

# InVIEW

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## Bridging STK To Your Environment

FOR SEVERAL YEARS, THE DEPARTMENT OF DEFENSE (DOD) HAS BEEN studying options for collecting data on non-U.S. ballistic missile tests as part of the Ballistic Missile Technical Collection (BMTC) mission. An essential task of the BMTC is to evaluate the effectiveness of future collection systems that may be used to augment or replace legacy Measurements and Signals Intelligence (MA-SINT) collectors. This Analysis of Alternatives (AoA) responsibility belongs to Riverside Research Institute (RRI), Washington Research Office, who leveraged several STK modules to support the sensor performance evaluation.

RRI is an independent, not-for-profit organization that conducts research to extend the uses of scientific knowledge. Its main focus areas include intelligence, surveillance, and reconnaissance systems, as well as airborne surveillance systems.

RRI used the STK/Radar module to capture proposed sensor parameters and illustrate the performance capability of the alternative collection system solutions against future missile threats, which they generated in STK using standard military databases. Because of the complex information involved and the rigorous effort required to capture all of the sensor parameters, RRI wanted to ensure the scenarios remained consistent. At the same time, RRI's government customers needed to access and interact with all the STK information and conduct their own specialized analyses. RRI met both needs by using AGI's STK/Integration Module.

STK/Integration allows users to embed STK's analytical and visualization capabilities within applications such as Microsoft PowerPoint®, Internet Explorer®, or any COM-compatible software application. RRI created a simple, interactive Web browser interface that empowers even STK novices to easily immerse themselves in this intricate data. Because RRI's STK analyses—including platform, sensor, radar, missile, ephemeris, attitude, and RCS (radar cross section) data—were stored in an externally controlled database, the interface maintained a repeatable configuration every time.

John Ploschnitznig, chief RRI technical lead on the project, says the challenge of making highly technical information easily accessible to non-STK users was resolved with the introduction of STK/Integration. "The software provides you the ability to make sure you load the same thing every time from the external databases that you construct. Using STK/Integration, HTML, Visual Basic, and Java, we put together an interface that allows the customer to do what they want with just a few clicks." Adds RRI research staff member Eric Patterson, "The possibilities for what we can do with STK/Integration are pretty much endless."

By leveraging the analytical and visual capabilities of several STK modules in combination with other familiar software environments, RRI ensures that even novice STK users can easily understand, interact with, and exploit complex analyses. These analyses will be delivered as a product in the BMTC AoA final report.

Ploschnitznig attests: "STK/Integration enables the ordinary analyst to do extraordinary things." To learn more about the product, visit [www.agi.com/integration](http://www.agi.com/integration). For additional information on RRI, visit AGI's Business Partner pages at [www.agi.com/bp](http://www.agi.com/bp). ▲



John Ploschnitznig (left) and Eric Patterson of Riverside Research Institute used STK/Integration to embed STK within PowerPoint.