

The Complex Event Processing Blog

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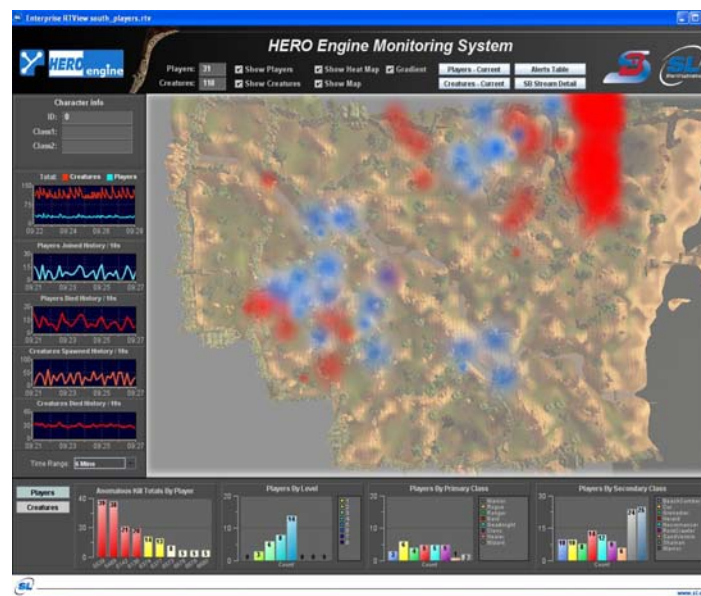
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CEP Use Case: Stream Processing in Multiplayer Online Gaming

Readers who have been following by blog musings may recall a post I wrote for [TIBCO](#) in April 2007, [Gaming, AI and Modelling on the Return Flight from London](#). In that post, we briefly discussed the rise of AI (and rule-based systems) in the gaming industry.

Not quite in the category of AI, but none-the-less very interesting, [StreamBase](#) and [SL Corporation](#) have partnered to provide CEP-like visualization services to the [Simutronics HERO 3D gaming engine](#).

The screenshot below illustrates a use case where, in this application, StreamBase's event processing engine receives streaming data from the HERO engine and the results are displayed using the graphical platform by SL, [RTView](#) (which literally means "real-time view").

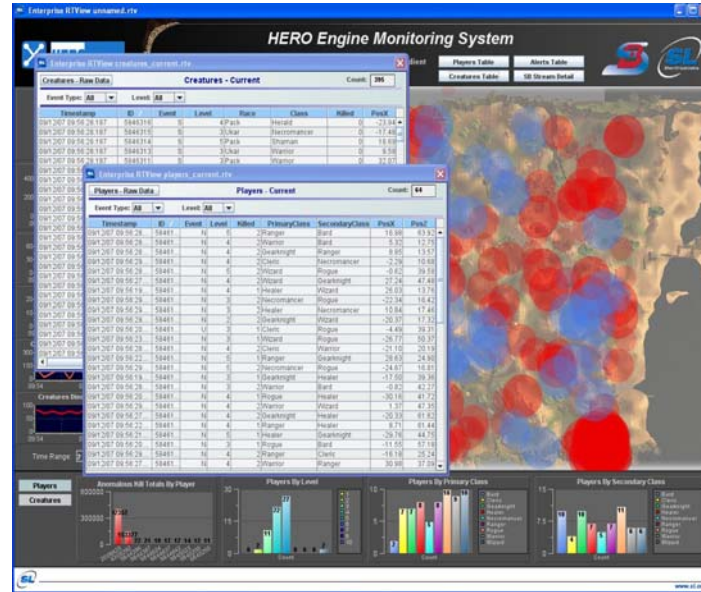


In this CEP use case, we are looking at a real-time [heat map](#) that summarizes the activity of both Players and Creatures in the HERO gaming environment. Out of the box meters and graphs by SL, in this screenshot, include:

- The total number of Creatures and Players in the cyberworld;
- The number of Players who have joined the game in a 10 second sliding window;
- The number of Players who have "died" in a 10 second sliding window;
- The number of Creatures spawned in a 10 second sliding window;
- The number of Creatures who have "died" in a 10 second sliding window;
- The number of "Anomalous Kills" by number of Players;
- The number of Players by skill level;
- The number of Players by their primary role; and,
- The number of Players by their secondary role.

My understanding is that the HERO gaming gurus at Simutronics turned to StreamBase to help them optimize the processing of streaming data on Players and Creatures in the cyberworld so they could monitor and tune their gaming engine applications in

real-time.



Prior to using the StreamBase CEP engine, Simutronics, I was told, used one stream per object of interest above, for example. By taking advantage of the maturity of the StreamBase engine, Simutronics could decouple performance monitoring from the gaming engine and focus their resources on their core business, building and operating world class online gaming platforms.

StreamBase, in turn, turned to SL, as many others CEP vendors do (for example, TIBCO, BEA and Apama), for their real time visualization engine.

So, in this use case, we have three engines, in a manner of speaking; (1) an online gaming engine, (2) a stream processing engine, and (3) a real time visualization engine, working together to support online gaming performance optimization.

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