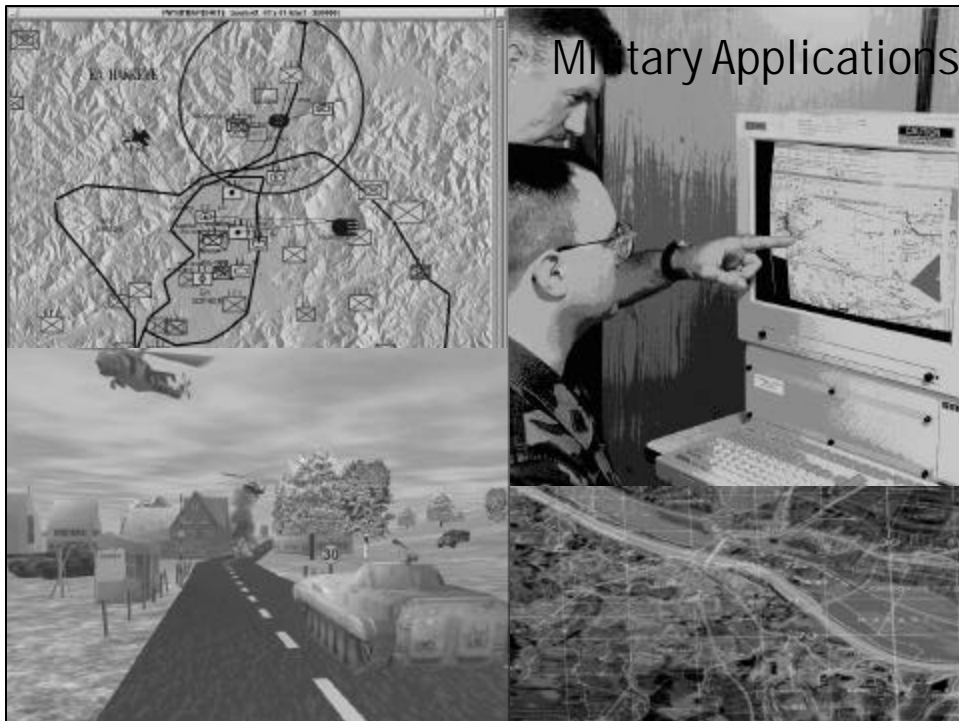
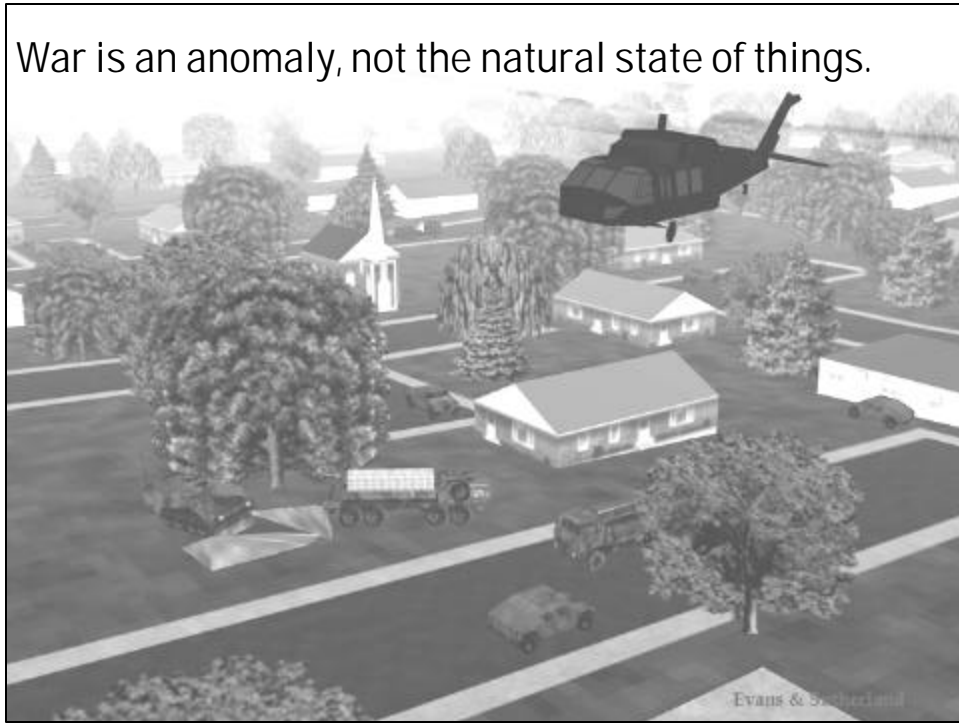


