☆ Starred by 4 users

| | |
|---|---|
| **Owner:** | neis@chromium.org |
| **CC:** | adetaylor@chromium.org |
| | nicohartmann@chromium.org |
| | neis@chromium.org |
| | vahl@chromium.org |
| | 🕐 ecmziegler@google.com |
| **Status:** | Fixed *(Closed)* |
| **Components:** | Blink>JavaScript>Compiler |
| **Modified:** | 2 days ago |
| **Backlog-Rank:** | ---- |
| **Editors:** | ---- |
| **EstimatedDays:** | ---- |
| **NextAction:** | ---- |
| **OS:** | Linux, Android, Windows, Chrome, Mac, Fuchsia, Lacros |
| **Pri:** | 1 |
| **Type:** | Bug-Security |

Hotlist-Merge-Review
Security_Impact-Stable
Security_Severity-High
allpublic
CVE_description-submitted
M-90
Target-90
merge-merged-8.6
LTS-Security-86
LTS-Merge-Approved-86
merge-merged-9.0
merge-merged-9.1
Release-3-M90
CVE-2021-30513

---

**Issue 1200490: 0 and -0 confusion in SpeculativeNumberMultiply**
Reported by m...@semmle.com on Mon, Apr 19, 2021, 3:38 PM EDT

🔗 | Code

---

**VULNERABILITY DETAILS**

In SpeculativeNumberMultiply, a |Signed32| type restriction is placed on the feedback type of the node if both inputs are of type |Signed32| and the type hint is |kSignedSmall| [1]. While this is guarded by the |LowerToCheckedInt32Mul| function, the function will not deopt if the truncation is set to |kIdentifyZero| [2]. In this case, the feedback type of the node will be set to |Signed32| and will not deopt even if it becomes -0.

In |VisitSpeculativeIntegerAdditiveOp|, the right hand side input is set to |kIdentifyZero| unconditionally [3], while the its feedback_type is used to check whether the left hand side truncation can be set to |kIdentifyZero|.[4]

Combining this with the incorrect feedback type for the output of SpeculativeNumberMultiply, this can be used to trick JIT to set the truncation type of the left hand side input of SpeculativeSafeIntegerAdd to |kIdentifyZero|, which would cause SpeculativeSafeIntegerAdd to fail to deopt even when its output should be -0 and causes JIT code to generate a 0 output when it should have generated a -0 output.

**VERSION**
Tested on d8 master branch commit 090431b
Operating System: Ubuntu 20.04

**REPRODUCTION CASE**
Running the attached spec_mul.js on d8 (commit 090431b) with the --allow-natives-syntax flag:

d8 --allow-natives-syntax spec_mul.js

should produce the output
true
false

Showing that the JIT code is generating the incorrect version of 0.

Thank you very much for your help and please let me know if there is anything that I can help.

**CREDIT INFORMATION**
Reporter credit: Man Yue Mo of GitHub Security Lab

1. https://source.chromium.org/chromium/chromium/src/+/7290c3f69d21ad92234dff0808708431e257b794:v8/src/compiler/simplified-lowering.cc;l=2263
2. https://source.chromium.org/chromium/chromium/src/+/7290c3f69d21ad92234dff0808708431e257b794:v8/src/compiler/simplified-lowering.cc;l=1432;drc=1aa1254f5b527b89b190837892d5928c8d0f7bfc
3. https://source.chromium.org/chromium/chromium/src/+/7290c3f69d21ad92234dff0808708431e257b794:v8/src/compiler/simplified-lowering.cc;l=1521;drc=1aa1254f5b527b89b190837892d5928c8d0f7bfc
4. https://source.chromium.org/chromium/chromium/src/+/7290c3f69d21ad92234dff0808708431e257b794:v8/src/compiler/simplified-lowering.cc;l=1512;drc=1aa1254f5b527b89b190837892d5928c8d0f7bfc

**spec_mul.js**
318 bytes   View   Download

by est...@chromium.org on Mon, Apr 19, 2021, 5:04 PM EDT    Project Member

**Status:** Assigned (was: Unconfirmed)
**Owner:** mvsta...@chromium.org
**Cc:** neis@chromium.org
**Labels:** OS-Android OS-Chrome OS-Linux OS-Mac OS-Windows
**Components:** Blink>JavaScript>Compiler

