k6 DOCS
🔧 Grafana Labs

GUIDES   JAVASCRIPT API ▾   CLOUD DOCS ▾   EXTENSIONS   INTEGRATIONS   EXAMPLES

Search

Using k6 > Scenarios > Executors > Constant VUs

Constant VUs

With the `constant-vus` executor, a fixed number of VUs execute as many iterations as possible for a specified amount of time.

For a shortcut to this executor, use the **vus** and **duration** options.

Options

Besides the **common configuration options**, this executor has the following options:

OPTION	TYPE	DESCRIPTION	DEFAULT
duration(required)	string	Total scenario duration (excluding `gracefulStop`).	-
vus	integer	Number of VUs to run concurrently.	1

When to use

Use this executor if you need a specific number of VUs to run for a certain amount of time.
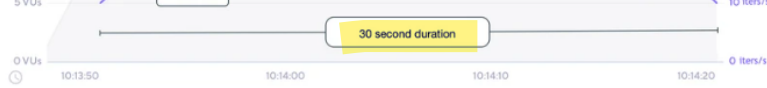
Example

This examples schedules 10 VUs to run constantly for a duration 30 seconds.

```
constant-vus.js
1   import http from 'k6/http';
2   import { sleep } from 'k6';
3
4   export const options = {
5       discardResponseBodies: true,
6       scenarios: {
7           contacts: {
8               executor: 'constant-vus',
9               vus: 10,
10              duration: '30s',
11          },
12      },
13  };
14
15  export default function () {
16      http.get('https://test.k6.io/contacts.php');
17      // Injecting sleep
18      // Total iteration time is sleep + time to finish request.
19      sleep(0.5);
20  }
```

Observations

The following graph depicts the performance of the **example** script:

SUGGEST EDITS

Options
When to use
Example
Observations

Based upon our test scenario inputs and results:

- The number of VUs is fixed at 10, and are initialized before the test begins;
- Overall test duration is fixed at the configured 30 second duration;
- Each *iteration* of the `default` function is expected to be roughly 515ms, or ~2/s;
- Maximum throughput (highest efficiency) is therefore expected to be ~20 iters/s, `2 iters/s * 10 VUs`;
- We see that the maximum throughput is reached and maintained for the majority of the test;
- Approximately 600 iterations are therefore performed in total, `30 seconds * 20 iters/s`.

k6
Grafana Labs

PRODUCT	RESOURCES	COMMUNITY	ABOUT
Open Source	k6 Docs	Engage♥	Blog
Grafana Cloud k6	Grafana Cloud k6 Docs	Forum	Our story
Grafana Cloud k6 Pricing	Extensions	Slack	Our beliefs
Open Source vs Cloud	Integrations	GitHub	Contact
Build vs Buy	Modern Load Testing	k6 Champions	Jobs
Testimonials	Not a developer. Why k6?		

Subscribe to our newsletter!
Product developments and news from the k6 community.

Email

SUBSCRIBE NOW

Legal and Security   Privacy Policy   Status •