



Design Inspection, Code Inspection and Unit Testing

Design Inspection

Product	Crappy Clippy		
Date	02/09/18		
Author	Development Team		
Inspectors	Justin Blessing, Aaron Chang, Ria Chang, Clayton Lewis, Jalen Smith		
Recorder(s)	Aaron Chang, Clayton Lewis, Jalen Smith, Ria Chang		
Defect #	Description	Severity	How Corrected
1	Clicking on "Save all open tabs" in the popup opened an alert requesting the name of the tab set from the user. This causes the popup to close.	Important	"Save all open tabs" will redirect the popup to another HTML page where the user can choose a name and save the tab set.
2	Clicking on "Open tab set" redirects the popup to a page listing the user's tab sets. If the user clicks on a tab set, it is selected. Then the user can click the "Open" button to open the most recently selected tab set. This method works but we wanted to make it easier for the user.	Workaround	Clicking on a tab set will open it immediately.
3	Clicking on "Remove tab set" when the user has no sets saved displays an empty list to the user, but the user can still click "Remove Set(s)" button.	Workaround	When the user has no saved sets, the "Remove Set(s)" button is hidden and the user is told they have no sets to remove.
4	Clicking on "Open tab set" when the user has no sets saved displays an empty list to the user with no options.	Workaround	When the user has no saved sets, the user is told they have no sets to open.
5	Removing all tabs from a set left an empty tab set.	Workaround	Removing all tabs from a set deletes the set.
6	The user can save a tab set with an empty name. A tab set with an empty name is difficult to find and edit.	Important	User is not allowed to save a tab set with an empty name, and is allowed to give it a name and try to save again. (Not yet implemented)

7	User has the ability to save multiple sets that have the same name resulting in confusion as different sets will have the same name	Important	User will be warned that they are saving a set with a name that is already in use by another set. The user will have the chance to rename the set. (Not yet implemented)
8	When selecting tabs to save, the user can choose no tabs to save, thus creating a set containing no tabs	Workaround	When the user tries to save the set, the user will be warned that the set they are trying to save will have no tabs. The user will have to save at least one tab.
9	When selecting tabs to save some of them don't have a favicon to display in the placeholder	Workaround	When the user is shown these tabs we will provide a placeholder icon for it. (Not yet implemented)
10	New Tab page will show 'Quick Access' list regardless of if the users has saved any tabs yet	Workaround	When the user has yet to save any sets of tabs, the list displays 'No Sets To Open'
11	New Tab page allows user to click Quick Access list, but does not open set of tabs	Important	Clicking the name of a set of tabs will open said set of tabs (Not yet implemented)
12	Removing a tab set with a certain name will remove all tab sets with the same name	Important	There will be no sets allowed to have the same name (Not yet implemented)

Code Inspection

Product	Crappy Clippy		
Date	02/11/18		
Author	Development Team		
Inspectors	Justin Blessing, Aaron Chang, Ria Chang, Clayton Lewis, Jalen Smith		
Recorder	Aaron Chang, Clayton Lewis, Ria Chang		
Defect #	Description	Severity	How Corrected
1	JavaScript file (save.js) linked in head of HTML file (save.html) could not find any elements in the body of the document. Thus the save tab set button threw an error instead of saving a tab set	Critical	Moved link to the body of the HTML file (save.html)
2	Indentation was not consistent across files. Some files had two spaces and some had four spaces	Workaround	Ran Beautify script to change all indentation to 2 spaces, and agreed to use 2 space indentation in the future
3	Popup page would not load icons from local css file	Workaround	Imported icons from a remote css file via url instead of a local one
4	Using a boolean to indicating retrieval of tabs in <code>chrome.windows.getCurrent(...)</code> instead of proper parameters threw an error, preventing the user from saving tabs	Critical	Change <code>chrome.windows.getCurrent(true, callback)</code> to <code>chrome.windows.getCurrent({"populate":true}, callback)</code>
5	In "Remove tab set", user can select multiple sets to remove, but "Remove sets" button only removes the last selected set.	Important	Change <pre> newData = []; for(...) { ... newData = items.data.filter((e) => e.name !== element.textContent); } to newData = items.data; for(...) { ... newData = newData.filter((e) => e.name !== element.textContent); } </pre>
6	The popup was closing our alerts after we chose an option	Important	Change popup.html to call a redirect js file to call another html and js file to actually execute our options.

