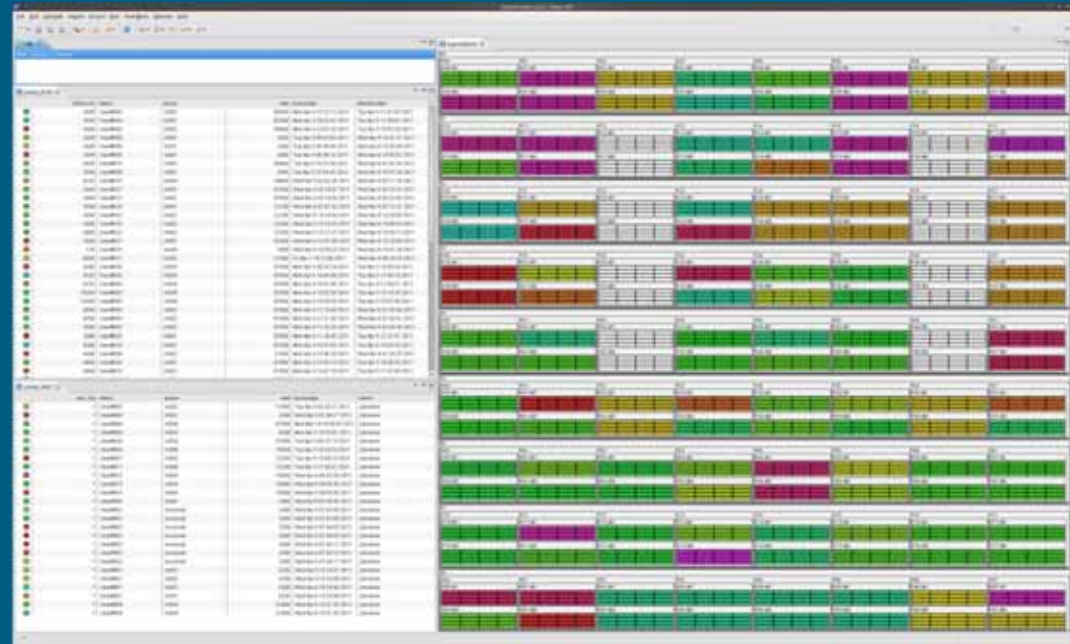


PTP Remote System Usage Monitoring

Overview, Data Flow, LML,
State and Future Plans

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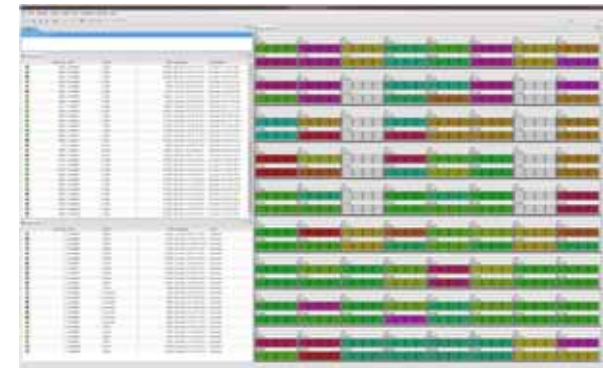
November 2011, SC11 Seattle

