

2020
오픈소스 컨트리뷰톤

Chromium

주최  과학기술정보통신부

주관  정보통신산업진흥원



- 프로젝트 : Chromium
- 프로젝트 분야 : Web/Web Engine
- 프로젝트 저장소 : <https://chromium.googlesource.com/chromium/src.git>
- 활용 언어 : C++(Engine code), Python(Build code), Javascript(Test code), CSS/HTML(Test code)
- 프로젝트 난이도 : 높음 (상)
- 참가자 모집 유형: 구현은 대부분 C++로 구현하며 각 패치의 Test는 Javascript로 작성 함

- Chromium은 모든 사용자가 웹을 더 안전하고 빠르고 안정적으로 사용할 수 있도록 하는 오픈 소스 브라우저 프로젝트

- Chromium이 적용된 제품들





- 해당 프로젝트는 다음과 같은 순서로 진행할 예정
- 생각보다 어려운 과정임

Download

Step 1 depot_tools 설치

```
$ gitclone https://chromium.googlesource.com/chromium/tools/depot_tools.git
```

```
$ export PATH="$PATH:/path/to/depot_tools"
```

Step 2 Check out the code and its dependencies

```
$ mkdir~/chromium && cd ~/chromium
```

```
$ fetch --nohookschromium
```

Step 3 Additional build dependencies 설치

```
$ cd src
```

```
$ ./build/install-build-deps.sh
```

```
$ gclient runhooks
```

Build

Step 1 GN을 이용하여 Ninja file 생성

```
$gn gen out/Default
```

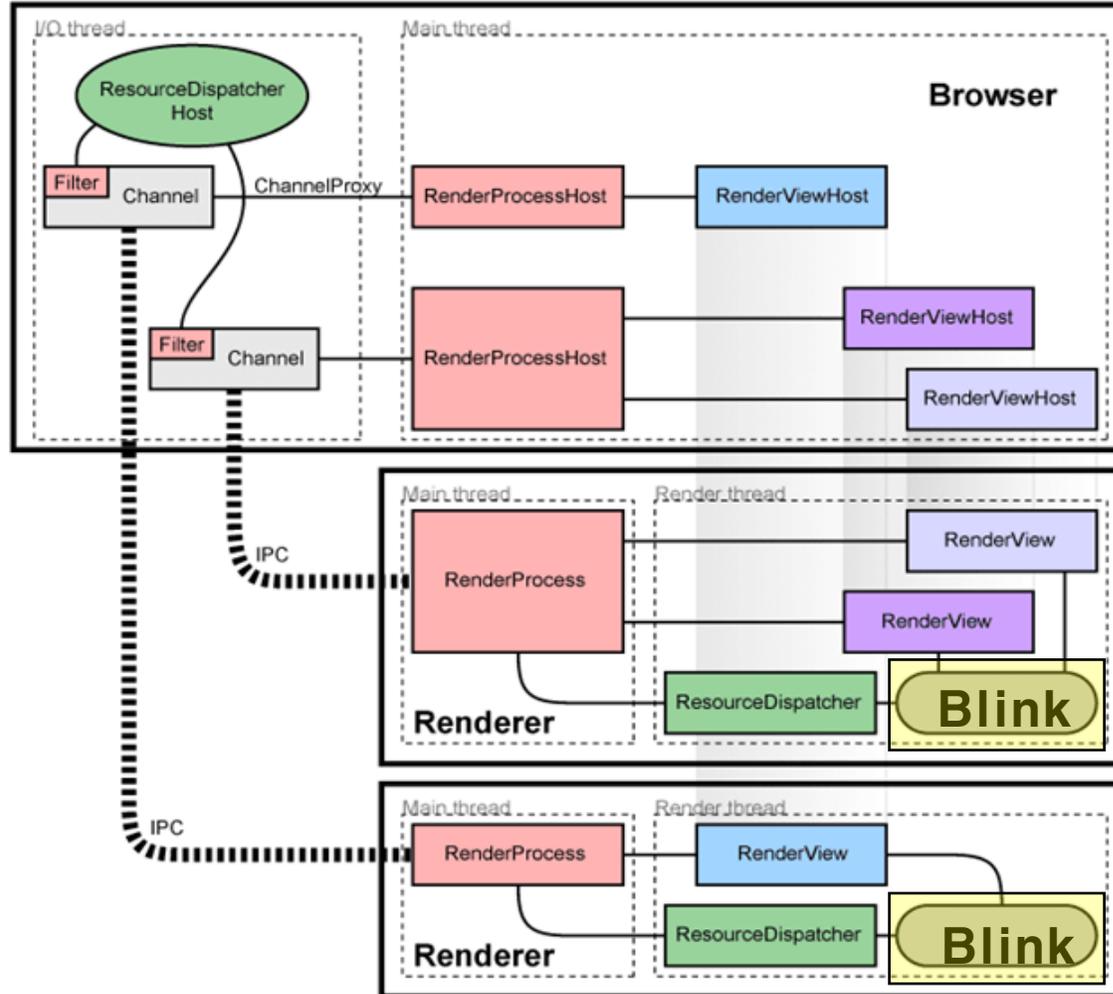
Step 2 - 1 Chromium 빌드

```
$ autoninja-C out/Default chrome
```