Comment 2 by neis@chromium.org on Tue, Apr 20, 2021, 2:54 AM EDT    Project Member

**Owner:** neis@chromium.org
**Labels:** Pri-1

Comment 3 by neis@chromium.org on Tue, Apr 20, 2021, 4:08 AM EDT    Project Member

**Status:** Started (was: Assigned)

Comment 4 by m...@semmle.com on Tue, Apr 20, 2021, 6:26 AM EDT

SpeculativeNumberModulus also suffer the same problem. In this case, when both inputs are Unsigned32 or -0, the feedback type gets narrowed to Unsigned32 and also
ChangeToUint32OverflowOp is used (which will not deopt with -0 output):

https://source.chromium.org/chromium/chromium/src/+/7290c3f69d21ad92234dff0808708431e257b794:v8/src/compiler/simplified-
lowering.cc;l=1625;drc=a536084f94f9d0d7190a9d467d7f5337942f2ccb;bpv=0;bpt=1

The attached test case shows the problem with SpeculativeNumberModulus.

**spec_mod.js**
318 bytes   View   Download

Comment 5 by neis@chromium.org on Tue, Apr 20, 2021, 9:04 AM EDT    Project Member

**Labels:** Security_Severity-High Security_Impact-Stable

Thanks. I expect there are a few more, I'm looking into it. My bad for not spotting them when doing the other fix earlier.

Comment 6 by Git Watcher on Wed, Apr 21, 2021, 8:12 AM EDT    Project Member

The following revision refers to this bug:
  https://chromium.googlesource.com/v8/v8/+/47077d94492cb604e3a7f02c0d7c3c495ff6b713

commit 47077d94492cb604e3a7f02c0d7c3c495ff6b713
Author: Georg Neis <neis@chromium.org>
Date: Tue Apr 20 16:19:42 2021

[compiler] Fix more truncation bugs in SimplifiedLowering

Bug: chromium:1200490
Change-Id: I3555b6d99bdb4b4e7c302a43a82c17e8bff84ebe
Reviewed-on: https://chromium-review.googlesource.com/c/v8/v8/+/2840452
Reviewed-by: Nico Hartmann <nicohartmann@chromium.org>
Commit-Queue: Georg Neis <neis@chromium.org>
Cr-Commit-Position: refs/heads/master@{#74097}

[modify] https://crrev.com/47077d94492cb604e3a7f02c0d7c3c495ff6b713/src/compiler/simplified-lowering.cc

Comment 7 by Git Watcher on Wed, Apr 21, 2021, 8:37 AM EDT    Project Member

The following revision refers to this bug:
  https://chromium.googlesource.com/v8/v8/+/32281d6247faaf940de2c49091403e29c9fc8a66

commit 32281d6247faaf940de2c49091403e29c9fc8a66
Author: Georg Neis <neis@chromium.org>
Date: Wed Apr 21 12:29:50 2021

Revert "[compiler] Fix more truncation bugs in SimplifiedLowering"

This reverts commit 47077d94492cb604e3a7f02c0d7c3c495ff6b713.

Reason for revert: realized a problem

Original change's description:
> [compiler] Fix more truncation bugs in SimplifiedLowering
>
> Bug: chromium:1200490
> Change-Id: I3555b6d99bdb4b4e7c302a43a82c17e8bff84ebe
> Reviewed-on: https://chromium-review.googlesource.com/c/v8/v8/+/2840452
> Reviewed-by: Nico Hartmann <nicohartmann@chromium.org>
> Commit-Queue: Georg Neis <neis@chromium.org>
> Cr-Commit-Position: refs/heads/master@{#74097}

Bug: chromium:1200490
Change-Id: I07b4a34269184e801bef657c1c2c9334c58f348c
No-Presubmit: true
No-Tree-Checks: true
No-Try: true
Reviewed-on: https://chromium-review.googlesource.com/c/v8/v8/+/2843810
Bot-Commit: Rubber Stamper <rubber-stamper@appspot.gserviceaccount.com>
Commit-Queue: Georg Neis <neis@chromium.org>
Cr-Commit-Position: refs/heads/master@{#74099}

[modify] https://crrev.com/32281d6247faaf940de2c49091403e29c9fc8a66/src/compiler/simplified-lowering.cc

