J Data Management Plan

J.1 Data

MUSE will generate of order 100 TB of raw data, which will be reduced by filtering, compression, and processing. The data are mainly signal times and amplitudes from readout of the MUSE detectors. Additional information includes accelerator timing information from the fast data acquisition system, scaler counts, trigger patterns, and slow controls information. Understanding and analyzing the raw data requires access to detailed decoding information and specialized knowledge of how the various component devices of the experiment function and are read out. All of the needed raw information and specialized software for the analysis of the experiment will be stored. Analysis tools needed for the various components of the experiment will be developed primarily by software and individual detector experts working together.

The raw data are "cooked", reduced to a significantly smaller set of calibrated physics data. The cooked data are further processed into various formats such as plots of distributions of events vs physics variables, raw and corrected cross sections, and quantities derived from cross sections. We will publish cross section data when publishing articles. All raw and cooked data and analysis software will be available to all members of the collaboration.

J.2 Metadata

Metadata for the raw data is maintained mainly in electronic logbooks, using the MIDAS elog format. The elogs contain information on the apparatus, the runs, and various conditions related to the runs. The logbooks are at present maintained at the laboratory behind its firewall, and have indefinite storage time. The logbooks will be mirrored at MUSE institutions.

J.3 Policies for Access and Sharing

All data sets are available to all members of the collaboration. Release of pre-publication data to non-collaborators is only with the agreement of the collaboration. There is no data which deals with classified or sensitive materials. Processed data with the resulting interpretation will be distributed through formal publication, presentations at conferences, and theses. MUSE will maintain a public repository of publicly released presentations including such data, available through a collaboration web site. Currently, the MUSE public website is `http://www.physics.rutgers.edu/~rgilman/elasticmup/`.

J.4 Policies and provisions for re-use, redistributions, and the production of derivatives.

Published data may be used in accordance with copyright laws, with full attribution to the collaboration expected.

J.5 Plans for Archiving Data

The raw MUSE data will be archived on a DAQ disk cluster at PSI, and kept for an indefinite period. Processed data will be stored in multiple locations; most MUSE institutions will have local disk arrays for storage and further processing of cooked data. Permanent storage of final results is archived through publications and their supplementary materials and theses.