7	Clicking a set name in quick access returns 'Refused to evaluate a string as JavaScript because 'unsafe-eval' is not an allowed source of script in the following Content Security Policy directive: "script-src 'self' blob: filesystem: chrome-extension-resource:"'	Moderate	Still functional, but in the future, unsafe eval will be allowed in the manifest to remove this error message (Not yet implemented)
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Unit Testing

The extension includes the following modules which were tested manually:

- Edit tab set module (edit.js)
- Load three tab sets module (loadThree.js)
- Popup redirection module (redirect.js)
- Remove tab set module (remove.js)
- Save tab set module, Select tabs and save module (save.js, selectSave.js)
- Open tab set/Open tab set in new window module (open.js, openWindow.js)
- Edit tab set interface (edit.html, editOptions.html, performEdits.html)
- New tab page interface (index.html)
- Remove tab set interface (remove.html)
- Save tab set interface (save.html)
- Select tabs and save interface (selectSave.html)

Product	Crappy Clippy		
Module	Remove tab set module		
Date	02/11/18		
Author	Development Team		
Inspectors	Justin Blessing, Aaron Chang, Ria Chang, Clayton Lewis, Jalen Smith		
Recorder	Clayton Lewis, Aaron Chang		
Defect #	Description	Severity	How Corrected
1	Remove function should remove all selected tab sets, but only removed the first tab set.	Important	Initialized tab set array correctly to remove multiple sets
2	If the user had no saved sets, the user could try to remove a set from the set array, which causes errors as the array contains no elements or the array doesn't exist	Important	The user is notified that they have no sets saved and are not capable of removing from the list of sets.

Product	Crappy Clippy
Module	Remove tab set interface

Date	02/11/18		
Author	Development Team		
Inspectors	Justin Blessing, Aaron Chang, Ria Chang, Clayton Lewis, Jalen Smith		
Recorder	Aaron Chang		
Defect #	Description	Severity	How Corrected
1	The function listSets.js should populate the popup with the names of the user's saved sets, but the popup is unpopulated.	Important	Properly reference html element the sets should be added to as children to display.

Product	Crappy Clippy		
Module	Popup Redirection Module		
Date	02/11/18		
Author	Development Team		
Inspectors	Justin Blessing, Ria Chang, Clayton Lewis, Jalen Smith		
Recorder	Aaron Chang		
Defect #	Description	Severity	How Corrected
1	No way to return to a previous/home page from any point within the popup	Important	Added a back button which returns the user to the previous .html page they were on before the current page

Product	Crappy Clippy		
Module	Edit tab set module		
Date	02/11/18		
Author	Development Team		
Inspectors	Justin Blessing, Aaron Chang, Ria Chang, Clayton Lewis, Jalen Smith		
Recorder	Aaron Chang		
Defect #	Description	Severity	How Corrected
1	The set chosen to be edited would not	Critical	Saved the chosen set as an object to

	persist. The chosen set would not be kept so edits could not be performed.		chrome.storage.local. Edits are performed on this set, which then replaces the set it is a copy of in the array of sets.
2	Edited set would be saved and added to array as a new set, rather than replace the set that was edited.	Important	Removed the original set from the set array and added the edited set, or overwrite the index containing the original set with the edited set.
3	Removing all tabs from a saved set left a set containing no tabs.	Workaround	When this occurs, all tabs are removed from the set and the set is removed from the array, as the set no longer opens any tabs.

Product	Crappy Clippy		
Module	Edit tab set interface		
Date	02/11/18		
Author	Development Team		
Inspectors	Justin Blessing, Aaron Chang, Ria Chang, Clayton Lewis, Jalen Smith		
Recorder	Aaron Chang		
Defect #	Description	Severity	How Corrected
1	Upon selecting how to edit the set (edit name, add/remove tabs), the user would always be redirected to the edit set name option regardless of choice	Important	Set an item in local storage to track which mode the user wishes to edit in upon clicking an option, which is checked when the page redirects to allow the chosen edits.

Product	Crappy Clippy		
Module	Save tab set module		
Date	02/11/18		
Author	Development Team		
Inspectors	Justin Blessing, Aaron Chang, Ria Chang, Clayton Lewis, Jalen Smith		
Recorder	Jalen Smith		
Defect #	Description	Severity	How Corrected

1	Save all function should save all tabs within the window, but it would lose the tabs when we exited the window.	Important	Initialized tab set array correctly to save all the tab sets in one array in local storage called data
2	Select save was meant to allow for choosing of tabs to save, but was not able to display the tabs that were selected.	Important	Added a highlight to the selected tabs in the html as well as their favicons for a designers touch.

Product	Crappy Clippy		
Module	Open sets Module		
Date	02/11/18		
Author	Development Team		
Inspectors	Justin Blessing, Ria Chang, Clayton Lewis, Jalen Smith		
Recorder	Justin Blessing		
Defect #	Description	Severity	How Corrected
1	Open in a new window would only open one in the new window	Important	Passed in an array of urls into the new window instead of a single string
2	Open in a new window would open the first saved tab twice	important	Start for loop at 1 instead of 0