Comment 8 by Git Watcher on Wed, Apr 21, 2021, 11:28 AM EDT    Project Member

The following revision refers to this bug:
  https://chromium.googlesource.com/v8/v8/+/e4a580c9104e42968e8e13b8c7d933f0b2eda2a3

commit e4a580c9104e42968e8e13b8c7d933f0b2eda2a3
Author: Georg Neis <neis@chromium.org>
Date: Tue Apr 20 16:19:42 2021

Reland "[compiler] Fix more truncation bugs in SimplifiedLowering"

This is a reland of 47077d94492cb604e3a7f02c0d7c3c495ff6b713 without
changes. The revert was false alarm.

Original change's description:
> [compiler] Fix more truncation bugs in SimplifiedLowering
>
> ~~Bug: chromium:1200400~~
> Change-Id: I3555b6d99bdb4b4e7c302a43a82c17e8bff84ebe
> Reviewed-on: https://chromium-review.googlesource.com/c/v8/v8/+/2840452
> Reviewed-by: Nico Hartmann <nicohartmann@chromium.org>
> Commit-Queue: Georg Neis <neis@chromium.org>
> Cr-Commit-Position: refs/heads/master@{#74097}

~~Bug: chromium:1200400~~
Change-Id: I75cac59050bc393d157a1ee5bed776c8986a7bbe
Reviewed-on: https://chromium-review.googlesource.com/c/v8/v8/+/2843817
Reviewed-by: Georg Neis <neis@chromium.org>
Reviewed-by: Nico Hartmann <nicohartmann@chromium.org>
Commit-Queue: Georg Neis <neis@chromium.org>
Cr-Commit-Position: refs/heads/master@{#74105}

[modify] https://crrev.com/e4a580c9104e42968e8e13b8c7d933f0b2eda2a3/src/compiler/simplified-lowering.cc

---

Comment 9 by sheriffbot on Wed, Apr 21, 2021, 12:47 PM EDT    Project Member
 **Labels:** M-90 Target-90

Setting milestone and target because of Security_Impact=Stable and high severity.

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

---

Comment 10 by neis@chromium.org on Thu, Apr 22, 2021, 5:05 AM EDT    Project Member
 **Status:** Fixed (was: Started)

---

Comment 11 by neis@chromium.org on Thu, Apr 22, 2021, 5:06 AM EDT    Project Member
 **Labels:** Merge-Request-90 Merge-Request-91 OS-Fuchsia OS-Lacros

---

Comment 12 by sheriffbot on Thu, Apr 22, 2021, 5:11 AM EDT    Project Member
 **Labels:** -Merge-Request-91 Hotlist-Merge-Review Merge-Review-91

This bug requires manual review: Reverts referenced in bugdroid comments after merge request.
Before a merge request will be considered, the following information is required to be added to this bug:

1. Does your merge fit within the Merge Decision Guidelines?
- Chrome: https://chromium.googlesource.com/chromium/src.git/+/master/docs/process/merge_request.md#when-to-request-a-merge
- Chrome OS: https://goto.google.com/cros-release-branch-merge-guidelines
2. Links to the CLs you are requesting to merge.
3. Has the change landed and been verified on ToT?
4. Does this change need to be merged into other active release branches (M-1, M+1)?
5. Why are these changes required in this milestone after branch?
6. Is this a new feature?
7. If it is a new feature, is it behind a flag using finch?

Chrome OS Only:
8. Was the change reviewed and approved by the Eng Prod Representative? See Eng Prod ownership by component: http://go/cros-engprodcomponents

Please contact the milestone owner if you have questions.
Owners: benmason@(Android), bindusuvarna@(iOS), kbleicher@(ChromeOS), pbommana@(Desktop)

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

---

Comment 13 by sheriffbot on Thu, Apr 22, 2021, 5:11 AM EDT    Project Member
 **Labels:** -Merge-Request-90 Merge-Review-90

This bug requires manual review: Request affecting a post-stable build
Before a merge request will be considered, the following information is required to be added to this bug:

1. Does your merge fit within the Merge Decision Guidelines?
- Chrome: https://chromium.googlesource.com/chromium/src.git/+/master/docs/process/merge_request.md#when-to-request-a-merge
- Chrome OS: https://goto.google.com/cros-release-branch-merge-guidelines
2. Links to the CLs you are requesting to merge.
3. Has the change landed and been verified on ToT?
4. Does this change need to be merged into other active release branches (M-1, M+1)?
5. Why are these changes required in this milestone after branch?
6. Is this a new feature?
7. If it is a new feature, is it behind a flag using finch?

