

Visual Tool for Authoring Learning



VITAL is funded by the Office of Naval Research under the Tools for Game-Based Training and Assessment of Human Performance project.

The Visual Tool for Authoring Learning (VITAL) is an open-source tool for authoring game-based training systems. VITAL bridges the gap between the instructional system designer and the game developer, providing a consistent method for specifying both the high level learning objectives and instructional strategy and the low-level detailed logic governing how the game interacts with the students based on their actions and performance. VITAL allows users to:

- Reduce development time
- Increase re-use
- Improve collaboration within the team
- Apply proven instructional methods for games
- Avoid game-engine lock-in

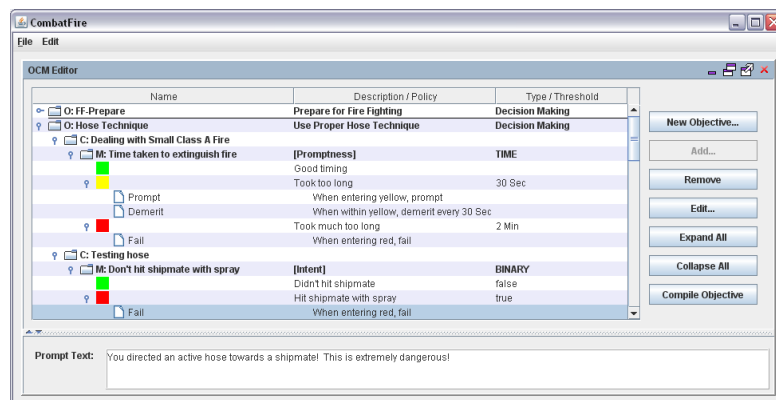
VITAL comprises a suite of easy-to-use authoring GUIs and a game-engine-independent instruction engine. The authoring tools allow instructional logic to be generated through a process of instructional system design choices and refinement. The instruction engine executes the logic and communicates in real time with the game engine to drive the learning experience.

VITAL allows users to specify high level instructional elements explicitly, including:

- Learning objectives of a game scenario or level
- Conditions under which training on those objectives will be delivered
- Measures used to track and evaluate performance against those objectives
- Learning experiences and sequencing within a scenario

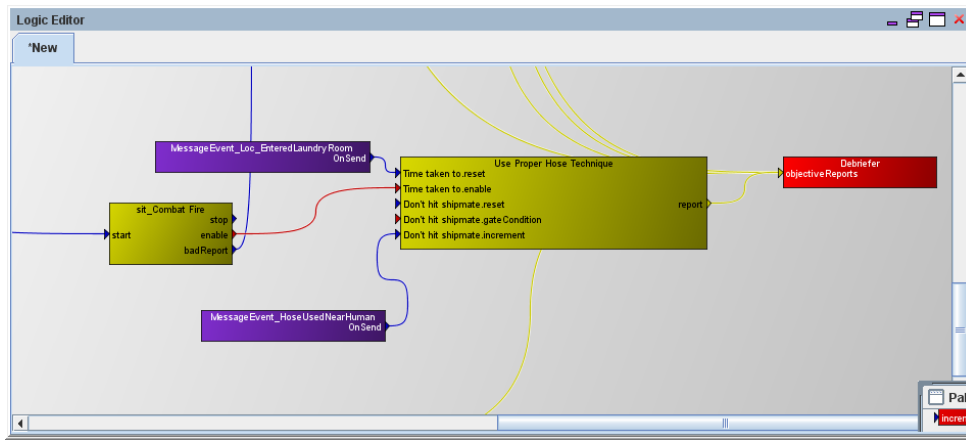
VITAL also allows users to specify detailed instructional acts and link them to specific game events or student actions, including:

- Instructional method to use for a particular learning objective
- Feedback to give to the student in response to certain actions
- Guidance to give to the student at different points in the scenario
- Negative consequences that occur in response to poor student choices
- Performance-based summary feedback to give to the student at the end of a scenario



Easily Integrated

VITAL is developed in the Java programming language and uses a simple message passing framework that can be integrated with different game engines. To date, VITAL has been integrated with the Delta3D, VBS2™, and Unity game engines.



Open source

VITAL is available at sourceforge.net/projects/vital/.

To learn more about the Visual Tool for Authoring Learning and Raytheon BBN's capabilities to support lightweight immersive training, contact:

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