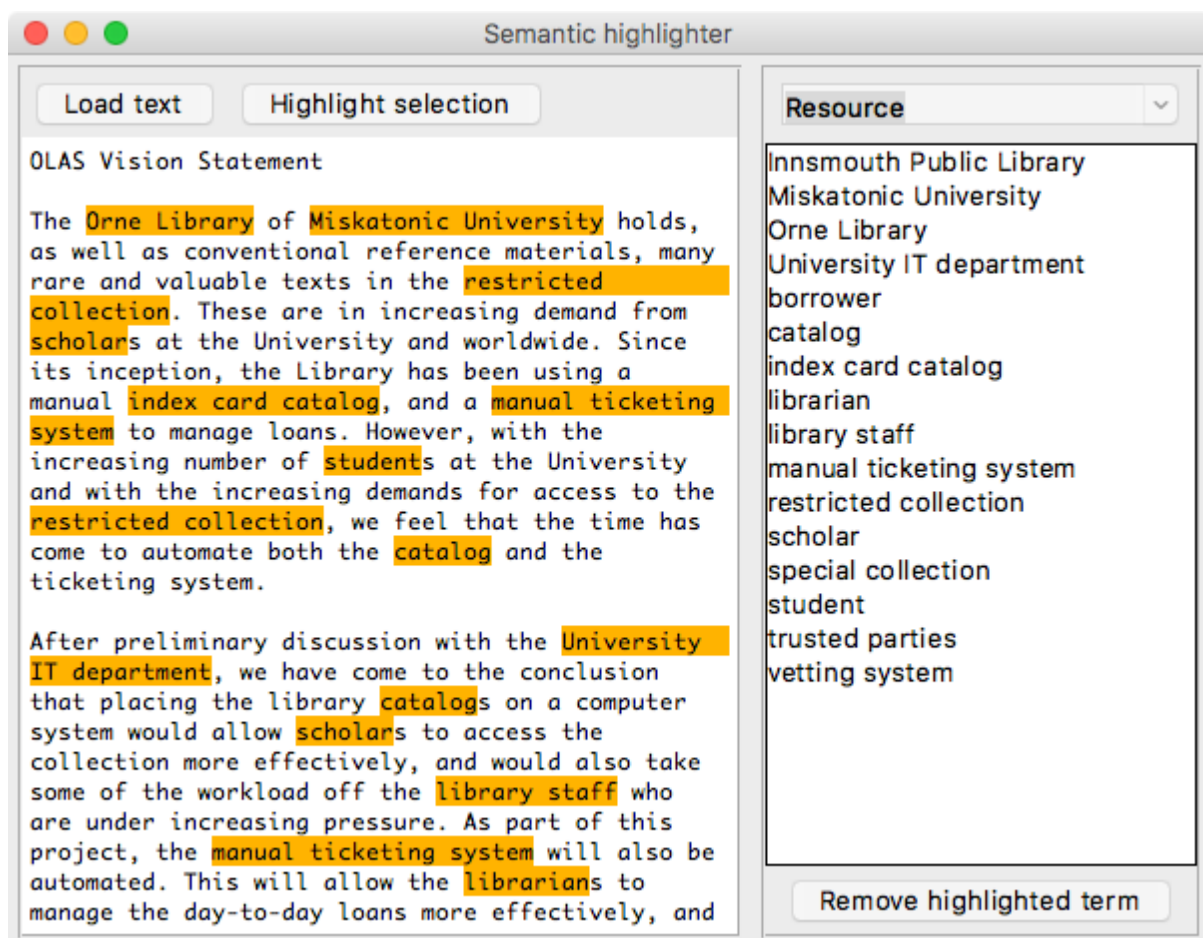


Semantic Highlighter

The Semantic Highlighter is a simple tool described in our book “Secrets of Analysis”:

<http://www.clearviewtraining.com/secrets-of-analysis.html>



The idea is simple - you define one or more highlighters that comprise a name, foreground colour, background colour and list of terms. When the highlighter is applied to a text file, the terms are highlighted in the colours you have specified.

Setting up

Make sure you have Python 3 installed on your system: <https://www.python.org>

1) Download the Semantic Highlighter source code here:

<https://github.com/jimarlow/SemanticHighlighterApp>

2) The application is in the file `SemanticHighlighterApp.py`. Run the app according to the instructions for running Python apps on your system.

Creating a Project

A Semantic Highlighter project is a directory that contains:

- 1) The plain text file you want to highlight, extension `.txt`
- 2) One or more highlighter files, extension `.hil`

Each highlighter file is a text file with the extension `.hil` that contains the following information:

- 1) The first line of the file is the name of the highlighter e.g. Resource
- 2) The second line of the file is the foreground colour for highlighted text e.g. blue
- 3) The third line of the file is the background colour for highlighted text e.g. yellow
- 4) The fourth and each subsequent line of the file contains a term that you want to highlight

Lines 1,2 and 3 are mandatory. Look at some of the example `.hil` files provided with the project. Colour names come from the X11 colours listed later. A “term” is any item you want to highlight in the text. It can be a single word or a phrase.

