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Technology: *INTERACT*

Not Just Screen Sharing—True Collaboration

Introduction

Global command and control, tactical combat teams, and civil emergency response teams not only need to share information; they must be able to actively collaborate to create plans and coordinate actions in real-time without breaking their operational tempo.

Even the best of today's visualization-based collaboration tools, whether web-based or application-based, simply let users replicate a common view: a shared screen showing viewgraphs, a shared map view, etc. While any communication across a distributed team is useful, these tools fail to capture the productivity of live, interactive collaboration.

In real working meetings, people don't need to just share—they need to *interact*. They need the ability to capture their shared insights as they work, integrating ideas from all players. They need to interact laterally as well as hierarchically. They need to take control of the data and knowledge they assemble, control how it is composed, and how it is viewed. They

need to be able to create products that best communicate their understanding and concerns and the intent of their plans.

A Better Way

Lockheed Martin Advanced Technology Laboratories built the INTElligent Environment for Real-time, Adaptive, Collaborative Technology (INTERACT). INTERACT captures—and improves on—the collaborative interaction of a “real” meeting in a widely distributed, networked environment.

Live distributed group discussions can make use of graphical gesturing and voice to create an interaction experience that is “better than being there.” With INTERACT, users can annotate maps and images with symbols and ges-

tures—lines of movement, tactical positions, etc.—directly on a map image that can be seen by everyone. Shared spreadsheet-style tables, schedules and other products can be created, populated from

timeline to show temporal relationships between events or on a table to show text, numeric or list attributes.

Whether in a free-form, hastily-arranged meeting or a more procedurally-oriented workflow, INTERACT provides its collaborative functionality in user-specific formats, on platforms ranging from multi-monitor workstations to laptop computing to mobile touch-screen interfaces on tactical ground and maritime platforms.



INTERACT allows all users to enter, view, modify, share and even debate information from many sources to achieve true collaboration.

live data feeds, or used to directly capture user inputs. Object data changes automatically propagate across live-linked views. Objects are polymorphic: geospatial objects, for example, can be dragged and dropped onto a

Applications

INTERACT has demonstrated strong potential for applications as varied as civil first responder coordination, military command and control and battle management, “on the move” tactical unit combat coordination, search and rescue, and humanitarian relief.

Current versions of INTERACT interface with the Services-Oriented Architecture of Lockheed Martin's Web Service Factory to integrate live data feeds such as track data, satellite coverage, and weather data into collaborative products.

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