# Distributed Simulation Beyond the Military

Roger Smith  
*Chief Software Architect, BTG Inc.*  
**(407) 977-3310**  
**[smithr@modelbenders.com](mailto:smithr@modelbenders.com)**

Is Real-time Distributed Simulation <sup>Just</sup> a Weapon?

War is an anomaly, not the natural state of things.



## Spears into Plowshares

BTG Inc.

- **Split the Atom -> Nuclear Power**
- **Chemical Revolution -> New Medicines**
- **Gunpowder -> Construction**
- **Kevlar -> Oil Exploration Equipment**
- **Cryptography -> Internet Commerce and EDI**
- **Real-time Distributed Simulation -> ???**

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## Real-time distributed Simulation can do more...

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- **Wargames - Training in alternatives to killing**
- **Medicine - Chemical interactions**
- **Poverty - Distributed Jobs**
- **Hunger - Transport Food, Reduce Waste, Predict Weather**
- **Commerce - Accelerate Velocity of Money**
- **Education - Teach Everyone (Pub/Sub in Chat)**
- **Economy - Sustain Growth, Avoid Collapse**
- **Communications - Share Info, Predict Needs (Hurricane)**
- **Environment - Weather, Earthquakes, Hurricanes**
- **Public Safety -Traffic, Disease**
- **Entertainment - Beyond shooting games**

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## The Big Step

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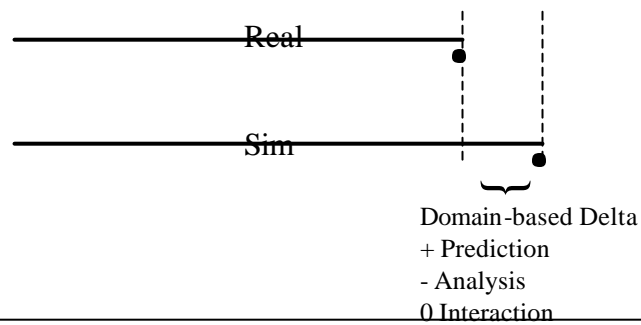
- **Uni-processor, Stand-alone, One-lab, One-operator**
- **LAN, Internet, Distributed, Global-lab, Multiple Operators**
  
- **Who is going to use this?**
- **Why would they care about DIS/DES?**
- **Do they have money to pay for it?**
- **How do we get their attention?**
- **Are we interested in their problems?**

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## What Can We Do In Real time?

