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**Owner:**[dtapu...@chromium.org](#)**CC:**[rzanoni@google.com](#)[bartekn@chromium.org](#)[mcnee@chromium.org](#) [haraken@chromium.org](#)[adithyas@chromium.org](#)**Status:**Fixed (*Closed*)**Components:**[Platform>Extensions](#)[UI>Browser>Navigation](#)**Modified:**

Jul 21, 2022

**Backlog-Rank:**

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**Editors:**

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**EstimatedDays:**

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**NextAction:**

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**OS:**[Linux](#), [Windows](#), [Chrome](#), [Mac](#), [Fuchsia](#), [Lacros](#)**Pri:**

1

**Type:**[Bug-Security](#)[Hotlist-Merge-Review](#)[Security\\_Severity-High](#)[allpublic](#)[CVE\\_description-submitted](#)[M-98](#)[Target-98](#)[FoundIn-96](#)[Security\\_Impact-Extended](#)[merge-merged-4664](#)[Merge-Merged-96](#)[LTS-Merge-Merged-96](#)[merge-merged-4758](#)[merge-merged-98](#)[merge-merged-4844](#)[merge-merged-99](#)[merge-merged-4896](#)[merge-merged-100](#)[Release-1-M99](#)[CVE-2022-0972](#)

## Issue 1301320: Security: heap-use-after-free in extensions::ExtensionApiFrameIdMap::GetFrameId

Reported by [glazunov@google.com](mailto:glazunov@google.com) on Mon, Feb 28, 2022, 8:11 AM EST

Project Member

 Code

### SUMMARY

A use-after-free issue exists in Chrome 100 and earlier versions. A malicious extension can achieve arbitrary code execution in the browser process.

### VULNERABILITY DETAILS

...

```
// A handler for a single injection request. On creation this will send the
// injection request to the renderer, and it will be destroyed after either the
// corresponding response comes from the renderer, or the renderer is destroyed.
```

```
class Handler : public content::WebContentsObserver {
```

```
[...]
```

```
  Handler(base::PassKey<ScriptExecutor> pass_key,
           ScriptsExecutedOnceCallback observer,
           content::WebContents* web_contents,
          mojom::ExecuteCodeParamsPtr params,
           ScriptExecutor::FrameScope scope,
           const std::set<int>& frame_ids,
           ScriptExecutor::ScriptFinishedCallback callback) {
```

```
[...]
```

```
  // If we are to include subframes, iterate over all descendants of frames in
  // `pending_render_frames_` and add them if they are alive (and not already
  // contained in `pending_frames`).
```

```
  if (scope == ScriptExecutor::INCLUDE_SUB_FRAMES) {
```

```
    auto append_frame =
```

```
      [](std::vector<content::RenderFrameHost*> pending_frames,
         content::RenderFrameHost* frame) {
```

```
        if (!frame->IsRenderFrameLive() ||
```

```
            base::Contains(*pending_frames, frame)) {
```

```
          return;
```

```
        }
```

```
        pending_frames->push_back(frame);
```

```
      };
```

```
  // We iterate over the requested frames. Note we can't use an iterator
```

```
  // as the for loop will mutate `pending_render_frames_`.
```

```
  size_t requested_frame_count = pending_render_frames_.size();
```

```
  for (size_t i = 0; i < requested_frame_count; ++i) {
```

```
    auto* frame = pending_render_frames_.at(i);
```

```
    frame->ForEachRenderFrameHost( // *** 1 ***
```

```
      base::BindRepeating(append_frame, &pending_render_frames_));
```

```
  }
```

```
}
```

```
for (content::RenderFrameHost* frame : pending_render_frames_)
```

```

    for (content::RenderFrameHost* frame : pending_render_frames_)
        SendExecuteCode(pass_key, params.Clone(), frame);

    if (pending_render_frames_.empty())
        Finish();
}
[...]
void WebContentsDestroyed() override {
    for (content::RenderFrameHost* frame : pending_render_frames_) {
        int frame_id = ExtensionApiFrameIdMap::GetFrameId(frame); // *** 2 ***
        AddWillNotInjectResult(
            frame_id,
            base::StringPrintf("Tab containing frame with ID %d was removed.",
                               frame_id));
    }
    pending_render_frames_.clear();
    Finish();
}
[...]
void RenderFrameDeleted(
    content::RenderFrameHost* render_frame_host) override {
    int erased_count = base::Erase(pending_render_frames_, render_frame_host); // *** 3 ***
}
[...]
}
...

```

This issue is almost identical to <https://crbug.com/4284367>. The `Handler` constructor calls `ForEachRenderFrameHost` to make a list of the frames in a given tab[1], including frames that belong to nested `WebContents` objects, and listens to the `RenderFrameDeleted` event to remove old frames from the list[3]. Unfortunately, `RenderFrameDeleted` doesn't get triggered for nested `WebContents` frames, so the `pending\_render\_frames\_` list may end up with dangling pointers to such frames, which will get dereferenced when the tab is closed[2].

