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# Browser Dev Tools Cheat Sheet

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In order to address some browser issues reports by users of web applications it becomes necessary to use the Dev Tools build into the browser.

Dev Tools can be executed by pressing the F12 key. The GUI for Dev tools varies from one browser to another.

Often the Dev Tools can uncover some issues on how the browser and the web application interact. The Web Tools provide a way to vide the JavaScript and CSS errors that can't be seen normally.



The DevTools F12 will appear slightly different depending on the browser you are using.

This document will be available via the https://tinyurl.com/y7kspwj8 link.

The PDF version of this document is available at the link below.

**Dev Tools Cheatsheet PDF** 

## Console

One of the most powerful features for debugging a web app is the Console. In some cases there are errors and warning that can't bee seen without the Dev-Tools console.

### **Chrome Browser**

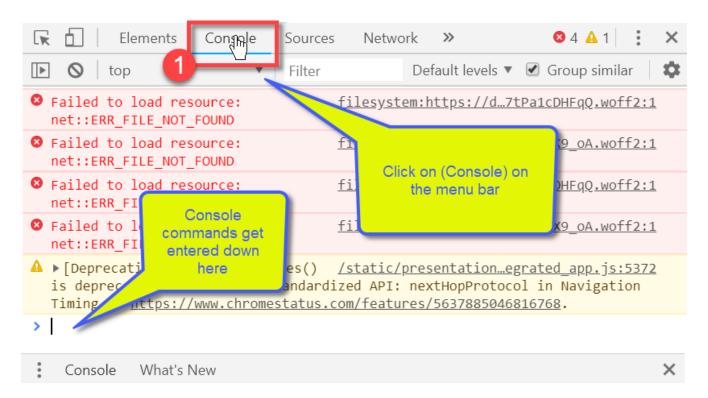


Figure 1. Chrome Dev Tools

### **Internet Explorer (not Edge)**

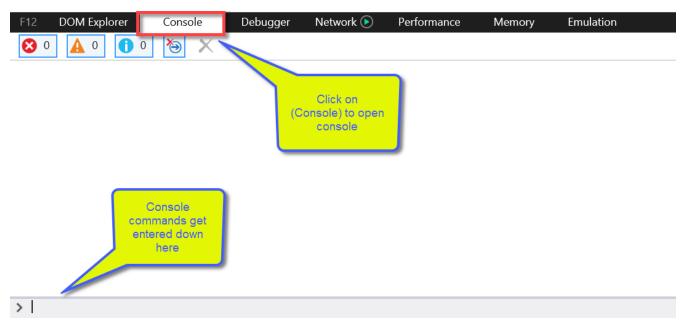


Figure 2. Internet Explorer Dev Tools (Not Edge)

## **Microsoft Edge (Not Internet Explorer)**

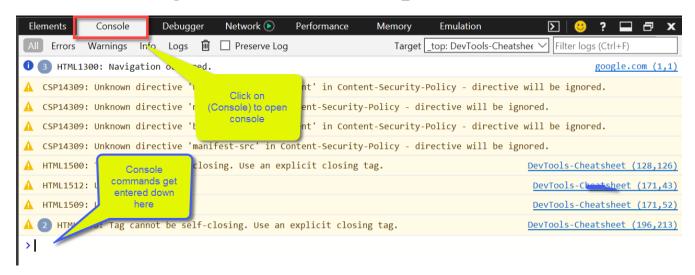


Figure 3. Edge (Not Interenet Explorer) Dev Tools

### Writing to the console

Use the console.log() method for any basic logging to the console. It takes one or more expressions as parameters and writes their current values to the console, concatenating multiple parameters into a space-delimited line.

## **Command Menu**

Many of the commands for the Dev tools can be quickly access via the Google Chrome Command Menu.

A description of the Chrome Devtools protocol with commands is available at this link.

## **Google Chrome Browser**

Press Ctrl+Shift+P for the Command Menu, then scroll up and down list for the command you need.

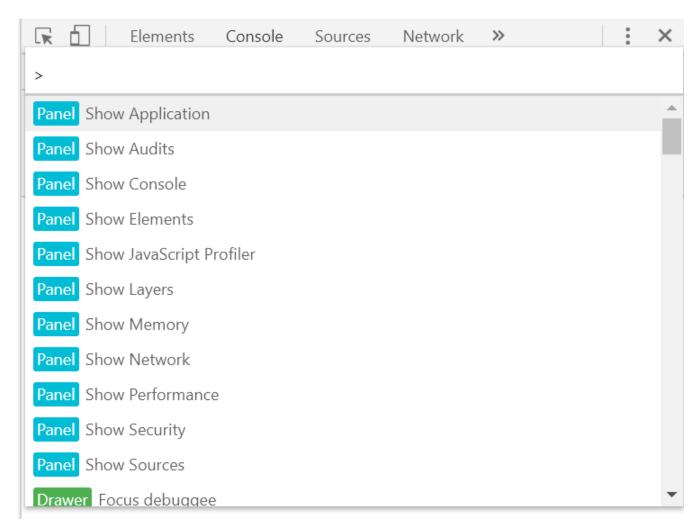


Figure 4. Example Command Menu

## **DevTool Commands**

Here is a list of the DevTool commands that have proven useful for debugging browser issues.

