# Preload key requests

Overview

Preloading requests can make your pages load faster.

Suppose your page's critical request chain looks like this:

```
index.html
|--app.js
   |--styles.css
   |--ui.js
```

Your `index.html` file declares `<script src="app.js">`. When `app.js` runs , it calls `fetch()` in order to download `styles.css` and `ui.js`. The page doesn't appear complete until those last 2 resources are downloaded, parsed, and executed.
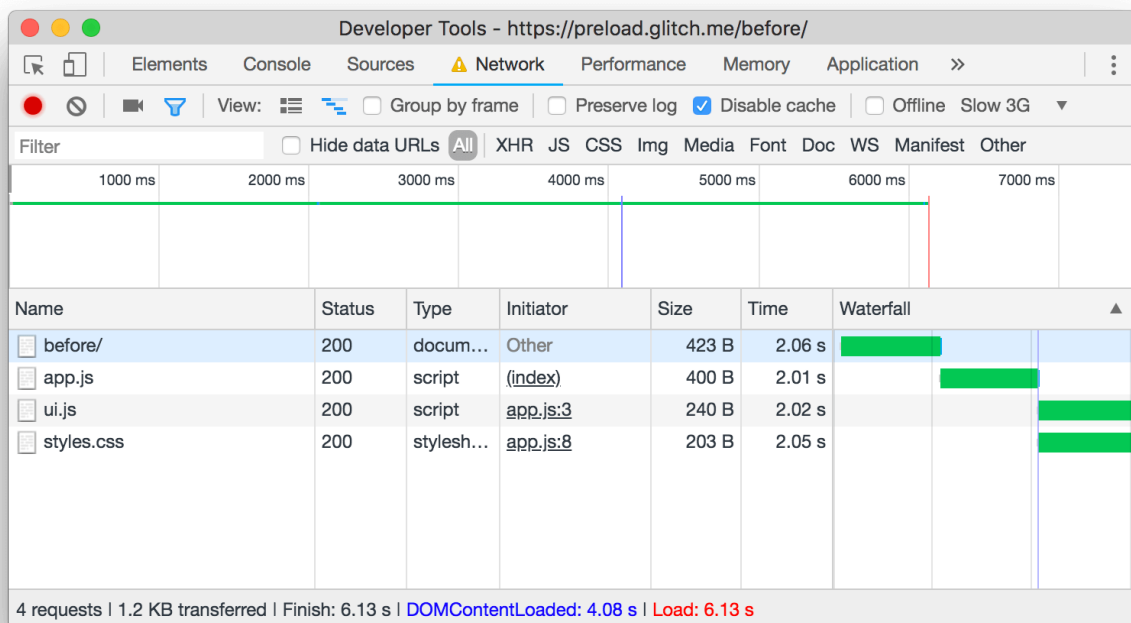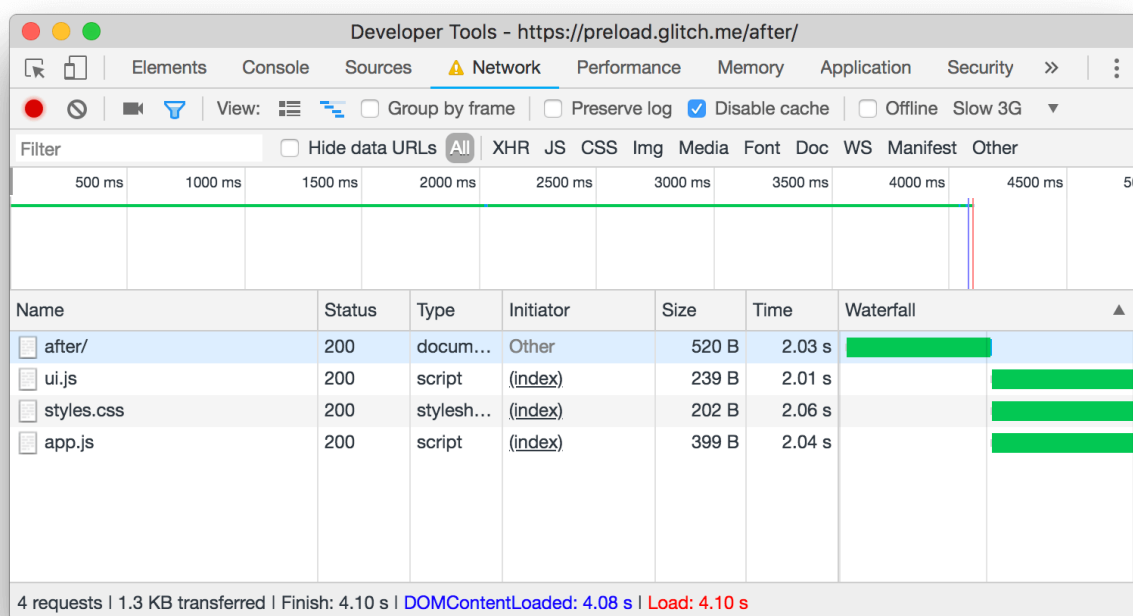

Figure 1. Without preload links, `styles.css` and `ui.js` are requested only after `app.js` has been downloaded, parsed, and executed.

The problem here is that the browser only becomes aware of those last 2 resources after it downloads, parses, and executes `app.js`. Yet you as a developer know that those resources are important and should be downloaded as soon as possible.

Recommendations

Declare preload links in your HTML to instruct the browser to download key resources as soon as possible.

```
<head>
  ...
  <link rel="preload" href="styles.css" as="style">
  <link rel="preload" href="ui.js" as="script">
  ...
</head>
```


Figure 2. With preload links, `styles.css` and `ui.js` are requested at the same time as `app.js`.

The table below lists browser support for preload links.

More information

Lighthouse flags the third level of requests in your critical request chain as preload candidates. Using the example above, Lighthouse would flag `styles.css` and `ui.js` as candidates. The potential savings are based on how much earlier the browser would be able to start the requests if you declared preload links. For example, if `app.js` takes 200ms to download, parse, and execute, the potential savings for each resource is 200ms since `app.js` is no longer a bottleneck for each of the requests.

Sources:

- Preload, Prefetch, And Priorities In Chrome ↗
- Preload: What Is It Good For? ↗
- Audit source ↗

Feedback

Was this page helpful?

YES   NO

Great! Thank you for the feedback.

Sorry to hear that. Please open an issue and tell us how we can improve.

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