
Ansible Tower API Guide

Release Ansible Tower 2.2.2

Ansible, Inc.

Jun 06, 2017

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Thank you for your interest in Ansible Tower, the open source IT orchestration engine. Whether sharing operations tasks with your team or integrating with Ansible through the Tower REST API, Tower provides many powerful tools to make your automation life easier.

The Ansible Tower API Guide focuses on helping you understand the Ansible Tower API. This document has been updated to include information for the latest release of Ansible Tower, version 2.2.

Ansible Tower Version 2.2.2; August 18, 2015; <https://access.redhat.com/>

TOOLS

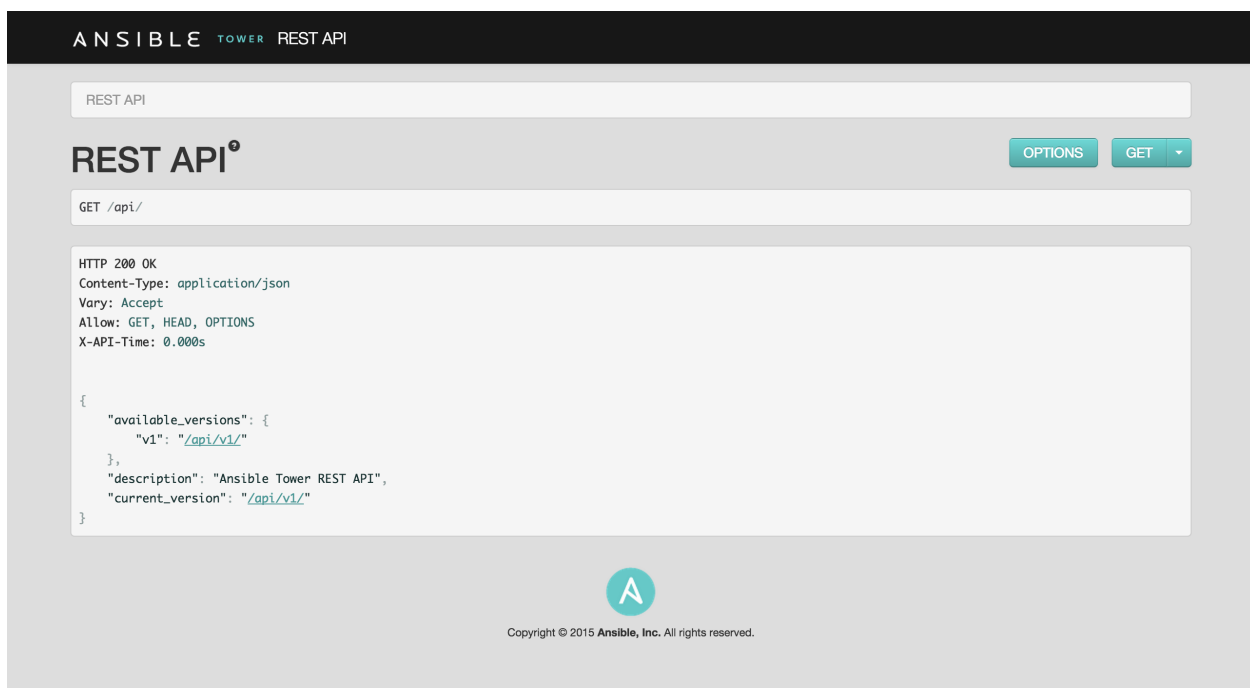
This document gives a basic understanding of the API, though you may want to see which API calls Tower makes in sequence. To do this, you can use the UI from Firebug or Chrome with developer plugins.

Another alternative is Charles Proxy (<http://www.charlesproxy.com/>), which offers a visualizer that you may find helpful. While it is commercial software, it can insert itself as an OS X proxy, for example, and intercept both requests from web browsers as well as curl and other API consumers.

BROWSEABLE API

Tower features a browseable API feature.

You can visit the API in a browser at: `http://<Tower server name>/api`



Clicking on various links in the API allows you to explore related resources.

ANSIBLE TOWER REST API

REST API > Version 1


Version 1[?]

OPTIONS GET


GET /api/v1/

HTTP 200 OK
 Content-Type: application/json
 Vary: Accept
 Allow: GET, HEAD, OPTIONS
 X-API-Time: 0.004s

```
{
  "authtoken": "/api/v1/authtoken/",
  "ping": "/api/v1/ping/",
  "config": "/api/v1/config/",
  "me": "/api/v1/me/",
  "dashboard": "/api/v1/dashboard/",
  "organizations": "/api/v1/organizations/",
  "users": "/api/v1/users/",
  "projects": "/api/v1/projects/",
  "teams": "/api/v1/teams/",
  "credentials": "/api/v1/credentials/",
  "inventory": "/api/v1/inventories/",
  "inventory_scripts": "/api/v1/inventory_scripts/",
  "inventory_sources": "/api/v1/inventory_sources/",
  "groups": "/api/v1/groups/",
  "hosts": "/api/v1/hosts/",
  "job_templates": "/api/v1/job_templates/",
  "jobs": "/api/v1/jobs/",
  "ad_hoc_commands": "/api/v1/ad_hoc_commands/",
  "system_job_templates": "/api/v1/system_job_templates/",
  "system_jobs": "/api/v1/system_jobs/",
  "schedules": "/api/v1/schedules/",
  "unified_job_templates": "/api/v1/unified_job_templates/",
  "unified_jobs": "/api/v1/unified_jobs/",
  "activity_stream": "/api/v1/activity_stream/"
}
```



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Clicking on the  next to the page name (toward the top of the screen) for an API endpoint gives you documentation on the access methods for that particular API endpoint and what data is returned when using those methods.

