

DevTools layout personalization - Movable tabs

Author: joselea@microsoft.com

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Attention: External, non-confidential

One-page overview

Summary

DevTools has a predetermined location for each view. This is set in each tool's module.json file in a property called "location". Regardless of how the tool is open the location is always the same. With this change we propose that every user can move a tab from the main panel to the drawer and vice-versa. This new location will be preserved via settings so the layout persists when the tools are re-opened.

Platforms

Desktop

Team

Jose Leal Chapa (joselea@microsoft.com), Rachel Simone Weil (raweil@microsoft.com)

Tracking Issue

Movable tabs issue - [1075732](#)

The overall layout personalization work is tracked by issue [897944](#).

See also: [DevTools Layout personalization \(explainer\)](#).

Signed off by

Name	Write (not) LGTM in this row
aerotwist@chromium.org	
ropaveza@microsoft.com	LGTM
shanejc@microsoft.com	LGTM
yangguo@chromium.org	LGTM
mathias@chromium.org	LGTM

petermueller@chromium.org	LGTM
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Architecture

Tools that provide a view need to choose a location where it will appear.

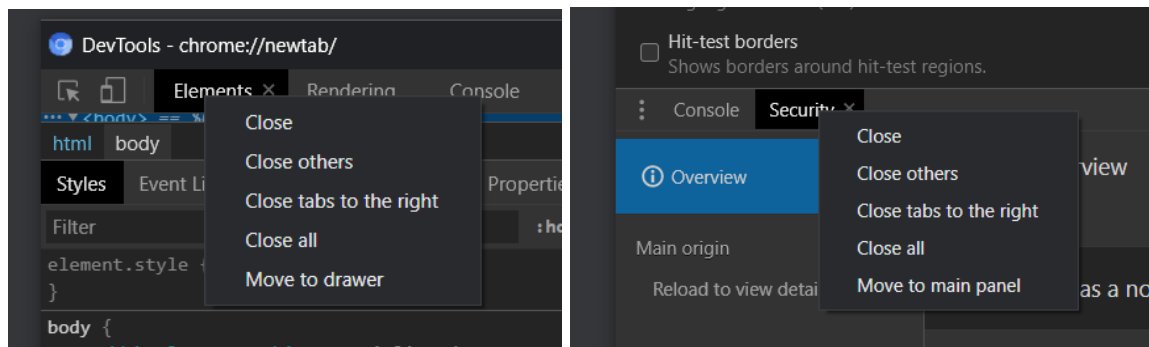
The location exists as a property in the module.json file. The ones we care about are `"location": "panel"` and `"location": "drawer-view"` because they refer to the main panels. Others, like `"elements-sidebar"` or `"sources.sidebar-bottom"` refer to sub-panels used inside tools like 'Accessibility' and 'Sources'.

Add a menu option

The first step is to provide a new entry in the context menu of the tabs. This entry only appears for tabs that exist in the main panel or in the drawer. The text and action of this entry is defined depending on where the view lives at the moment. ViewManager already keeps a map of location names for ViewIds, so in this change we just add a getter for it. The code to add the new entry to the context menu lives in TabbedPane.js.

'Move to drawer' - Is the option that appears for a tab in the main panel

'Move to main panel' - Is the option that appears for a tab currently in the drawer



Move the view to a new location

After the menu item is clicked we use the logic in ViewManager to reveal the new location and show the view there.

The new method `moveView` takes a `viewId` and a `locationName`, it verifies they are both valid and updates the internal location map, it also calls `location.ShowView()`.

Preserve the new location in settings

We want to respect the new user preferred location after the devtools are re-opened. We do this by keeping the new locations in a setting called `viewsLocationOverwrite`.

