

# AGI Software Speeds the Development of AFSCN Orbital Analysis Subsystem

## STK-Based solution Cuts Development time in Half

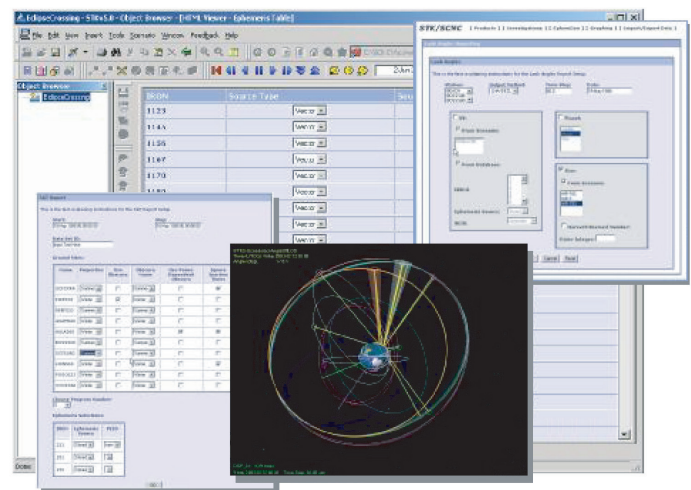
**COMPLEX REQUIREMENTS:** The Air Force Satellite Control Network (AFSCN) supports operation, control, and maintenance of various satellites for the Department of Defense and other entities. Honeywell Technology Solutions Inc. (HTSI)—a prime contractor—works to replace existing communications technologies within the organization’s ground network and tracking systems. The goal is improving components and antenna systems to provide new capabilities and ensure the system is operational 24 hours a day.

The Satellite Control Network Contract (SCNC) program consolidates development, systems engineering, integration, and sustainment functions into one contract. Using STK, Honeywell produced a custom Orbital Analysis Subsystem (OAS). The Collision/Interference Control and Reporting (CICR) system minimizes manual user tasking and accepts various ephemeris sources to allow for on-demand orbital analysis.

**INTEGRATED ANALYSIS:** User tasking is often repetitive. Some daily or weekly products require the latest orbital data while others pull from a variety of ephemeris input sources for analysis. Honeywell integrated AGI software to support RFI prediction and investigation, collision assessment, visibility, and report scheduling. This HTML-based interface also enables user-customizable reporting and environment settings. At the same time; users can define vehicle, propagator, gravity model, and scenario defaults within a variety of orbit models.

“CICR was developed and implemented in half the time of custom code development.”

— SCOTT CHAPUT, HONEYWELL



**Honeywell** The Air Force Satellite Control Network and contractor Honeywell needed to update the Orbital Analysis Subsystem to minimize manual user tasking, accept a variety of ephemeris sources, and allow on-demand orbital analysis. Building a custom application with an HTML-based GUI based on AGI software allowed them to meet rapidly changing requirements to deliver a customized, integrated solution in half the time of custom code.

**COMPREHENSIVE SOLUTIONS:** While Honeywell initially looked at internal development, they found it would be costly and schedule-prohibitive. Honeywell subcontracted with AGI for a custom solution featuring an HTML-based graphical user interface (GUI) that provides back-end processing using PERL and STK Integration. The product’s “tree” structure allows for easy design, navigation, and implementation of configuration files. In addition to the time and cost savings afforded by this custom solution, Honeywell found AGI to be extremely responsive to changing requirements.