

# Templating (Jinja2)

Ansible uses Jinja2 templating to enable dynamic expressions and access to `ref: variables <playbooks_variables>` and `ref: facts <vars_and_facts>`. You can use templating with the `ref: template module <template_module>`. For example, you can create a template for a configuration file, then deploy that configuration file to multiple environments and supply the correct data (IP address, hostname, version) for each environment. You can also use templating in playbooks directly, by templating task names and more. You can use all the `ref: standard filters and tests <jinja2.builtin-filters>` included in Jinja2. Ansible includes additional specialized filters for selecting and transforming data, tests for evaluating template expressions, and `ref: lookup_plugins` for retrieving data from external sources such as files, APIs, and databases for use in templating.

```
System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\ansible-
devel\docs\docsite\rst\user_guide\[ansible-devel] [docs] [docsite] [rst]
[user_guide]playbooks_templating.rst, line 7); backlink
```

Unknown interpreted text role "ref".

```
System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\ansible-
devel\docs\docsite\rst\user_guide\[ansible-devel] [docs] [docsite] [rst]
[user_guide]playbooks_templating.rst, line 7); backlink
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System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\ansible-
devel\docs\docsite\rst\user_guide\[ansible-devel] [docs] [docsite] [rst]
[user_guide]playbooks_templating.rst, line 7); backlink
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System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\ansible-
devel\docs\docsite\rst\user_guide\[ansible-devel] [docs] [docsite] [rst]
[user_guide]playbooks_templating.rst, line 7); backlink
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System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\ansible-
devel\docs\docsite\rst\user_guide\[ansible-devel] [docs] [docsite] [rst]
[user_guide]playbooks_templating.rst, line 7); backlink
```

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All templating happens on the Ansible controller **before** the task is sent and executed on the target machine. This approach minimizes the package requirements on the target (jinja2 is only required on the controller). It also limits the amount of data Ansible passes to the target machine. Ansible parses templates on the controller and passes only the information needed for each task to the target machine, instead of passing all the data on the controller and parsing it on the target.

## Note

Files and data used by the `ref: template module <template_module>` must be utf-8 encoded.

```
System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-
resources\ansible-devel\docs\docsite\rst\user_guide\[ansible-devel] [docs]
[docsite] [rst] [user_guide]playbooks_templating.rst, line 13); backlink
```

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- [Get the current time](#)

```
System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\ansible-
devel\docs\docsite\rst\user_guide\[ansible-devel] [docs] [docsite] [rst]
[user_guide]playbooks_templating.rst, line 18)
```

Unknown directive type "toctree".

```
.. toctree::
    :maxdepth: 2

    playbooks_filters
    playbooks_tests
    playbooks_lookups
    playbooks_python_version
```

## Get the current time

**System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\ansible-devel\docs\docsite\rst\user\_guide\[ansible-devel] [docs] [docsite] [rst] [user\_guide]playbooks\_templating.rst, line 31)**

Unknown directive type "versionadded".

```
.. versionadded:: 2.8
```

The `now()` Jinja2 function retrieves a Python datetime object or a string representation for the current time.

The `now()` function supports 2 arguments:

`utc`

Specify `True` to get the current time in UTC. Defaults to `False`.

`fmt`

Accepts a [strftime](#) string that returns a formatted date time string.

**System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\ansible-devel\docs\docsite\rst\user\_guide\[ansible-devel] [docs] [docsite] [rst] [user\_guide]playbooks\_templating.rst, line 44)**

Unknown directive type "seealso".

```
.. seealso::

    :ref:`playbooks_intro`
        An introduction to playbooks
    :ref:`playbooks_conditionals`
        Conditional statements in playbooks
    :ref:`playbooks_loops`
        Looping in playbooks
    :ref:`playbooks_reuse_roles`
        Playbook organization by roles
    :ref:`playbooks_best_practices`
        Tips and tricks for playbooks
    `Jinja2 Docs <https://jinja.palletsprojects.com/en/latest/templates/>`_
        Jinja2 documentation, includes the syntax and semantics of the templates
    `User Mailing List <https://groups.google.com/group/ansible-devel>`_
        Have a question? Stop by the google group!
    :ref:`communication_irc`
        How to join Ansible chat channels
```