



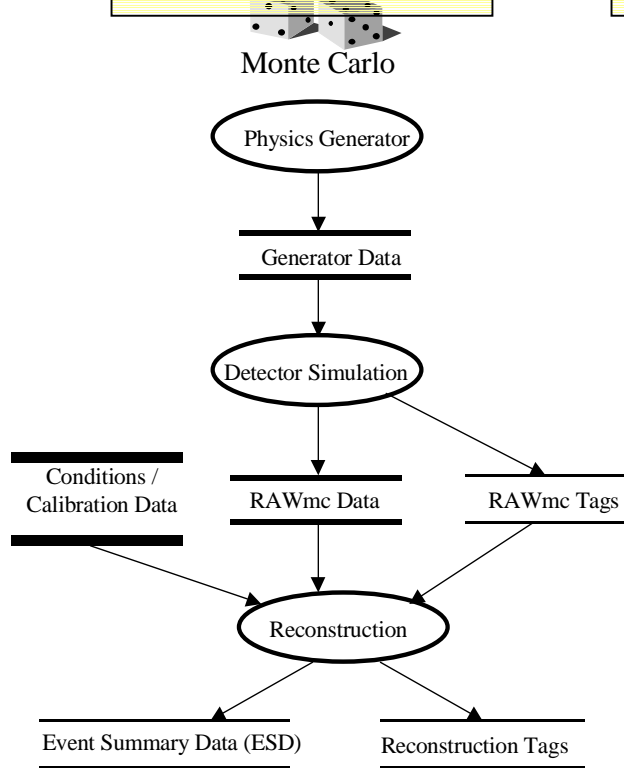
HEP GRID use cases

Common GRID use cases

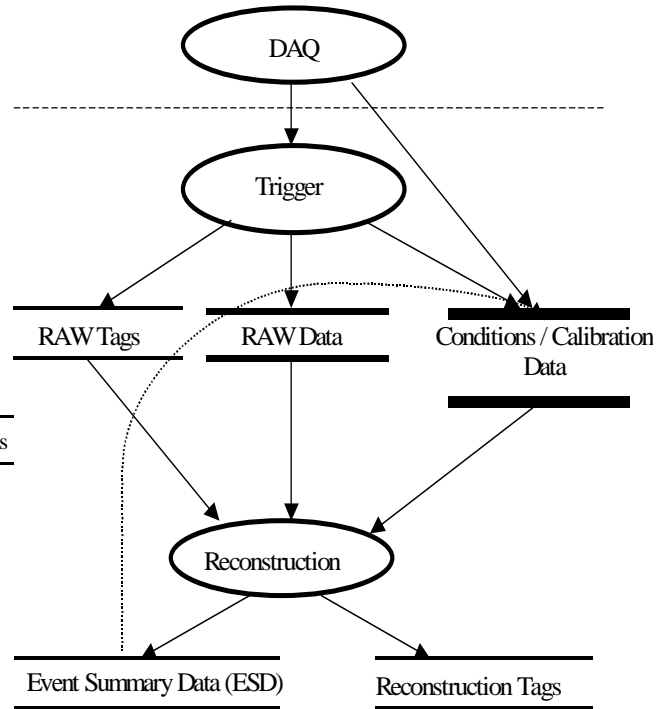
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User Requirements

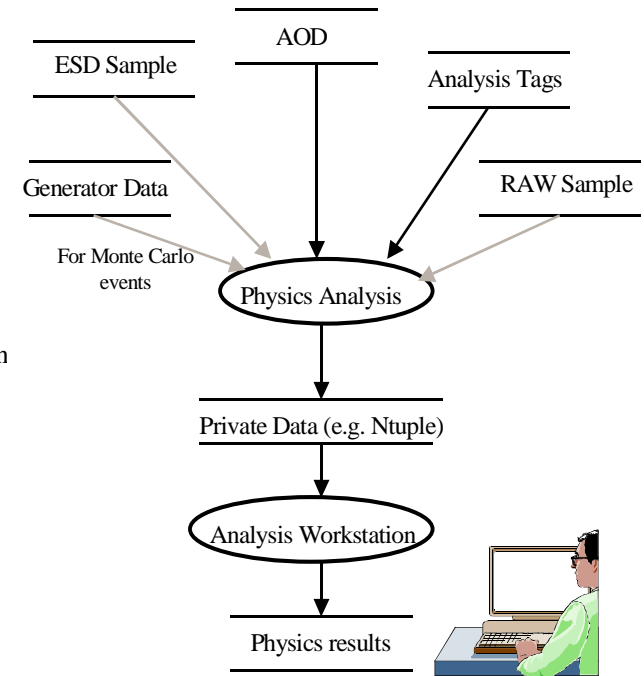
Simulation



Data reconstruction



Data Analysis



User requirements for production type work were collected by EDG WP8 and refined by the LCG RTAG -> HEPCAL document.