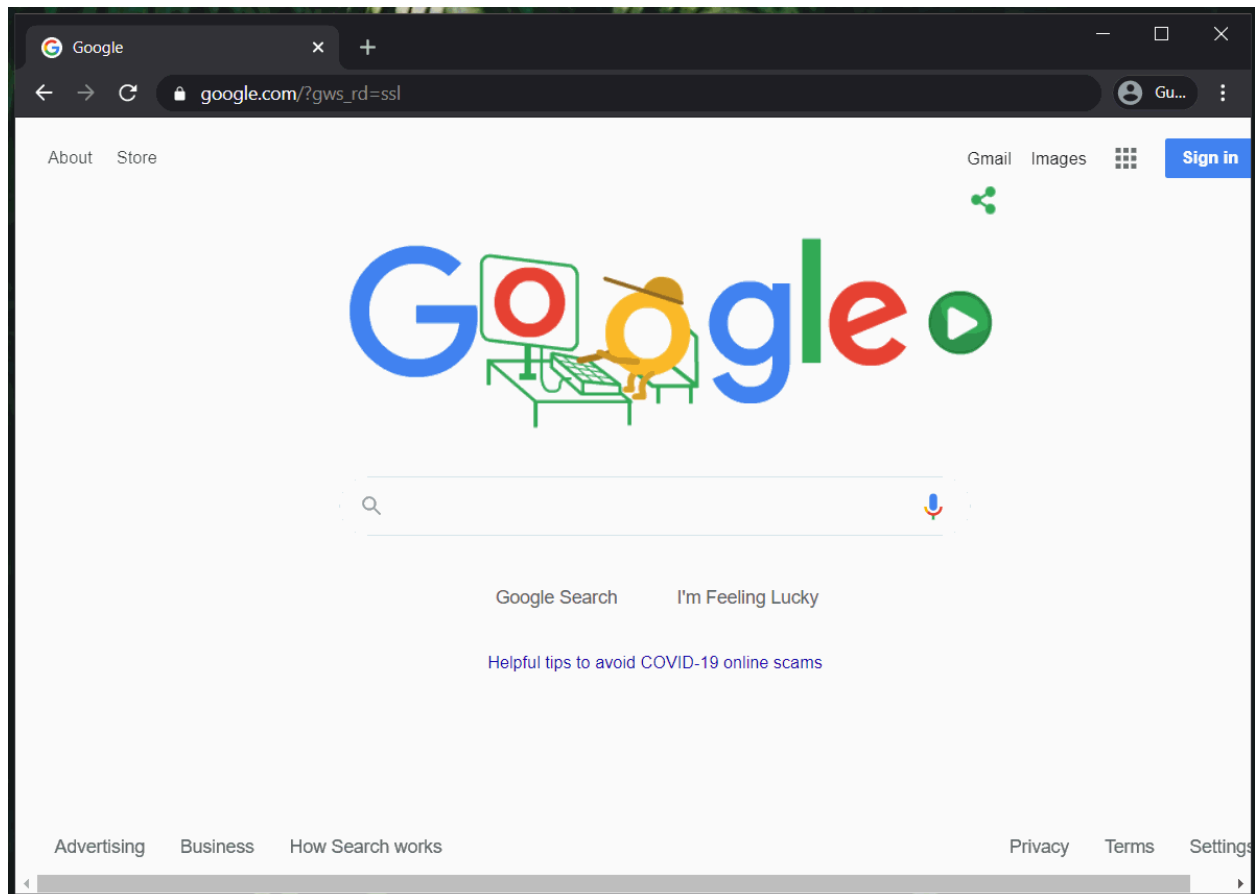
When ViewManager is initialized it goes through all the extensions from Runtime and makes a map called `_locationNameByViewId`. This makes it very easy to read the setting once and update the predefined location with the new one assigned by the user. After a tab is moved we update this setting as well.

There is an interesting case with the Console view that lives in the drawer. It is implemented as a simple wrapper class that when selected shows the same view as the main console. With this movable tabs implementation, a user can move both tabs to the same panel (which seems weird) One solution could be to prevent showing the context menu entry for Moving the tab in the Console only, but this would create a special case where the Console would always always have the 2 tabs appear, one in each panel.

How it all looks together [closeable + movable tabs]:

In this example, Security, a tab that previously was permanent and only lived in the main panel is moved to the drawer. Rendering, a tool that was only shown in the drawer is moved to the main top panel. Then the tab order is re-arranged. After re-opening devtools the new layout is respected.

<https://imgur.com/a/jzFS46X>



Rollout plan

Waterfall

Follow-up work

See [DevTools Layout personalization \(explainer\)](#) for an overview of follow-up work.

Appendix

User research

The Edge DevTools team conducted a survey with 83 web developers who use Chrome or Edge (Anaheim) DevTools once per month or more to understand their preferences on hiding, rearranging, and moving panes within DevTools.

1. More than half of participants switch tabs more than three times in a given debugging session. When asked how the following features would impact their productivity:
 - a. 79% responded that the ability to hide unused tabs would increase their productivity “greatly” or “somewhat.”
 - b. 86% responded that the ability to reorder tabs would increase their productivity “greatly” or “somewhat.”
 - c. 90% responded that the ability to see the content of two tabs of their choosing at once (e.g., in a split-screen view) would increase their productivity “greatly” or “somewhat.”
2. 90% of participants responded that DevTools layout customizations should not reset when DevTools and/or the browser are closed.
3. Roughly half of participants indicated that they “do not use or [were] not aware of tools that appear in the bottom panel” (i.e., the drawer, which was shown to participants in a diagram). Asked about challenges of working with this panel, participants cited numerous such as “I would prefer to customize what content appears in the bottom panel,” and “I would prefer to be able to change the orientation of the bottom panel.”
4. When asked to select up to 8 tools that would be useful in a split-screen view, there were no clear winners, although default tabs like Elements, Console, and Network typically received more votes than specialty tools like 3D View and WebAudio.