## VERSION

98.0.4758.109 (Official Build) (arm64)  
 100.0.4893.0 (Developer Build) (64-bit)

## REPRODUCTION CASE

A browser extension with the "scripting" permission can exploit the bug to escape the sandbox. To reproduce:

1. Make repro.html available at <http://localhost:8000/repro.html>.
2. Load the attached unpacked extension via chrome://extensions/.

Alternatively, a malicious web page can target users of popular extensions that rely on the `executeScript` API.

## CREDIT INFORMATION

Sergei Glazunov of Google Project Zero

This bug is subject to a 90-day disclosure deadline. If a fix for this

issue is made available to users before the end of the 90-day deadline, this bug report will become public 30 days after the fix was made available. Otherwise, this bug report will become public at the deadline.

available. Otherwise, this bug report will become public at the deadline.

The scheduled deadline is 2022-05-29.

**asan.log**

26.9 KB [View](#) [Download](#)

**manifest.json**

218 bytes [View](#) [Download](#)

**repro.html**

174 bytes [View](#) [Download](#)

**sw.js**

445 bytes [View](#) [Download](#)

[Comment 1](#) by [dcheng@chromium.org](#) on Wed, Mar 2, 2022, 12:56 AM EST Project Member

**Status:** Assigned (was: Unconfirmed)

**Owner:** dtapu...@chromium.org

**Labels:** Security\_Severity-Critical FoundIn-96 OS-Chrome OS-Fuchsia OS-Linux OS-Mac OS-Windows OS-Lacros Pri-0

**Components:** Platform>Extensions

[Comment 2](#) by [dcheng@chromium.org](#) on Wed, Mar 2, 2022, 12:59 AM EST Project Member

I've also pinged the mparch team to let them know about this issue: this seems like something that could happen quite easily with anything that combines `ForEachRenderFrameHost()` and `WebContentsObserver::RenderFrameDeleted()`.

[Comment 3](#) by [sheriffbot](#) on Wed, Mar 2, 2022, 1:04 AM EST Project Member

**Labels:** Security\_Impact-Extended

[Comment 4](#) by [dcheng@chromium.org](#) on Wed, Mar 2, 2022, 12:20 PM EST Project Member

**Cc:** adithyas@chromium.org

[Comment 5](#) by [dcheng@chromium.org](#) on Wed, Mar 2, 2022, 12:33 PM EST Project Member

**Cc:** mcnee@chromium.org

[Comment 6](#) by [sheriffbot](#) on Wed, Mar 2, 2022, 12:47 PM EST Project Member

**Labels:** M-98 Target-98

Setting milestone and target because of high severity.

For more details visit <https://www.chromium.org/issue-tracking/autotriage> - Your friendly Sheriffbot

[Comment 7](#) by [creis@chromium.org](#) on Fri, Mar 4, 2022, 1:58 PM EST Project Member

**Components:** UI>Browser>Navigation

dtapuska@ / mcnee@: Any updates on this that you can post? Do we need to audit additional `ForEachRenderFrameHost` cases as well? Thanks!

[Comment 8](#) by [dtapu...@chromium.org](#) on Fri, Mar 4, 2022, 2:12 PM EST Project Member

Change is here... <https://chromium-review.googlesource.com/c/chromium/src/+3497565> Just waiting on Kevin to stamp the

raw\_ptr change he requested.

**Comment 9** by [Git Watcher](#) on Fri, Mar 4, 2022, 2:44 PM EST Project Member

The following revision refers to this bug:

<https://chromium.googlesource.com/chromium/src/+5c4e043324b3afd1be673ae2c0a5c00845bb0e86>

commit [5c4e043324b3afd1be673ae2c0a5c00845bb0e86](#)

Author: Dave Tapuska <[dtapuska@chromium.org](mailto:dtapuska@chromium.org)>

Date: Fri Mar 04 19:43:47 2022

Do not expose inner WebContents on scripting/getAllFrames.

Inner WebContents shouldn't be exposed for executeScript or getAllFrames APIs. This is consistent with the API before [crrev.com/f894f106](https://crrev.com/f894f106) and [crrev.com/c8de3b0a](https://crrev.com/c8de3b0a).

~~BUG=1301320~~,1261261

Change-Id: I86a5b09aa44c48319b7dd0a10e5442b8c803d4e5

Reviewed-on: <https://chromium-review.googlesource.com/c/chromium/src/+3497565>

Reviewed-by: Devlin Cronin <[rdevlin.cronin@chromium.org](mailto:rdevlin.cronin@chromium.org)>

Reviewed-by: Kevin McNee <[mcnee@chromium.org](mailto:mcnee@chromium.org)>

Commit-Queue: Dave Tapuska <[dtapuska@chromium.org](mailto:dtapuska@chromium.org)>

Cr-Commit-Position: refs/heads/main@{#977769}

[modify] [https://crrev.com/5c4e043324b3afd1be673ae2c0a5c00845bb0e86/extensions/browser/script\\_executor.cc](https://crrev.com/5c4e043324b3afd1be673ae2c0a5c00845bb0e86/extensions/browser/script_executor.cc)