User Requirements

HEPCAL document describes:

- macro use cases
simulation, data transformation, production
- mini uses cases
which are used to implement the macro u.c

They were evaluated by WP8 and the results are documented in D8.3.

Data Set (DS) = file



Identifier UC#dstran

Goals in Context : *Creation of new data set starting from input data*

Actors : *User, Production manager*

Triggers : *Need of output data for further processing*

Included Use Cases: *Grid authorization, Grid login ,
Browse Grid resources,
Steer Job, Job resources estimation, Set Job environment
Job submission, Job monitoring, Job cancel
DS access (Find PFN, copy, open);
DS upload (copy and register), DS transfer, DS register
DS replication; DS MD Browse, DS delete
Job output*



General/VO/use cases

Mini Use Case	WP8	WP9	WP10	EDG
OBTAIN GRID AUTORISATION	y	y	y	y
ASK FOR REVOCATION OF GRID AUTHORISATION	y	x	x	y
GRID LOGIN	y	y	y	y
CONDITIONS PUBLISHING	n	n	n	n
SOFTWARE PUBLISHING	y	x	x	y
VO WIDE RESOURCE RESERVATION	n	n	n	n
VO WIDE RESOURCE ALLOCATION TO USERS	n	n	n	n
EXPERIMENT SOFTWARE DEVELOPMENT FOR THE GRID	y	x	x	y
BROWSE GRID RESOURCES	y	y	x	y



Data/Metadata use cases

Mini Use Case	WP8	WP9	WP10	EDG
DS METADATA UPDATE	n	?	?	n
DS METADATA ACCESS	n	y	n	n
DATASET REGISTRATION	y	y	y	y
VIRTUAL DATASET DECLARATION	n	n	n	n
VIRTUAL DATASET MATERIALIZATION	n	n	n	n
DATASET UPLOAD	y	y	y	y
USER-DEFINED CATALOGUE CREATION	n	n	n	n
DATASET ACCESS	y	y	y	y
DATASET TRANSFER TO NON GRID STORAGE	y	?	X	y
DATASET REPLICA UPLOAD TO THE GRID	y	y	y	y



Data/Metadata use cases

Mini Use Case	WP8	WP9	WP10	EDG
DATASET ACCESS COST EVALUATION	n	y?	N	n
DATASET REPLICATION	y	y	y	y
PHYSICAL DATA SET INSTANCE DELETION	y	x	x	y
DATASET DELETION	y	x	x	y
CATALOGUE DELETION	n	n	n	n
DATA RETRIEVAL FROM REMOTE DATASET	n	n	n	n
DATASET VERIFICATION	n	n	n	n
DATASET BROWSING	y	x	x	y
BROWSE EXPERIMENT DATABASE	n	n	n	n



Job management use cases

Mini Use Case	WP8	WP9	WP10	EDG
JOB CATALOGUE UPDATE	n	n	n	n
JOB CATALOGUE QUERY	n	n	n	n
JOB SUBMISSION	y	y	y	y
JOB OUTPUT ACCESS OR RETRIEVAL	y	y	y	y
ERROR RECOVERY FOR FAILED PRODUCTION JOBS	n	n	n	n
JOB CONTROL	y	y	y	y
STEER JOB SUBMISSION	y	y	y	y
JOB RESOURCE ESTIMATION	y	y	y	y
JOB ENVIRONMENT MODIFICATION	y	y	y	y
JOB SPLITTING	n	n	n	n
JOB MONITORING	y	y	y	y



Conclusions (to be discussed)

????

WP8/9/10 have common requirements for

- VO and general management
- Information registration and browsing
- Job management
- Data management
- Metadata management

what else ...