Overview

TAO is an automation language that executes procedures and scripts. It supports telemetry or instrument value checking, command and directive transmission, user prompts, master/shadow functionality, and extension functions. TAO has three components: TAO Server, TAO Client, and TAO Simulator.

TAO Server executes procedures and supports a service provider interface to allow it to communicate with the EPOCH® Server. TAO Client is composed of several applications that provide the full lifecycle of a procedure – creation, modification, review, approval, execution, response verification, and analysis. Finally, TAO Simulator provides the ability to test TAO procedures by executing them without requiring a full server environment. Integrated with Kratos Integral Systems International’s Cactus security software, TAO’s major capabilities are also protected against unauthorized access.

Features

- Create and edit procedures consisting of spacecraft directives, telemetry points, expressions, and control structures
- Receive telemetry, transmit directives, and review executing procedures at the operational level
- Control a procedure in Master mode or observe the live actions of another in Shadow mode
- Set checkpoints, pause, and resume procedures
- Test procedures without the need for a full TAO Server/EPOCH environment
- Restrict capabilities per user access privileges via Cactus security software
- Define frequently used procedures for all spacecraft, a spacecraft family, or a single spacecraft
- Review procedure revision reports and approve several procedures simultaneously
- Compare two procedures and display differences between them
- Play back procedures off-line for analysis
- Create custom functions and dialogs to extend TAO’s capabilities and user interface beyond the original design
- Define custom variables within procedures that can be substituted by external applications, such as a mission planning system