## Welcome to Jupiter

<u>Jupiter</u> is an Orchestrator for Dispersed Computing that uses<u>Docker</u> containers and <u>Kubernetes</u> (K8s).

The code is open source, and available on GitHub.

The main documentation for the site is organized into a couple sections:

- Jupiter Documentation
- Drupe Documentation
- Wave Documentation
- Circe Documentation
- Jupiter API Reference

## Jupiter Documentation A¶

- Overview
- - Components
  - Applications
    - Tutorials
- Clone Instructions
- Requirements
- Deploy instructions
- .
- Step 1 : Clone Repo
- Step 2 : Update Node list
- Step 3 : Setup Home Node
- Step 4 : Setup APP Folder
- Step 5 : Setup the Dockers
- Step 6 : Choose the task mapper
  - Step 7 : Optional Choose the CIRCE dispatcher (only starting from Version 4)
- Step 8 : Optional Modify the File Transfer Method or Network & Resource Monitor Tool
- Step 9 : Push the Dockers
  - Step 10 : Optional Setup the Proxy (only required for Version 2 & 3)
- Step 11 : Create the Namespaces
- Step 12 : Run the Jupiter Orchestrator
- Step 13 : Optional Alternate scheduler
- Step 14 : Interact With the DAG
- <u>Teardown</u>
- Integration Interface
- o Fil
  - File Transfer method
- Network & Resource Monitor Tool
- Jupiter Evaluation
  - Automatic evaluation script
- Collecting task performance statistics
- Collecting file transfer performance statistics
- Project Structure

 References **Applications**  Quick Integration Network Anomaly Detection • Jupiter Visualization **Troubleshooting Acknowledgement** LICENSE Drupe Documentation A¶ • Overview Network Profiler Resource Profiler How to run Network Profiler • Resource Profiler Wave Documentation A¶ Overview Description WAVE components • WAVE scheduling algorithms How to run Circe Documentation A¶ Overview Inputs <u>Userguide</u> • Profiling Heft • Centralized scheduler with profiler • Run-time task profiler • Project Structure • References Jupiter API Reference A¶ • Circe Reference • Original CIRCE (Non-pricing CIRCE) • Pricing CIRCE (Event driven scheme) • Pricing CIRCE (Push scheme) • Profilers Reference Network Profiler Resource Profiler Execution Profiler Task Mapper Reference • HEFT

- WAVE
- Scripts Reference
- •
- Build scripts
- Teardown scripts
  - Deploy scripts
- Configuration scripts
- Docker file preparation scripts
- Other scripts

## Jupiter Indices¶

• Module Index