

ViCRAM Tool

Overview and Status
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<http://vicram.cs.manchester.ac.uk>

Description

- Implementation is based on ViCRAM project
- The tool provides:
 - Visual Complexity Score of the page
 - An overlay heatmap that mimics a user's visual complexity perception by noting the areas that are most visually complex

Description

- Two algorithms:
 - ComplexityAlgorithm: determine the level of visual complexity of a given page
 - VisualizationAlgorithm: visualizes a page by highlighting areas based on their visual complexity level
- Both algorithms were based on the complexity model previously derived by user evaluations:

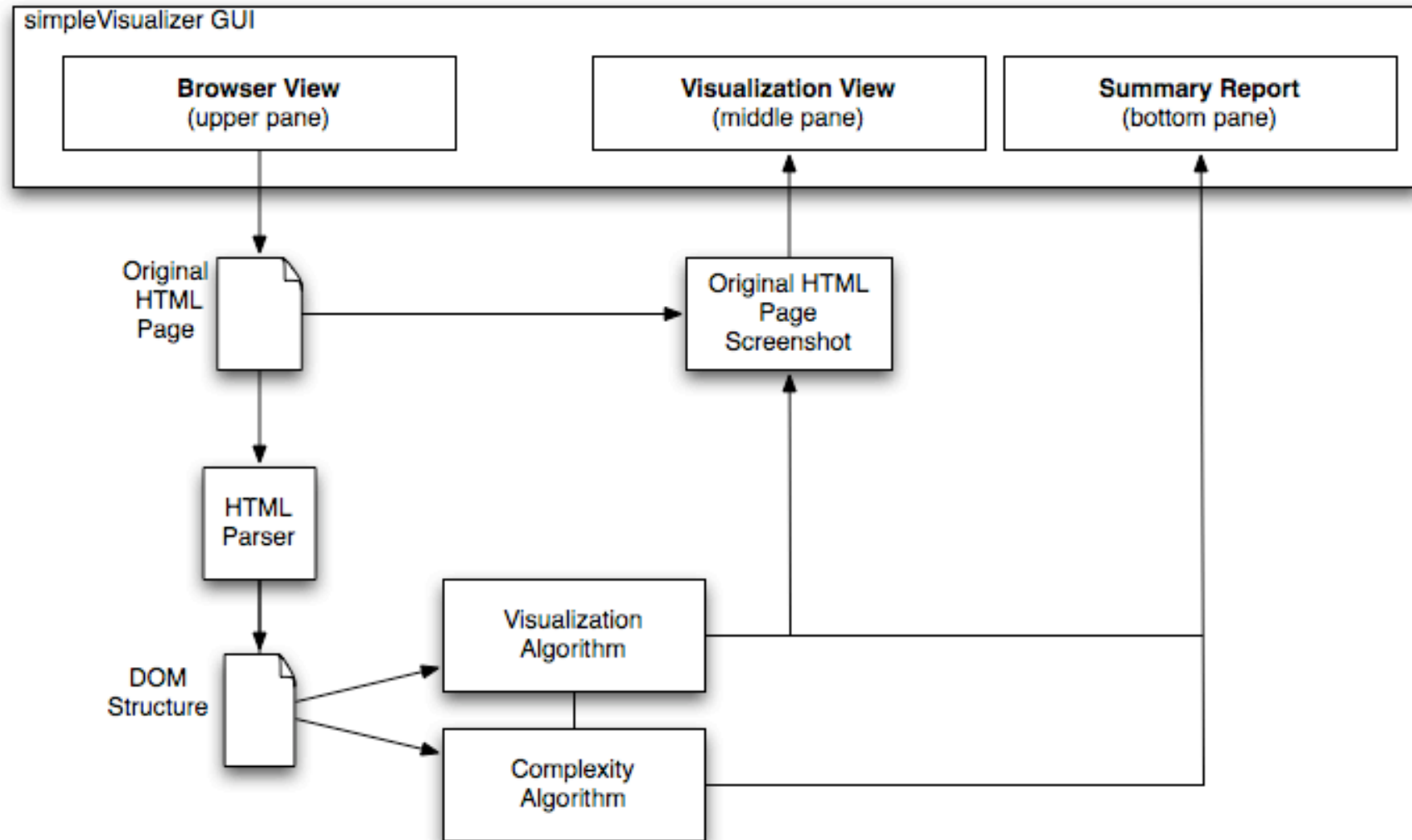
$$\text{VisualComplexity} = 1.743 + 0.097(\text{TLC}) + 0.053(\text{Words}) + 0.003(\text{Images})$$

TLC: Blocks of page - counted using DOM parser and based on visible borders, tables, headings etc.

Words: Word count

Images: image count

ViCRAM Tool



Browser View and Summary Report

Simple Visualizer

File View Favorites Window Help

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Summary report Detailed report

