI/ML Workflows	Mon, July 21, 2025 1:30 PM-5:00 PM ET	Room A213
Tutorial: Open OnDemand Overview, Customization, and App Development	Mon, July 21, 2025 1:30 AM-5:00 PM ET	Room A226
Workshop: Collaborating with K12 Schools: Supporting Secondary Students and Teachers in Computing	Mon, July 21, 2025 1:30 PM-5:00 PM ET	Room B132



Texas A&M at PEARC25

Presentations and BoF	Date/Time	Room
WFT&E-2-3: ByteBoost: An advanced cybertraining program designed to enhance research on testbed systems	Tue, July 22, 2025 11:50 AM-12:05 PM ET	Room A216
A&SW-2-5: Generating Scientific Workflows With Drona Environments	Tue, July 22, 2025 12:00 PM-12:15 PM ET	Room A220-A221
WFT&E-3-2: Empowering NAIRR "Pilots" of all skill levels to become "ACES" with HPC	Tue, July 22, 2025 2:15 PM-2:30 PM ET	Room A114-A115
WFT&E-5-4: Exploring the Role of Academics, Research and Workforce Development in Establishing Research Computing Collaborations	Wed, July 23, 2025 11:55 AM-12:10 PM ET	Room A114-A115
A&SW-6-2: Comparison of GPU Performance Scaling for Molecular Dynamics	Wed, July 23, 2025 2:15 PM-2:30 PM ET	Room A212-A213
BOF-18: Node to Joy: Finding the Right Compute Resources	Wed, July 23, 2025 4:15 PM-5:15 PM ET	Room A213-A215





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Thank you

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- Please visit our talks and BoF at PEARC25
- Helpdesk: help@hprc.tamu.edu