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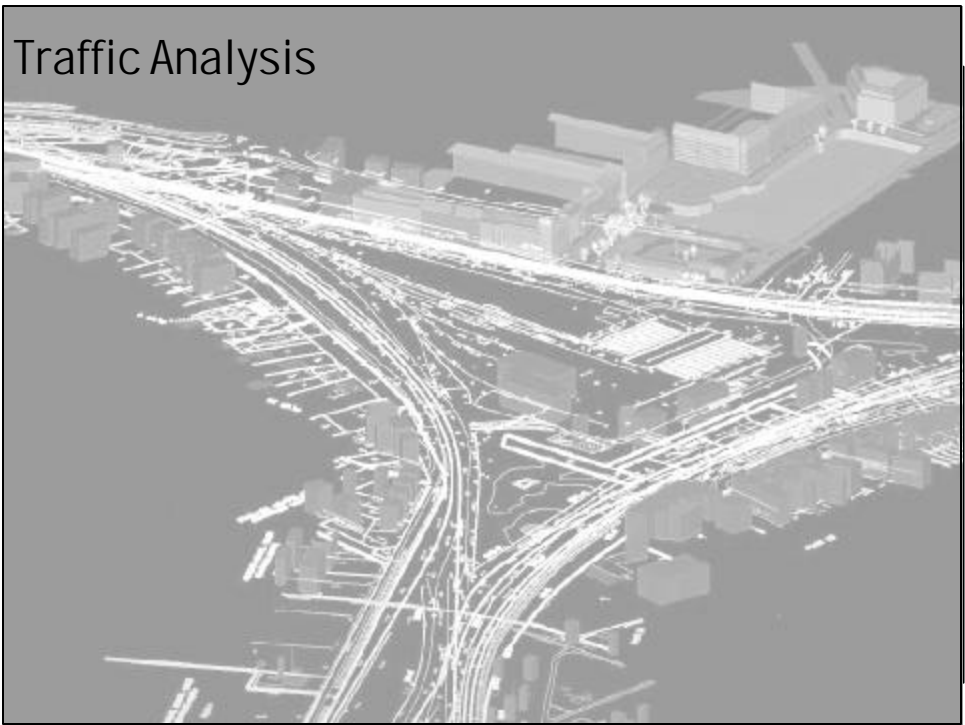
- **Analyze the Past**
- **Predict the Future**
- **Interact with the Present**
- **Monitor the Present and Build Models**



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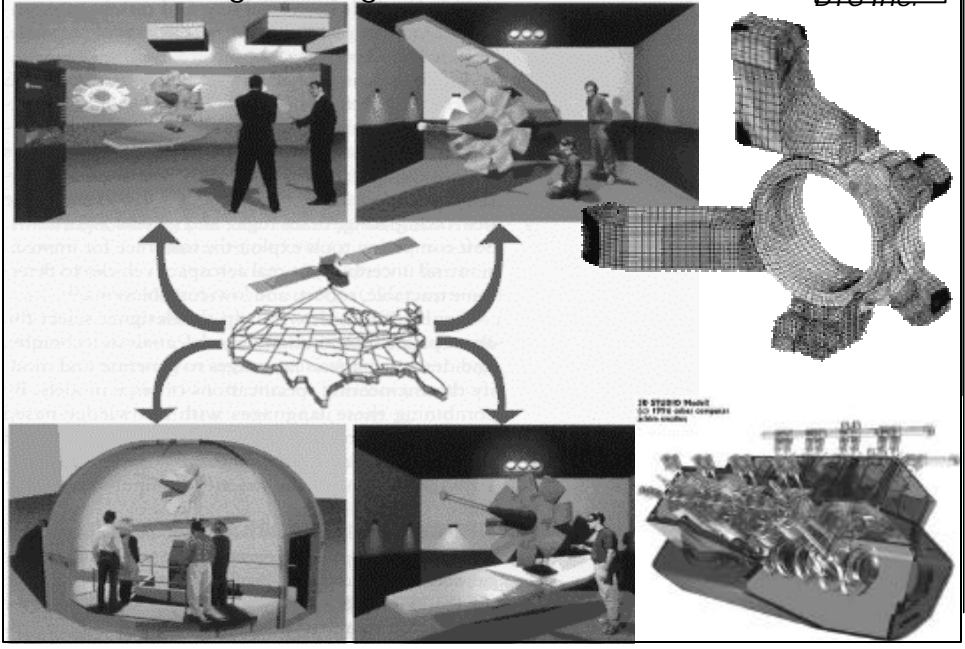
# Analysis

