

A CASE STUDY: REDUCING AFSPC OPERATOR EXECUTION TIME WITH STK ENGINE

Solution | Military Space

Challenge:

Create an adaptable daily operations and mission planning tool for AFSPC that can be easily trained on and accessed by sites with differing priorities/databases.

Solution:

Developed a custom STK Engine application to combine STK's user-defined workflows and automation functionality "wrapped" with Northrop Grumman –TASC's custom designed user interface.

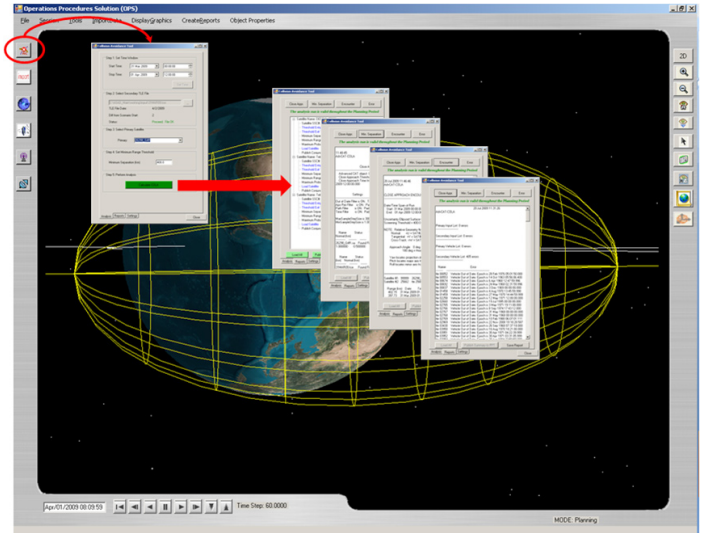
Results:

Reduced the time from requirements to delivery; increased operator efficiency; reduced error rate; provided repeatable, reliable and accurate solutions for new sites; reduced daily planning execution time from seven hours to approximately 45 minutes at one site.

Operators supporting Air Force Space Command are facing rapidly changing mission objectives that generate new requirements which need to be quickly addressed within limited budgets. This challenging environment requires a solution which provides more efficient operations and shortened learning curves with more systematic and repeatable processes. At the same time, there is a need for a diverse set of validated algorithms coupled, where necessary, with the use of Air Force Standards software in isolated operational environments where many of the needs are similar.

To meet these needs, Northrop Grumman -TASC embedded AGI's STK Engine software into its Operations Procedure Solution (OPS). Using AGI software for OPS allowed Northrop Grumman -TASC to develop a custom-designed user interface that captures the operator's process workflow in an efficient, repeatable and reliable manner, as well as:

- Reduce the development of custom algorithms, thus reducing the total time from requirements to delivery.
- Build a process-driven tool that guides operational staff through their daily workflow, reducing the risk of operator error and increasing operator efficiency.



- Adapt the education and training program to expand the customer base.
- Rapidly develop and implement (or remodel) solutions that arise due to changing mission requirements.
- Develop a flexible and cost-effective toolset that saves the customer time and money and ensures operations are performed in a repeatable and correct manner.

According to Joyce Stivers of Northrop Grumman – TASC, an OPS customer reports, "Using the OPS tool has reduced our daily planning execution time from seven hours down to about 45 minutes. Our daily afternoon briefing to senior leadership is completed before lunch time ... and we know that it is the correct solution." OPS continues to evolve at multiple operational sites; as it is exposed in different environments, more individuals recognize and appreciate the benefits of a COTS product that can be rapidly and cost effectively tailored to improve operational processes.

"Using STK Engine allows the Northrop Grumman –TASC OPS team to focus on implementing the operational and mission tasks for the customer without developing complex algorithms that STK already delivers."

— Joyce Stivers, NG-TASC



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