W.Frings@fz-juelich.de

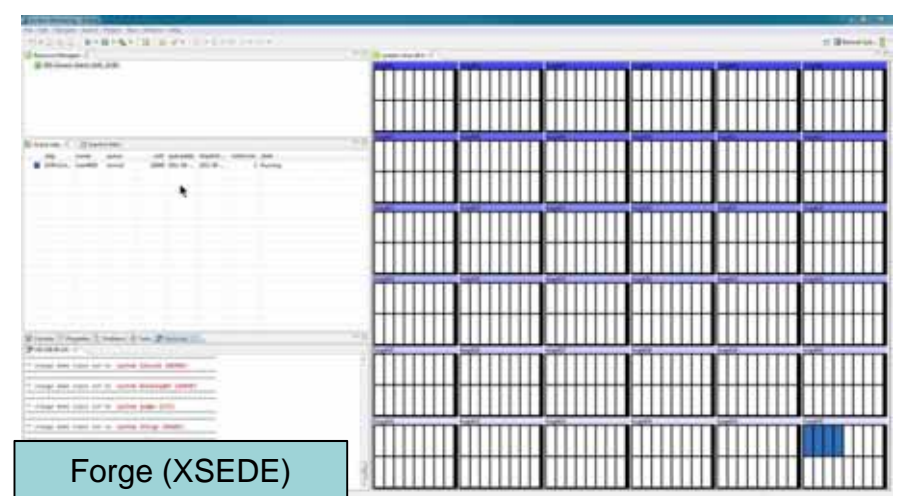
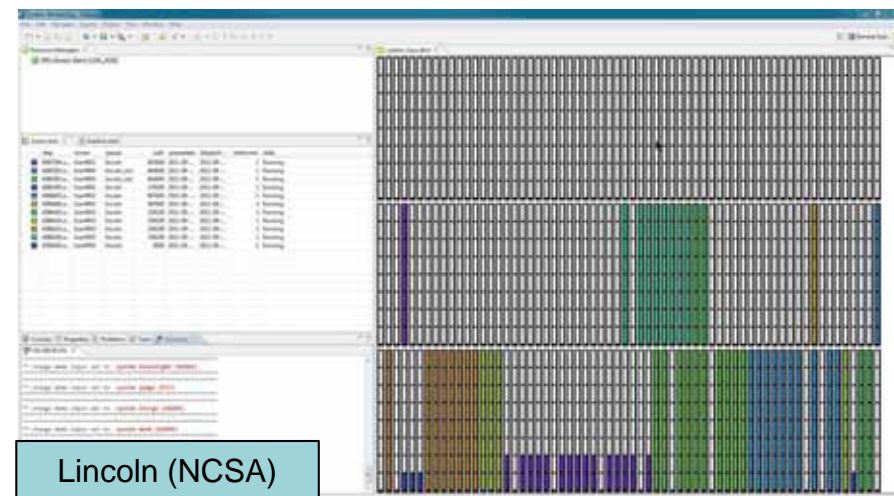
Overview and Status

New feature of PTP: Remote System Usage **Monitoring**

- Separate View showing remote batch system status
 - What's going on remote system?
 - Where are my jobs running?
 - Physical or logical view of remote system
 - Color coded job-to-nodes mapping
- Part of PTP (Indigo, June 2011)
- Data access: LML_da
 - Running on remote system login node
 - Automatic deployed and triggered by PTP via resource manager
 - Supporting different batch systems
 - Current: PBS, Torque, LL
 - In Progress: SGE, LL on Blue Gene, PBS on Cray XT, Slurm