Step 2 - 2 Content Shell 빌드

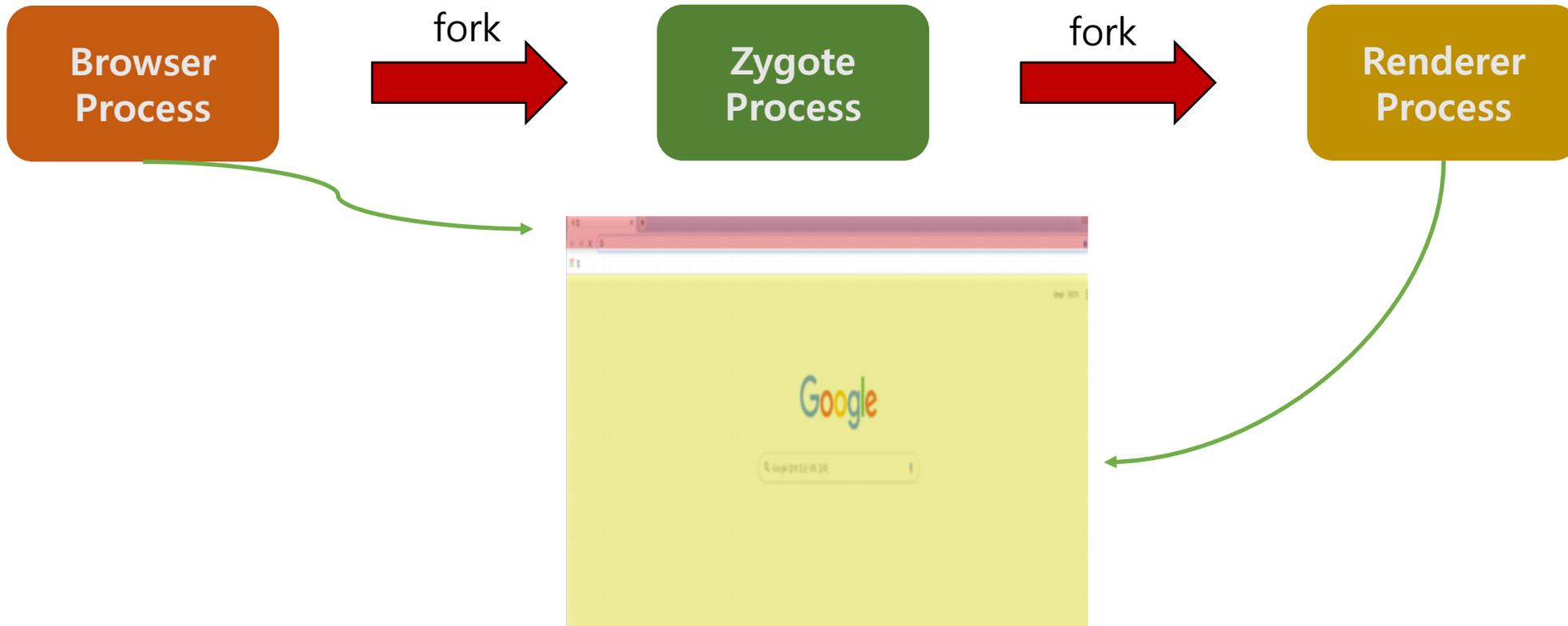
```
$ autoninja-C out/Default content_shell
```

