

The Real-Time QuickStab® Extensions can be launched automatically, from the SCADA/EMS, or manually, from TriggerQuickStabLaunchPad (left-above) and TriggerQstViewerLaunchPad (left-below). Several result displays can be posted simultaneously. The pictures are automatically refreshed on each execution cycle by a new QuickStab® display engine optimized for high-resolution wide screens (right).

## Announcing the Real-Time QuickStab® Extensions

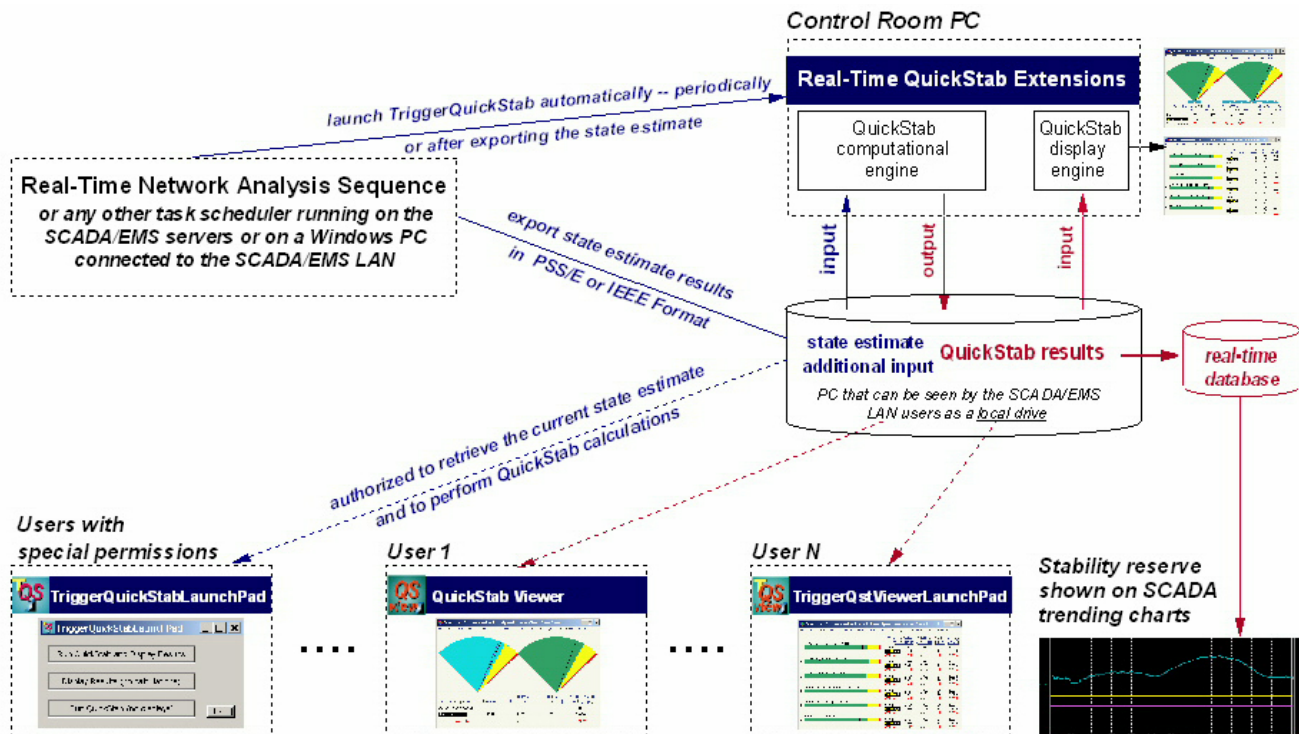
- ✓ Perform automatically the sequence of QuickStab® calculations and displays when triggered in a SCADA/EMS environment
- ✓ Can be executed manually upon user request
- ✓ Allow displaying the results of real-time QuickStab® computations on PCs where the QuickStab® Professional is not installed
- ✓ Display and refresh non-overlapping charts on high resolution wide screen monitors

The computational speed, modular design and simple data interfaces of QuickStab® enabled its seamless integration on SCADA/EMS platforms by Siemens PTD, AREVA T&D and ABB Network Management. These implementations performed flawlessly ever since they became operational. They were extensively documented in the technical literature [1], [2], [3], [4], [5] and set the standard in on-line stability assessment.

Learning from this experience, Energy Consulting International, Inc. (ECI) introduced Real-Time QuickStab® Extensions that encapsulate the entire

sequence of calculations and displays for the purpose of simplifying the integration of QuickStab® with a real-time system. These tools can be launched automatically from an external process, configured to run periodically, or executed manually on demand.

Due to their speed, reliability and ease of installation, the Real-Time QuickStab® Extensions allow enhancing any existing SCADA/EMS system with QuickStab® real-time stability assessment and monitoring capabilities in just a couple of hours -- and represent a significant step forward in the quest for on-line dynamic security assessment.



A task scheduler, written by the user or provided by the SCADA/EMS vendor, monitors the execution of the Real-Time Network Analysis Sequence. When a valid state estimate is available, the task scheduler exports it on a PC that is seen by the users of the SCADA/EMS LAN as a local drive, and then it launches a Real-Time QuickStab® Extensions module which takes over and does the rest.

## Overview

The Real-Time QuickStab® Extensions provide the following services:

- Trigger the QuickStab® computational engine and, immediately thereafter, create and subsequently refresh the QuickStab® graphics and text displays in the sequence that was predefined by the user
- Create and refresh QuickStab® displays without performing calculations
- Execute calculations without displaying results.

## Implementation

Typically, a task scheduler, written by the user or provided by the SCADA/EMS vendor: detects a new state estimate; exports it on the target PC; and launches a Real-Time QuickStab® Extensions module that runs computations, displays results, and waits for the next execution cycle. A two-step process is also possible whereby the task scheduler first launches the module that triggers calculations and waits for it to complete. Then, if the calculation was successful, it launches the display triggering module.

The Real-Time QuickStab® Extensions can also be invoked manually, from the *TriggerQuickStabLaunchPad*, which supports the full range of QuickStab® services, and, respectively, from *TriggerQstViewerLaunchPad*, which only enables reviewing the QuickStab® results.

## Contact Us

QuickStab® is currently used in real-time and/or off-line in control centers in Europe, USA, Latin America and Asia. It stands out in the industry because of its computational speed, user-friendly interface and ease of integration with new or existing SCADA/EMS systems. For additional information please visit <http://www.eciqs.com> or contact us by phone (212) 913-9154, e-mail [infoqs@eciqs.com](mailto:infoqs@eciqs.com) or in writing: Energy Consulting International, Inc., 405 Lexington Avenue 26th Floor, New York, NY 10174.

## References

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