SEARCH AND REPLACE IN A MASTER FILE AND ITS INCLUSIONS

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This document presents three related means of performing search and replace operations to encompass the master file and all external files you added using \include{}. In each, you start with the master file frontmost in TEXShop, then select the appropriate macro from the **Macros Menu**. All follow approximately the same outline prior to the replace phase, namely:

- save all files open in TEXShop that had been saved at some previous time, as the methods take the saved version for their data;

- parse the master file for all uncommented \include{} items, capturing the file names to a list;

- check each included file for existence and writability, and remove from the list those that are not;

- ask the user for a search term, which in some cases allows a choice of case-sensitive or case-insensitive searching;

- in one macro, a replacement term is also requested and processed just once, but the other two macros leave this to the end, and allow multiple search/replace operations on the found set;

- search and replacement terms are literal, and characters that may be regarded as special by the UNIX shell or by other find operations using regular expressions do not need to be escaped—e.g., \'" may be entered directly without escaping any of its characters.

At this point the methods diverge.

SEARCHINCLUDESBB, so called because the search output is sent to **BBEdit** or its free baby brother, **TextWrangler**, where it appears in a **Search Window** displaying first a single entry for each found line, from which one may show the context in the original file. (Whether using **BBEdit** or **TextWrangler**, you must install the associated command line tools by selecting the appropriate menu item.)

If using **TextWrangler**, you must modify the macro, changing the value of the property **findcmd** from "bbfind" to "twfind". That is, select the menu item `Open Macro Editor...` from the **Macros** menu, click on the macro named SearchIncludesBB and, in the panel on the right, change the line

```
property findcmd: "bbfind"
```

to

```
property findcmd: "twfind"
```

and press the **Save** button at the bottom of the **Macros Editor** window.

One may perform search and replace across all files appearing in the **Search Window**, though the method is somewhat clumsy and cannot currently all be scripted. (I could not work out a way to get the main and included files only into the **Search Window** by script, but in practice, it's not too bad to just enter a search for the single character \ which will surely appear in each included file.) These are the steps:

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- open the Multi-File Search window in BBEdit/TextWrangler using either its Search menu, or by pressing Shift-Command-F;

- enter the search and replace terms in its first two sub-windows;

- in the third sub-window, labelled Search in:, scroll down to the entry Search Windows and click its disclosure triangle so you see a list of all open Search Windows;

- double-click the appropriate one as the target group for your search and replace;

- click Replace All.

SEARCHINCLUDESSED is entirely non-interactive, performing all changes using the UNIX sed command line program behind the scenes. Search and replace entries are considered to be literal case-sensitive text, not regular expressions, and the script adds appropriate escaping so that the literal strings are not misinterpreted. This method is the fastest, but mistakes may happen without you noticing if your includes are large, and in this event, I would suggest first examining the changes visually with SEARCHINCLUDESBB, or taking advantage of the Dry run search button in the Find window, which will show you the number of lines that will change in each file. The window containing that information gives you the options Cancel (quit the macro immediately), Continue (to entering the replacement string) and Modify search (takes you back to the Find window.

SEARCHINCLUDESMR feeds the search parameters to the application MultiReplace.app which handles internally the steps described above, but combines a visual representation of the found items with a find/replace mechanism that may be invoked as many times as desired on the found items. The main difference from using SEARCHINCLUDESBB is that the latter performs all subsequent search and replace on all found files, which SEARCHINCLUDESMR works only on the collection of found lines.