Chromium Architecture

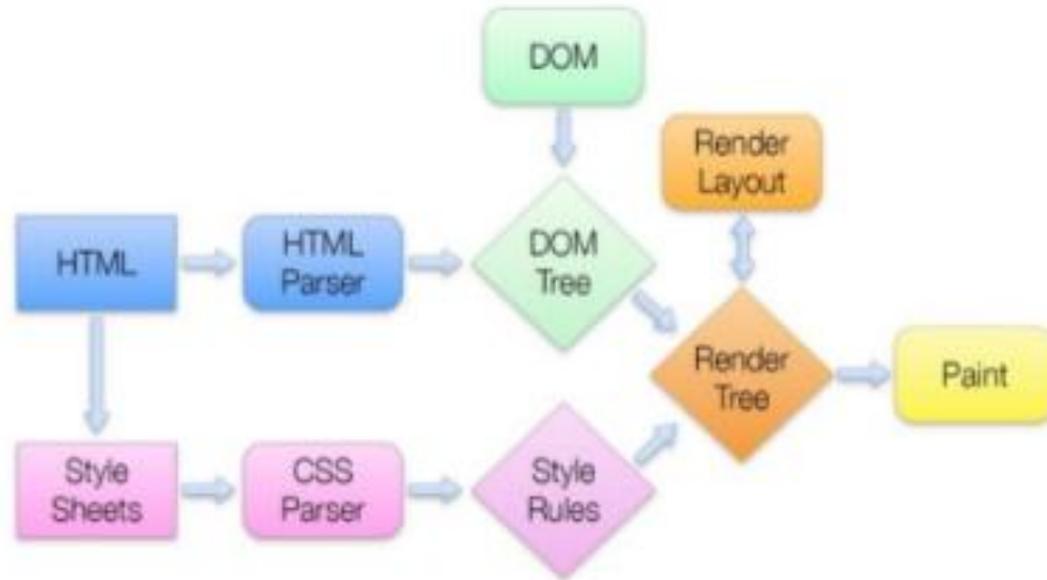


Chromium Process 구조

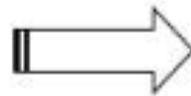
```
18810 18481 15 18:29 pts/1    00:00:00 /home/ttt/chromium/src/out/Default/content_shell --no-sandbox
18812 18810  2 18:29 pts/1    00:00:00 /home/ttt/chromium/src/out/Default/content_shell --type=zygote --no-sandbox
18829 18812  2 18:29 pts/1    00:00:00 /home/ttt/chromium/src/out/Default/content_shell --type=renderer --no-sandbox --field-tr
m-raster-threads=4 --enable-main-frame-before-activation --service-request-channel-token=4784992174345180916 --renderer-client-
```



Blink 처리 과정



```
<html>
<head>
  <title>NHN </title>
</head>
<body>
  <div>
    <h1>Hello </h1>
    <p>World </p>
  </div>
</body>
</html>
```



[blink-dev] Blink bug status as of 2019-09-23



TAMURA, Kent <tkent@chromium.org>
blink-dev에게 수신거부

영어 > 한국어 > 매일 번역

Blink bug status as of 2019-09-23

Component	Open	Slow Triage	Pri-0/1	No owner	Oldest
Whole Blink	13,701 (+65)	704 (+17)	881 (-10)	158	Apr 2014
Uncategorized	24 (-2)	0	1	1	83 minutes ago
Blink>Accessibility	179 (+3)	18 (-3)	24 (+2)	8	Sep 2016
Blink>Animation	154 (+10)	1	3	0	Jun 21
Blink>AppManifest	13	5	0	0	
Blink>BackgroundFetch	10 (+1)	0	2 (+1)	1	Sep 2018
Blink>BackgroundSync	26 (-2)	0	2	0	Aug 2018
Blink>Bindings	259 (+6)	5	11 (+1)	2	Sep 2015
Blink>Bluetooth	124	8	0	0	
Blink>Canvas	276 (+6)	0 (-1)	13 (-1)	0	May 2017
Blink>Compositing	226 (+3)	0	10 (+1)	3	Oct 2017
Blink>Contacts	11 (-1)	0	2 (-1)	0	Jun 27
Blink>CSS	431 (+4)	2 (-1)	4	1	May 18
Blink>DarkMode	65 (-2)	12 (-2)	6 (-5)	1	May 16
Blink>DataTransfer	176 (+2)	3 (+2)	9	3	Nov 2017
Blink>DOM	146 (-5)	3 (+1)	22 (+1)	11	Jun 2018
Blink>Editing	860 (-8)	4 (+1)	7 (-2)	3	Aug 16
Blink>FeaturePolicy	49 (+1)	0	1 (+1)	1	3 days ago
Blink>Fonts	301 (+2)	0 (-4)	13 (+1)	1	Nov 2015
Blink>Forms	362 (-4)	7 (+2)	10 (-2)	6	Sep 2018
Blink>Fullscreen	31 (-1)	1 (-2)	0	0	
Blink>GamepadAPI	72 (-3)	0	2 (-2)	0	Feb 2019

▪ Bug status를 보고 관심 분야 찾기

▪ Issue tracker를 이용하여 이슈 검색하기

The screenshot shows the Chromium bug tracker interface. A search filter 'Component Blink-CSS' is applied. The results table shows several issues related to CSS, including 'calc() is fully resolved at parse time', 'Summation should sort terms in the specified order', and 'New failures introduced in external/wpt/css/css-background'.