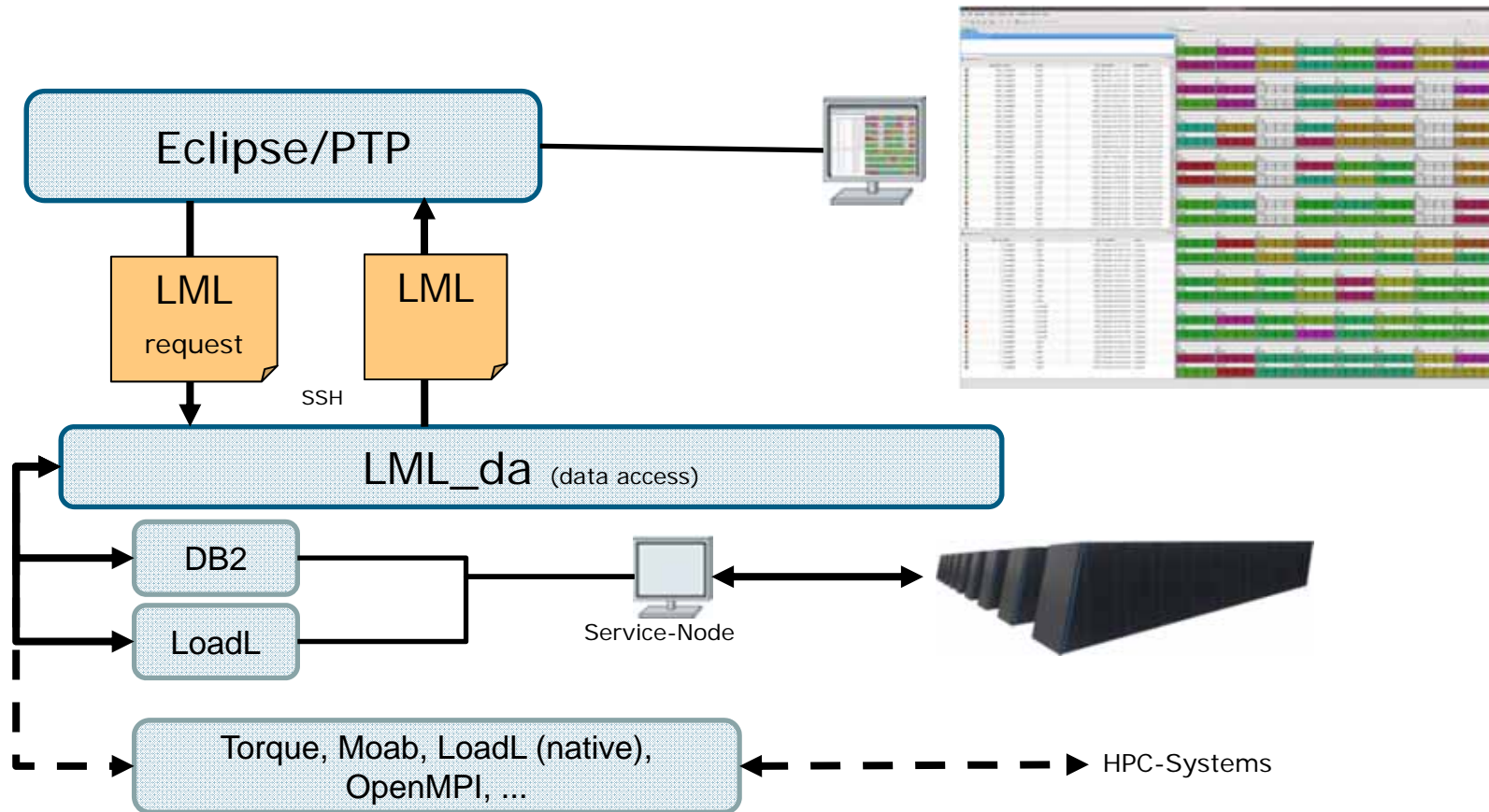


Example Layouts

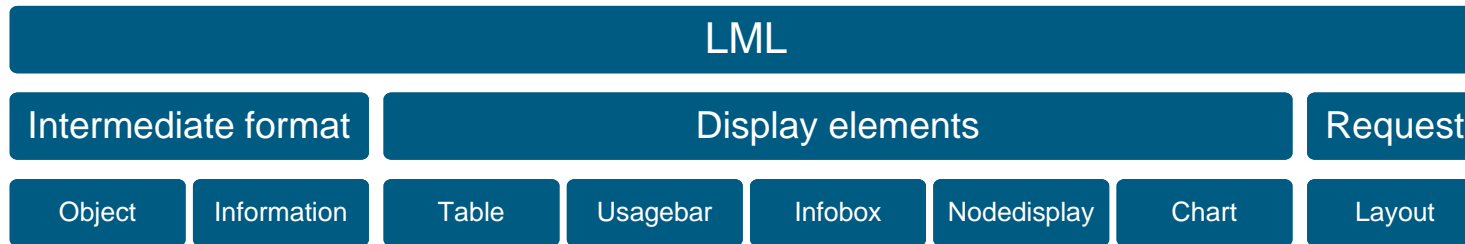


Demo: SC11, JSC Booth (#535)

Components and Data Flow

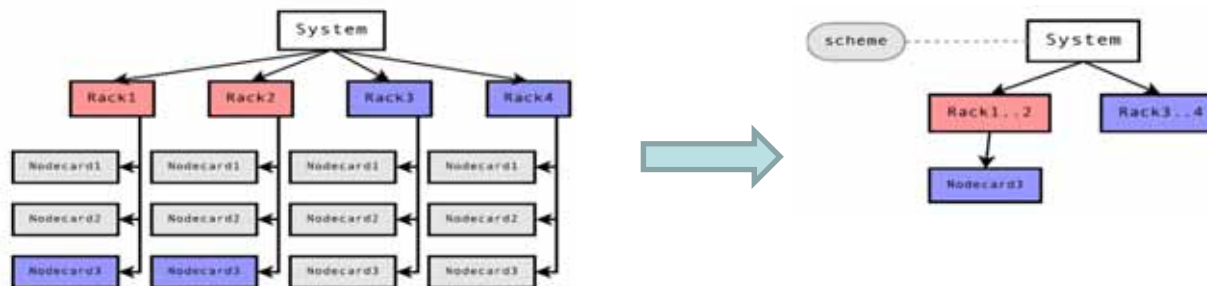


LML: Large-scale system Markup Language



Nodedisplay

- Physical (or logical) representation remote system
- Hierarchical tree based deescription
- System is typically build by rows, racks, nodes, cpu and cores
- Mapping of hardware component to job using it
- Other attribute and mapping are possible
- Redundancy-free data organization (tree collapsing):