[modify]

[https://crrev.com/5c4e043324b3afd1be673ae2c0a5c00845bb0e86/chrome/browser/extensions/api/scripting/scripting\\_apitest.cc](https://crrev.com/5c4e043324b3afd1be673ae2c0a5c00845bb0e86/chrome/browser/extensions/api/scripting/scripting_apitest.cc)

[add]

[https://crrev.com/5c4e043324b3afd1be673ae2c0a5c00845bb0e86/chrome/test/data/extensions/api\\_test/scripting/nested\\_web\\_contents/worker.js](https://crrev.com/5c4e043324b3afd1be673ae2c0a5c00845bb0e86/chrome/test/data/extensions/api_test/scripting/nested_web_contents/worker.js)

[modify]

[https://crrev.com/5c4e043324b3afd1be673ae2c0a5c00845bb0e86/chrome/browser/extensions/api/web\\_navigation/web\\_navigation\\_api.cc](https://crrev.com/5c4e043324b3afd1be673ae2c0a5c00845bb0e86/chrome/browser/extensions/api/web_navigation/web_navigation_api.cc)

[add]

[https://crrev.com/5c4e043324b3afd1be673ae2c0a5c00845bb0e86/chrome/test/data/extensions/api\\_test/scripting/nested\\_web\\_contents/manifest.json](https://crrev.com/5c4e043324b3afd1be673ae2c0a5c00845bb0e86/chrome/test/data/extensions/api_test/scripting/nested_web_contents/manifest.json)

**Comment 10** by [dtapu...@chromium.org](mailto:dtapu...@chromium.org) on Fri, Mar 4, 2022, 2:45 PM EST Project Member

**Status:** Fixed (was: Assigned)

**Comment 11** by [mcnee@chromium.org](mailto:mcnee@chromium.org) on Fri, Mar 4, 2022, 4:25 PM EST Project Member

creis: I looked through ForEachRenderFrameHost callers looking for callbacks that produce long lived raw RenderFrameHost pointers that warrant follow up. See issue 1303124.

**Comment 12** by [sheriffbot](#) on Sat, Mar 5, 2022, 1:40 PM EST Project Member

**Labels:** -Restrict-View-SecurityTeam Restrict-View-SecurityNotify

**Comment 13** by [sheriffbot](#) on Sat, Mar 5, 2022, 2:00 PM EST Project Member

**Labels:** Merge-Request-100 Merge-Request-98 Merge-Request-99

Requesting merge to extended stable M98 because latest trunk commit (977769) appears to be after extended stable branch point (950365).

Requesting merge to stable M99 because latest trunk commit (977769) appears to be after stable branch point (961656).

Requesting merge to beta M100 because latest trunk commit (977769) appears to be after beta branch point (972766).

For more details visit <https://www.chromium.org/issue-tracking/autotriage> - Your friendly Sheriffbot

**Comment 14** by [sheriffbot](#) on Sat, Mar 5, 2022, 2:49 PM EST Project Member

**Labels:** -Merge-Request-100 Hotlist-Merge-Review Merge-Review-100

Merge review required: M100 is already shipping to beta.

Please answer the following questions so that we can safely process your merge request:

1. Why does your merge fit within the merge criteria for these milestones?
  - Chrome Browser: <https://chromiumdash.appspot.com/branches>
  - Chrome OS: <https://goto.google.com/cros-release-branch-merge-guidelines>
2. What changes specifically would you like to merge? Please link to Gerrit.
3. Have the changes been released and tested on canary?
4. Is this a new feature? If yes, is it behind a Finch flag and are experiments active in any release channels?
5. [Chrome OS only]: Was the change reviewed and approved by the Eng Prod Representative?  
<https://goto.google.com/cros-engprodcomponents>
6. If this merge addresses a major issue in the stable channel, does it require manual verification by the test team? If so, please describe required testing.

Please contact the milestone owner if you have questions.

Owners: govind (Android), harrysouders (iOS), dgagnon (ChromeOS), srinivassista (Desktop)

For more details visit <https://www.chromium.org/issue-tracking/autotriage> - Your friendly Sheriffbot

**Comment 15** by [sheriffbot](#) on Sat, Mar 5, 2022, 2:49 PM EST Project Member

**Labels:** -Merge-Request-99 Merge-Review-99

Merge review required: M99 is already shipping to stable.

Please answer the following questions so that we can safely process your merge request:

1. Why does your merge fit within the merge criteria for these milestones?
  - Chrome Browser: <https://chromiumdash.appspot.com/branches>
  - Chrome OS: <https://goto.google.com/cros-release-branch-merge-guidelines>
2. What changes specifically would you like to merge? Please link to Gerrit.
3. Have the changes been released and tested on canary?
4. Is this a new feature? If yes, is it behind a Finch flag and are experiments active in any release channels?
5. [Chrome OS only]: Was the change reviewed and approved by the Eng Prod Representative?  
<https://goto.google.com/cros-engprodcomponents>
6. If this merge addresses a major issue in the stable channel, does it require manual verification by the test team? If so, please describe required testing.