Chromium의 이슈 예시

이슈 분석 : Element 내 focus와 blur라는 JS함수가 있는데 표준에 따르면 HTMLElement와 SVGElement가 가지고 있어야 함

해당 이슈가 올라올 당시에 Element가 해당 함수들(focus, blur)을 property로써 가지고 있었음

The screenshot shows a Chromium bug report page. The title is "Issue 497274: Move Element.focus()/blur() to HTMLElement and SVGElement". The report was filed by philipj@opera.com on June 6, 2015. The status is "Fixed (Closed)". The components are listed as "Blink > SVG", "Blink > HTML", and "Blink > DOM". The description states that according to the spec, focus and blur are on HTMLElement and SVGElement separately, with links to the HTML and SVG specifications. A comment from philipj@opera.com notes that in Blink, these functions are in Element.idl, which is incorrect, and that Gecko and IE11 have them on HTMLElement only. The comment also mentions that IMHO, this change does not need an intent on blink-dev as it is unlikely to break anything.

bugs chromium New issue Open issues owner:me

★ Starred by 3 users

Owner: hyunjune.kim@samsung.com

CC: hyunjune.kim@samsung.com
rbyers@chromium.org

Status: Fixed (Closed)

Components: [Blink > SVG](#)
[Blink > HTML](#)
[Blink > DOM](#)

Modified: Jun 11, 2015

Editors: ----

Issue 497274: Move Element.focus()/blur() to HTMLElement and SVGElement
Reported by philipj@opera.com on Sat, Jun 6, 2015, 3:46 AM GMT+9

Per spec they are on HTMLElement and SVGElement separately:
<https://html.spec.whatwg.org/#htmlelement>
<http://www.w3.org/TR/SVG2/types.html#InterfaceSVGElement>

In Blink, it is instead in Element.idl, which isn't right.

Gecko and IE11 has these on HTMLElement only.

Comment 1 by philipj@opera.com on Sat, Jun 6, 2015, 3:47 AM GMT+9

IMHO, this does not need an intent on blink-dev, it is very unlikely to break anything, especially g

- Git 간단한 사용법을 배움으로써 Chromium gerrit에 패치를 만들어 봄
- 아래 이미지는 패치를 만들고 marge가 된 상태

Chromium Gerrit CHANGES DOCUMENTATION BROWSE

Merged as [b4a7104](#) [2094055](#) Fix up incorrect size of <svg:image> with a SVG image without intrinsic size

Updated Mar 19

Owner Hyunjune Kim

Uploader Commit Bot

Committer Commit Bot

Assignee

Reviewers Commit Bot
 Fredrik Söderquist
 Stephen Cheney

CC Dirk Schulze
 chromium-reviews...
 Blink WPT Bot
AND 7 MORE

Repo | Branch [chromium/src](#) | [master](#)

Parent [1c344c8](#)

Topic No topic

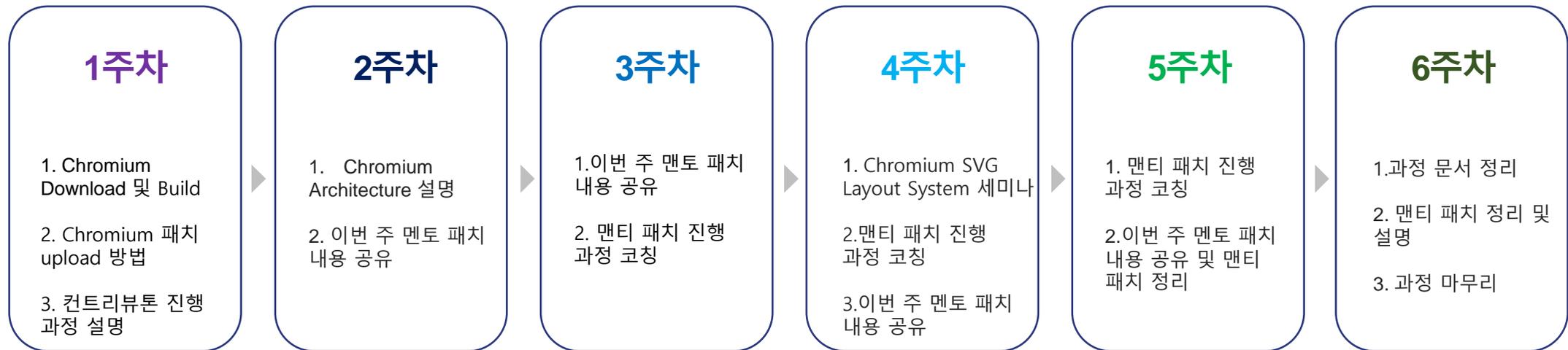
Hashtags [wip](#)

