



Welcome to the Internet SIG





Browser Extensions



Discussion Topics

- Defining a web browser extension?
- Difference between Extensions and Plug-ins
- How a browser extension works (and how to make one)
- How to install or remove extensions
- Are browser extensions safe?
- Which Browser Extensions Should You Use?

Plug-In and Extensions are similar and often confused. A plug-in manages data embedded in a web page. An extension changes the browser.

Extensions are usually source code
Plug-ins are **always** executable files (object code)

An extension could have a plug-in embedded.

Plug-In Examples

Third party software that “plugs in” to a browser to read libraries embedded in the web page. Some examples are:

- Macromedia Flash
- Java
- Microsoft Silverlight
- Media Players
- PDF Readers

The main difference is that plug-ins don't change the core functionality of the browser.

Browser extensions extend the functionality of your web browser by:

1. Adding additional features to the browser
2. Modifying web pages
3. Integrate with services

Extensions are sometimes called add-ons.

There Are 3 Types of Extensions

1. Browser Action

- a. Stays in the Browser Tool Bar
- b. Accessible at all times

2. Page Action

- a. Stays in the Browser Tool Bar but grayed out
- b. Is accessible only on certain pages.

3. Neither Browser or Page Action

- a. Runs in the background

Some Examples of Extensions

- Toolbars
- Themes
- Bookmark Managers
- Ad Blockers
- Tab Managers
- Dictionaries
- And many more

So How Do Extensions Work? (and how to create one)

1. Create your Manifest file
2. Create your Browser Action file
3. Create your Pop-Up file
4. Create a CSS file
5. Add your Icons
6. Test your Extension Code

```
{
  "name": "Color Changer",
  "author": "Microsoft Edge Extension Developer",
  "version": "1.0",
  "description": "Change the color of the body on
docs.microsoft.com",
  "permissions": [
    "*://docs.microsoft.com/*",
    "tabs"
  ],
  "browser_action": {
    "default_icon": {
      "20": "images/color-changer20.png",
      "40": "images/color-changer40.png"
    },
    "default_title": "Color Changer",
    "default_popup": "popup.html"
  }
}
```

Obviously We Won't Be Doing This!



How to Install/Remove Extensions

- Varies by browser
- I'm going to demonstrate how in Firefox and Chrome – the two main browsers
- The actions are similar in almost all browsers
- If you have problems do an Internet Search for your browsers name and the word “extensions”

Firefox

- 1) Click the Firefox menu and select Add-ons
- 2) Click Extensions
- 3) Search for the Extension you want to add.
Note: clicking extension links on websites should bring you to this page
- 4) Clicking the Slider Button on installed extensions will enable or disable them
- 5) Clicking on the menu (...) on installed extensions lets you remove them

Chrome

- 1) Click the Chrome menu and select Settings
- 2) Click Extensions
- 3) Search for the Extension you want to add.
Note: clicking extension links on websites should bring you to this page
- 4) Clicking the Slider Button on installed extensions will enable or disable them
- 5) Click on the Remove button on installed extensions lets you remove them

Are Extensions Safe to Use?

Browser extensions are like any other piece of software.

Malicious extensions could do bad things and well-intentioned extensions could have bugs.

Chrome gives you some idea of the permissions an extension requires when you install it.

Firefox doesn't have a fine-grained permissions system, so extensions have access to the entire browser.

If not from a well know
publisher, research on the
Internet before installing

Which Extensions Should You Use?

I don't know. Why not ask me what kind of car you should drive? I can tell you some extensions I use on most of my browsers.

- Evernote Web Clipper
- Ublock Origin
- NoScript
- Some kind of Tab Manager

What Should We Talk About Next Week?



*That's all
Folks*