**Internet Explorer Version** 

Clear Console - Clear off console

Chrome Version - Get Chrome version info

Current Date/Time - Display timestamp for testing

Display Body DOM - Display properties of body of web page

Edge Version (Emulation) - View version number and emulate many other browsers

Internet Explorer Version - Determine IE browser version 11,10,9,8,7

Network Panel Description - What do columns mean?

Reload Page - Reload the last page

Save Console to file - Save content of the log to a file

Sources - Look at the source code

### **Clear Console**

Clear the console out to start a new test.

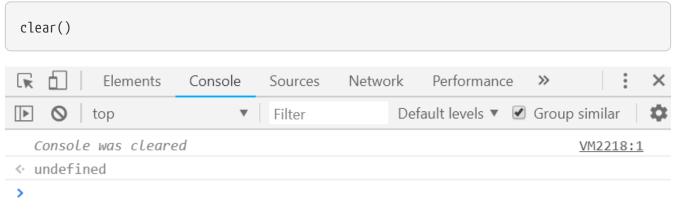


Figure 5. Example Clear Console

### **Chrome Version**

Display the current version information about Chrome.



This is entered in as a URL, not a F12 DevTool command.

chrome://device

```
Google Chrome: 69.0.3497.100 (Official Build) (64-bit) (cohort: Stable)
       Revision: 8920e690dd011895672947112477d10d5c8afb09-refs/branch-
                 heads/3497@{#948}
            OS: Windows
     JavaScript: V8 6.9.427.23
          Flash: 31.0.0.108
                 C:\Users\jschust2\AppData\Local\Google\Chrome\User
                 Data\PepperFlash\31.0.0.108\pepflashplayer.dll
    User Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36
                 (KHTML, like Gecko) Chrome/69.0.3497.100 Safari/537.36
                 "C:\Program Files
 Command Line:
                 (x86)\Google\Chrome\Application\chrome.exe" --flag-switches-
                 begin --flag-switches-end
Executable Path: C:\Program Files (x86)\Google\Chrome\Application\chrome.exe
    Profile Path: C:\Users\jschust2\AppData\Local\Google\Chrome\User
                 Data\Profile 1
```

Figure 6. Example Chrome Version

### **Current Date/Time**

#### **Current Date / Time**

Sometimes it is good to get a date and time stamp in the console for timestamp to work. This example also shows how the group can be used to make the format look professional.

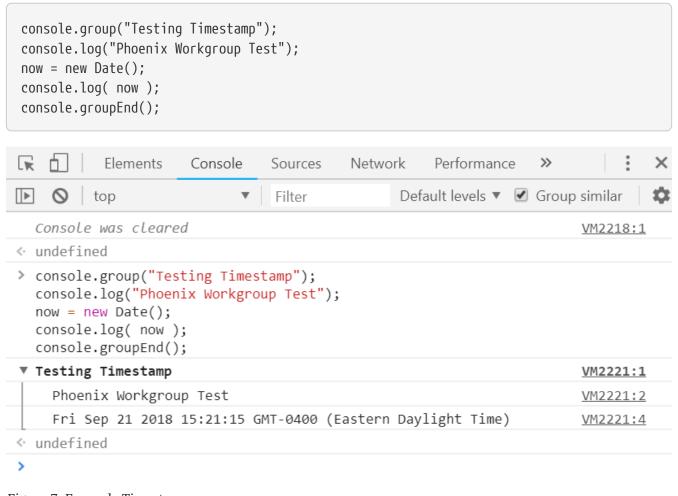


Figure 7. Example Timestamp

## **Display Body DOM**

Displays expandable list of the body of the web page.



Remember to open up the single line is result for all properties.

```
console.dir(document.body)
```

```
> console.dir(document.body)
                                                                       VM546:1
  body#top of page.devsite-doc-page.no-touch <a>1</a>
      accerro
      assi aLink
                    Click to open up list of all
                           properties
    ▶ attributeSt
                                               ze: 0}
    ▶ attributes:
                                              data-family, 2: id, 3: data-gr-c-s-
     autocapitalize: ""
     background: ""
     baseURI: "https://developers.google.com/web/tools/chrome-devtools/console/
     bgColor: ""
     childElementCount: 5
    ▶ childNodes: NodeList(6) [div.devsite-wrapper, span#devsite-request-elapsed
    ▶ children: HTMLCollection(5) [div.devsite-wrapper, span#devsite-request-elap
    ▶ classList: DOMTokenList(2) ["devsite-doc-page". "no-touch". value: "devsite
```

Figure 8. Example dicument.body properties

### **Edge Version (Emulation)**

The newer Microsoft Edge browser has an Emulation feature from the menu that lets you emulate many different browsers.