Fix up incorrect size of <svg:image> with a SVG image without intrinsic size

This patch fixes up incorrect sizing of SVG Image with referred SVG image without the intrinsic size.
So when referred image is SVG, it currently checks that referred image has aspect-ratio.
If referred svg image doesn't have the aspect-ratio, set the concrete object size from the 'default object size'.

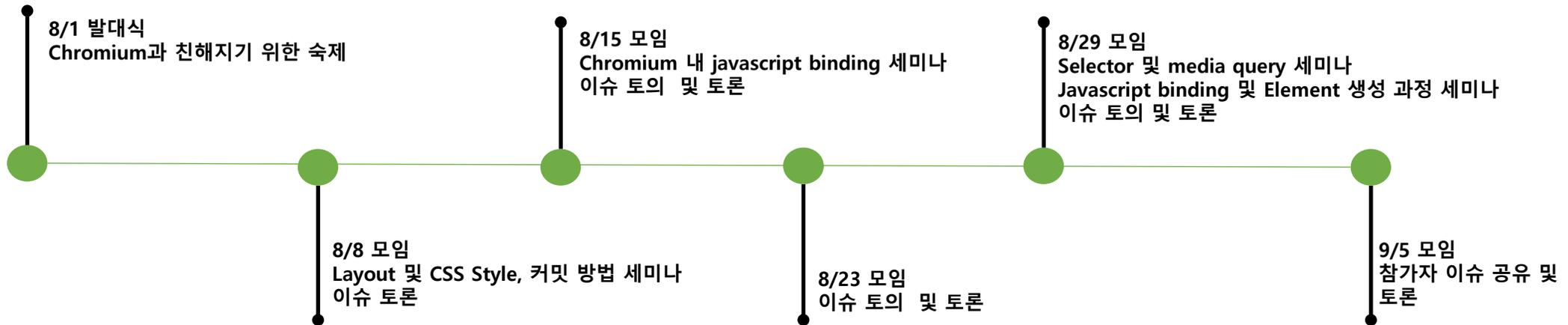
Bug: [1045932](#)
Change-Id: [If979b3a9a7980bde9e2bee38ba2863cf223b4f0b](#)
Reviewed-on: <https://chromium-review.goglesource.com/c/chromium/src/+2094055>
Reviewed-by: Fredrik Söderquist <fs@opera.com>
Commit-Queue: Hyunjune Kim <hyunjune.kim@samsung.com>
Cr-Commit-Position: refs/heads/master@{#751325}

- 운영 목표 : 멘티들이 Chromium을 이해하고 6주간 앞으로 오픈 소스를 활동 할 수 있게 도움



- 온라인을 통해서도 멘티의 첫 패치를 위해 도와주고자 함

■ 운영 일정표



▪ Chromium과 친해지기 위한 숙제

- 문제 : Chromium 내에 내장 함수 Interface를 추가해 보기
 - 내장 함수 : `document.helloworld()`
 - 용도 : 해당 함수를 호출하면 `HelloWorld` string value를 return 하기
 - 힌트 : Chromium 내 IDL이라는 확장자를 참고하여 해결
-
- 다음과 같이 출력

```
> console.log(document.helloworld())  
  Helloworld  
◀ undefined
```



김현준 / 삼성전자 / Software Engineer

Chromium Committer

Web Engine Developer

글로벌 전문 개발자 - 파트



박중헌 / 삼성전자 / Software Engineer

Chromium Contributor

Webkit committer

Web Engine Developer

글로벌 전문 개발자 - 파트

2020 오픈소스 컨트리뷰톤

Join the Team!

Chromium

참가신청 접수하기

2020 오픈소스 컨트리뷰톤

고맙습니다!

