

Improved load-time scheduling

Feb 16th, 2017

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Tracking bug: [TODO\(skyostil@\)](#)

This is a proposal for a more optimal load time scheduling policy in the renderer. By using the recently introduced [loading use case detection](#) in the renderer scheduler we hope to make page loading more efficient.

Possible [policies to try](#):

- Figure out if we are detecting the loading use case correctly in the first place.
- Make loading tasks high priority.
- Deprioritize loading offscreen iframes.
- Make compositing tasks low priority.
- Make compositing tasks best effort.
- Limit rendering frame rate.
- Prioritize timers vs. loading tasks differently.
- Use resource priorities for loading tasks.
- (Detect idle foreground tabs for v8.)

Evaluation techniques:

- Manual testing and [tracing](#) on popular sites.
- Side-by-side testing on two identical phones -- does it "feel" like the page loads faster when we schedule tasks differently?
- Run `page_cycler_v2.typical_25` and see if any of this affects page loading time.
- Check with `smoothness.top_25_smooth` if there's an impact on responsiveness.

Risks:

- Loading use case detection is based on the types of layouts we do (i.e., rendering/compositing tasks). If we deprioritize them too much, we may never get out of the loading state.