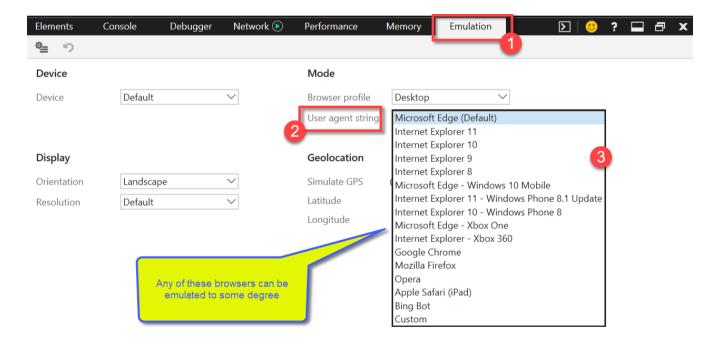


Figure 9. Edge Version (Emulation)

## **Internet Explorer Version**

Some issues are caused by the wrong version of Internet Explorer being used. To determine the version of Internet Explorer you need to open IE DevTools by pressing F12

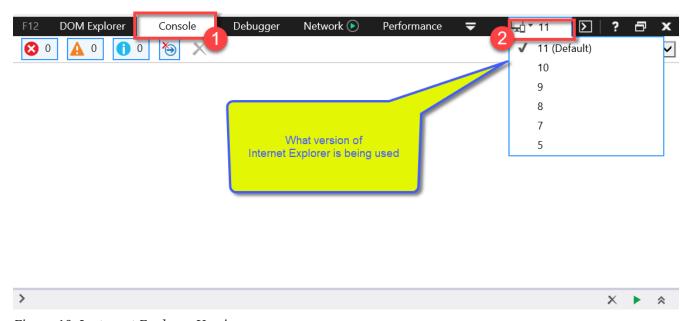


Figure 10. Ineternet Explorer Version

You can change the Version of the IE browser by selecting one from the list. The Internet Explorer Version will temporarily be set to that version.

This great for testing if the IE browser version is the issue.

## **Network Panel Description**

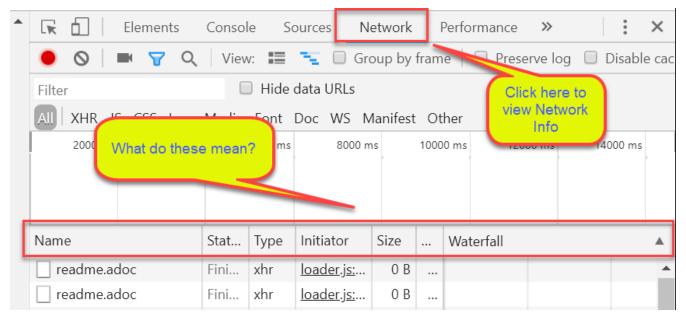


Figure 11. Network Tab

What do columns in the Network Panel mean?

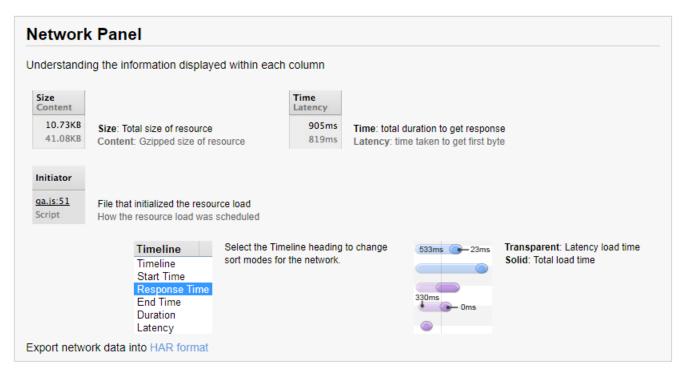


Figure 12. Network Panel Description

### **Reload Page**

Sometime it is necessary to reload the page. (ie: update network info).

