

# A CASE STUDY: A COMMON APPROACH TO SIMULATION ITALY'S SIMLABS FOSTER DIS & HLA DATA INTEGRATION USING STK

## Challenge:

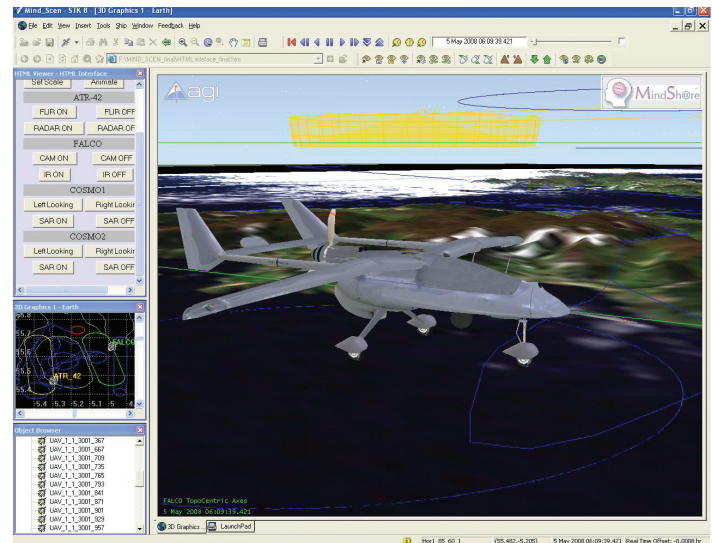
As part of its MindSh@re Initiative, Italy's Finmeccanica industrial group needed its subsidiaries, including Telespazio, to create Simulation Lab products for organization-wide DIS & HLA integration

## Solution:

Telespazio used STK Professional Edition with STK/Integration to pull together space, ground, and airborne segments in an intuitive 3-D graphical user interface (GUI)

## Results:

Telespazio shared STK's integration capabilities with DIS & HLA at the 2008 MindSh@re event in Rome, where they were able to show all Finmeccanica assets in all segments working together at a glance



Finmeccanica is the main Italian industrial group operating in the aerospace, defence, and security sectors, and the leading satellite and space service provider in Europe through the joint venture with Thales named "Space Alliance". Finmeccanica's MindSh@re Initiative, begun in 2003, aims to increase the level of knowledge-sharing among its subsidiaries, including Telespazio, a chief global operator in the management of satellites and services related to Earth observation, satellite navigation, integrated networks for multimedia communications, integrated connectivity, and added value. Telespazio, working with AGI's Italian business partner GMSPAZIO, is using AGI technology to create Simulation Labs (SimLabs) products that support individual organizational needs while being interoperable Finmeccanica-wide for complex, integrated systems. For its part, Telespazio Simulation Lab is using STK Professional Edition with STK/Integration to pull together the space, ground, and airborne segments in an intuitive 3-D graphical user interface (GUI).

Giuseppe Corrao, head of Telespazio's SimLab focused on the space segment of distributed scenarios, says his team needed an integrated synthetic environment that joined multiple segments together while providing real-time analysis, human-in-the-loop, a high-level 3-D synthetic environment, and a configurable GUI. Since Telespazio was already using AGI software for internal objectives, they looked to the technology for the MindSh@re Initiative. "The de-facto standards of SimLabs are DIS and HLA. The integration capability of the STK software suite was a real enabler for our distributed simulation envi-

ronment," Corrao says. "For example, it implements precise propagators that predict satellite coverage." Telespazio and GMSPAZIO also created a customized STK GUI to complement the analysis. Corrao says, "We are able to show all Finmeccanica assets in all segments working together at a glance. This is a real added value for us."

STK's simulation capabilities were showcased in February 2008 at the MindSh@re Event in Rome. "STK is a very flexible tool, capable of hosting models, maps, and terrain and connecting in a simple manner with the external world. It is a significant enhancement to our business in the simulation field," Corrao says. Through the use of STK, Telespazio reduced the time needed for mission development and simulation. Corrao says training has been significantly improved, with training time reduced from five days to three. Although Telespazio has yet to compute the cost benefits of performing distributed simulation with STK, Corrao says that using AGI technology has definitely reduced the need to travel and those related costs.

Telespazio is looking to implement AGI's new Real-Time Tracking Technology (RT3) and Distributed Simulation (DSim) software to connect with HLA, and thus establish a leading role in the Finmeccanica distributed simulation context.

For more on Finmeccanica, MindSh@re, and Telespazio, visit [www.finmeccanica.it](http://www.finmeccanica.it). Information on AGI's global business partnerships can be found at [www.agi.com/international](http://www.agi.com/international).

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