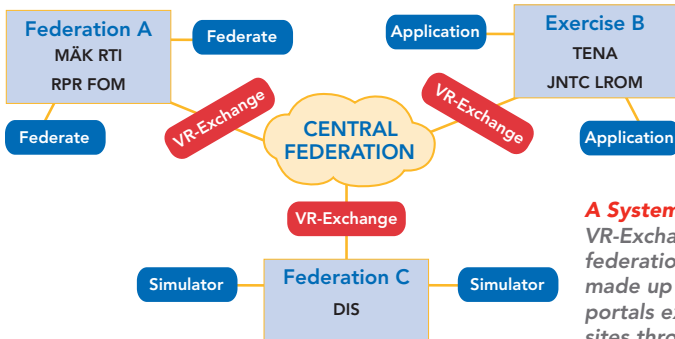


VR-Exchange®

The Interoperability Portal

Overview

VR-Exchange is a universal translator for distributed simulation. With VR-Exchange, you can link together simulations that use different HLA RTIs, different object models, and even different protocols.



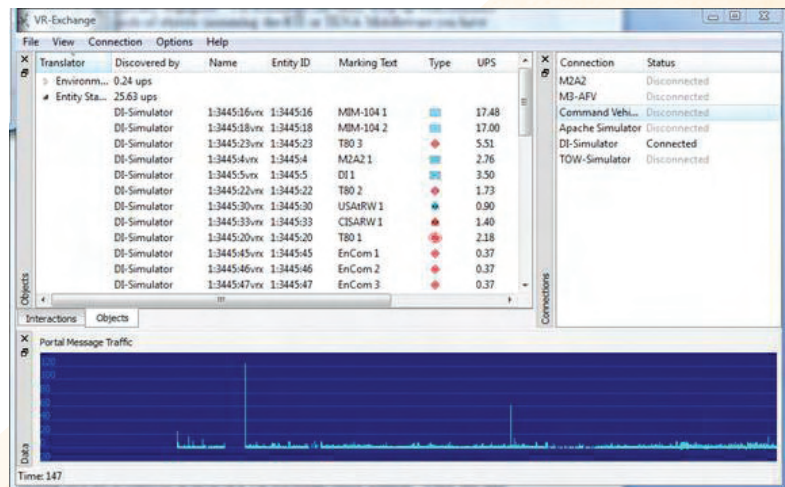
A System of Systems:
VR-Exchange bridges each LAN's federation to a central federation made up entirely of portals. The portals exchange data among the sites through the central federation.

The Need for Bridging

In some cases, bridging is necessary because it is not practical to get everyone to agree on a protocol, HLA FOM or RTI, or TENA LROM. In other cases, bridging is needed because a system architect wants to implement a hierarchical "federation of federations" design. Bridging is often needed to support large-scale LVC (Live, Virtual and Constructive) integration, or to support Simulation-to-C4I interoperability. For all of these cases, VR-Exchange can provide the solution.

Exceptionally Easy to Use

VR-Exchange lets you create and configure all aspects of a connection with a few simple clicks of a mouse. Even tasks like configuring which RTI to use can be accomplished through the intuitive GUI. Not only can you make connections to different LVC components, you can temporarily suspend connections and disconnect from a federation with a single click. Further, the data display allows you to see how many messages and what kind of traffic is flowing through VR-Exchange. If a particular object is updating too frequently and causing problems in your system, a simple right click menu lets you filter the object.



VR-Exchange's easy to understand interface

USE CASES

- DIS-to-HLA TRANSLATION
- RTI-to-RTI BRIDGING
- FOM-to-FOM TRANSLATION
- DIS OR HLA-to-TENA TRANSLATION
- LVC INTEGRATION

FEATURES

- SUPPORTS SYSTEMS OF SYSTEMS ARCHITECTURE
- EASY TO USE
- OPTIMIZED FOR PERFORMANCE
- OPEN ARCHITECTURE — CUSTOM BROKERS CAN SUPPORT OTHER PROTOCOLS
- LVC INTEGRATION
- HLA 1.3, IEEE 1516-2000, AND HLA EVOLVED SUPPORT

Built-in Translation

Brokers for DIS, HLA 1.3, IEEE 1516-2000, HLA Evolved, and TENA. The HLA and TENA Brokers leverage MÄK's VR-Link® FOM and LROM Mapping infrastructure, allowing you to configure them for custom object models. The HLA Brokers can also be configured for different RTIs, simply by pointing at the appropriate shared libraries.

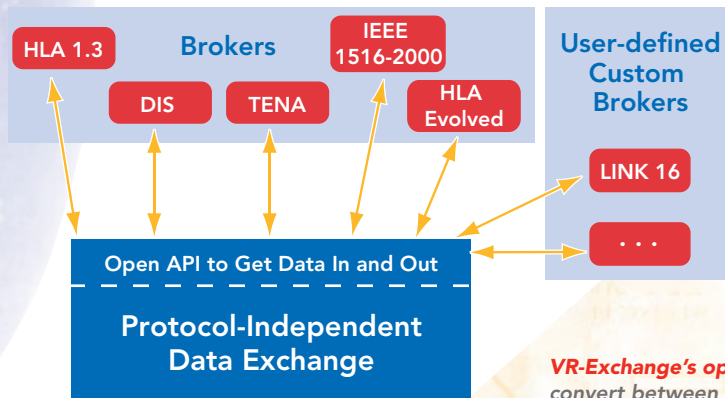
Extensibility

VR-Exchange's open architecture means that you can also develop custom Brokers for C4I protocols or other data standards. We provide a documented interface (API) to the Data Exchange, as well as sample code that shows how to read and write to our protocol independent data format.* Once you are able to translate your protocol to this lingua franca, your data can be read by any of the other VR-Exchange Brokers.

Supported Platforms

- Windows® XP/Vista/7
- Linux®

* API requires a VR-Link Developer's License



VR-Exchange's open architecture: Brokers convert between specific protocols, RTIs, and object models, and a central protocol-independent Data Exchange, which lives in shared memory.