

A

## Viash component

### Viash config

`config.vsh.yaml`

- Functionality metadata
  - Component info
  - List of arguments
  - List of resources
- Runner-specific metadata
  - Executable or Nextflow settings
- Engine-specific metadata
  - Specify software dependencies

### Script



- Supports many scripting languages, E.g. Bash, Python, R, and JavaScript
- Argument parser is auto-generated

### Unit test(s)



- Add one or more unit tests to a component
- Unit test can be written in a different language
- Unit tests can be shared across components

B

## Viash runtime

Build standalone executable

Build Docker image

Build Nextflow workflow

Run unit test(s)

C

## Outputs

### Executable

- CLI and --help are generated by Viash
- Runs natively or inside Docker container

### Docker image



Software dependencies are translated into a Dockerfile

### Nextflow workflow



Can be used as a standalone workflow or as a dependency

### Test results



Detect errors early with continuous integration