Chrome OS Only:
8. Was the change reviewed and approved by the Eng Prod Representative? See Eng Prod ownership by component: http://go/cros-engprodcomponents

Please contact the milestone owner if you have questions.
Owners: govind@(Android), bindusuvarna@(iOS), cindyb@(ChromeOS), srinivassista@(Desktop)

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

---

Comment 14 by srinivassista@google.com on Thu, Apr 22, 2021, 1:12 PM EDT    Project Member

Please have your CL cherrypicked to M90 and ready for merge ( run through dry-run CQ). Once I will review/approve these requests later today, but all approved merges need to land before Friday April 23, 12pm PT, so need your help to get the CP ready if not already done.

---

Comment 15 by sheriffbot on Thu, Apr 22, 2021, 1:55 PM EDT    Project Member
 **Labels:** -Restrict-View-SecurityTeam Restrict-View-SecurityNotify

---

Comment 16 by srinivassista@google.com on Thu, Apr 22, 2021, 2:18 PM EDT    Project Member
 **Cc:** adetaylor@chromium.org

+adetaylor@ to review

Pls answer comment #13 for review

---

Comment 17 by adetaylor@chromium.org on Thu, Apr 22, 2021, 4:11 PM EDT    Project Member
 **Labels:** -Merge-Review-90 -Merge-Review-91 Merge-Approved-90 Merge-Approved-91

Merge approved to M91.

Merge also approved to M90, but please wait for 48 hours of Canary coverage. I imagine that means this will miss the scheduled respin which we plan to cut late this week, for release early next week, but that's OK, we should give this a little bake time.

**Comment 18** by sheriffbot on Mon, Apr 26, 2021, 12:15 PM EDT    *Project Member*

This issue has been approved for a merge. Please merge the fix to any appropriate branches as soon as possible!

If all merges have been completed, please remove any remaining Merge-Approved labels from this issue.

Thanks for your time! To disable nags, add the Disable-Nags label.

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

**Comment 19** by Git Watcher on Mon, Apr 26, 2021, 12:30 PM EDT    *Project Member*

**Labels:** merge-merged-9.1

The following revision refers to this bug:

  https://chromium.googlesource.com/v8/v8/+/e612e723a9c00541d580896eed0f8c593ac931f1

commit e612e723a9c00541d580896eed0f8c593ac931f1
Author: Georg Neis <neis@chromium.org>
Date: Tue Apr 20 16:19:42 2021

Merged: Reland "[compiler] Fix more truncation bugs in SimplifiedLowering"

This is a reland of 47077d94492cb604e3a7f02c0d7c3c495ff6b713 without
changes. The revert was false alarm.

Original change's description:
> [compiler] Fix more truncation bugs in SimplifiedLowering
>
> ~~Bug: chromium:1200490~~
> Change-Id: I3555b6d99bdb4b4e7c302a43a82c17e8bff84ebe
> Reviewed-on: https://chromium-review.googlesource.com/c/v8/v8/+/2840452
> Reviewed-by: Nico Hartmann <nicohartmann@chromium.org>
> Commit-Queue: Georg Neis <neis@chromium.org>
> Cr-Commit-Position: refs/heads/master@{#74097}

(cherry picked from commit e4a580c9104e42968e8e13b8c7d933f0b2eda2a3)

~~Bug: chromium:1200490~~
No-Try: true
No-Presubmit: true
No-Tree-Checks: true
Tbr: nicohartmann@chromium.org
Change-Id: I61a886ac12011bfdf9eb3ab573de783d38c9e466
Reviewed-on: https://chromium-review.googlesource.com/c/v8/v8/+/2850933
Reviewed-by: Georg Neis <neis@chromium.org>
Commit-Queue: Georg Neis <neis@chromium.org>
Cr-Commit-Position: refs/branch-heads/9.1@{#32}
Cr-Branched-From: 0e4ac64a8cf298b14034a22f9fe7b085d2cb238d-refs/heads/9.1.269@{#1}
Cr-Branched-From: f565e72d5ba88daae35a59d0f978643e2343e912-refs/heads/master@{#73847}