Please contact the milestone owner if you have questions.

Owners: benmason (Android), harrysouders (iOS), ceb (ChromeOS), pbommana (Desktop)

For more details visit <https://www.chromium.org/issue-tracking/autotriage> - Your friendly Sheriffbot

Comment 16 by sheriffbot on Sat, Mar 5, 2022, 2:49 PM EST Project Member

**Labels:** -Merge-Request-98 Merge-Review-98

Merge review required: M98 is already shipping to stable.

Please answer the following questions so that we can safely process your merge request:

1. Why does your merge fit within the merge criteria for these milestones?
  - Chrome Browser: <https://chromiumdash.appspot.com/branches>
  - Chrome OS: <https://goto.google.com/cros-release-branch-merge-guidelines>
2. What changes specifically would you like to merge? Please link to Gerrit.
3. Have the changes been released and tested on canary?
4. Is this a new feature? If yes, is it behind a Finch flag and are experiments active in any release channels?
5. [Chrome OS only]: Was the change reviewed and approved by the Eng Prod Representative?  
<https://goto.google.com/cros-engprodcomponents>
6. If this merge addresses a major issue in the stable channel, does it require manual verification by the test team? If so, please describe required testing.

Please contact the milestone owner if you have questions.

Owners: govind (Android), harrysouders (iOS), matthewjoseph (ChromeOS), srinivassista (Desktop)

For more details visit <https://www.chromium.org/issue-tracking/autotriage> - Your friendly Sheriffbot

Comment 17 by dtapu...@chromium.org on Mon, Mar 7, 2022, 11:50 AM EST Project Member

1. Yes. M98-M100
2. <https://chromium-review.googlesource.com/c/chromium/src/+3497565>
3. Yes 101.0.4925.0 and later
4. No
5. No
6. Yes, see repro tests loading unpacked extension in [Comment #0](#)

Comment 18 by srinivassista@google.com on Mon, Mar 7, 2022, 12:36 PM EST Project Member

**Labels:** -Merge-Review-100 Merge-Approved-100

Merge approved for M100 branch:pls refer to [go/chrome-branches](https://go/chrome-branches) for branch info

Comment 19 by srinivassista@google.com on Mon, Mar 7, 2022, 2:55 PM EST Project Member

This bug is approved for M100 merge, please complete your merge asap so this can be included in the beta release this week. Beta RC will be cut tomorrow ( tuesday) March 8th at 3pm PST [Bulk Update]

Comment 20 by Git Watcher on Tue, Mar 8, 2022, 1:15 PM EST Project Member

**Labels:** -merge-approved-100 merge-merged-4896 merge-merged-100

The following revision refers to this bug:

<https://chromium.googlesource.com/chromium/src/+382ed1260b5eb60a8bfe9847ce6d2095f2f544ec>

commit [382ed1260b5eb60a8bfe9847ce6d2095f2f544ec](https://chromium.googlesource.com/chromium/src/+382ed1260b5eb60a8bfe9847ce6d2095f2f544ec)

Author: Dave Tapuska <[dtapuska@chromium.org](mailto:dtapuska@chromium.org)>

Date: Tue Mar 08 18:14:46 2022

Do not expose inner WebContents on scripting/getAllFrames.

InnerWebContents shouldn't be exposed for executeScript or getAllFrames

inner webContents shouldn't be exposed for executeScript or getAllFrames APIs. This is consistent with the API before [crrev.com/f894f106](https://crrev.com/f894f106) and [crrev.com/c8de3b0a](https://crrev.com/c8de3b0a).

~~BUG=1304320~~,1261261

(cherry picked from commit [5c4e043324b3afd1be673ae2c0a5c00845bb0e86](https://crrev.com/5c4e043324b3afd1be673ae2c0a5c00845bb0e86))

Change-Id: I86a5b09aa44c48319b7dd0a10e5442b8c803d4e5  
Reviewed-on: <https://chromium-review.googlesource.com/c/chromium/src/+3497565>  
Reviewed-by: Devlin Cronin <[rdevlin.cronin@chromium.org](mailto:rdevlin.cronin@chromium.org)>  
Reviewed-by: Kevin McNee <[mcnee@chromium.org](mailto:mcnee@chromium.org)>  
Commit-Queue: Dave Tapuska <[dtapuska@chromium.org](mailto:dtapuska@chromium.org)>  
Cr-Original-Commit-Position: refs/heads/main@{#977769}  
Reviewed-on: <https://chromium-review.googlesource.com/c/chromium/src/+3507493>  
Auto-Submit: Dave Tapuska <[dtapuska@chromium.org](mailto:dtapuska@chromium.org)>  
Bot-Commit: Rubber Stamper <[rubber-stamper@appspot.gserviceaccount.com](mailto:rubber-stamper@appspot.gserviceaccount.com)>  
Owners-Override: Prudhvikumar Bommana <[pbommana@google.com](mailto:pbommana@google.com)>  
Cr-Commit-Position: refs/branch-heads/4896@{#382}  
Cr-Branched-From: [1f63ff4bc27570761b35ffbc7f938f6586f7bee8](https://crrev.com/1f63ff4bc27570761b35ffbc7f938f6586f7bee8)-refs/heads/main@{#972766}

