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## Interface between awardees and NEESgrid

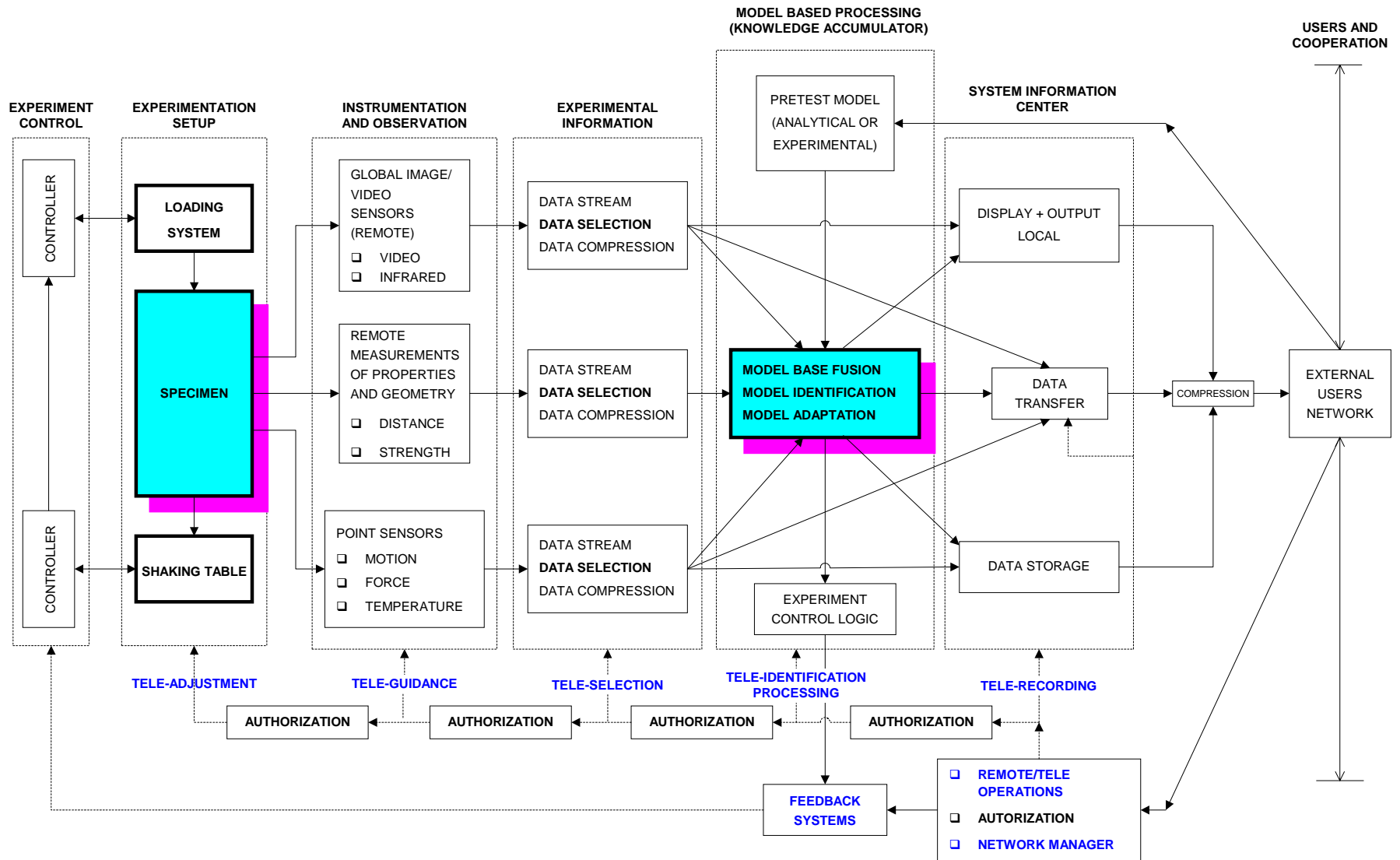
- Software
- Hardware
- People

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# System Integration/Host Site Interface

- Bruce Kutter (chair)
- Bozidar Stojadinovic (scribe)
- Gokhan Pekcan
- Andrei Reinhorn
- Tom Prudhomme
- Carl Kesselman
- Tarek Abdoun
- Ahmed Elgamal
- Steve Goldstein

# Andrei's World Buffalo Example



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## Some preliminary thoughts and perspectives

IT perspective: sharp border between host and grid -- transmission of data is independent of format and compression. NEESgrid is a pipe. Host facility is a black box.

*Host perspective: NEESgrid should provide a nice user interface to pipe. Grid is a black box.*

*Why would I want to use NEES grid?*

NEESgrid will provide methods of transport and translation among applications on the grid

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## Interface between awardees and NEESgrid

- Software
  - Data protocols
  - Visualization tools
  - Teleparticipation tools
  - Interface to computing platform
    - e.g., OpenSEES, IDARC
  - Remote control
  - Authorization

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## Data protocols

- Awardees council will provide examples of reasonably well-documented data and metadata to NEESgrid.
- NEESgrid will pick pilots
- NEESgrid will study the examples, and present a proposal to the community
- NEESgrid will develop NML (NEES Markup Language) that will allow data to be understood at a remote site -- without direct communication between local and remote researchers.
- NEESML Beta version 1.0 will be released to a few NEES users X months after SI award.

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## Visualization tools

- Awardees will provide examples of useful visualizations
- NEESgrid will allow for sharing of user generated vis. tools. NEESgrid will attempt to develop tools that produce similar results conveniently from NEESML data.
- NEESgrid will provide tools to overlay visualizations of experimental and computational simulations.

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## Interface between awardees and NEESgrid

- Hardware
  - Network Quality of Service
    - no guarantees
  - Hardware directory (NEES explorer)
    - Controllers need IP addresses and CEDS (Controller Electronic Data sheets)
    - Sensors (TEDS)
  - NEESpop at host facilities
  - Data acquisition network architecture
    - advice: Network hardware at host facilities

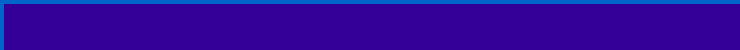


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## NEESpop plan at host facilities

- This will consist of one or two high-end PC's running Linux at each host facility. Specs for NEESpop will be an open standard to allow new facilities to join.
- The SI will have remote access to maintain software and monitor performance of the NEESpops.
- The awardee is responsible to purchase and install these machines and to connect gigabit ethernet data streams to the NEESpop

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