[modify] https://crrev.com/e612e723a9c00541d580896eed0f8c593ac931f1/src/compiler/simplified-lowering.cc

**Comment 20** by Git Watcher on Mon, Apr 26, 2021, 12:33 PM EDT    *Project Member*

**Labels:** merge-merged-9.0

The following revision refers to this bug:

  https://chromium.googlesource.com/v8/v8/+/97ad04543438f7b235b21346fdd198f81028cd5e

commit 97ad04543438f7b235b21346fdd198f81028cd5e
Author: Georg Neis <neis@chromium.org>
Date: Tue Apr 20 16:19:42 2021

Merged: Reland "[compiler] Fix more truncation bugs in SimplifiedLowering"

This is a reland of 47077d94492cb604e3a7f02c0d7c3c495ff6b713 without
changes. The revert was false alarm.

Original change's description:
> [compiler] Fix more truncation bugs in SimplifiedLowering
>
> ~~Bug: chromium:1200490~~
> Change-Id: I3555b6d99bdb4b4e7c302a43a82c17e8bff84ebe
> Reviewed-on: https://chromium-review.googlesource.com/c/v8/v8/+/2840452
> Reviewed-by: Nico Hartmann <nicohartmann@chromium.org>
> Commit-Queue: Georg Neis <neis@chromium.org>
> Cr-Commit-Position: refs/heads/master@{#74097}

(cherry picked from commit e4a580c9104e42968e8e13b8c7d933f0b2eda2a3)

~~Bug: chromium:1200490~~
Tbr: nicohartmann@chromium.org
No-Try: true
No-Presubmit: true
No-Tree-Checks: true
Change-Id: Iedddcf2d0117fa59dc9d7a3604ef203808ad2903
Reviewed-on: https://chromium-review.googlesource.com/c/v8/v8/+/2850159
Reviewed-by: Georg Neis <neis@chromium.org>
Commit-Queue: Georg Neis <neis@chromium.org>
Cr-Commit-Position: refs/branch-heads/9.0@{#47}
Cr-Branched-From: bd0108b4c88e0d6f2350cb79b5f363fbd02f3eb7-refs/heads/9.0.257@{#1}
Cr-Branched-From: 349bcc6a075411f1a7ce2d866c3dfeefc2efa39d-refs/heads/master@{#73001}

[modify] https://crrev.com/97ad04543438f7b235b21346fdd198f81028cd5e/src/compiler/simplified-lowering.cc

**Comment 21** by neis@chromium.org on Mon, Apr 26, 2021, 12:35 PM EDT    *Project Member*

**Labels:** -Merge-Approved-90 -Merge-Approved-91

**Comment 22** by amyressler@chromium.org on Fri, May 7, 2021, 5:20 PM EDT    *Project Member*

**Labels:** Release-3-M90

Comment 23 by vsavu@google.com on Mon, May 10, 2021, 9:25 AM EDT    Project Member
**Labels:** LTS-Merge-Request-86 LTS-Security-86

Comment 24 by amyressler@google.com on Mon, May 10, 2021, 9:54 AM EDT    Project Member
**Labels:** CVE-2021-30513 CVE_description-missing

Comment 25 by gianluca@google.com on Wed, May 12, 2021, 12:31 PM EDT    Project Member
**Labels:** -LTS-Merge-Request-86 LTS-Merge-Approved-86

Comment 26 by Git Watcher on Wed, May 12, 2021, 12:38 PM EDT    Project Member
**Labels:** merge-merged-8.6
The following revision refers to this bug:
  https://chromium.googlesource.com/v8/v8/+/d2e8de532c3969b01953f1fd4bbb422f877f586a

commit d2e8de532c3969b01953f1fd4bbb422f877f586a
Author: Georg Neis <neis@chromium.org>
Date: Tue Apr 20 16:19:42 2021

[M86-LTS]: Reland "[compiler] Fix more truncation bugs in SimplifiedLowering"

This is a reland of 47077d94492cb604e3a7f02c0d7c3c495ff6b713 without
changes. The revert was false alarm.

