Calytrix Technologies

Established in Perth, Western Australia in 2001, Calytrix Electronics formed to develop the best quality software, bringing a level of engineering rigor and commercial expertise with the delivery of cutting edge military simulation and training software.

With a continual focus on providing software solutions to the defense training and simulation community, Calytrix Technologies has grown substantially by adding training and consulting capabilities to meet customers' technical and integrated needs. Calytrix strives to innovate in software solutions through the balance of engineering expertise and the sophistication of practical experience.

Efficient communication procedures among and between defense groups is essential to achieving favorable outcomes and completing missions successfully. Calytrix anticipated the need for simulated radio communications training, ultimately providing an alternative to the use of expensive, real hardware radios that broadcast over the air. Calytrix designed the Comm Net Radio Simulator (CNR-Sim) to be an intuitive and affordable, software only, multichannel radio simulator for Windows and Linux. In order to develop an interface that matches the quality of the radio simulator, Calytrix employed DiSTI's GL Studio to the couple high-end virtual radio panel with a robust multichannel radio simulator.

The CNR-Sim digitizes its user's voice into Distributed Interactive Simulation (DIS) protocol radio packets that are sent across a standard computer network to other CNR-Sims (and compatible DIS radios) where the packets are converted back to an audio format. CNR-Sim's simple push-to-talk interface lets users rapidly switch among different communication channels. To provide more engaging scenarios, the CNR-Sim allows individual users to be organized into teams.

The CNR-Sim is available in three configurations such as, CNRSim Free, CNR-Sim Base, and CNR-Sim Pro. The Free option is available at no cost and contains a fully functioning DIS radio, with the

exception of limited fixed radio nets. The Base has an expanded feature set including voice operated keying, user configurable channels and teams, and the ability to listen to different channels in the left ear and right ear. The most powerful configuration, the Pro has all the features of the Base plus an Application Programmer's Interface (API) that lets external applications control CNR-Sim Pro radios and user-configurable signal degradation.

Using GL Studio, DiSTI produced a two-channel interactive graphical radio panel as a free add-on for use with CNR-Sim Free configuration. CNR-Sim's new API served as the method used by DiSTI to connect the radio panel with the network radio simulator, exhibiting the versatility of GL Studio's graphical content to simulate user specific radios. The API is a Software Development Kit (SDK) for C++ and Java, enabling programmers to develop applications to interact with and control CNR-Sim radios. By integrating a high-end radio simulator with a compelling user interface, the CNR-Sim brings engaging interaction to modern communication training.