

ATLAS SOFTWARE AND GRID

Frederick Luehring
August 23, 2005

- IU Personnel Working on Software
- ATLAS SW and IU Work
- GRID Work

IU SW and Grid Work Areas

- IU has been working in four SW / Grid areas:
 1. Simulation/Reconstruction/Analysis SW for Atlas
 2. Core Atlas SW
 3. Grid Operations
 4. Tier 2 Center Operation
- Funding Sources:
 - NSF iVDGL for Grid Operations \$232K
 - NSF Midwest Tier 2 (MWT2) funding \$300K
 - US ATLAS Project BNL for Athena usability \$136K
 - IU Funding for OSG Support position \$83K
 - IU iVDGL match ~1.5 FTE
 - IU MWT2 match 2/3 FTE

Offline / Core ATLAS SW Personnel

- Dieter Best, Research Associate US ATLAS
 - Funding supplied by Srinu Rajagopalan (BNL)
 - Working on making Atlas software user friendly, especially in a distributed/grid environment.
- Pauline Gagnon, Sr. Research Scientist IU
 - Working on invisible Higgs
- Siva Subramania, Post Doc DOE
 - Started May 1
 - Working with Pauline on invisible Higgs
 - Working on analysis and cosmic rays (see Harold's talk)
- Thom Sulanke, System Administration IU
 - Supported entirely by university funds.
 - Shared with task D and E also.

Grid Personnel (Operations)

- Doug Pearson, Sr. Manager IU NOC UITS
 - iVDGL contact at UITS (also OSG)
 - Senior Manager of IU NOC (includes Abilene NOC)
- Leigh Grundhoefer, Sr. Grid Technologist iVDGL/UITS
 - Leads iVDGL Operations Group (full time)
- John Rosheck, Unix Server Administrator UITS
 - Administers server computers required by grid ops (full time)
- Rob Quick, Jr. Grid Technologist/Operator iVDGL
 - Central contact for OSG GOC and iGOC (full time)
- Thomas Wang, Operator UITS
 - Central contact for OSG GOC and iGOC (part time)
- Kyle Gross, Web Developer iVDGL
 - Half time position working on iVDGL/OSG web pages.
- New hire, Grid Technologist UITS
 - Will work on technical aspects of Grid Operations for OSG

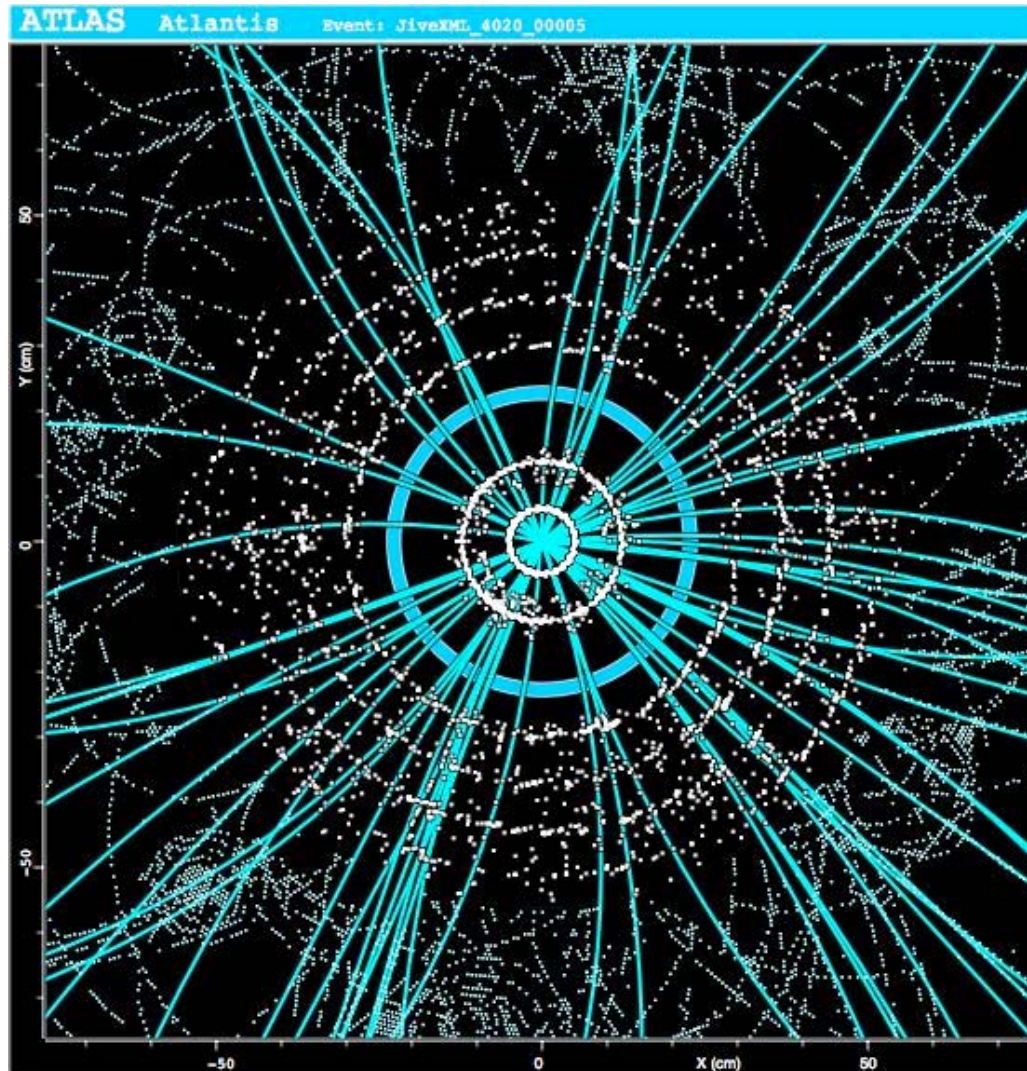
Grid Personnel (Tier 2)

