- Extended 'Injection List': the 'Exercise Script' lists the Injections, Returns, Actions, Notifications and Observation Tasks
- Integrated spell checker
- Advanced Filter Capability to get details in the script: Set multiple criteria, like date: today and tomorrow
- Filters remember previous setting: no need to set them every time!
- You can call up a Timeline view and a Time Dependency diagram of your Storyline
- Support for MGRS notation
- Help functionality is now integrated into the application
- Improved synchronization options
- It provides its own authentication and authorization system: although your exercise environment may not yet be up, JEMM will be accessible
- (Raster) map support: Not only allows you to view your Storyline on a map but also allows you to script spatially
- Supports Web Mapping Services (WMS) and Web Features Services (WFS) from other GIS servers, like iGeoSIT and the open source GeoServer
- Interoperable with other systems through web services
- JEMM is able to provide its own data as geographical objects to other systems through WFS
- Reports can be exported to Excel and PDF
- JEMM does not require extra software on the clients, only Internet Explorer
- Better administration capabilities and scenario setup
- The architecture supports temporary loss of connection without losing data
- Automatic generation of the demo database
- Possibility to import data from older scenarios
- One single User database for the mini-exercise and the exercise
- Efficient use of bandwidth through Web 2.0 Technology

System Requirements for the Server
Windows 2003 Server (or Windows XP)
Internet Explorer 6 (7 or later recommended)
Internet Information Services (IIS)
NET Framework 2.0

System Requirements for the Clients
Internet Explorer 6 (7 or later recommended)

JEMM version 3.0 is scheduled for official release in the summer of 2009

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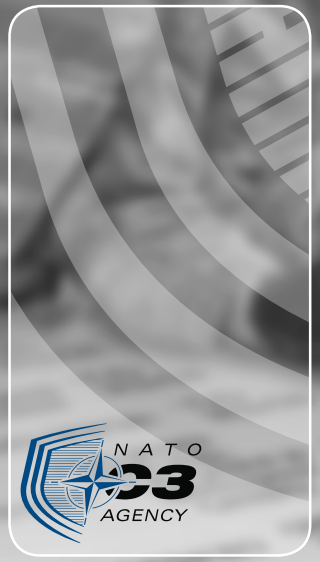
NATO C3 Agency

JEMM

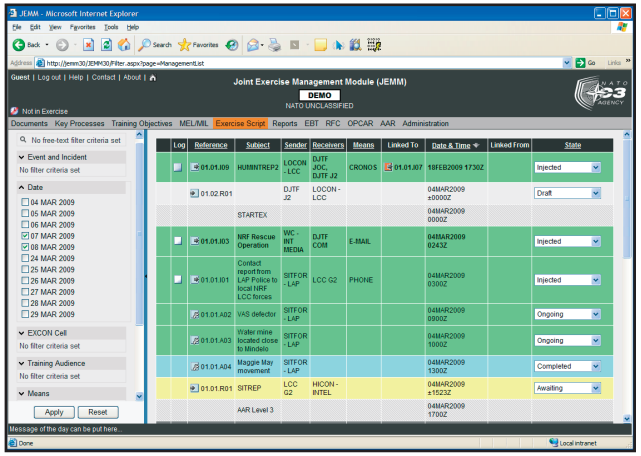
JOINT EXERCISE MANAGEMENT MODULE



The Joint Exercise Management Module JEMM is a web-based application designed to support exercise planners, control organizations, and analysts in the design, conduct, and analysis of training and exercise events. JEMM's key feature is the method that it provides for the development and execution of a deliberate and traceable exercise control plan.

JEMM and the Effect-Based Approach to training have been developed since 2004 by the NATO C3 Agency on behalf of NATO's training organisations, the Joint Warfare Centre and the Joint Forces Training Centre. The method and tool form an integral part of the core environment that these organizations employ to conduct their training business. Over the last few years, many NATO commands and nations that have seen it used, have adopted JEMM for their own training as well. As such, it has become the de-facto standard training support tool in NATO. The latest release, JEMM 3.0, introduces web services to expand its interoperability with external applications such as simulation environments.

Designing an exercise using JEMM



The effect-based approach to training is a "training objective" orientated approach to training. Training objectives are explicitly stated and associated with key headquarter processes. In order to support training in NATO joint headquarters, a standardized set of training objectives has been developed. Following the selection of training objectives, an exercise flow is developed in time and space that addresses each training objective. The story line concept is used to capture the conditions and standards associated with a training objective. Conditions can be set by initiating actions which can be either simulated or real. They can also be created by providing information injects into the training audience in a well-defined sequence. The training effect can be tracked by specifying the intended outcome of story lines. Story lines are grouped logically into events that correspond to exercise missions or lines of operation. If the training team incorporates a coaching or observation team that is monitoring the activities of the training audience, a collection management plan can be defined for each day of the exercise. Through the combination of the structured exercise design approach and the corresponding structure provided in JEMM, a deliberate training and exercise flow can be created that can be traced from training objective to training effect through the specification of the story lines.

Conducting and Analysing an exercise using JEMM

For the conduct of an exercise, an exercise control organisation is assembled from many different parts. Typically, this organisation is formed by an exercise control centre consisting of the main exercise designers, and the situation forces, a set of response cells representing the subordinates of the training audience, a grey or white cell representing the civilian personalities and organisations and a training/observation team. In order to support these various groups in performing their parts in the exercise, JEMM has been designed to implement a flexible role concept. Roles can be defined by the JEMM administrator. Based on a user's role, access is provided to selected functionalities of the application and actions on data can be restricted. Typically, a NATO exercise will implement event manager, response cell, and analyst roles. Each of these roles has a limited ability to set the status of JEMM information injects and actions. These state transitions define the workflow of the exercise control organization. Injections and actions will move from draft to scheduled and completed as appointed exercise control teams draft, approve and execute them. Coordination notes can be stored with each injection to provide amplification for state changes particularly when modifications are required. Response cells and event managers can thus work in a fully distributed and collaborative manner. The need for meetings and conference calls is greatly reduced.

JEMM provides a single overview of all on-going exercise control activities to all its users. Highly configurable and flexible to meet particular exercise control team requirements, it allows the exercise control organisation to share the information that has been provided to the training audience. Response cells, event managers and analysts have a common understanding of the conditions that have been created to enable training opportunities. The observation teams that work with the training audiences are tasked to gather data on processes and specific exercise aspects. As they gather data, they can store the observations in JEMM and relate them to on-going story lines. Through this approach, the feedback loop required to measure the training effect can be closed. The exercise control organisation can track training progress and decide whether to continue as planned, dynamically introduce complete new story lines, or adapt the planned flow of an existing story line.

Conclusion

JEMM is an evolving tool that supports a structured NATO method for the development of a deliberate training and exercise flow. It is currently developed through NATO funding that is managed by a configuration control board chaired by Allied Command Transformation (ACT). Features are being added to increase its interoperability with more exercise drivers including simulations and live actors. Over the past five years, it has become the core tool for exercise planners and control organisations in NATO.

New JEMM 3.0 Features:

- Enhanced support for live exercises: specific resources like role players and training materials that will be required during the exercise can be added to the script
- Compliant with the Live, Virtual and Constructive (LVC) concept
- Supports the 'Returns' concept: when do you (Training Organization, Response Cell) expect a report from the Training Audience
- The program can handle 'Time Jumps' in your scenario
- OPCAR: New Observer/Trainer module developed together with the Joint Warfare Centre (JWC)
- Supports the 'Notification' concept to enable meetings to appear in the script list.
- More user-friendly interface