[modify] [https://crrev.com/382ed1260b5eb60a8bfe9847ce6d2095f2f544ec/extensions/browser/script\\_executor.cc](https://crrev.com/382ed1260b5eb60a8bfe9847ce6d2095f2f544ec/extensions/browser/script_executor.cc)  
[modify] [https://crrev.com/382ed1260b5eb60a8bfe9847ce6d2095f2f544ec/chrome/browser/extensions/api/scripting/scripting\\_apitest.cc](https://crrev.com/382ed1260b5eb60a8bfe9847ce6d2095f2f544ec/chrome/browser/extensions/api/scripting/scripting_apitest.cc)  
[add] [https://crrev.com/382ed1260b5eb60a8bfe9847ce6d2095f2f544ec/chrome/test/data/extensions/api\\_test/scripting/nested\\_web\\_contents/worker.js](https://crrev.com/382ed1260b5eb60a8bfe9847ce6d2095f2f544ec/chrome/test/data/extensions/api_test/scripting/nested_web_contents/worker.js)  
[modify] [https://crrev.com/382ed1260b5eb60a8bfe9847ce6d2095f2f544ec/chrome/browser/extensions/api/web\\_navigation/web\\_navigation\\_api.cc](https://crrev.com/382ed1260b5eb60a8bfe9847ce6d2095f2f544ec/chrome/browser/extensions/api/web_navigation/web_navigation_api.cc)  
[add] [https://crrev.com/382ed1260b5eb60a8bfe9847ce6d2095f2f544ec/chrome/test/data/extensions/api\\_test/scripting/nested\\_web\\_contents/manifest.json](https://crrev.com/382ed1260b5eb60a8bfe9847ce6d2095f2f544ec/chrome/test/data/extensions/api_test/scripting/nested_web_contents/manifest.json)

**Comment 21** by [sheriffbot](#) on Tue, Mar 8, 2022, 1:20 PM EST Project Member

**Labels:** LTS-Merge-Candidate

LTS Milestone M96

This issue has been flagged as a merge candidate for Chrome OS' LTS channel. If selected, our merge team will handle any additional merges. To help us determine if this issue requires a merge to LTS, please answer this short questionnaire:

1. Was this issue a regression for the milestone it was found in?
2. Is this issue related to a change or feature merged after the latest LTS Milestone?

For more details visit <https://www.chromium.org/issue-tracking/autotriage> - Your friendly Sheriffbot

**Comment 22** by [rzanoni@google.com](#) on Wed, Mar 9, 2022, 7:37 AM EST Project Member

**Cc:** [rzanoni@google.com](#)

**Labels:** LTS-Evaluating-96



Comment 23 by rzanoni@google.com on Wed, Mar 9, 2022, 11:26 AM EST Project Member

**Labels:** -LTS-Evaluating-96 LTS-Merge-Request-96

Comment 24 by sheriffbot on Wed, Mar 9, 2022, 11:30 AM EST Project Member

**Labels:** -LTS-Merge-Request-96 LTS-Merge-Review-96

This issue requires additional review before it can be merged to the LTS channel. Please answer the following questions to help us evaluate this merge:

1. Number of CLs needed for this fix and links to them.
2. Level of complexity (High, Medium, Low - Explain)
3. Has this been merged to a stable release? beta release?
4. Overall Recommendation (Yes, No)

For more details visit <https://www.chromium.org/issue-tracking/autotriage> - Your friendly Sheriffbot

Comment 25 by gmpritchard@google.com on Wed, Mar 9, 2022, 1:19 PM EST Project Member

**Labels:** -LTS-Merge-Candidate

Comment 26 by amyressler@chromium.org on Wed, Mar 9, 2022, 5:23 PM EST Project Member

**Labels:** -Merge-Review-98 -Merge-Review-99 Merge-Approved-99 Merge-Approved-98

M99 merge approved, please merge to branch 4844 NLT 10am PST tomorrow, Thursday, 10 March so this fix can be included in the next stable security refresh being cut tomorrow

M98 merge approved, please merge to branch 4758 so this fix can be included in Extended Stable support

Comment 27 by Git Watcher on Wed, Mar 9, 2022, 7:46 PM EST Project Member

**Labels:** -merge-approved-99 merge-merged-4844 merge-merged-99

The following revision refers to this bug:

<https://chromium.googlesource.com/chromium/src/+f248f0755b5c2a7aa65c45aa33bb54bc69ad3845>

commit [f248f0755b5c2a7aa65c45aa33bb54bc69ad3845](https://chromium.googlesource.com/chromium/src/+f248f0755b5c2a7aa65c45aa33bb54bc69ad3845)

Author: Dave Tapuska <[dtapuska@chromium.org](mailto:dtapuska@chromium.org)>

Date: Thu Mar 10 00:45:56 2022

[M99] Do not expose inner WebContents on scripting/getAllFrames.

