

Appendix F

VIZ Version History

In the chapter, we present a journey of VIZ screen shots through time. Starting from early 2006 when VIZ was born, until its latest design used in this thesis. Detailed version history are available in VIZ website.

F.1 2006

10 February 2006 (Version Beta)

This was the early version of VIZ when it was born. It did not has much features: (1). The very early version of Fitness Landscape Search Trajectory (FLST) visualization, still very raw, (2). The search playback controller, (3). Objective value over time, and (4). Some textual information.

30 March 2006

We switched to Multiple Document Interface (MDI) style. Additional visualization screens were added: Fitness Distance Correlation (FDC), algorithm-specific, problem-specific. There were two playback slider to facilitate the visual comparison mode.

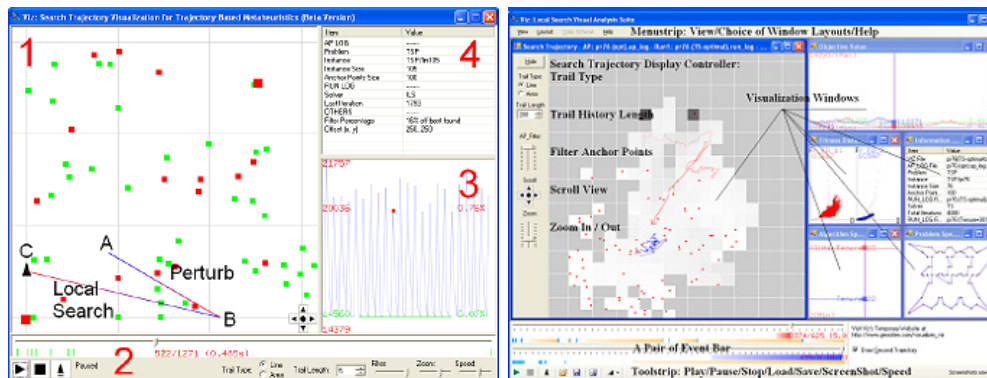


Figure F.1: v1.2006.2.10 (Left) and v1.2006.3.30 (Right)

14 July 2006: 3.5 months later

One of the major update for this edition was the introduction of 'Control Panel' window which gives flexibilities to the user to see the visualizations the way they want to see it. All other visualizations were also improved: a more colorful FLST visualization and richer supporting visualizations.

14 August 2006: 1 month later

The major update is to make FLST visualization has more white spaces, a cleaner design compared to the previous month edition. GUI design were more streamlined.

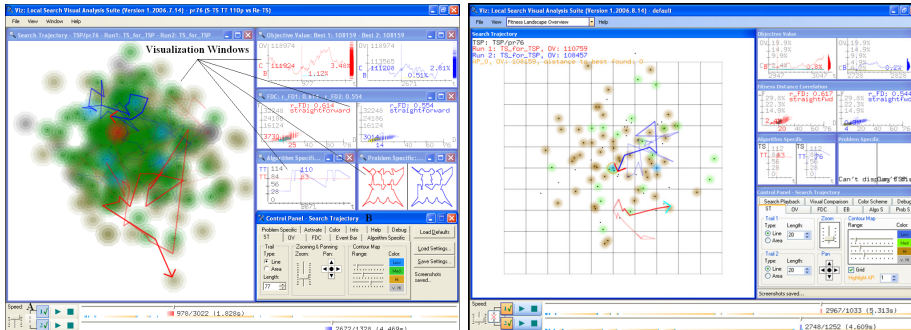


Figure F.2: v1.2006.7.14 (Left) and v1.2006.8.14 (Right)

29 September 2006 (Version 1): 1.5 months later

Numerous small tweaks produced this version. FLST visualization was much more mature compared with its initial version. This was the first public version of Viz. It come with a 'Conversion Wizard' to help SLS users in converting the raw RunLog from their SLS runs into visualization data.

