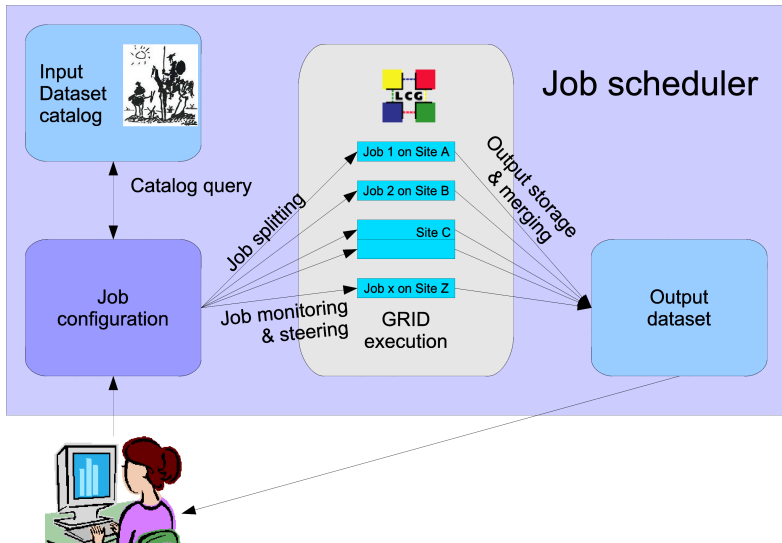# Small Scale Production Tools
Simplifying Private Productions

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18. April 2007

Workflow with GANGA

Monte-Carlo simulation

Small-Scale Production of 50000 additional Monte-Carlo events using the official ATLAS package:

► Event generation - 5 jobs

Monte-Carlo simulation

Small-Scale Production of 50000 additional Monte-Carlo events using the official ATLAS package:

- ▶ Event generation - 5 jobs
- ▶ GEANT4 Simulation - 1000 jobs

Monte-Carlo simulation

Small-Scale Production of 50000 additional Monte-Carlo events
using the official ATLAS package:

- ▶ Event generation - 5 jobs
- ▶ GEANT4 Simulation - 1000 jobs
- ▶ Event Reconstruction - 50 jobs

The starting point
Small Production Tools
Live Demonstration

Introducing Small Production Tools for GANGA
Goals
Statistics

Introducing Small Production Tools for GANGA

Producing a sample of 50000 events of the Higgs-WW process
(official request number 6315):

- $p = $ MCProduction(name="myproduction",
  processnumber=6315, numberevents=50000)

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Producing a sample of 50000 events of the Higgs-WW process
(official request number 6315):

▶ p = MCProduction(name="myproduction",
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▶ p.submit()

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Producing a sample of 50000 events of the Higgs-WW process
(official request number 6315):

- $p = $ MCProduction(name="myproduction",
  processnumber=6315, numberevents=50000)
- p.submit()
- productions.start()

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Goals of development

► Allow simple, hands-off managing of a small production
  - The system should handle resubmission in cases of site,
  stagein or stageout failures

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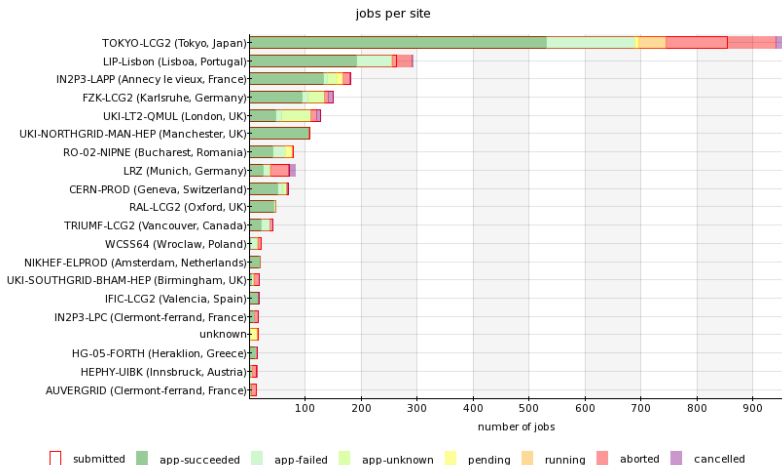Introducing Small Production Tools for GANGA
Goals
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Goals of development

▶ Allow simple, hands-off managing of a small production
  - The system should handle resubmission in cases of site,
  stagein or stageout failures

▶ Stay extendable for programmers, so that it can eventually
  also be used for other tasks

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Statistics on jobs submitted with SPTools (11.April-11.June)

The starting point
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Introducing Small Production Tools for GANGA
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Statistics on jobs submitted with SPTools (11.April-11.June)

site	Sub↑	Unk	Pend	Run	Term	Done	Canc	Abort	Unk	Grid%	Succ	Fail	Unk	App%	D/S	Overall%
			current status			grid exit status					application exit status			overall		
TOKYO-LCG2 (Tokyo, Japan)	854	0	7	49	798	571	16	197	14	74.35	532	157	109	77.21	509	63.78
LIP-Lisbon (Lisboa, Portugal)	264	0	0	3	261	99	2	34	126	74.44	192	62	7	75.59	83	31.8
IN2P3-LAPP (Annecy le vieux, France)	181	0	10	0	171	146	1	13	11	91.82	133	7	31	95	121	70.76
FZK-LCG2 (Karlsruhe, Germany)	151	0	0	0	151	127	9	8	7	94.07	95	11	45	89.62	88	58.28
UKI-LT2-QMUL (London, UK)	128	0	0	0	128	111	7	10	0	91.74	47	11	70	81.03	47	36.72
UKI-NORTHGRID-MAN-HEP (Manchester, UK)	108	0	0	0	108	105	0	1	2	99.06	107	0	1	100	105	97.22
RO-02-NIPNE (Bucharest, Romania)	79	0	13	0	66	42	0	1	23	97.67	42	23	1	64.62	20	30.3
LRZ (Munich, Germany)	73	0	0	1	72	26	12	31	3	45.61	25	13	34	65.79	21	29.17
CERN-PROD (Geneva, Switzerland)	71	0	0	0	71	55	2	1	13	98.21	51	0	11	85	45	63.38
total	2489	0	44	86	2359	1584	67	413	295	79.32	1495	446	418	77.02	1245	52.78

Keeping the overview