Inner WebContents shouldn't be exposed for executeScript or getAllFrames APIs. This is consistent with the API before [crrev.com/f894f106](https://crrev.com/f894f106) and [crrev.com/c8de3b0a](https://crrev.com/c8de3b0a).

~~BUG=1304320~~,1261261

(cherry picked from commit [5c4e043324b3afd1be673ae2c0a5c00845bb0e86](https://chromium.googlesource.com/chromium/src/+5c4e043324b3afd1be673ae2c0a5c00845bb0e86))

Change-Id: I86a5b09aa44c48319b7dd0a10e5442b8c803d4e5

Reviewed on: <https://chromium-review.googlesource.com/c/chromium/src/+1240756>

Reviewed-on: <https://chromium-review.googlesource.com/c/chromium/src/+3497565>

Reviewed-by: Devlin Cronin <[rdevlin.cronin@chromium.org](mailto:rdevlin.cronin@chromium.org)>

Reviewed-by: Kevin McNee <[mcnee@chromium.org](mailto:mcnee@chromium.org)>

Commit-Queue: Dave Tapuska <[dtapuska@chromium.org](mailto:dtapuska@chromium.org)>

Cr-Original-Commit-Position: refs/heads/main@{#977769}

Reviewed-on: <https://chromium-review.googlesource.com/c/chromium/src/+3515013>

Cr-Commit-Position: refs/branch-heads/4844@{#1022}

Cr-Branched-From: [007241ce2e6c8e5a7b306cc36c730cd07cd38825](#)-refs/heads/main@{#961656}

[modify] [https://crrev.com/f248f0755b5c2a7aa65c45aa33bb54bc69ad3845/extensions/browser/script\\_executor.cc](https://crrev.com/f248f0755b5c2a7aa65c45aa33bb54bc69ad3845/extensions/browser/script_executor.cc)

[modify]

[https://crrev.com/f248f0755b5c2a7aa65c45aa33bb54bc69ad3845/chrome/browser/extensions/api/scripting/scripting\\_apitest.cc](https://crrev.com/f248f0755b5c2a7aa65c45aa33bb54bc69ad3845/chrome/browser/extensions/api/scripting/scripting_apitest.cc)

[add]

[https://crrev.com/f248f0755b5c2a7aa65c45aa33bb54bc69ad3845/chrome/test/data/extensions/api\\_test/scripting/nested\\_web\\_contents/worker.js](https://crrev.com/f248f0755b5c2a7aa65c45aa33bb54bc69ad3845/chrome/test/data/extensions/api_test/scripting/nested_web_contents/worker.js)

[modify]

[https://crrev.com/f248f0755b5c2a7aa65c45aa33bb54bc69ad3845/chrome/browser/extensions/api/web\\_navigation/web\\_navigation\\_api.cc](https://crrev.com/f248f0755b5c2a7aa65c45aa33bb54bc69ad3845/chrome/browser/extensions/api/web_navigation/web_navigation_api.cc)

[add]

[https://crrev.com/f248f0755b5c2a7aa65c45aa33bb54bc69ad3845/chrome/test/data/extensions/api\\_test/scripting/nested\\_web\\_contents/manifest.json](https://crrev.com/f248f0755b5c2a7aa65c45aa33bb54bc69ad3845/chrome/test/data/extensions/api_test/scripting/nested_web_contents/manifest.json)

Comment 28 by [Git Watcher](#) on Wed, Mar 9, 2022, 9:36 PM EST Project Member

**Labels:** -merge-approved-98 merge-merged-4758 merge-merged-98

The following revision refers to this bug:

<https://chromium.googlesource.com/chromium/src/+b321ac924772586a874927cce2b04600efdf4d69>

commit [b321ac924772586a874927cce2b04600efdf4d69](#)

Author: Dave Tapuska <[dtapuska@chromium.org](mailto:dtapuska@chromium.org)>

Date: Thu Mar 10 02:35:27 2022

[M98] Do not expose inner WebContents on scripting/getAllFrames.

Inner WebContents shouldn't be exposed for executeScript or getAllFrames APIs. This is consistent with the API before [crrev.com/f894f106](https://crrev.com/f894f106) and [crrev.com/c8de3b0a](https://crrev.com/c8de3b0a).

