



NASA Mission Control Center (MCC) Johnson Space Center, Houston, TX

THE CHALLENGE

NASA's Mission Control Center (MCC) at Johnson Space Center is the heart of operations for space shuttle and international space station missions. Mission critical data streams for numerous shuttle systems and operations are relayed to MCC that require immediate interpretation and response. Graphical interfaces provided for this data must be easy and quick to build, quick to prototype, and require simple deployment across a network. Custom development for these interfaces would be difficult and time consuming to accomplish, and require many development specialists. Any commercial off-the-shelf (COTS) solution provided must be proven, and require no specially trained personnel to use for the multiple systems that will implement the application.

THE SOLUTION

Since 1996, Kinesix has supplied the software that runs 90 percent of the graphical displays for MCC at Johnson Space Center. The Sammi Application Development Kit (ADK) enables mission control for the space shuttle and international space station programs to easily build graphical interfaces for viewing complex live data streams.

In order to avoid the arduous process of developing in-house graphical display applications to process MCC's continuous data streams, NASA decided Sammi was an ideal solution as a readily available COTS application to handle the responsibility of turning complex data into graphical interfaces. Sammi is a rapid application development tool, enabling MCC to quickly develop graphical interfaces, map data sources, and view the resulting data in order to efficiently manage one of the most complex and precision-dependant compilations of live data streams in the world.

Part of what makes Sammi such a useful tool is its cross-platform architecture that allows the same information to be viewed on a network that is utilizing many different operating systems and hardware configurations. Command and control operations can be viewed by any workstation running Sammi on the network.



NASA MCC uses Sammi to build graphical interfaces.

- **Industry:**
Aerospace
- **Application:**
Command & Control
- **Benefits:**
 - ◆ Real-time displays
 - ◆ Built-in Networking
 - ◆ Rapid Prototyping
 - ◆ No Programming Required

About Kinesix

Kinesix Software develops, markets and supports software development tools used to rapidly deploy client/server and Web-based visualization and control systems with real-time, interactive graphics. Kinesix has supplied graphical interface solutions to 9 of the world's 10 largest aerospace companies.