Running the app

When you run the Semantic Highlighter, you should see the window shown above. Click on the “Load text” button, navigate to your project directory and load the text file. The app will search the project directory for highlighters (`.hil` files) and load them all. You can then use the combo box to select a highlighter to apply to your text.

Adding a term

To add a term to the currently selected highlighter, select some text, and press the button “Highlight selection”. The term should now be highlighted throughout the text, and it should appear in alphabetical order in the list box below the combo box. The Semantic Highlighter automatically saves your change to the highlighter file.

You can also add terms by directly editing the `.hil` file. Remember: there is *one term per line*. Reload the text file to see your changes.

Removing a term

To remove a term from the currently selected highlighter, select the term in the list box, and press the button “Remove highlighted term”. The term should now be unhighlighted throughout the text, and it should disappear from the list box. The Semantic Highlighter automatically saves your change to the highlighter file.

Changing the highlight colours

At the moment, the only way you can do this is by editing the .hil file. You can use any of the X11 named colours. Remember: line 1 of the file is always the highlighter name, line 2 is always the foreground colour, and line 3 is always the background colour.

X11 named colours

COLORS = ['snow', 'ghost white', 'white smoke', 'gainsboro', 'floral white', 'old lace',
'linen', 'antique white', 'papaya whip', 'blanched almond', 'bisque', 'peach puff',
'navajo white', 'lemon chiffon', 'mint cream', 'azure', 'alice blue', 'lavender',
'lavender blush', 'misty rose', 'dark slate gray', 'dim gray', 'slate gray',
'light slate gray', 'gray', 'light grey', 'midnight blue', 'navy', 'cornflower blue', 'dark slate blue',
'slate blue', 'medium slate blue', 'light slate blue', 'medium blue', 'royal blue', 'blue',
'dodger blue', 'deep sky blue', 'sky blue', 'light sky blue', 'steel blue', 'light steel blue',
'light blue', 'powder blue', 'pale turquoise', 'dark turquoise', 'medium turquoise', 'turquoise',
'cyan', 'light cyan', 'cadet blue', 'medium aquamarine', 'aquamarine', 'dark green', 'dark olive
green',
'dark sea green', 'sea green', 'medium sea green', 'light sea green', 'pale green', 'spring green',
'lawn green', 'medium spring green', 'green yellow', 'lime green', 'yellow green',
'forest green', 'olive drab', 'dark khaki', 'khaki', 'pale goldenrod', 'light goldenrod yellow',
'light yellow', 'yellow', 'gold', 'light goldenrod', 'goldenrod', 'dark goldenrod', 'rosy brown',
'indian red', 'saddle brown', 'sandy brown',
'dark salmon', 'salmon', 'light salmon', 'orange', 'dark orange',
'coral', 'light coral', 'tomato', 'orange red', 'red', 'hot pink', 'deep pink', 'pink', 'light pink',
'pale violet red', 'maroon', 'medium violet red', 'violet red',
'medium orchid', 'dark orchid', 'dark violet', 'blue violet', 'purple', 'medium purple',
'thistle', 'snow2', 'snow3',
'snow4', 'seashell2', 'seashell3', 'seashell4', 'AntiqueWhite1', 'AntiqueWhite2',
'AntiqueWhite3', 'AntiqueWhite4', 'bisque2', 'bisque3', 'bisque4', 'PeachPuff2',
'PeachPuff3', 'PeachPuff4', 'NavajoWhite2', 'NavajoWhite3', 'NavajoWhite4',
'LemonChiffon2', 'LemonChiffon3', 'LemonChiffon4', 'cornsilk2', 'cornsilk3',
'cornsilk4', 'ivory2', 'ivory3', 'ivory4', 'honeydew2', 'honeydew3', 'honeydew4',
'LavenderBlush2', 'LavenderBlush3', 'LavenderBlush4', 'MistyRose2', 'MistyRose3',
'MistyRose4', 'azure2', 'azure3', 'azure4', 'SlateBlue1', 'SlateBlue2', 'SlateBlue3',
'SlateBlue4', 'RoyalBlue1', 'RoyalBlue2', 'RoyalBlue3', 'RoyalBlue4', 'blue2', 'blue4',
'DodgerBlue2', 'DodgerBlue3', 'DodgerBlue4', 'SteelBlue1', 'SteelBlue2',
'SteelBlue3', 'SteelBlue4', 'DeepSkyBlue2', 'DeepSkyBlue3', 'DeepSkyBlue4',
'SkyBlue1', 'SkyBlue2', 'SkyBlue3', 'SkyBlue4', 'LightSkyBlue1', 'LightSkyBlue2',
'LightSkyBlue3', 'LightSkyBlue4', 'SlateGray1', 'SlateGray2', 'SlateGray3',
'SlateGray4', 'LightSteelBlue1', 'LightSteelBlue2', 'LightSteelBlue3',
'LightSteelBlue4', 'LightBlue1', 'LightBlue2', 'LightBlue3', 'LightBlue4',
'LightCyan2', 'LightCyan3', 'LightCyan4', 'PaleTurquoise1', 'PaleTurquoise2',
'PaleTurquoise3', 'PaleTurquoise4', 'CadetBlue1', 'CadetBlue2', 'CadetBlue3',
'CadetBlue4', 'turquoise1', 'turquoise2', 'turquoise3', 'turquoise4', 'cyan2', 'cyan3',
'cyan4', 'DarkSlateGray1', 'DarkSlateGray2', 'DarkSlateGray3', 'DarkSlateGray4',
'aquamarine2', 'aquamarine4', 'DarkSeaGreen1', 'DarkSeaGreen2', 'DarkSeaGreen3',
'DarkSeaGreen4', 'SeaGreen1', 'SeaGreen2', 'SeaGreen3', 'PaleGreen1', 'PaleGreen2',
'PaleGreen3', 'PaleGreen4', 'SpringGreen2', 'SpringGreen3', 'SpringGreen4',
'green2', 'green3', 'green4', 'chartreuse2', 'chartreuse3', 'chartreuse4',