~~BUG=1301320~~,1261261

(cherry picked from commit [5c4e043324b3afd1be673ae2c0a5c00845bb0e86](#))

Change-Id: [I86a5b09aa44c48319b7dd0a10e5442b8c803d4e5](#)

Reviewed-on: <https://chromium-review.googlesource.com/c/chromium/src/+3497565>

Reviewed-by: Devlin Cronin <[rdevlin.cronin@chromium.org](mailto:rdevlin.cronin@chromium.org)>

Reviewed-by: Kevin McNee <[mcnee@chromium.org](mailto:mcnee@chromium.org)>

Commit-Queue: Dave Tapuska <[dtapuska@chromium.org](mailto:dtapuska@chromium.org)>

Cr-Original-Commit-Position: refs/heads/main@{#977769}

Reviewed-on: <https://chromium-review.googlesource.com/c/chromium/src/+3514993>

Cr-Commit-Position: refs/branch-heads/4758@{#1244}

Cr-Branched-From: [4a2cf4baf90326df19c3ee70ff987960d59a386e](#)-refs/heads/main@{#950365}

[modify] [https://crrev.com/f248f0755b5c2a7aa65c45aa33bb54bc69ad3845/extensions/browser/script\\_executor.cc](https://crrev.com/f248f0755b5c2a7aa65c45aa33bb54bc69ad3845/extensions/browser/script_executor.cc)

[modify] [https://crrev.com/b321ac924772586a874927cce2b04600efdf4d69/chrome/test/data/extensions/api\\_test/scripting/nested\\_w](https://crrev.com/b321ac924772586a874927cce2b04600efdf4d69/chrome/test/data/extensions/api_test/scripting/nested_web_contents/worker.js)

[modify]

[https://crrev.com/b321ac924772586a874927cce2b04600efdf4d69/chrome/test/data/extensions/api\\_test/scripting/nested\\_w](https://crrev.com/b321ac924772586a874927cce2b04600efdf4d69/chrome/test/data/extensions/api_test/scripting/nested_web_contents/worker.js)

[add]

[https://crrev.com/b321ac924772586a874927cce2b04600efdf4d69/chrome/test/data/extensions/api\\_test/scripting/nested\\_w](https://crrev.com/b321ac924772586a874927cce2b04600efdf4d69/chrome/test/data/extensions/api_test/scripting/nested_web_contents/worker.js)

[modify]

[https://crrev.com/b321ac924772586a874927cce2b04600efdf4d69/chrome/test/data/extensions/api\\_test/scripting/nested\\_w](https://crrev.com/b321ac924772586a874927cce2b04600efdf4d69/chrome/test/data/extensions/api_test/scripting/nested_web_contents/worker.js)

[add]

[https://crrev.com/b321ac924772586a874927cce2b04600efdf4d69/chrome/test/data/extensions/api\\_test/scripting/nested\\_w](https://crrev.com/b321ac924772586a874927cce2b04600efdf4d69/chrome/test/data/extensions/api_test/scripting/nested_web_contents/manifest.json)

**Comment 29** by [rzanoni@google.com](#) on Thu, Mar 10, 2022, 3:32 AM EST Project Member

1. Just <https://crrev.com/c/3513173>
2. Low, simple conflicts on frame iteration loop
3. 98, 99, 100
4. Yes

**Comment 30** by [amyressler@chromium.org](#) on Fri, Mar 11, 2022, 3:24 PM EST Project Member

**Labels:** Release-1-M99

**Comment 31** by [amyressler@chromium.org](#) on Mon, Mar 14, 2022, 12:21 PM EDT Project Member

**Labels:** -Security\_Severity-Critical Security\_Severity-High

While this is a UAF in the browser process, it does require a malicious extension to execute, so downgrading to high severity

**Comment 32** by [amyressler@google.com](#) on Mon, Mar 14, 2022, 6:13 PM EDT Project Member

**Labels:** CVE-2022-0972 CVE\_description-missing

**Comment 33** by [gmpritchard@google.com](#) on Tue, Mar 15, 2022, 9:52 AM EDT Project Member

**Labels:** -LTS-Merge-Review-96 LTS-Merge-Approved-96

**Comment 34** by [sheriffbot](#) on Wed, Mar 16, 2022, 1:07 PM EDT Project Member

**Labels:** -Pri-0 Pri-1

Setting Pri-1 to match security severity High. If this is incorrect, please reset the priority. Sheriffbot won't make this change again.

For more details visit <https://www.chromium.org/issue-tracking/autotriage> - Your friendly Sheriffbot

**Comment 35** by [Git Watcher](#) on Thu, Mar 17, 2022, 6:20 AM EDT Project Member

**Labels:** merge-merged-4664 merge-merged-96

The following revision refers to this bug:

<https://chromium.googlesource.com/chromium/src/+80e73e605d32e57ae6020ec6fe03d07f9d3ffbd>

commit [80e73e605d32e57ae6020ec6fe03d07f9d3ffbd](#)

Author: Dave Taruska <[dtaruska@chromium.org](#)>

Author: Dave Tapuska <[dtapuska@chromium.org](mailto:dtapuska@chromium.org)>

Date: Thu Mar 17 10:19:43 2022

[M96-LTS] Do not expose inner WebContents on scripting/getAllFrames.

