EuroSim Simulation Framework

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What is EuroSim?

- EuroSim is a simulator framework
- Runs on SGI IRIX, Linux, Windows NT/XP
- Real-time (hard, soft)

Application areas:
- Feasibility studies
- Test facilities
- Operations
Advantages of EuroSim

- Promotes reuse of simulation models
- Reduces software development effort
- Reduces overall cost of simulator development
- Proven and stable simulator platform
Simulation Through the Life-cycle

- EuroSim for all phases (A through E)
- Available on low-cost platforms up to high end multi-processor systems
- Portability of model software to all platforms
- Scalability from low-end to high-end
- Maximum flexibility
  - Hardware in the loop
  - Scheduling (soft real-time, hard real-time, accelerated, as-fast-as-possible)
  - Scripting (real-time domain and automation of runs)
Current users

- ERA Simulation Facility (phase C/D)
- ERA Mission Preparation and Training Equipment (phase E)
- ATV Test Facilities (phase C/D)
- Herschel-Planck (phase C/D)
- Concurrent Design Facility (pre-phase A)
- PTB (phase A/B)
EuroSim Release Program

Functionality


Mk 1
IRIX 5.3

Mk 2
IRIX 6.5
SMP compliance

Mk 3
Qt GUI
Windows NT/XP

Mk 4
Simulator Development Environment
EuroSim Features

- Client/Server architecture
- Automatic simulation model parsing
- Flexible scheduling
- Simulation Controller and Mission Definition Language
- Integrated Configuration Control
- External Interfaces
- Batch Utility
- Plot Utility
Mk3 New Features

- Qt GUI
- Windows NT/XP
- Improved Simulation Controller
- Linux hard real-time capabilities
- Simulation Model Portability (SMP) support
- Integrated API editor
- Improved project manager
Schedule Editor
3D Graphics
Upcoming Releases

- **Mk3.1**  Q2 2003
  - Windows NT/XP support
  - COM interface
  - Linux hard real-time support (incl. device drivers)
  - Enhanced SMP support (C++ models)
  - Low-cost 3D Image Generation System

- **Mk4**  Q3/4 2003
  - Simulator Development Environment (SDE)
EuroSim on PC hardware

- Low cost hardware

- Linux
  - Zero cost operating system
  - Real-time capabilities
  - Open source allows customization

- Windows NT/XP
  - Familiar operating system
  - Integration with Microsoft tools through COM
Conclusion

- EuroSim covers all simulation needs
- Developing your simulator with EuroSim offers maximum flexibility and protects your investment in model software
- EuroSim is a proven and robust platform
- EuroSim is continuously enhanced to cover the needs of existing and new users