## Traffic Analysis



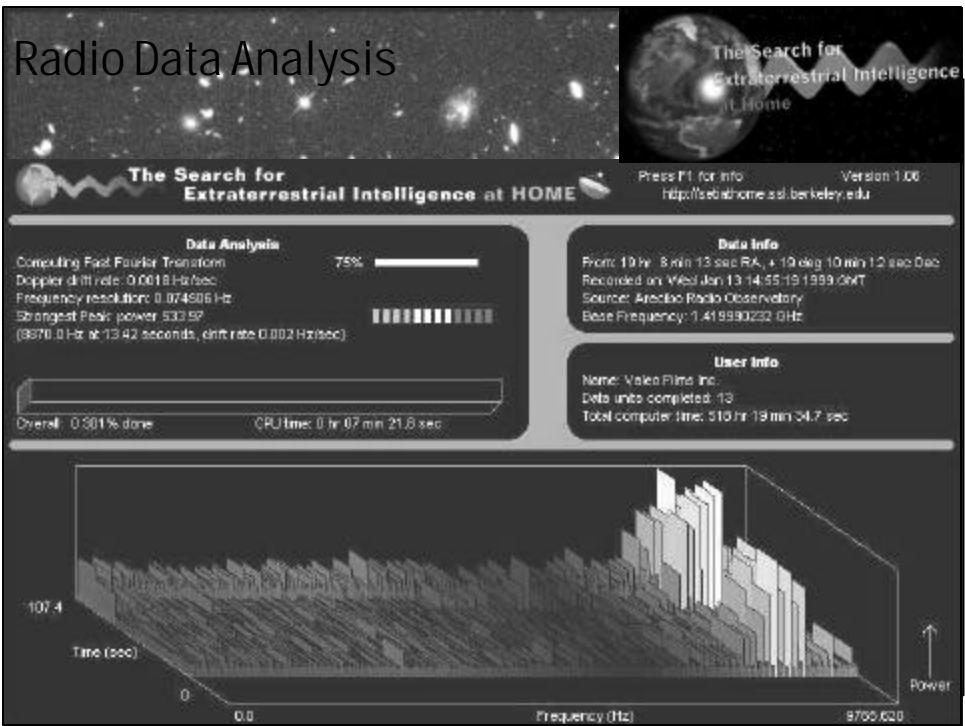
# Distributed Engineering

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# Air Traffic Control



