

Proposed Track: Mission Readiness & Human Performance

Title: Altreides: A Multi-Node AI Ecosystem for Traditional Wargaming

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Modern operational environments evolve faster than traditional wargaming systems can adapt. Defense and agency personnel are increasingly required to evaluate complex, multi-domain scenarios at machine speed while maintaining the nuanced judgment necessary for high-consequence decision-making. Traditional wargaming requires compressed analysis, adversarial reasoning, scenario generation, and moderation remain dependent on player skillsets and experiences. Simultaneously, human cognitive ceilings limit adaptability, reduce transparency, and constrain the realism required to maintain a decisive edge.

Altreides addresses this challenge through a distributed multi-node AI ecosystem designed to support the layered cognitive structure of real-world situations including courses of action, decision making and situational responses, strategic planning, and resource allocation wargames. Rather than treating artificial intelligence as a singular decision authority, the system separates analytical, adversarial, developmental, and moderation functions into specialized nodes that collaborate dynamically alongside human operators.

This ecosystem is built on a modular architecture that ensures human-AI partnerships remain at the center, allowing for a more nuanced and expertise driven approach to wargaming than traditional human only gameplay. The ecosystem is structured around five distinct functional nodes that collaborate to create a dynamic simulation environment. The Ingestor manages data intake and normalization, ensuring that the simulation is grounded in relevant information. The Mentat acts as the primary analytical engine, focusing on human-centric insights and cognitive task analysis. The Moderator maintains the doctrinal and operational integrity of the simulation rules and flow, while the Developer builds out rapid scenario permutations in real time. The Adversary node is particularly critical in contested simulation environments, introducing adaptive opposition behaviors capable of evolving tactics, exploiting analytical blind spots, and pressuring human assumptions during iterative wargaming cycles.

By separating these functions into distinct nodes, Altreides allows for a scalable approach to simulation that can be adapted to various mission requirements. This structure moves wargaming from static, manual processes to a dynamic digital environment without losing the expert human nuance that is central to strategic success. The result is a simulation environment that provides leaders with the ability to test complex hypotheses at the speed of modern operations.

This presentation will detail the functional requirements and architectural framework of the Altreides ecosystem. It will also discuss how this multi-node approach enhances readiness by bridging the gap between machine-speed analytical generation and human strategic judgment in high-stakes tabletop wargaming.