Archiving at the NNDC of experimental nuclear physics data published in Physical Review:
Summary report, Deborah Brodbar (APS), David Winchell (NNDC), Christopher Wesselborg
(APS)

Summary

Pending approval by the American Physical Society (APS), a system that links published Phys.
Rev. C (PRC) articles to data sets at the NNDC can be established with a minimum of effort on
the APS side, and as soon as a few requirements have been met:

- An information sheet should explain to authors how to submit their data to the NNDC,
  how to reference it in the manuscript text and how to keep the NNDC informed about the
  editorial process. (This has been done: Attachment A)

- Information for referees should include information on how to access the additional data.

- Appropriate update of the data set reference must be made by APS editorial staff when a
  manuscript is accepted.

- Information must be provided to the composition vendors (AIP) about the amended
  reference style including tagging information.

Identification

Data sets are identified with a unique identifier at the NNDC. Manuscripts are identified with a
unique identified at the Editorial Office. At the APS Editorial Office, a field in the database
should indicate that a data set is in preparation at the NNDC. The identifiers could be the APS
manuscript accession code on both ends.

Coordination

The data set preparation process and the manuscript review process need to be coordinated at
two points, *i.e.*, at initial submission and at final publication. Authors as well as the NNDC staff
can track the manuscript review process via the APS status server (ASIS). NNDC is
contemplating a similar server for the data preparation process. A link from ASIS is desirable.

The NNDC must insure that their data link manager can handle both volume/article ID
information and manuscript/data set information without giving away the confidential APS
manuscript code.

Workflow

Eventually, many steps in the coordination process can be handled automatically. Initially, a
simplified model would suffice:

1) Authors submit manuscript to APS.

2) Authors receive acknowledgment of receipt; a flyer is added informing the authors of the option to submit their data to the NNDC; flyer includes submission and resubmission procedures and instructions on how to include reference to data set in manuscript text; info on notifying the NNDC when the manuscript has been accepted.

3) NNDC sends correspondence (misc., 'CFX') to APS with data set ID.

4) When manuscript is accepted, APS editorial staff checks if reference to data set is in text; adds reference as appropriate.

5) Volume/article ID (VP) is entered in APS database.

6) APS informs NNDC about volume/article ID ('CTX').

7) When manuscript is ready, either:
   a) editorial staff informs NNDC
   b) NNDC polls ASIS frequently

Implementation

The system can be implemented in steps, each building upon the previous system. The following is a possible scenario:

Phase I (minimal impact)

Requirements for APS: initial flyer, manual 'flags,' reference link

1) APS and NNDC prepare information for authors, to be sent with acknowledgment of receipt.

2) APS editorial staff keeps track of data link manually; in manuscript folder and/or as note in manuscript database.

3) APS editorial staff attaches info about data sets to referrals.

4) APS editorial staff updates reference to data set when manuscript is accepted.

5) NNDC uses ASIS to check on manuscript status and relies on authors' input.

Phase II (database support)

Additional requirements for APS: identifier in database; further: support on the web submission server, cross link on ASIS, action trigger at VP time

1) Enhanced web submission informs authors of options to deposit data sets.

2) Flag in APS manuscript database used to trigger various actions.

3) Enhanced ASIS cross-links to NNDC.

4) Link to data sets handled by composition vendor (AIP) similar to EPAPS links (references).

Phase III (mostly automatic)

Requires reliable triggers and appropriate handlers to ensure necessary update of information and notification to APS/NNDC of significant events.