Press the F5

### Save Console to file

Save the content of the console to a file.



```
> console.group("Testing Timestamp");
  console.log("Phoenix Workgroup Test");
  now = new Date();
  console.log( now );
  console.groupEnd();

▼ Testing Timestamp

Phoenix Workgroup Test

Sun Sep 23 2018 18:57:28 GMT-0400 (Eastern Daylight Time)

VMD2:4

▼ undefined

▼ undefined
```

Figure 13. Save console to file

```
console.group("Testing Timestamp");
console.log("Phoenix Workgroup Test");
now = new Date();
console.log( now );
console.groupEnd();
VM52:1 Testing Timestamp
VM52:2 Phoenix Workgroup Test
VM52:4 Sun Sep 23 2018 18:57:28 GMT-0400 (Eastern Daylight Time)
undefined
```

Figure 14. Example Saved Console Log

### **Sources**

By clicking on the Sources menu item you can view a list of most of the source files for the website.

By clicking on one of the items on the tree the code will be displayed.

### **Google Chrome**

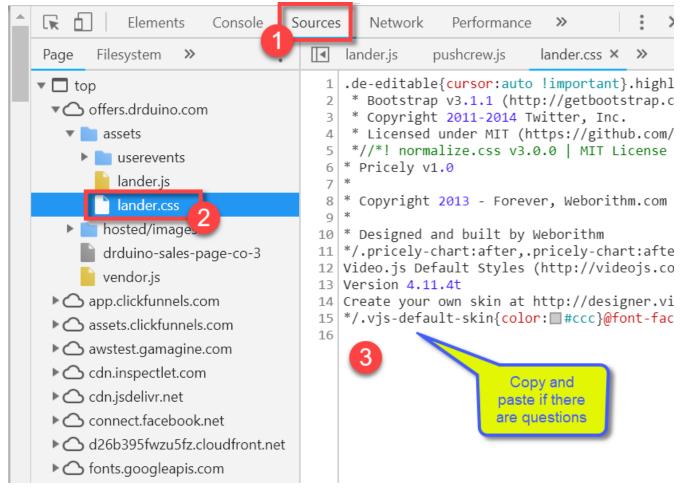


Figure 15. Chrome Sources

#### **Internet Explorer (Not Edge)**

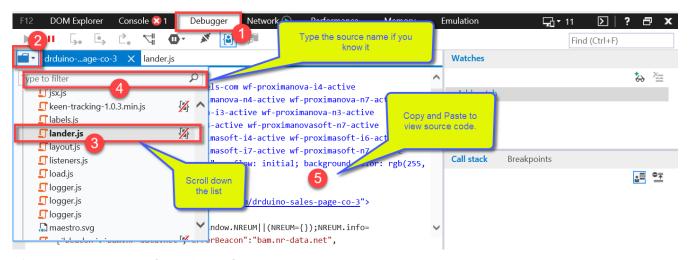


Figure 16. Internet Explorer (Not Edge)

#### Edge (Not IE)

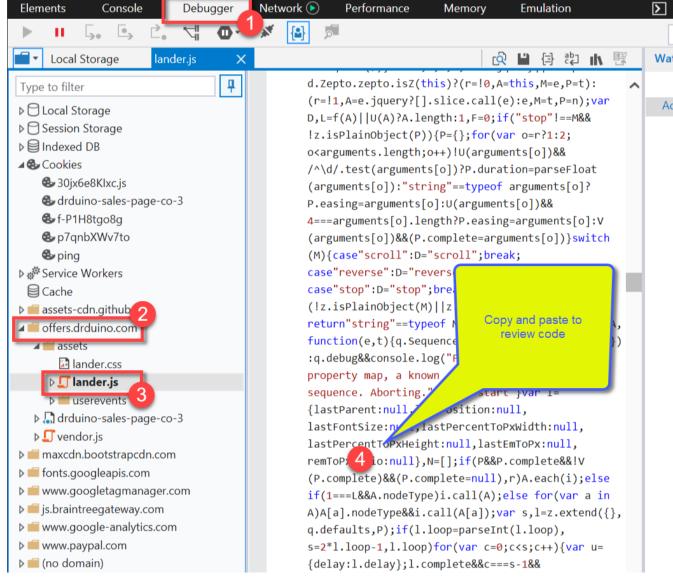


Figure 17. Edge (Not IE) Source

### References

There have been many web sites that have contributed to this document.

Table 1. Contributing references

Name	URL	Contributes
AntiCode Dev Tools	http://anti-code.com/devtools-cheatsheet/	Cheat sheet, slow!
Google Web Developer	https://developers.google.com/web/t ools/chrome- devtools/console/console-write	Basics
Do anything in console	https://umaar.com/dev-tips/98-command-menu/	Examples

# **Document History**

Table 2. Document History

Date	Version	Author	Description
10/04/2018	V2.1d	JHRS	Added IE/Edge example Added Source viewing
08/23/2018	V2.1c	JHRS	Updated with Command Menu, better structure
09/21/2018	V2.1b	JHRS	Initial version