# Return Values

**Topics**

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 (visible through ansible-doc and on the :ref:`main docsite<ansible_documentation>`).

> **System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\ansible-devel\docs\docsite\rst\reference_appendices\[ansible-devel][docs][docsite][rst][reference_appendices]common_return_values.rst`, line 8);** *backlink*
>
> Unknown interpreted text role "ref".

This document covers return values common to all modules.

> **Note**
>
> Some of these keys might be set by Ansible itself once it processes the module's return information.

## Common

### backup_file

For those modules that implement *backup=no|yes* when manipulating files, a path to the backup file created.

```
"backup_file": "./foo.txt.32729.2020-07-30@06:24:19~"
```

### changed

A boolean indicating if the task had to make changes to the target or delegated host.

```
"changed": true
```

### diff

Information on differences between the previous and current state. Often a dictionary with entries `before` and `after`, which will then be formatted by the callback plugin to a diff view.

```
"diff": [
        {
            "after": "",
            "after_header": "foo.txt (content)",
            "before": "",
            "before_header": "foo.txt (content)"
        },
        {
            "after_header": "foo.txt (file attributes)",
```

```
            "before_header": "foo.txt (file attributes)"
        }
```

## failed

A boolean that indicates if the task was failed or not.

```
"failed": false
```

## invocation

Information on how the module was invoked.

```
"invocation": {
    "module_args": {
        "_original_basename": "foo.txt",
        "attributes": null,
        "backup": true,
        "checksum": "da39a3ee5e6b4b0d3255bfef95601890afd80709",
        "content": null,
        "delimiter": null,
        "dest": "./foo.txt",
        "directory_mode": null,
        "follow": false,
        "force": true,
        "group": null,
        "local_follow": null,
        "mode": "666",
        "owner": null,
        "regexp": null,
        "remote_src": null,
        "selevel": null,
        "serole": null,
        "setype": null,
        "seuser": null,
        "src": "/Users/foo/.ansible/tmp/ansible-tmp-1596115458.110205-105717464505158/source",
        "unsafe_writes": null,
        "validate": null
    }
}
```

## msg

A string with a generic message relayed to the user.

```
"msg": "line added"
```

## rc

Some modules execute command line utilities or are geared for executing commands directly (raw, shell, command, and so on), this field contains 'return code' of these utilities.

```
"rc": 257
```

## results

If this key exists, it indicates that a loop was present for the task and that it contains a list of the normal module 'result' per item.

```
"results": [
    {
        "ansible_loop_var": "item",
        "backup": "foo.txt.83170.2020-07-30@07:03:05~",
        "changed": true,
        "diff": [
            {
                "after": "",
                "after_header": "foo.txt (content)",
                "before": "",
                "before_header": "foo.txt (content)"
            },
            {
                "after_header": "foo.txt (file attributes)",
                "before_header": "foo.txt (file attributes)"
            }
        ],
        "failed": false,
        "invocation": {
            "module_args": {
                "attributes": null,
                "backrefs": false,
```

```
                    "backup": true
                }
            },
            "item": "foo",
            "msg": "line added"
        },
        {
            "ansible_loop_var": "item",
            "backup": "foo.txt.83187.2020-07-30@07:03:05~",
            "changed": true,
            "diff": [
                {
                    "after": "",
                    "after_header": "foo.txt (content)",
                    "before": "",
                    "before_header": "foo.txt (content)"
                },
                {
                    "after_header": "foo.txt (file attributes)",
                    "before_header": "foo.txt (file attributes)"
                }
            ],
            "failed": false,
            "invocation": {
                "module_args": {
                    "attributes": null,
                    "backrefs": false,
                    "backup": true
                }
            },
            "item": "bar",
            "msg": "line added"
        }
    ]
```

## skipped

A boolean that indicates if the task was skipped or not

```
"skipped": true
```

## stderr

Some modules execute command line utilities or are geared for executing commands directly (raw, shell, command, and so on), this field contains the error output of these utilities.

```
"stderr": "ls: foo: No such file or directory"
```

## stderr_lines

When *stderr* is returned we also always provide this field which is a list of strings, one item per line from the original.

```
"stderr_lines": [
        "ls: doesntexist: No such file or directory"
        ]
```

## stdout

Some modules execute command line utilities or are geared for executing commands directly (raw, shell, command, and so on). This field contains the normal output of these utilities.

```
"stdout": "foo!"
```

## stdout_lines

When *stdout* is returned, Ansible always provides a list of strings, each containing one item per line from the original output.

```
"stdout_lines": [
"foo!"
]
```

# Internal use

These keys can be added by modules but will be removed from registered variables; they are 'consumed' by Ansible itself.

## ansible_facts

This key should contain a dictionary which will be appended to the facts assigned to the host. These will be directly accessible and don't require using a registered variable.

### exception

This key can contain traceback information caused by an exception in a module. It will only be displayed on high verbosity (-vvv).

### warnings

This key contains a list of strings that will be presented to the user.

### deprecations

This key contains a list of dictionaries that will be presented to the user. Keys of the dictionaries are *msg* and *version*, values are string, value for the *version* key can be an empty string.

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**System Message: ERROR/3** (`D:\onboarding-resources\sample-onboarding-resources\ansible-devel\docs\docsite\rst\reference_appendices\[ansible-devel][docs][docsite][rst][reference_appendices]common_return_values.rst`, **line 242)**

Unknown directive type "seealso".

```
.. seealso::

   :ref:`list_of_collections`
       Browse existing collections, modules, and plugins
   `GitHub modules directory <https://github.com/ansible/ansible/tree/devel/lib/ansible/modules>`_
       Browse source of core and extras modules
   `Mailing List <https://groups.google.com/group/ansible-devel>`_
       Development mailing list
   :ref:`communication_irc`
       How to join Ansible chat channels
```