Influence of Container Resolutions on the Layout Stability of Squarified and Slice-And-Dice Treemaps - Annex

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h \ w	600	800	1000	1200	1400	1600	1800	2000	2200	2400
600	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
800	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1600	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1800	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

(a) Corner Travel Metric - All Data - *SnD*

Figure 1: *Heatmap visualizations for the* Corner Travel Metric *of our aggregated random data and the* NYT *use-case with the container resolution width on the w axis and the height on the h axis*

Figure 1a shows the *Corner Travel Metric* results for all Slice-and-Dice layouts from our random data and the *NYT* use-case. The Slice-and-Dice layout has no instability issues at all.
Figure 2 contains additional information on the effect of recalculation and rescaling on aspect ratios for the *NYT* layouts. Shown are heatmaps for data, that was only provided as text in the result section. As seen in Figure 2a, when recalculating the average aspect ratio is 1.77, the best aspect ratio is 1.58 and the worst aspect ratio is 1.96 for the *SQ*_1.0 algorithm. Figure 2b shows the recalculation values for the SQ_D^3_Golden variation. Figure 2c shows the rescaling values for the SQ_D^3_Golden variation.

h \ w	600	800	1000	1200	1400	1600	1800	2000	2200	2400
600	1.87	1.82	1.85	1.73	1.62	1.92	1.68	1.60	1.59	1.59
800	1.82	1.87	1.83	1.65	1.96	1.73	1.75	1.83	1.93	1.68
1000	1.85	1.83	1.87	1.85	1.83	1.86	1.96	1.73	1.73	1.64
1200	1.73	1.65	1.85	1.87	1.65	1.83	1.65	1.84	1.75	1.73
1400	1.62	1.96	1.83	1.65	1.86	1.65	1.83	1.67	1.79	1.84
1600	1.92	1.73	1.86	1.83	1.65	1.87	1.66	1.84	1.82	1.65
1800	1.68	1.75	1.96	1.65	1.83	1.66	1.87	1.66	1.84	1.82
2000	1.60	1.83	1.73	1.84	1.67	1.84	1.66	1.87	1.66	1.84
2200	1.59	1.93	1.73	1.75	1.79	1.82	1.84	1.66	1.87	1.66
2400	1.59	1.68	1.64	1.73	1.84	1.65	1.82	1.84	1.66	1.87

(a) *Aspect Ratios for Recalculation* - NYT Data - *SQ_1.0*

h \ w	600	800	1000	1200	1400	1600	1800	2000	2200	2400
600	1.71	1.86	1.92	1.53	1.64	2.23	1.88	1.94	1.99	1.94
800	1.86	1.70	1.87	1.88	1.69	1.53	1.60	1.78	2.22	1.88
1000	1.92	1.87	1.71	1.76	1.87	1.90	1.55	1.53	1.58	1.67
1200	1.53	1.88	1.76	1.71	1.77	1.87	1.88	1.92	1.54	1.53
1400	1.64	1.69	1.87	1.77	1.71	1.77	1.87	1.87	1.89	1.70
1600	2.23	1.53	1.90	1.87	1.77	1.71	1.78	1.87	1.87	1.88
1800	1.88	1.60	1.55	1.88	1.87	1.78	1.71	1.79	1.76	1.87
2000	1.94	1.78	1.53	1.92	1.87	1.87	1.79	1.71	1.79	1.76
2200	1.99	2.22	1.58	1.54	1.89	1.87	1.76	1.79	1.71	1.80
2400	1.94	1.88	1.67	1.53	1.70	1.88	1.87	1.76	1.80	1.71

(b) *Aspect Ratios for Recalculation* - NYT Data - *SQ_D^3_Golden*

h \ w	600	800	1000	1200	1400	1600	1800	2000	2200	2400
600	1.71	1.71	1.86	2.12	2.40	2.72	3.04	3.36	3.68	4.01
800	1.96	1.71	1.69	1.78	1.92	2.12	2.33	2.56	2.80	3.04
1000	2.31	1.88	1.70	1.68	1.74	1.82	1.95	2.12	2.28	2.47
1200	2.74	2.13	1.84	1.71	1.67	1.71	1.78	1.86	1.98	2.12
1400	3.19	2.41	2.02	1.81	1.71	1.67	1.70	1.75	1.81	1.89
1600	3.65	2.74	2.23	1.96	1.79	1.70	1.67	1.69	1.73	1.78
1800	4.10	3.08	2.47	2.13	1.92	1.78	1.71	1.68	1.68	1.71
2000	4.56	3.42	2.73	2.31	2.05	1.88	1.77	1.71	1.68	1.68
2200	5.01	3.76	3.01	2.52	2.20	2.00	1.86	1.76	1.70	1.68
2400	5.47	4.11	3.28	2.74	2.37	2.12	1.96	1.84	1.76	1.71

(c) *Aspect Ratios for Rescaling* - NYT Data - *SQ_D^3_Golden*

Figure 2: *Heatmap visualizations for the* Aspect Ratio Metric *when rescaling/recalculating* NYT *use-case treemaps with the container resolution width on the w axis and the height on the h axis*