

## VIRTUNEER WORKFLOW STUDIO

### Highlights

#### Designer/Monitor

Design workflows graphically. Arrange components and links to specify tasks and dependencies. Share workflows with colleagues. Run, pause, restart, cancel or interact with workflows.



#### Core/Server

Reuse simple workflow "building blocks" to create complex workflows with flow control. Integrate workflows with other automation tools.



#### Library

Manage your library of components. Simplify deployment by installing components from your network.



#### Component API

Develop customised workflow components for your processes.



The Virtuneer Workflow Studio streamlines computational analysis and data processing activities with a simple graphical interface and a powerful distributed architecture.

A "virtuneer" is a practitioner of the growing discipline of virtual engineering - using computer simulation to improve product design and reduce costs. The Virtuneer Workflow Studio frees virtuneers from mundane tasks, allowing them to focus on the challenging technical and creative problems of virtuneering.



### Why use Virtuneer?

The Virtuneer Workflow Studio has been used in automotive applications to reduce manual intervention by 80% for large-scale optimisation studies.



The Virtuneer Workflow Studio is designed for HPC environments, but its flexible architecture means it can be run in any IT environment, on any operating system. Common components automate typical tasks, while custom components for specific tasks can be built with the Component API.

#### Workflows for Multi-Disciplinary Optimisation (MDO)

MDO is a technique for finding the *best* design of an engineered system with many performance measures, subject to many constraints. MDO processes can be captured as workflows using components for:

- Parametric CAD adjustment
- FE meshing from CAD (or parametric FE mesh adjustment)
- Mesh quality testing and cleanup
- Analysis deck configuration (materials, includes)
- HPC submission and retrieval with VPAC's jSub software
- Extraction of nominated responses from analysis results

#### More Information

Please contact VPAC for more information.