- Matt Allen, System Administrator UITS
 - Maintains Grid middleware on AVIDD cluster used for Tier 2
 - Works half time on project
- New hire, Principal Systems Analyst, NSF
 - First IU hire for MWT2
 - Will focus on database issues
 - Will lead technical effort on IU component of MWT2
- New hire, Systems Analyst Programmer, NSF
 - Will focus on system administration

Simulation and Core SW Work

- My work is mainly coordination and not coding
 - Coordinated the TRT & Inner Detector Software Effort
 - Managed the Inner Detector SW repository (librarian)
 - Assisted coordination of the Inner Detector SW
 - Chairing the ATLAS Software Infrastructure Team (SIT)
 - Lead SIT through internal review earlier this year
 - Trying to fill effort shortfall for infrastructure work
 - Trying to improve user support

Event found with new reconstruction



August 23, 2005

ATLAS Software and GRID Work

F.Luehring - Page 7

Simulation & Core SW Plans

- Continued work on the Data Challenges
 - DC3 is now called Service Challenge 3 (SC3)
 - Coordination of TRT and Inner Detector Software
- Work with Pauline, Siva, Faculty, and Graduate Students on analysis
- Work with Dieter on improving ATLAS framework (Athena) usability

GRID Work Last Year at IU

- Prototype Tier 2 Center operation
 - Participation in Grid3 / Super Computing 2004, Atlas DC2 & Rome data productions
 - Fully converted from Grid3 to OSG Grid middleware
- Successful proposal for Midwest Tier 2 center
 - Partnership with University of Chicago
 - IU equipment will share space with IU D0 equipment
- Grid operations work
 - Handled hundred trouble tickets for ATLAS, IVDGL, & OSG
 - IU is responsible for much of the OSG installation testing, instructions, debugging, and web pages
 - IU also runs a number of servers needed by Grid3 and OSG.
 - Worked also on grid authentication and interoperability

Open Science Grid

- We have taken a leading role in the Open Science Grid (OSG)
 - We played a big part in the successful launch of the OSG
 - We have submitted two OSG pre-proposals:
 1. One for doing production operations for OSG
 2. One for developing of new operation services needed by OSG
 - There is some urgency in establishing a new funding source because the iVDGL funding runs out in August of 2006.
 - iVDGL may be extended because it's an "established brand".
 - Clearly some of the OSG work is an expansion of scope into production grid operation beyond the prototype, research environment of iVDGL. This may require a new funding source.
 - The US is now essentially committed to using the OSG to analyze ATLAS and CMS data