

Grid Training for Power Users Institute of Physics Belgrade

Hands on Session: DAG Job Submission

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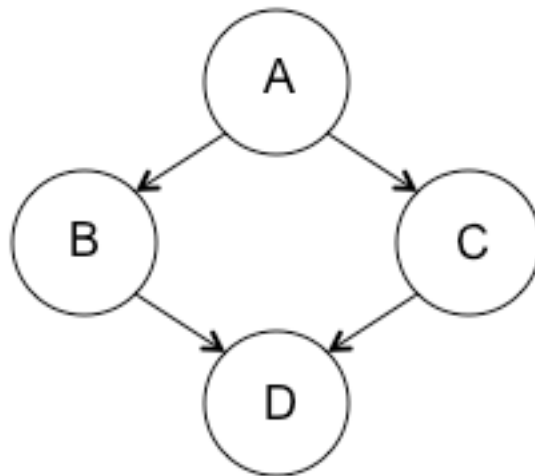
Serbia



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- DAG job workflow
- JDL of a DAG job
- Hands On example
- Links


- Direct Acyclic Graph (DAG) is a set of jobs where the input, output, or execution of one or more jobs depends on one or more other jobs
- Sharing and inheritance of sandboxes
 - Include OutputSandbox in the next InputSandbox
- Dependencies defined between pairs of jobs



```
[
Type = "dag";
InputSandbox = {"job.sh", "job2.sh"};

Nodes = [
nodeA = [
  Description = [
    JobType = "Normal";
    Executable = "job.sh";
    Arguments = "A";
    StdOutput = "std.out";
    StdError = "std.err";
    InputSandbox = {root.InputSandbox[0]};
    OutputSandbox = {"std.out", "std.err"};
  ];
];

nodeB = [
  Description = [
    JobType = "Normal";
    Executable = "job2.sh";
    Arguments = "B";
    StdOutput = "std.out";
    StdError = "std.err";
    InputSandbox = {root.InputSandbox[1]};
    OutputSandbox = {"std.out", "std.err"};
  ];
];
];
```



```
nodeC = [
  Description = [
    JobType = "Normal";
    Executable = "job3.sh";
    Arguments = "C";
    StdOutput = "std.out";
    StdError = "std.err";
    InputSandbox = {"job3.sh"};
    OutputSandbox = {"std.out", "std.err"};
  ];
];

nodeD = [
  Description = [
    JobType = "Normal";
    Executable = "job.sh";
    Arguments = "D";
    StdOutput = "std.out";
    StdError = "std.err";
    InputSandbox = {root.InputSandbox[0]};
    OutputSandbox = {"std.out", "std.err"};
  ];
];

Dependencies = {
  {nodeA,nodeB},{nodeA,nodeC}, {{nodeB,nodeC},nodeD}
};
];
```

- Navigate to the following address:
 - http://wiki.ipb.ac.rs/index.php/Grid_examples
- Choose DAG job example and follow the instructions for submitting a DAG job

- gLite user guide:
 - <https://edms.cern.ch/file/722398//gLite-3-UserGuide.pdf>