===== Web Page Visual Complexity =====

VCS = 5.821

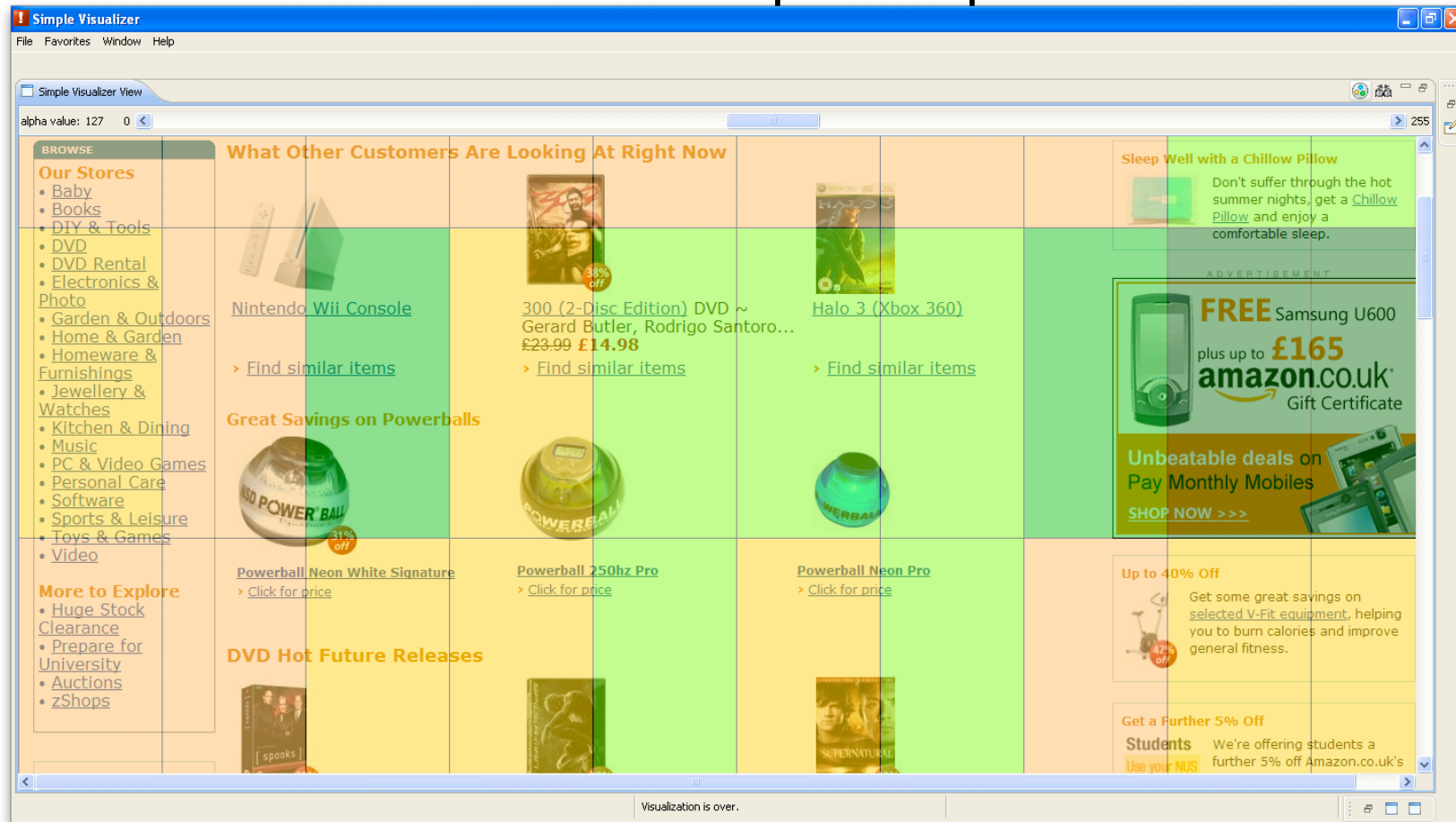
The Visual Complexity Score (VCS) ranges from 0 to 10, with 0 being very visually simple and 10 very visually complex. For more details please visit the VICRAM Project Webpages at <http://hwc.cs.manchester.ac.uk/research/vicram/>

---Live DOM---

<HTML>

<HEAD>

Heatmap Example



- The colour array can be changed in the code but for our implementation we use the following array:
Red - Orange - Yellow - YellowGreen - Green - DarkGreen.
- The grids are coloured starting from the pageColour (based on the VCS) to the last colour of the array (DarkGreen).
- The more to the Red colour, the more visually complex the grid is.

Simple Visualizer
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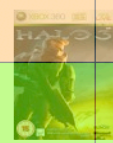
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Simple Visualizer View
alpha value: 127 0 255

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☒ Summary report ☐ Detailed report
 ----- Complexity Heatmap - Simple Visualizer View -----
 Colour range: Red - Orange - Yellow - YellowGreen - Green - DarkGreen
 The more to the red colour, the more visually complex the grid is. The colours depend on the overall visual complexity of the page. The grids with the highest complexity score reflect the overall page's VCS; the more to the red the more visually complex the page is.
 ----- Grid Description: -----
 Grid (row-column): 0-0 | Images: 1 | TLC: 5 | Word Count: 31.0 | VCS = 0.3874000000000001
 Grid (row-column): 0-1 | Images: 1 | TLC: 1 | Word Count: 2.6666666666666665 | VCS = 0.19843333333333332
 Grid (row-column): 0-2 | Images: 0 | TLC: 1 | Word Count: 8.666666666666666 | VCS = 0.22993333333333332
 Grid (row-column): 0-3 | Images: 0 | TLC: 1 | Word Count: 10.666666666666666 | VCS = 0.24053333333333332

---Live DOM---
 <HTML>
 <HEAD>
 <TITLE>Amazon.co.uk: low prices
 <STYLE type="text/css"></STYLE>
 <SCRIPT language="Javascript1.1"
 <META content="Low prices on di

Implementation Status

- Currently:
 - Refactoring of the ViCRAM tool (Kentarou)
 - Documentation & Technical Report (Eleni)
 - Reports are under progress. I will send them to the list once are ready.