

Work Flow Notes - 6/9/04, GGF11 - Work Flow RG

WorkFlow RG e-mail subscriptions at wfm-rg@ggf.org

All presentations will be on-line (www.isi.edu/~deelman/wfm-rg)

Presentations:

Workflow Scripting Language Cadence Systems darrenp@cadence.com
Mixed Job Parallelism, allows parallel/serialjobs to run
including job dependencies.
Job Parameters and Variables
Scripting users are independant of the underlying workflow
engine e.g LSF

Parameterized Lists
Additional work flow constructs e.g Unix pipes
Steve Mock - SDSC, Workflow Description & Architecture -
Informnet
Collaboration with Quantum Chemistry group
Long running apps.
Late binding to computational resoures
Uses XMLWorkflow Description Language for GT3
Creates a DAG consisting of Nodes and Edges - similar to

Pegasus/Chimera
Uses Grid Service Engine
Futures: conditionalbranching, use of JSDDL, brokering
policies, Ptolemy/Vergil Integration, GT4
<http://chemport.sdsc.edu/informnet>
Focus on compute intensive

Luc Moreau Univ. of Southampton Iterators in the Virtual Data
Language
Based on VDL
VD describes analysis workflow
Griphyn has 100,000 nodes in the astro physics domain
VDL currently does not have iterators over data sets.
Looked at Quarknet (particle physics), SDSS DR2
Uses XML Schema to define content and semantics of Data

Sets.
DR2 at <http://das.sdss.org/DR2/data>
Can use Xpath as query language
VDC catalog contains data provenance (how they were
derived)

Separates abstract data type from physical representation
Yolanda Gil USC Interactive composition of scientific workflows
Collaboration with Carl Kasselmann
Workflow creation for Earthquake analysis and modeling.
User Guided Creation of workflows.
Creation of workflow templates, instantiated workflow,
executable workflow
Knowledge based descriptions of components (ontologies of
components and domains), AI techniques
Used in conjunction with MCS.
Plan to integrat with Pegasus.
www.isi.edu/ikcap/cognitive-grids
www.isi.edu/ikcap/cat - online demo

Discussion:

Focus of presentations

Focus on one topic
Are topics appropriate

Business and Science Workflows
For GGF 12 - volunteers for presentations
Science may be better (?), darren will talk about Business
workflow
Lack of knowledge about Business
What is Business workflow (?) in commercial environm
We are talking about engineering processes.
Should not limit, but need to clarify
Look for Workflow Use cases.
GGF 13 in Seoul -
Workshop on workflows at GGF 14 - EastCoast of US
Any documents coming out of this RG
Workflow Spec languages and tools (include presentations
and seeks volunteers)
Compilation of concepts - consider for a document
(glossary) - already have a taxonomy
Requirements document consisting of contents for a possible
specification e.g iterators.
Existing papers in journals - consider looking at these
existing documents.
Instead of focussing on specifics, look at surveys of workflows
in Business community - send in to mailing lists.
Synopsis of individual presentations - what was new and important
Existing web page of workflow tools - Alex will send to e-
maillist. List can be added to by members.
GGF 12 - Tutorial might be good to have (from Tutorial committee
member)
multiplicity of systems may prevent this.