ANSIBLE

TOWER

REST API

admin

REST API > Version 1 > Job List

Job List^o

OPTIONS

GET

List Jobs:

Make a GET request to this resource to retrieve the list of jobs.

The resulting data structure contains:

```
{
  "count": 99,
  "next": null,
  "previous": null,
  "results": [
    ...
  ]
}
```

The `count` field indicates the total number of jobs found for the given query. The `next` and `previous` fields provides links to additional results if there are more than will fit on a single page. The `results` list contains zero or more job records.

Results

Each job data structure includes the following fields:

- `id` : Database ID for this job. (integer, read-only)
- `type` : Data type for this job. (string, read-only)
- `url` : URL for this job. (string, read-only)
- `related` : Data structure with URLs of related resources. (object, read-only)
- `summary_fields` : Data structure with name/description for related resources. (object, read-only)
- `created` : Timestamp when this job was created. (datetime, read-only)
- `modified` : Timestamp when this job was last modified. (datetime, read-only)
- `name` : (string, required)
- `description` : (string)
- `unified_job_template` : (field)

You can also PUT and POST on the specific API pages by formatting JSON in the various text fields.

Media type

application/json

Content

```
{
  "name": "",
  "description": ""
}
```

POST

CONVENTIONS

Tower uses a standard REST API, rooted at `/api/` on the server. The API is versioned for compatibility reasons, but only `/api/v1/` is presently available. You can see information about what API versions are available by querying `/api/`.

All data is JSON by default. You may have to specify the content/type on POST or PUT requests accordingly.

All URIs not ending with `/"` receive a 301 redirect.

SORTING

Assume the following URL, `http://<Tower server name>/api/v1/groups/`

In order to sort the groups by name, access the following URL variation:

`http://<Tower server name>/api/v1/groups/?order_by=name`

You can order by any field in the object.

FILTERING

Any collection is what the system calls a “queryset” and can be filtered via various operators.

For example, to find the groups that contain the name “foo”:

```
http://<Tower server name>/api/v1/groups/?name__contains=foo
```

To do an exact match:

```
http://<Tower server name>/api/v1/groups/?name=foo
```

If a resource is of an integer type, you must add “__int” to the end to cast your string input value to an integer, like so:

```
http://<Tower server name>/api/v1/arbitrary_resource/?x__int=5
```

Related resources can also be queried, like so:

```
http://<Tower server name>/api/v1/groups/?user__firstname__icontains=john
```

This will return all groups with users with names that include the string “John” in them.

You can also filter against more than one field at once:

```
http://<Tower server name>/api/v1/groups/?user__firstname__icontains=john&group__name__icontains=foo
```

This will find all groups containing a user whose name contains John where the group contains the string foo.

For more about what types of operators are available, see:

<https://docs.djangoproject.com/en/dev/ref/models/querysets/>

You may also wish to watch the API as the UI is being used to see how it is filtering on various criteria.

PAGINATION

Responses for collections in the API are paginated. This means that while a collection may contain tens or hundreds of thousands of objects, in each web request, only a limited number of results are returned for API performance reasons.

When you get back the result for a collection you will see something like:

```
{'count': 25, 'next': 'http://testserver/api/v1/some_resource?page=2',  
'previous': None, 'results': [ ... ] }
```

To get the next page, simply request the page given by the 'next' sequential URL.

To request more items per page, pass the page size query string:

```
http://<Tower server name>/api/v1/some_resource?page_size=50
```

The serializer is quite efficient, but you should probably not request page sizes beyond a couple of hundred.

The user interface uses smaller values to avoid the user having to do a lot of scrolling.

READ-ONLY FIELDS

Certain fields in the REST API are marked read-only. These usually include the URL of a resource, the ID, and occasionally some internal fields. For instance, the `'created_by'` attribute of each object indicates which user created the resource, and cannot be edited.

If you post some values and notice that they are not changing, these fields may be read-only.

TOWER-CLI

tower-cli is a command line tool for Ansible Tower. It allows Tower commands to be easily run from the Unix command-line. It can also be used as a client library for other python apps, or as a reference for others developing API interactions with Tower's REST API.

8.1 Capabilities

tower-cli sends commands to the Tower API. It is capable of retrieving, creating, modifying, and deleting most objects within Tower.

A few potential uses include:

- Launching playbook runs (for instance, from Jenkins, TeamCity, Bamboo, etc)
- Checking on job statuses
- Rapidly creating objects like organizations, users, teams, and more

8.2 Installation

tower-cli is available as a package on [PyPI](#)

The preferred way to install is through pip:

```
$ pip install ansible-tower-cli
```

The main branch of this project may also be consumed directly from source.

For more information on tower-cli, refer to the project page at <https://github.com/ansible/tower-cli>.

- `genindex`

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