

A Global Hub for Large-Scale Workflow

Overview. Parallel Works empowers scientists and engineers with predictive engineering tools. Parallel Works eliminates the common challenges of parallel computation by providing easy access to large-scale computing. It enables engineers to explore greater design spaces more effectively with advanced workflow frameworks, allowing users to dive deeper into their studies and collaborate in meaningful new ways.

Features.

Automated workflow. Execute sophisticated ensemble studies for complex design exploration and evaluation. These workflows integrate multiple software tools, and the platform automatically distributes work across computing resources, seamlessly orchestrating data flow.

Simple execution. Launching massive studies is made simple with an intuitive user interface. Workflows are deployed directly to the cluster from Parallel Works, no coding required.

Flexible Resources. Seamlessly connect to a range of cloud or high performance computing resources on demand, or run on in-house computing resources.

Swift Parallel Computing Technology. Swift is an advanced computing technology developed at the University of Chicago and Argonne National Laboratory. Parallel Works builds on this powerful model to make large-scale workflow accessible to all users.

Benefits.

Collaboration. Centralize engineering design to enhance collaboration across diverse and distributed teams. Parallel Works provides a global hub for engineering computing, breaking down siloed processes for effective cross-team communication and cooperation.

More robust insights. Computing at scale speeds the time to insight and allows for rapid iteration and testing. Get 100x the knowledge in the time it takes to run a single study.

Easy and Accessible. Empower the entire engineering team to run workflow tools with a simple, pre-configured graphical UI. Inputs can be restricted to reduce the risk of “garbage in, garbage out” and outputs can be configured to deliver actionable insights.

Knowledge capture. Once a workflow tool is created, it can be saved and shared across the organization. This facilitates organizational knowledge retention and dissemination to optimize valuable corporate IP and engineering talent.

Why Parallel Works?

Parallel Works accelerates innovation in research, development and design by enabling predictive engineering with advanced computational modeling & simulation. It empowers engineers with the controls to explore new frontiers by leveraging high performance computing resources and automated workflow. This can result in faster times to market, higher engineering productivity, and reduced costs of prototyping and testing. It does this with greater ease, lower cost and less distraction – so engineers can focus on engineering instead of programming.



Learn more. Contact us to learn more about how you can apply this powerful technology to your company's most complex design challenges.

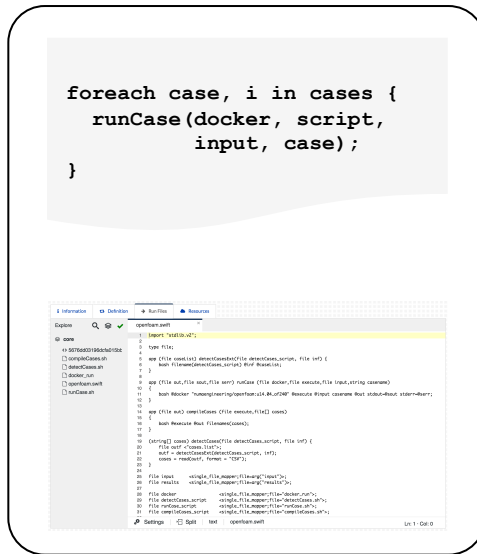
Creating and running a workflow on Parallel Works

CREATE WORKFLOW

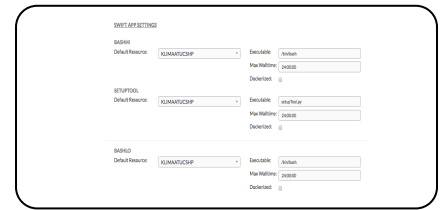
1) Select apps and bring in to development environment



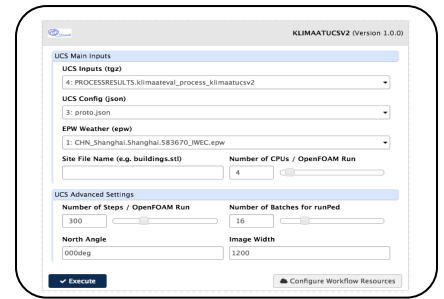
2) Write short script & bring run files into Parallel Works platform



3) Select resource for each step of study

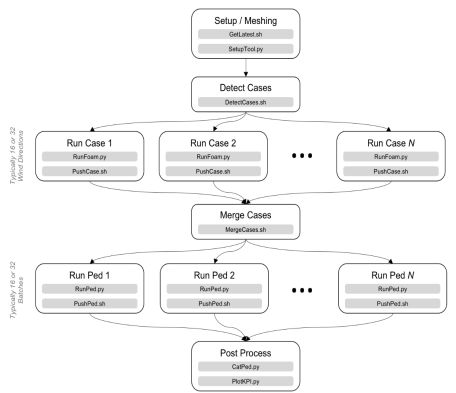
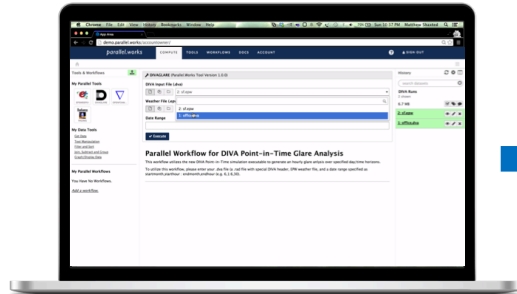


4) Create job execution UI



RUN WORKFLOW

- 1) Upload workflow input files to Parallel Works
- 2) Select desired workflow and inputs via customizable UI
- 3) Launch workflow
- 4) Monitor and track progress



VISUALIZE RESULTS

Once study is complete, view results in interactive web viewer, or download results to desktop for further analysis.

