Migrating to a Real-Time Distributed Parallel Simulator Architecture – An Update

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Background...

- GBADS Simulation Support Capability conceptualised in 1998 by CSIR, ARMSCOR and SANDF
  - Acquisition decision support
  - Tactical Doctrine development
  - Live integrations for field exercise support
Background...

• Simulator Architecture currently in its 3rd revision
  – Evolved along with the phased progression of the Acquisition Life Cycle.
Background

- Latest simulator architecture started in 2004 with the development phase of the acquisition life cycle.
Simulator Requirements

• Simulation of an air defence deployment:
  – A synthetic environment,
  – ground based weapon and sensor systems,
  – their related ground crew operators and
  – a threat scenario.

• Tactical doctrine development facilitated by real-time Operator In the Loop (OIL) support

• Requires 4 to 5 times parallelisation of execution for some of the bigger scenarios.

• Reuse of existing simulation components and models important for economical reasons.
M&S Framework...

Experimental Frame

Source System  Behavioural database

Modelling Relation

Model

Simulator

Simulation Relation

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