## **Variables**

There are several sources of variables which are available to Ansible: variables defined in jobs, secrets, and site-wide variables. The order of precedence is:

1. [**Site-wide variables**](https://zuul-ci.org/docs/zuul/latest/job-content.html#user-jobs-sitewide-variables)
2. [**Job extra variables**](https://zuul-ci.org/docs/zuul/latest/job-content.html#user-jobs-job-extra-variables)
3. [**Secrets**](https://zuul-ci.org/docs/zuul/latest/job-content.html#user-jobs-secrets)
4. [**Job variables**](https://zuul-ci.org/docs/zuul/latest/job-content.html#user-jobs-job-variables)
5. [**Project variables**](https://zuul-ci.org/docs/zuul/latest/job-content.html#user-jobs-project-variables)
6. [**Parent job results**](https://zuul-ci.org/docs/zuul/latest/job-content.html#user-jobs-parent-results)

Meaning that a site-wide variable with the same name as any other will override its value, and similarly, secrets override job variables of the same name which override data returned from parent jobs. Each of the sources is described below.

### **Site-wide Variables**

The Zuul administrator may define variables which will be available to all jobs running in the system. These are statically defined and may not be altered by jobs. See the [Administrator’s Guide](https://zuul-ci.org/docs/zuul/latest/configuration.html#admin-sitewide-variables) for information on how a site administrator may define these variables.

### **Job Extra Variables**

Any extra variables in the job definition (using the [job.extra-vars](https://zuul-ci.org/docs/zuul/latest/config/job.html" \l "attr-job.extra-vars" \o "attr-job.extra-vars) attribute) are available to Ansible but not added into the inventory file.

### **Secrets**

[Secrets](https://zuul-ci.org/docs/zuul/latest/config/secret.html#secret) also appear as variables available to Ansible. Unlike job variables, these are not added to the inventory file (so that the inventory file may be kept for debugging purposes without revealing secrets). But they are still available to Ansible as normal variables. Because secrets are groups of variables, they will appear as a dictionary structure in templates, with the dictionary itself being the name of the secret, and its members the individual items in the secret. For example, a secret defined as:

- **secret**:

**name**: credentials

**data**:

**username**: foo

**password**: bar

### **Job Variables**

Any variables specified in the job definition (using the [job.vars](https://zuul-ci.org/docs/zuul/latest/config/job.html" \l "attr-job.vars" \o "attr-job.vars) attribute) are available as Ansible host variables. They are added to the vars section of the inventory file under the all hosts group, so they are available to all hosts. Simply refer to them by the name specified in the job’s vars section.

### **Project Variables**

Any variables specified in the project definition (using the [project.vars](https://zuul-ci.org/docs/zuul/latest/config/project.html" \l "attr-project.vars" \o "attr-project.vars) attribute) are available to jobs as Ansible host variables in the same way as [job variables](https://zuul-ci.org/docs/zuul/latest/job-content.html#user-jobs-job-variables). Variables set in a project-template are merged into the project variables when the template is included by a project.

- **project-template**:

**name**: sample-template

**description**: Description

**vars**:

**var\_from\_template**: foo

**post**:

**jobs**:

- template\_job

**release**:

**jobs**:

- template\_job

- **project**:

**name**: Sample project

**description**: Description

**templates**:

- sample-template

**vars**:

**var\_for\_all\_jobs**: value

**check**:

**jobs**:

- job1

- **job2**:

**vars**:

**var\_for\_all\_jobs**: override

**Parent Job Results**

A job may return data to Zuul for later use by jobs which depend on it. For details, see [Return Values](https://zuul-ci.org/docs/zuul/latest/job-content.html#return-values).