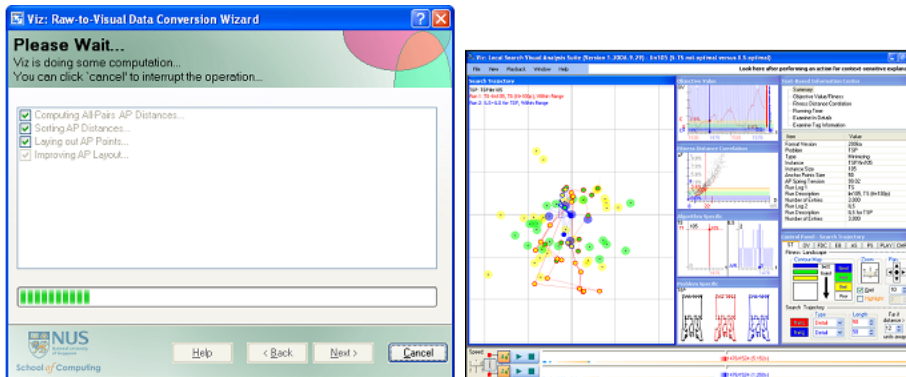


Figure F.3: v1.2006.9.29

F.2 2007

3 March 2007: half year later

For version 2 onwards, VIZ was split into two programs. SIMRA (known as the normal VIZ GUI in version 1) and EW (known as Conversion Wizard in the version 1). This separation is important as the Conversion Wizard was getting more and more complex, though it was still rather 'plain'. The major development in SIMRA GUI was in the usage of 'Ribbon' interface, a much more cleaner design. The visual comparison mode was turned off by default but can be used when needed.

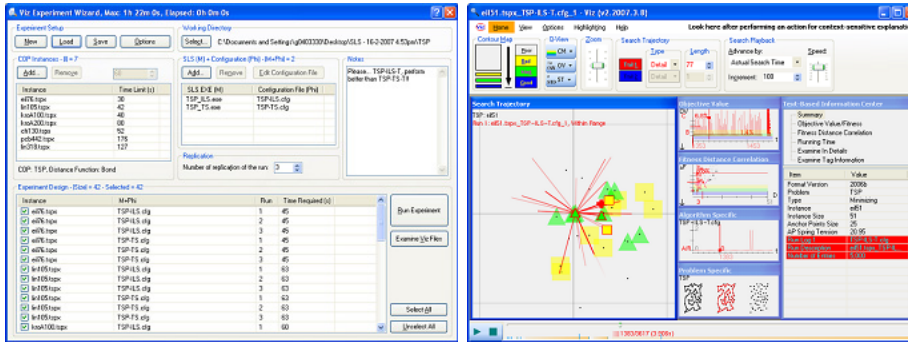


Figure F.4: v2.2007.3.8

24 May 2007: 2.5 months later

While SIMRA had minor changes, EW underwent major development. EW is important for end user as it is the program that the end user will interact with for the first time. SIMRA is for displaying the visualization data. EW is to help user control his SLS experiments to produce the required visualization data. Later, we finalized VIZ version 2 on 24 October 2007, with similar screen shot as this 24 May 2007 version.

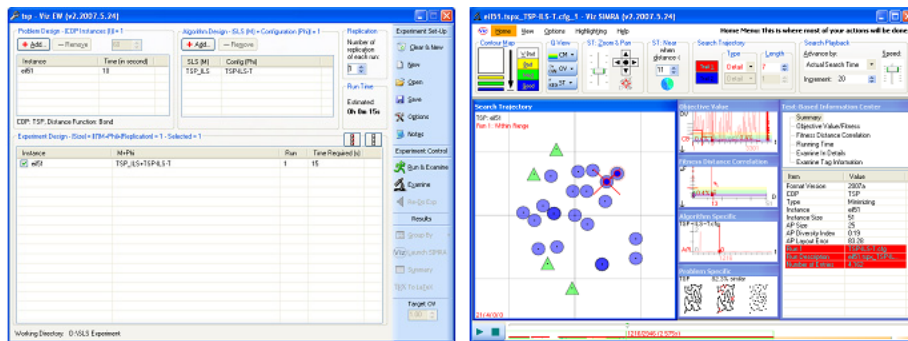


Figure F.5: v2.2007.5.24

5 December 2007: 7 months later

After we finalized VIZ version 2 on 24 October 2007, we aimed for an even better VIZ tool! The differences with earlier version were getting harder to spot visually as the updates were mainly internal.

