

FLUGG and SAM Web

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SAM Web

- Online interface for retrieving data or simulations
 - Easier searching and locating than current list of files
 - Could be made accessible to all NuMI experiments
 - Details in NOvA-doc-6594
- Steps necessary before transfer into SAM Web
 - **Decide on list of “meta data” that describes each file**
 - **Create software to collect and attach meta data to .root files**
 - Create web interface from list of meta data variables
 - Attach meta data to all current files
 - Transfer files to SAM Web

Current List of Proposed Meta Data

<u>Variable Name</u>	<u>Description</u>	<u>Data Type</u>
Horn Current	signed current in kA	int
Target Design	target design (MINOS, NOvA, Beryllium)	string
Horn 2 Position	low or medium energy position	string
Horn Pullback	horn pullback in cm	int
Energy Threshold	particle energy tracking threshold	string
Near Det. Loc. X	near detector location x in cm in NuMI sim. syst.	float
Near Det. Loc. Y	near detector location y in cm in NuMI sim. syst.	float
Near Det. Loc. Z	near detector location z in cm in NuMI sim. syst.	float
Far Det. Loc. X	far detector location x in cm in NuMI sim. syst.	float
Far Det. Loc. Y	far detector location y in cm in NuMI sim. syst.	float
Far Det. Loc. Z	far detector location z in cm in NuMI sim. syst.	float
POT	Protons on Target simulated	int
Run Period	run period simulated	int
FLUGG Version	version of FLUGG used	string
Fluka Version	version of Fluka used	string
Bits (32 or 64)	bits of compilation	int
Geant Version	version of Geant used	string
g4NuMI_FLUGG Version or Date	g4NuMI_FLUGG version	string
CLHEP Version	CLHEP version used	string
Subrun	Run within FLUGG job	int
File Creation Date	result of file->GetCreationDate() in ROOT	string
Run Number	dummy serial number	float

- Is there anything missing?

Attaching Meta Data

- Meta Data is written to a TMap and attached to the FLUGG ROOT file
- Software to locate and write this data is mostly written
- Software to extract data is written and being debugged
- Will make the writing of metadata an automated part of the validation procedure for future simulation batches.
- Working with Andrew Norman on all of these steps