Mythbusters: Event Stream Processing Versus Complex Event Processing

Invited Talk

Tim Bass
SilkRoad, Inc.
bass@silkroad.com

Abstract

There has been significant event processing controversy in the use of the terms event stream processing (ESP) and complex event processing (CEP). CEP was originally envisioned as a technology to extract new information from message-based systems; while ESP was designed to extract new information from database-oriented systems. One school of thought is that ESP is analogous to signal processing and CEP is more aligned with higher level situational inferencing. Another school of thought is that CEP and ESP are one in the same!

This talk explores the relationship between CEP and ESP in the context of event processing, and in particular to an event processing reference architecture derived from earlier distributed blackboard computing models. After introducing the model, we explore where ESP and CEP "fit" by applying ESP and CEP concepts to practical use cases for event processing, drawing from signal processing, decision theory, control theory, and stochastic processing. The basis of the talk is derived from established thinking in the domain of multi-sensor data fusion, applying traditional concepts to today's commercial view of event processing. The talk will be controversial and provocative, stimulating discussion and thought on areas for further research and development.

Biography

Tim Bass is founder and CTO of SilkRoad. He is currently focusing on emerging commercial applications of complex event processing. He has provided independent senior subject matter expertise to both industry and government for over 20 years, including TIBCO Software, Chase Manhattan Bank, the Swiss Bank Corporation (SBC), the "Society for Worldwide Interbank Financial Telecommunication" (SWIFT), the United States Air Force (USAF), the Office of the Secretary of Defense (OSD/NII), and other global multi-national organizations. Mr. Bass graduated B.S.E., Tulane University, School of Engineering, 1987 Magna Cum Laude, Electrical Engineering. His work on Internet security and cyberattack countermeasures has been featured in Popular Science Magazine and Federal Computer Week. He is internationally recognized as a thought leader in next-generation intrusion and distributed multi-sensor data fusion architecture, in part, based on his paper, Intrusion Detection Systems & Multisensor Data Fusion, Communications of the ACM, pp. 99–105, Vol. 43, No. 4, April 2000.

DEBS '07, June 20–22, 2007 Toronto, Ontario, Canada