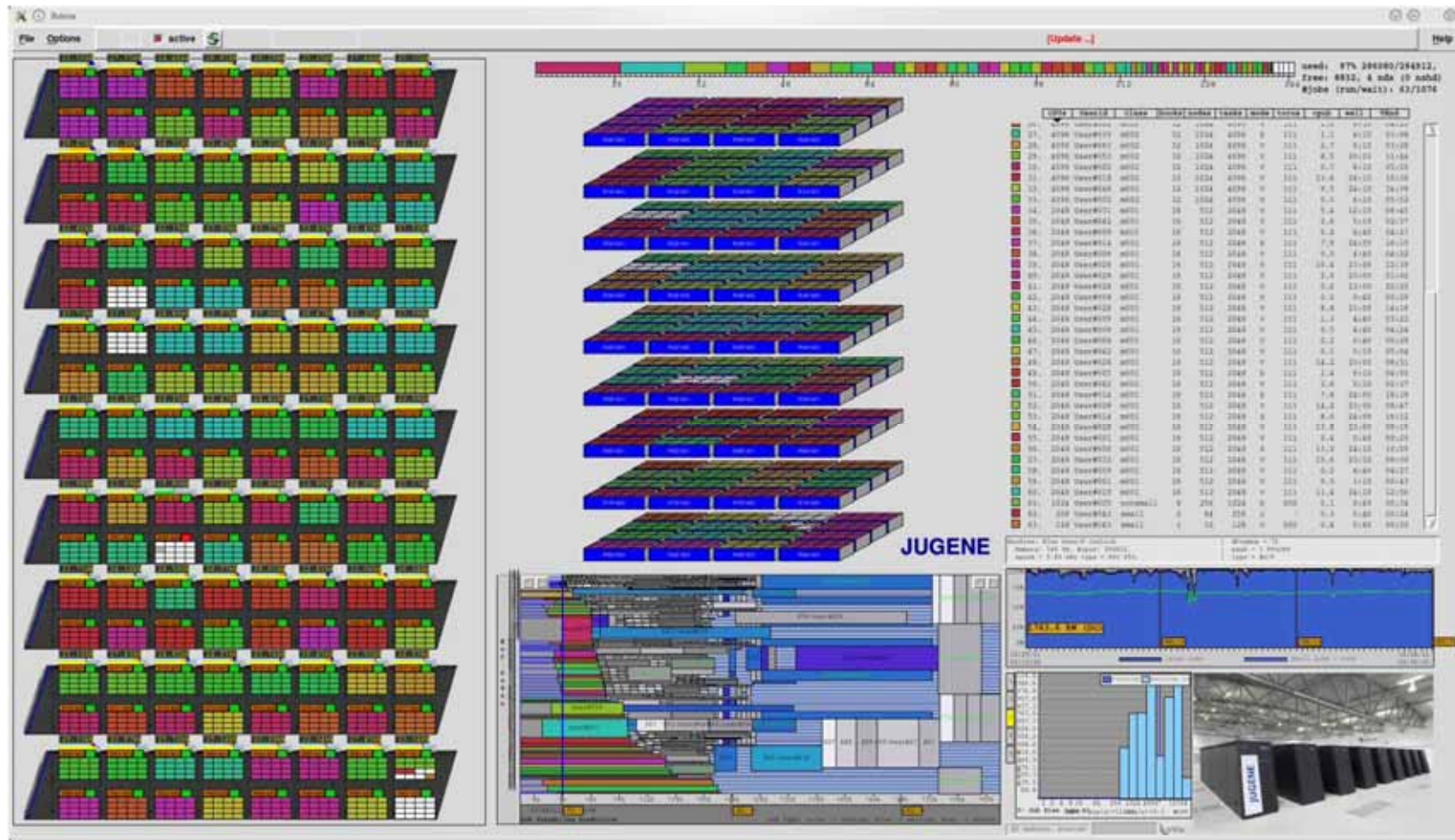
Next Steps

- Client
 - Filtering table data (local and remote)
 - Images in node display
 - Support for diagrams