M96 merge issues:

web\_navigation\_api.cc:

- M96 uses web\_contents->ForEachFrame to iterate the frames while  
main uses ForEachRenderFrameHost

Inner WebContents shouldn't be exposed for executeScript or getAllFrames  
APIs. This is consistent with the API before [crrev.com/f894f106](https://crrev.com/f894f106)  
and [crrev.com/c8de3b0a](https://crrev.com/c8de3b0a).

~~BUG=1301320~~,1261261

(cherry picked from commit [5c4e043324b3afd1be673ae2c0a5c00845bb0e86](https://chromium-review.googlesource.com/c/chromium/src/+3497565))

Change-Id: I86a5b09aa44c48319b7dd0a10e5442b8c803d4e5

Reviewed-on: <https://chromium-review.googlesource.com/c/chromium/src/+3497565>

Commit-Queue: Dave Tapuska <[dtapuska@chromium.org](mailto:dtapuska@chromium.org)>

Cr-Original-Commit-Position: refs/heads/main@{#977769}

Reviewed-on: <https://chromium-review.googlesource.com/c/chromium/src/+3513173>

Reviewed-by: Dave Tapuska <[dtapuska@chromium.org](mailto:dtapuska@chromium.org)>

Reviewed-by: Artem Sumaneev <[asumaneev@google.com](mailto:asumaneev@google.com)>

Owners-Override: Artem Sumaneev <[asumaneev@google.com](mailto:asumaneev@google.com)>

Commit-Queue: Roger Felipe Zandoni da Silva <[rzandoni@google.com](mailto:rzandoni@google.com)>

Cr-Commit-Position: refs/branch-heads/4664@{#1535}

Cr-Branched-From: [24dc4ee75e01a29d390d43c9c264372a169273a7](https://chromium-review.googlesource.com/c/chromium/src/+3513173)-refs/heads/main@{#929512}

[modify] [https://crrev.com/80e73e605d32e57ae6020ec6fe03d07f9d3fffbf/extensions/browser/script\\_executor.cc](https://crrev.com/80e73e605d32e57ae6020ec6fe03d07f9d3fffbf/extensions/browser/script_executor.cc)

[modify]

[https://crrev.com/80e73e605d32e57ae6020ec6fe03d07f9d3fffbf/chrome/browser/extensions/api/scripting/scripting\\_apitest.cc](https://crrev.com/80e73e605d32e57ae6020ec6fe03d07f9d3fffbf/chrome/browser/extensions/api/scripting/scripting_apitest.cc)

[add]

[https://crrev.com/80e73e605d32e57ae6020ec6fe03d07f9d3fffbf/chrome/test/data/extensions/api\\_test/scripting/nested\\_web\\_contents/worker.js](https://crrev.com/80e73e605d32e57ae6020ec6fe03d07f9d3fffbf/chrome/test/data/extensions/api_test/scripting/nested_web_contents/worker.js)

[modify]

[https://crrev.com/80e73e605d32e57ae6020ec6fe03d07f9d3fffbf/chrome/browser/extensions/api/web\\_navigation/web\\_navigation\\_api.cc](https://crrev.com/80e73e605d32e57ae6020ec6fe03d07f9d3fffbf/chrome/browser/extensions/api/web_navigation/web_navigation_api.cc)

[add]

[https://crrev.com/80e73e605d32e57ae6020ec6fe03d07f9d3fffbf/chrome/test/data/extensions/api\\_test/scripting/nested\\_web\\_contents/manifest.json](https://crrev.com/80e73e605d32e57ae6020ec6fe03d07f9d3fffbf/chrome/test/data/extensions/api_test/scripting/nested_web_contents/manifest.json)

**Comment 36** by [rzandoni@google.com](mailto:rzandoni@google.com) on Thu, Mar 17, 2022, 6:29 AM EDT Project Member

**Labels:** -LTS-Merge-Approved-96 LTS-Merge-Merged-96

**Comment 37** by [sheriffbot](#) on Sat, Jun 11, 2022, 1:30 PM EDT Project Member

**Labels:** -Restrict-View-SecurityNotify allpublic

This bug has been closed for more than 14 weeks. Removing security view restrictions.

For more details visit <https://www.chromium.org/faq/how-to-track-a-bug>. Your friendly Sheriffbot

For more details visit <https://www.chromium.org/issue-tracking/autotriage> - Your friendly Sheriffbot

**Comment 38** by [lukasza@chromium.org](mailto:lukasza@chromium.org) on Thu, Jun 30, 2022, 10:47 AM EDT Project Member

**Cc:** [haraken@chromium.org](mailto:haraken@chromium.org) [bartekn@chromium.org](mailto:bartekn@chromium.org)

**Comment 39** by [amyressler@google.com](mailto:amyressler@google.com) on Thu, Jul 21, 2022, 5:06 PM EDT Project Member

**Labels:** CVE\_description-submitted -CVE\_description-missing

**Comment 40** by [amyressler@chromium.org](mailto:amyressler@chromium.org) on Thu, Jul 21, 2022, 6:14 PM EDT Project Member

**Labels:** -CVE\_description-missing --CVE\_description-missing

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