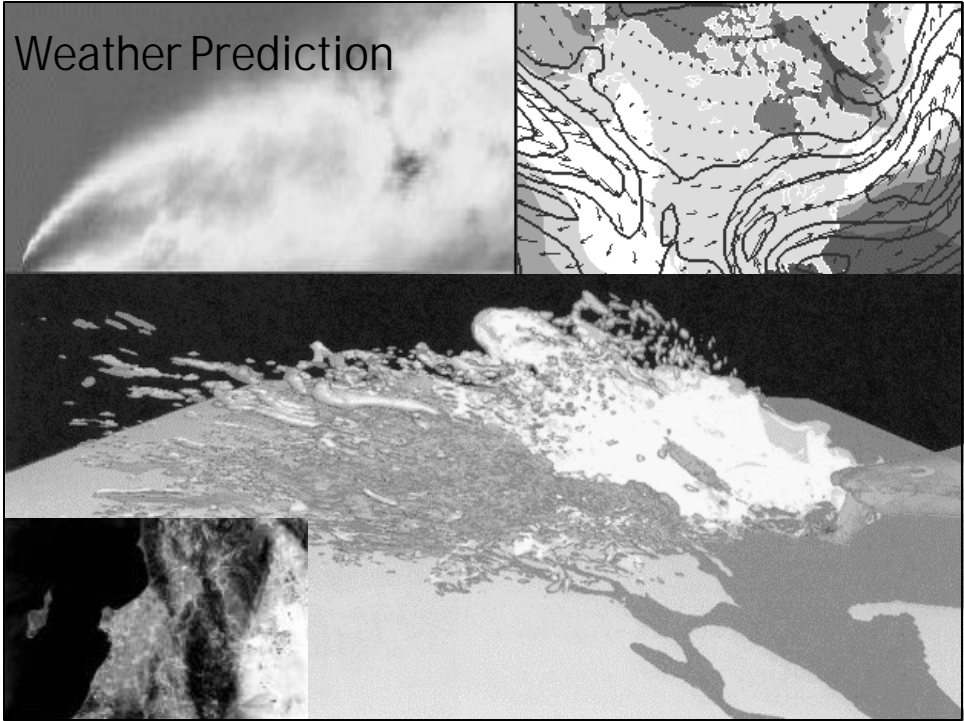


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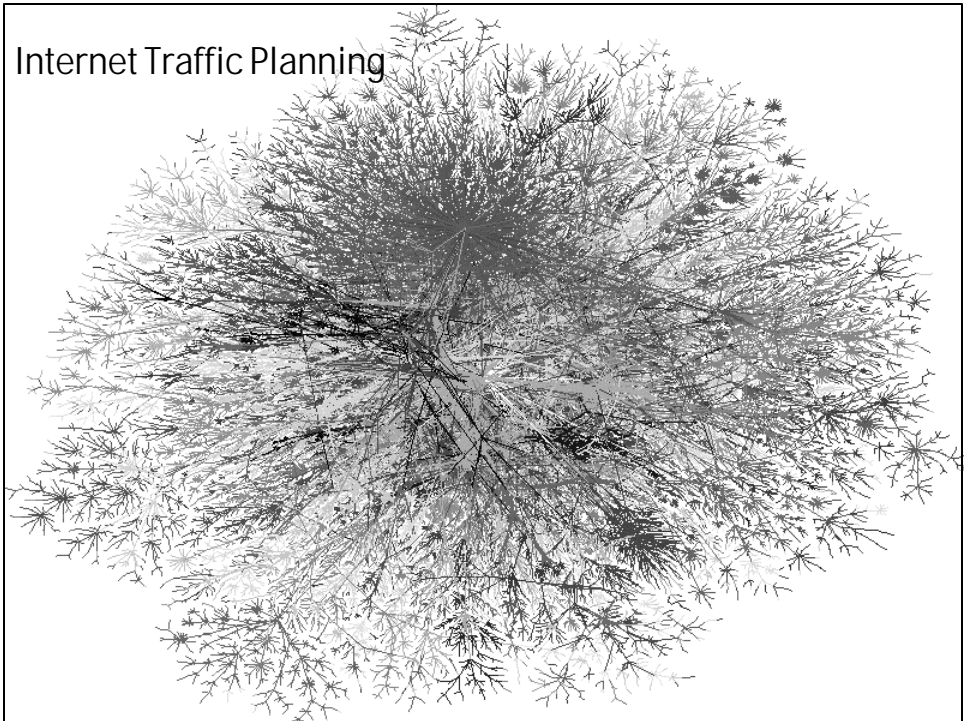
Prediction