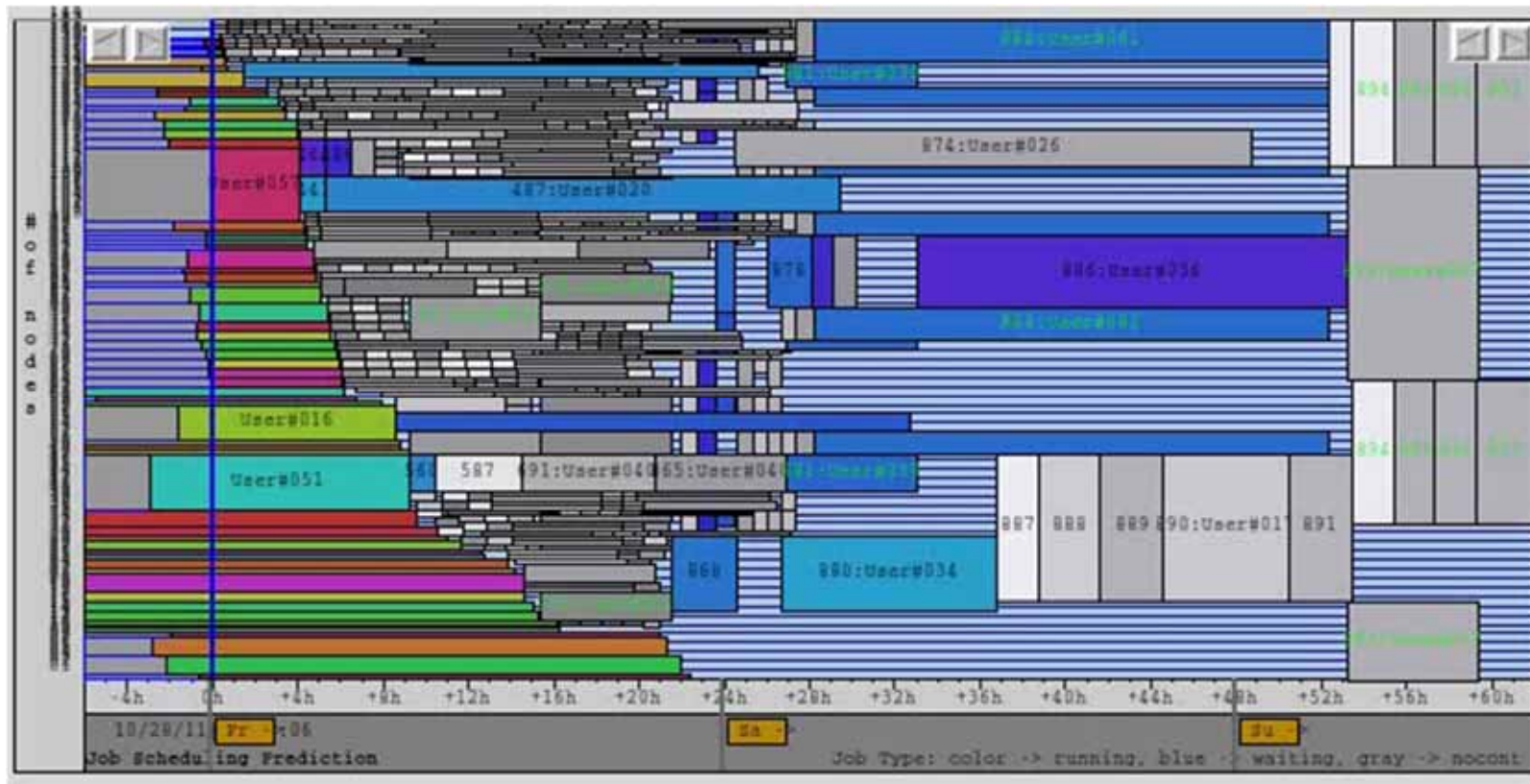
- Remote system
 - Provide LML_da adapters for more RMS types
 - *Automatic detection of available adapter*
 - *Automatic detection of RMS*
 - Client side configurable RMS adapter
 - *LML_da workflow and scripts could be stored in XML resource manager config file*

- New Functionality
 - Display prediction of system usage (see next slides)

Sample: Iview client, JUGENE



Example: Prediction



„One Day on JUGENE“