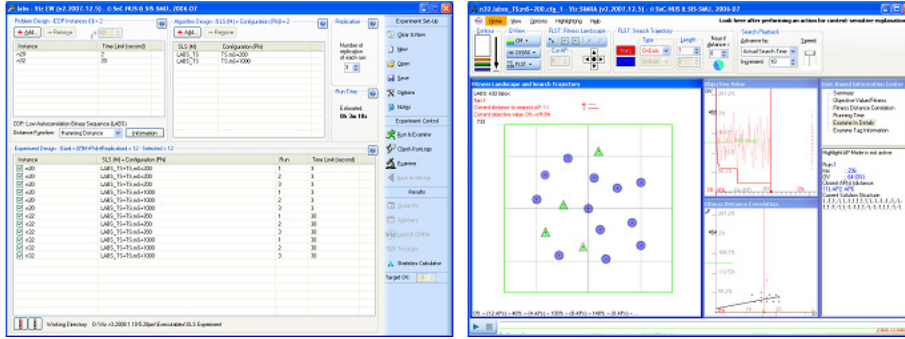


Figure F.6: v2.2007.12.5

F.3 2008

31 January 2008: 3 months later

We put significant effort during January 2008 to improve VIZ. The most notable changes were the overhaul of FLST visualization. We revised every single line of FLST visualization codes. The results: an improved performance in preparing FLST visualization and an improved quality of the FLST visualization itself. The screen shots were taken using Windows Vista. This shows that VIZ works well with Windows Vista too.

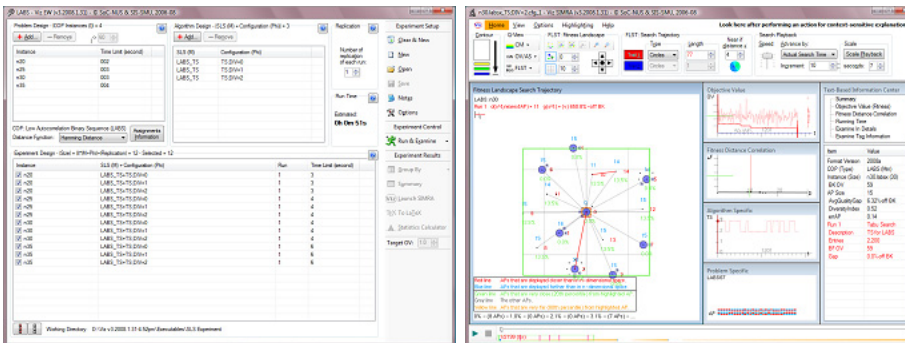


Figure F.7: v3.2008.1.31

24 July 2008: 6 months later

After being suspended during school term and another LABS project, the development of VIZ was continued. At this stage, VIZ was near its final state for Steven's PhD thesis. The most important change is again in VIZ EW. We added the capability to run tuning algorithm as well as the visualization of the fine-tuning process.

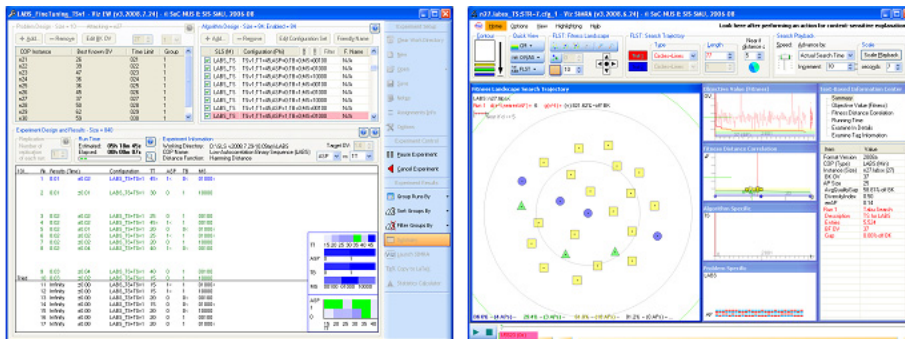


Figure F.8: v3.2008.7.24