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Weather Prediction



Internet Traffic Planning





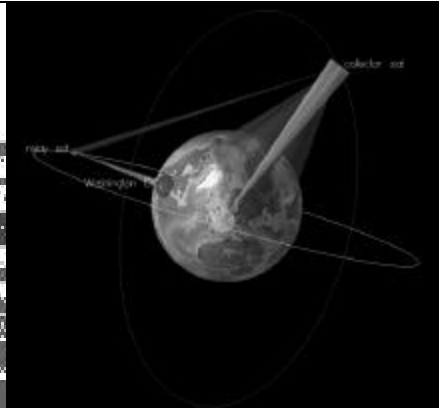
# Stock Market Prediction



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## Interaction

## Real-time Control



## Movie Production Pipelining

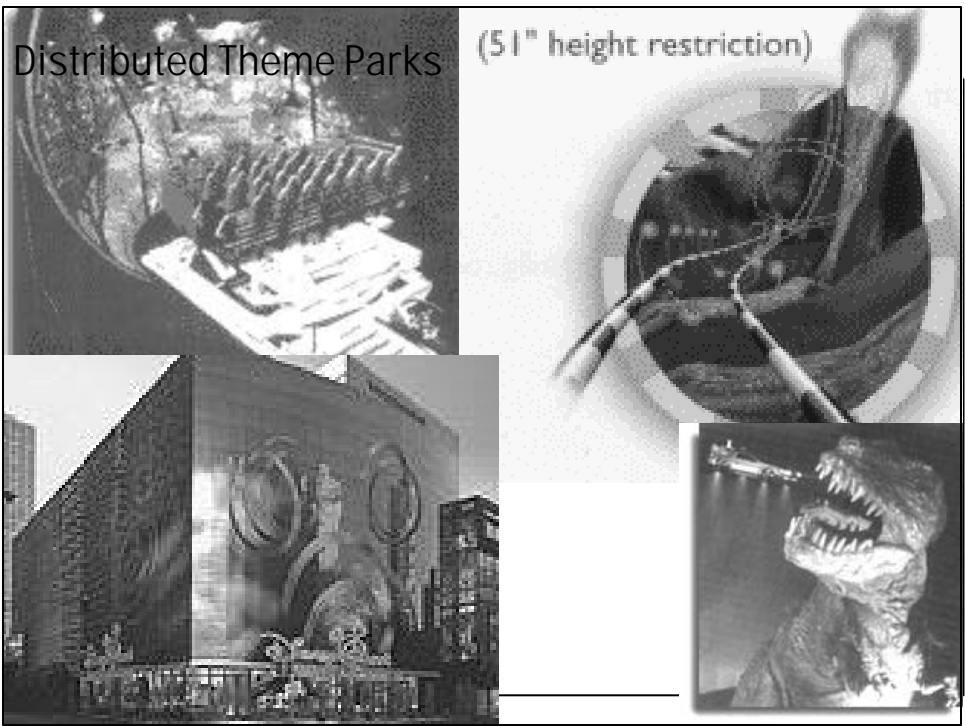
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Trying to protect Eema, a slow-moving styrachosaur, from water is Aladar. Eema, voiced by Della Reese, is one of the engines created by the effects team

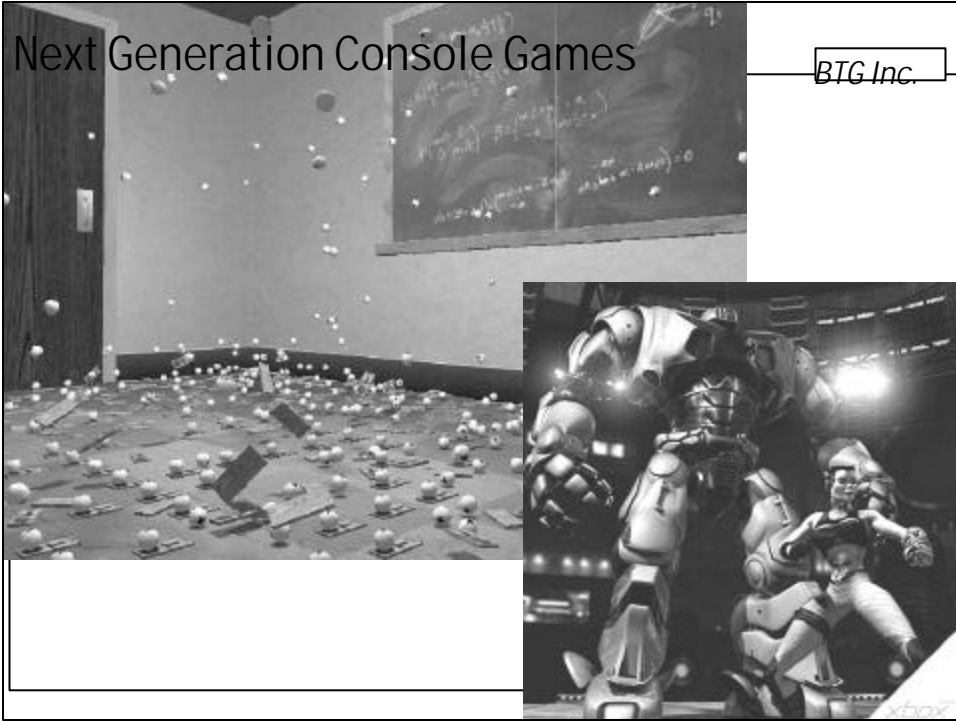


For this scene, the effects crew shot a physical model breaking the shale, then replaced it with Bayle's CG look, and added some CG sand and Zeni the lemur.



## Next Generation Console Games

BTG Inc.



## Massively Multiplayer Gaming



# Distributed Real-time Holodeck

