Version: 19.5.2

# Puppeteer



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Puppeteer is a Node.js library which provides a high-level API to control Chrome/Chromium over the DevTools Protocol. Puppeteer runs in headless mode by default, but can be configured to run in full (non-headless) Chrome/Chromium.

#### What can I do?

Most things that you can do manually in the browser can be done using Puppeteer! Here are a few examples to get you started:

- Generate screenshots and PDFs of pages.
- Crawl a SPA (Single-Page Application) and generate pre-rendered content (i.e. "SSR" (Server-Side Rendering)).
- Automate form submission, UI testing, keyboard input, etc.
- Create an automated testing environment using the latest JavaScript and browser features.
- Capture a timeline trace of your site to help diagnose performance issues.
- Test Chrome Extensions.

# **Getting Started**

### Installation

To use Puppeteer in your project, run:

npm i puppeteer # or `yarn add puppeteer` # or `pnpm i puppeteer`



When you install Puppeteer, it automatically downloads a recent version of Chromium (~170MB macOS, ~282MB Linux, ~280MB Windows) that is guaranteed to work with Puppeteer. For a version of Puppeteer without installation, see puppeteer-core.

### Configuration

Puppeteer uses several defaults that can be customized through configuration files.

For example, to change the default cache directory Puppeteer uses to install browsers, you can add a .puppeteer.cojs (or puppeteer.config.cjs) at the root of your application with the contents

```
const {join} = require('path');

/**
   * @type {import("puppeteer").Configuration}
   */
module.exports = {
   // Changes the cache location for Puppeteer.
   cacheDirectory: join(__dirname, '.cache', 'puppeteer'),
};
```

After adding the configuration file, you will need to remove and reinstall puppeteen for it to take effect.

See the configuration guide for more information.

### puppeteer-core

Every release since v1.7.0 we publish two packages:

- (puppeteer)
- puppeteer-core

puppeteer is a *product* for browser automation. When installed, it downloads a version of Chromium, which it then drives using puppeteer-core. Being an end-user product, puppeteer automates several workflows using reasonable defaults that can be customized.

puppeteer-core is a *library* to help drive anything that supports DevTools protocol. Being a library, puppeteer-core is fully driven through its programmatic interface implying no defaults are assumed and puppeteer-core will not download Chromium when installed.

You should use puppeteer-core if you are connecting to a remote browser or managing browsers yourself. If you are managing browsers yourself, you will need to call puppeteer.launch with an an explicit

```
executablePath (or channel if it's installed in a standard location).
```

When using puppeteer-core, remember to change the import:

```
import puppeteer from 'puppeteer-core';
```

### **Usage**

Puppeteer follows the latest maintenance LTS version of Node.

Puppeteer will be familiar to people using other browser testing frameworks. You launch/connect a browser, create some pages, and then manipulate them with Puppeteer's API.

For more in-depth usage, check our guides and examples.

### **Example**

The following example searches developers.google.com/web for articles tagged "Headless Chrome" and scrape results from the results page.

```
import puppeteer from 'puppeteer';
(async () => {
  const browser = await puppeteer.launch();
  const page = await browser.newPage();
  await page.goto('https://developers.google.com/web/');
 // Type into search box.
  await page.type('.devsite-search-field', 'Headless Chrome');
 // Wait for suggest overlay to appear and click "show all results".
  const allResultsSelector = '.devsite-suggest-all-results';
  await page.waitForSelector(allResultsSelector);
  await page.click(allResultsSelector);
 // Wait for the results page to load and display the results.
  const resultsSelector = '.gsc-results .gs-title';
  await page.waitForSelector(resultsSelector);
 // Extract the results from the page.
  const links = await page.evaluate(resultsSelector => {
    return [...document.querySelectorAll(resultsSelector)].map(anchor => {
```

```
const title = anchor.textContent.split('|')[0].trim();
    return `${title} - ${anchor.href}`;
    });
}, resultsSelector);

// Print all the files.
console.log(links.join('\n'));

await browser.close();
})();
```

### **Default runtime settings**

#### 1. Uses Headless mode

Puppeteer launches Chromium in headless mode. To launch a full version of Chromium, set the headless option when launching a browser:

```
const browser = await puppeteer.launch({headless: false}); // default is true
```

#### 2. Runs a bundled version of Chromium

By default, Puppeteer downloads and uses a specific version of Chromium so its API is guaranteed to work out of the box. To use Puppeteer with a different version of Chrome or Chromium, pass in the executable's path when creating a Browser instance:

```
const browser = await puppeteer.launch({executablePath: '/path/to/Chrome'});
```

You can also use Puppeteer with Firefox Nightly (experimental support). See Puppeteer.launch for more information.

See this article for a description of the differences between Chromium and Chrome. This article describes some differences for Linux users.

### 3. Creates a fresh user profile

Puppeteer creates its own browser user profile which it **cleans up on every run**.

### **Using Docker**

See our Docker guide.

### **Using Chrome Extensions**

See our Chrome extensions guide.

### Resources

- API Documentation
- Guides
- Examples
- Community list of Puppeteer resources

# **Contributing**

Check out our contributing guide to get an overview of Puppeteer development.

## **FAQ**

Our FAQ has migrated to our site.