[M86]: Resolved simple conflicts.

Original change's description:
> [compiler] Fix more truncation bugs in SimplifiedLowering
>
> Bug: chromium:1200490
> Change-Id: I3555b6d99bdb4b4e7c302a43a82c17e8bff84ebe
> Reviewed-on: https://chromium-review.googlesource.com/c/v8/v8/+/2840452
> Reviewed-by: Nico Hartmann <nicohartmann@chromium.org>
> Commit-Queue: Georg Neis <neis@chromium.org>
> Cr-Commit-Position: refs/heads/master@{#74097}

(cherry picked from commit e4a580c9104e42968e8e13b8c7d933f0b2eda2a3)

(cherry picked from commit 97ad04543438f7b235b21346fdd198f81028cd5e)

Bug: chromium:1200490
Tbr: nicohartmann@chromium.org
No-Try: true
No-Presubmit: true
No-Tree-Checks: true
Change-Id: Ieddccf2d0117fa59dc9d7a3604ef203808ad2903
Reviewed-on: https://chromium-review.googlesource.com/c/v8/v8/+/2850159
Reviewed-by: Georg Neis <neis@chromium.org>
Commit-Queue: Georg Neis <neis@chromium.org>
Cr-Original-Commit-Position: refs/branch-heads/9.0@{#47}
Cr-Original-Branched-From: bd0108b4c88e0d6f2350cb79b5f363fbd02f3eb7-refs/heads/9.0.257@{#1}
Cr-Original-Branched-From: 349bcc6a075411f1a7ce2d866c3dfeefc2efa39d-refs/heads/master@{#73001}
Reviewed-on: https://chromium-review.googlesource.com/c/v8/v8/+/2883780
Reviewed-by: Jana Grill <janagrill@google.com>
Commit-Queue: Victor-Gabriel Savu <vsavu@google.com>
Cr-Commit-Position: refs/branch-heads/8.6@{#95}
Cr-Branched-From: a64aed2333abf49e494d2a5ce24bbd14fff19f60-refs/heads/8.6.395@{#1}
Cr-Branched-From: a626bc036236c9bf92ac7b87dc40c9e538b087e3-refs/heads/master@{#69472}

[modify] https://crrev.com/d2e8de532c3969b01953f1fd4bbb422f877f586a/src/compiler/simplified-lowering.cc

Comment 27 by Git Watcher on Fri, Jun 4, 2021, 4:38 AM EDT    Project Member
The following revision refers to this bug:
  https://chromium.googlesource.com/v8/v8/+/928da8091fc9612a22f64015938f692a2bae8bb7

commit 928da8091fc9612a22f64015938f692a2bae8bb7
Author: Georg Neis <neis@chromium.org>
Date: Fri Jun 04 07:49:34 2021

[compiler] Add a few regression tests

Tbr: nicohartmann@chromium.org
Bug: chromium:1198705, chromium:1199345, chromium:1200490
Change-Id: I4a486df636e084279423e6cd3b867137bfe3fd6f
Reviewed-on: https://chromium-review.googlesource.com/c/v8/v8/+/2939984
Reviewed-by: Georg Neis <neis@chromium.org>
Commit-Queue: Georg Neis <neis@chromium.org>
Cr-Commit-Position: refs/heads/master@{#74945}

[add] https://crrev.com/928da8091fc9612a22f64015938f692a2bae8bb7/test/mjsunit/compiler/regress-1198705.js
[add] https://crrev.com/928da8091fc9612a22f64015938f692a2bae8bb7/test/mjsunit/compiler/regress-1199345.js
[add] https://crrev.com/928da8091fc9612a22f64015938f692a2bae8bb7/test/mjsunit/compiler/regress-1200490.js

Comment 28 by amyressler@google.com on Fri, Jun 4, 2021, 7:23 PM EDT    Project Member
**Labels:** -CVE_description-missing CVE_description-submitted

Comment 29 by sheriffbot on Wed, Aug 18, 2021, 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/issue-tracking/autotriage - Your friendly Sheriffbot

Comment 30 by pgrace@google.com on Tue, Dec 13, 2022, 3:35 PM EST (2 days ago)    Project Member
**Cc:** nicohartmann@chromium.org
Issue 1319101 has been merged into this issue.