

Ansible Modules



What are Modules?

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- Ansible modules are units of code that can control system resources or execute system commands.
- Ansible provides a module library that you can execute directly on remote hosts or through playbooks.
- You can execute modules from the command line.

```
ansible webservers -m service -a "name=httpd state=started"  
ansible webservers -m ping  
ansible webservers -m command -a "/sbin/reboot -t now"
```

Arguments in module

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- Each module supports taking arguments.
- Nearly all modules take key=value arguments, space delimited.
- Some modules take no arguments, and the command/shell modules simply take the string of the command you want to run.

Properties of modules

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- All modules technically return JSON format data, though if you are using the command line or playbooks, you don't really need to know much about that.
- If you're writing your own module, you care, and this means you do not have to write modules in any particular language – you get to choose.
- Modules should be idempotent, and should avoid making any changes if they detect that the current state matches the desired final state.
- When using Ansible playbooks, these modules can trigger 'change events' in the form of notifying 'handlers' to run additional tasks.

Return Values

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- Ansible modules normally return a data structure that can be registered into a variable, or seen directly when output by the ansible program.
- Each module can optionally document its own unique return values.

Common Return Values for Internal use

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- backup_file
- changed
- failed
- Invocation
- msg
- rc
- stderr
- stderr_lines
- stdout
- stdout_lines
- results
- skipped

Common Return values for Internal use

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- ansible_facts
- exception
- warnings
- deprecations

Module Maintenance & Support

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- To help identify maintainers and understand how the included modules are officially supported, each module now has associated metadata that provides additional clarity for maintenance and support.

Levels of module Maintenance

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- Core
- Network
- Certified
- Community

- Core modules are maintained by the Ansible Engineering Team. These modules are integral to the basic foundations of the Ansible distribution.

Network



- Network modules are maintained by the Ansible Network Team. Please note there are additional networking modules that are categorized as Certified or Community not maintained by Ansible.

Certified

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- Certified modules are part of a future planned program currently in development.

- Community modules are submitted and maintained by the Ansible community. These modules are not maintained by Ansible, and are included as a convenience.