'OliveDrab1', 'OliveDrab2', 'OliveDrab4', 'DarkOliveGreen1', 'DarkOliveGreen2',
'DarkOliveGreen3', 'DarkOliveGreen4', 'khaki1', 'khaki2', 'khaki3', 'khaki4',
'LightGoldenrod1', 'LightGoldenrod2', 'LightGoldenrod3', 'LightGoldenrod4',
'LightYellow2', 'LightYellow3', 'LightYellow4', 'yellow2', 'yellow3', 'yellow4',
'gold2', 'gold3', 'gold4', 'goldenrod1', 'goldenrod2', 'goldenrod3', 'goldenrod4',
'DarkGoldenrod1', 'DarkGoldenrod2', 'DarkGoldenrod3', 'DarkGoldenrod4',
'RosyBrown1', 'RosyBrown2', 'RosyBrown3', 'RosyBrown4', 'IndianRed1', 'IndianRed2',
'IndianRed3', 'IndianRed4', 'sienna1', 'sienna2', 'sienna3', 'sienna4', 'burlywood1',
'burlywood2', 'burlywood3', 'burlywood4', 'wheat1', 'wheat2', 'wheat3', 'wheat4', 'tan1',
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'firebrick3', 'firebrick4', 'brown1', 'brown2', 'brown3', 'brown4', 'salmon1', 'salmon2',
'salmon3', 'salmon4', 'LightSalmon2', 'LightSalmon3', 'LightSalmon4', 'orange2',
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'coral1', 'coral2', 'coral3', 'coral4', 'tomato2', 'tomato3', 'tomato4', 'OrangeRed2',
'OrangeRed3', 'OrangeRed4', 'red2', 'red3', 'red4', 'DeepPink2', 'DeepPink3', 'DeepPink4',
'HotPink1', 'HotPink2', 'HotPink3', 'HotPink4', 'pink1', 'pink2', 'pink3', 'pink4',
'LightPink1', 'LightPink2', 'LightPink3', 'LightPink4', 'PaleVioletRed1',
'PaleVioletRed2', 'PaleVioletRed3', 'PaleVioletRed4', 'maroon1', 'maroon2',
'maroon3', 'maroon4', 'VioletRed1', 'VioletRed2', 'VioletRed3', 'VioletRed4',
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'plum2', 'plum3', 'plum4', 'MediumOrchid1', 'MediumOrchid2', 'MediumOrchid3',
'MediumOrchid4', 'DarkOrchid1', 'DarkOrchid2', 'DarkOrchid3', 'DarkOrchid4',
'purple1', 'purple2', 'purple3', 'purple4', 'MediumPurple1', 'MediumPurple2',
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'gray1', 'gray2', 'gray3', 'gray4', 'gray5', 'gray6', 'gray7', 'gray8', 'gray9', 'gray10',
'gray11', 'gray12', 'gray13', 'gray14', 'gray15', 'gray16', 'gray17', 'gray18', 'gray19',
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'gray84', 'gray85', 'gray86', 'gray87', 'gray88', 'gray89', 'gray90', 'gray91', 'gray92',
'gray93', 'gray94', 'gray95', 'gray97', 'gray98', 'gray99']