**Impl threaded scrollbar scrolling**

**Subject**

Intent to implement Impl threaded composited scrollbar scrolling for MouseEvent(s).

**Contact emails**

arakeri@microsoft.com, samfort@microsoft.com, dlibby@microsoft.com, rickj@microsoft.com, marakow@microsoft.com

**Design doc/spec**

<https://github.com/MicrosoftEdge/MSEdgeExplainers/blob/master/Scrolling/ImplScrollbars/dev-diagram.md>

**Summary**

This proposal is to move composited scrollbar scrolling to the impl thread so that even when the main thread is busy, users can continue to interact with and scroll using scrollbars. The code will live mostly in cc.

**Motivation**

Scrollbar scrolling using the mouse happens on the main thread in Chromium. If the main thread is busy (due to reasons like long running JS, etc), scrolling by clicking on the scrollbar will appear to be janky as the events keep getting queued up on the MainThreadEventQueue, waiting for the main thread to free up. We observe on average scrollbar drags have ~2-4x higher latency in Chromium as compared to EdgeHTML today, worse on particularly busy sites. We attribute this gap primarily to EdgeHTML’s feature for off-thread scrollbar drags. By avoiding the main thread in Chromium as well, we believe we can bring the performance of scrollbar drags more in line with what we observe in EdgeHTML.

**Will this feature be supported on all six Blink platforms (Windows, Mac, Linux, Chrome OS, Android, and Android WebView)?**

Yes

**Ongoing technical constraints**

None (and this feature will be staged using a base::Feature flag)

**Tracking bug**

938619

**Demo links**

Attachment to crbug.com/938619: <https://bugs.chromium.org/p/chromium/issues/attachment?aid=382732&signed_aid=sAa8q1u-nTAvDsa4W8HQvA==>