

AI TeamMATE™

Enabling the Next Generation
of Constructive Simulation



WHAT IS IT?

AI TeamMATE™ is an AI platform that models human behavior to create non-player characters in simulations and game environments. Built on the legacy of TacAir-Soar, developed on the DARPA STOW program, this capability leverages decades of unmatched R&D expertise from our team.

HOW DOES IT WORK?

At the core of AI TeamMATE™ is a general cognitive architecture that integrates knowledge-intensive reasoning, reactive execution, planning, and learning. Soar allows AI to closely emulate human decision-making processes and behavior expected from human role players during training, thereby increasing the number of domains and scenarios that AI TeamMATE™ can support and enhance.

WHAT'S NEXT?

- ◆ Extend architecture to seamlessly combine cognitive reasoning with deep reinforcement learning
- ◆ Apply AI TeamMATE models to next-generation constructive simulation environments

Capability Overview

- Serves as a full-featured modeling platform for developing, integrating, and deploying AI behavior models for multi-domain operations and training.
- Emulates the human decision-making process through a robust cognitive architecture, making models more trusted, more trustworthy, and less susceptible to bias.
- Generates novel behaviors automatically with embedded learning algorithms through direct human instruction, reinforcement, and simulated self-play.
- Collaborates with operators, teammates, and other AI systems by using interactive models and natural modalities, including SoarTech's SpeechZero™ speech capability.

Proven Use Cases

- Role players for Live, Virtual, Constructive (LVC) simulations
- Pattern-of-life behaviors
- Unmanned platform autonomy
- Cyberattack and defense simulation
- Medical decision support

Let's Chat!

Capability Lead:

Brian Stensrud, Ph.D.

stensrud@soartech.com

www.SoarTech.com