A picture containing text, circle, cartoon, graphics

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**K6 tool:**

K6 has been through three stages in the last three years.

**Assess in October 2020:**

K6 is a recently released tool in the performance testing ecosystem with a strong emphasis on developer experience. JavaScript programs are run using the k6 command line runner, which also lets you set the number of virtual users and the execution time. The CLI offers a variety of sophisticated capabilities that enable you to pause and resume an ongoing test, grow the number of virtual users beyond what was initially determined, and view the most recent statistics before the test has finished running. A collection of customizable metrics with transformers are provided in the command line output, allowing you to view the outcomes in Datadog and other observability tools. It's simple to incorporate performance testing into your CI/CD pipeline by adding checks to your scripts.

**Trail in April 2021:**

The tool’s flexibility is appreciated and emphasized in the developer experience. Although k6 is simple to use on its own, its true strength lies in its simplicity of integration into a development ecosystem. For instance, one team was able to immediately visualize performance in a distributed system using the Datadog adapter and detect important issues before deploying the system to production. Another company using the paid version of k6 was able to easily integrate performance tests into their CD pipeline and obtain Azure DevOps reporting by using the Azure pipelines marketplace extension. due to k6's support

**Adopt in October 2022:**

It has a low-code test builder to make using the tool easier. A graphical interface is offered by the k6 Test Builder for the creation of k6 tests. The test builder automatically creates the k6 script for you based on your input. You can use the CLI to execute the test after copying this script. Even while we are convinced that scriptable, code-based tools will enable you to maximize the benefits of your performance-testing efforts, a GUI-based tool like the test builder may still be of use to you in the following ways:

* Create tests more quickly.
* Rapid k6 API learning.
* Build tests in collaboration with non-coders.

The documentation of K6 shows how it is easy to add performance testing to a pipeline across multiple CI/CD tools. The following IDEs have extensions to run K6 scripts.

* Visual Studio Code.
* IntelliJ.
* IntelliSense.

K6 also supports converters that generate a K6 script from existing files quickly.

* HAR-to-K6: converts a HAR file to K6 script.
* Postman-to-K6: converts a postman collection to K6 script.
* OpenAPI generator: converts Swagger/OpenAPI specifications to K6 script.

Grafana and New Relic, two visualization tools that fine-tune both infrastructure and apps, are simple to combine. K6 is an appealing choice for examining a system's behavior under a lot of stress due to its developer friendliness and ecosystem.