PageSpeed Insights Feb 1 2019 Release Notes

Lighthouse v4.1 upgrade & network payload size bug
Updated February 5, 2019

Lighthouse v4.1 upgrade

As of Jan 30, 2019, PSI now utilizes Lighthouse version 4.1.0 under the hood.

Lately we have been working to make desktop measurement more accurate. Desktop scoring has been recalibrated to stay on par with the fast moving world of desktop browsing based on the most current data on global page speeds. You should expect desktop scores to be lower now than they had been. Mobile performance scoring should be unchanged.

In addition to these changes to desktop measurement we have made some changes that improve user experience in more subtle ways.
- The mobile viewport scaling more accurately reflects the true screen size of a Nexus 5X.
- Audits that encounter warnings will now show a helpful warning inline (see example below).
- Lighthouse errors and the accessibility category are now localized to 42 languages.
- There's a new audit: FCP on 3G networks. It does not have an effect on performance scoring, but is useful for 3G diagnostics.

For API users, the SEO category has a new audit to evaluate if tap targets are a reasonable size and don't overlap with other elements.

For a complete summary of changes view the complete changelog on github.

As always, if you have a specific, answerable question about using PageSpeed Insights, ask the question in English on Stack Overflow. For general questions, feedback, and discussion, start a thread in the mailing list.

Detailed Changes

Changelog on v4.1.0 (human readable)
Changelog from v4.0.0-beta to v4.1.0 (git changelog)
Changelog on v4.0.0 (human readable)
Changelog on v4.0.0-beta (human readable)

Changes that affect Scoring:
- speed-index scoring now scales based on throttling (#7007)
  - This will make desktop scores higher, on average.
- stricter LR-desktop metric scoring (#6969)
  - This will make desktop scores strictly lower.
- new_audit(tap-targets): verify tap targets are well sized and distinct (#5846)

Changes that affect <u>PSI</u> but not scoring:

- audits' scoreDisplayMode 'not-applicable' is now 'notApplicable' ([#6783](#))
- no-websql audit removed due to performance cost ([#6293](#))
- empty children arrays are now removed from critical-request-chain audit result ([#6211](#))
- the correct Nexus 5X screen height of 660 now used instead of 732 ([#6932](#))
- throttling constants under mobile3G renamed to the more accurate mobileSlow4G with no change in values ([#6163](#))
- config: reorder categories to match new score gauge order ([#6848](#))
- driver: exit early when testing page with insecure certificate ([#6608](#))
- preconnect: add warning if preconnect link is not used ([#6694](#))
- preload: warn when duplicate requests issued ([#6849](#))
- localize LighthouseError messages ([#6457](#), [#6812](#))
- font-size audit: count code points for more accurate text length ([#6973](#))
- new audit: add FCP on 3G ([#7062](#))
    - (Weight = 0, so no scoring change)

Changes that are cool but don't have an effect on PSI:

- New PWA category, organization, and scoring ([#6395](#))
    - the PWA section of the report has a set of badges instead of a numeric score gauge ([#6526](#), [#6670](#))
    - the webapp-install-banner audit is now installable-manifest ([#6630](#))
    - the offline check formerly in webapp-install-banner is the new audit offline-start-url ([#6397](#))
- typescript definition files are now located under types/ ([#6617](#))
- computed artifact files are now located under lighthouse-core/computed/ ([#6618](#))
- change displayValue to be string only ([#6767](#))
- introduce Lighthouse plugins ([#6959](#))

Warning message example (German CNN):

Empfehlung	Geschätzte Einsparung
1 Wichtige Anforderungen vorab laden	━━━━━━━━━ 28,56 ⌃ s

> Warnungen: A preload <link> was found for "https://cdn.cnn.com/ads/cnn/cnn_homepage.json" but was not used by the browser. Check that you are using the `crossorigin` attribute properly.

Mit <link rel=preload> können Sie das Abrufen von Ressourcen priorisieren, die aktuell später beim Seitenaufbau angefordert werden. Weitere Informationen.

URL	Mögliche Einsparung (ms)
...3.7.2/cnnsans-lightit.woff2 (www.i.cdn.cnn.com)	28.560 ms
...latest-2.x/css (registry.api.cnn.io)	120 ms

I18n LH error example:

https://example.com/error	ANALYSIEREN

Lighthouse returned error: ERRORED_DOCUMENT_REQUEST. Die von Ihnen angeforderte Seite konnte von Lighthouse nicht zuverlässig geladen werden. Überprüfen Sie, ob Sie die richtige URL testen und der Server auf alle Anfragen angemessen reagiert. (Statuscode: 404) Schließen

Incorrect network payload size bug

Between Friday Feb 1st and Monday Feb 4, the headless Chrome infrastructure used by PageSpeed Insights had a bug that reported uncompressed (post-gzip) sizes as if they were the compressed transfer sizes. This led to incorrect calculations of the performance metrics and ultimately a lower score.

<u>As of Monday Feb 4, 5pm PST, the bug is completely addressed via a new production rollout.</u>

While this will restore Performance scores for the mobile profile to previous values, scores for desktop were expected to drop and will remain lower than previous, due to the 4.1.0 upgrade detailed below.