

## Keeping the Collections Care in Mass Production

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### Abstract:

*Quality Assurance is one piece of a long workflow for managing mass processing of materials in libraries. Whether the review for quality is in digital images, treatment, or accuracy in cataloguing every step of the process from beginning to end must have accuracy or issues and problems will ensue. This presentation will present the checks and balances of a number of processes that move materials from entry to finished product and the quality assurance steps to assure that all steps are completed and that all possible accuracy is obtained for each item within the workflow stream. The commonalities for assuring the best process whether for binding, mass deacidification, reformatting, or treatment are the focus of this paper. Cost effective means to do this processing will be the theme that brings all of these varied preservation actions together for the efficiency of processing.*

**Keywords:** Quality Assurance, Reformatting, Digitalization, Preservation, Conservation

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### Introduction:

The Library of Congress has a large general collection of paper based materials that require care in a variety of ways. With millions of volumes of monographs and serials in multiple locations that date anywhere from 1850 to present, there is a vast array of conditions with a wide variety of materials for volume coverings and quality of paper for the text block. The quality of the text block paper varies and can be alkaline and in pristine condition, can be acidic, but still strong, can be coated so less vulnerable to deterioration and can be acidic and quite embrittled. In addition, the other physical attributes of the volume can be in poor condition or printing, from missing spines, to missing boards, to split textblocks to missing pages or plates, to textblock literally in pieces because of embrittlement. The volume can also be in excellent condition and indeed millions of volumes are require no preservation action. These damaged materials can be shelved next to perfectly fine volumes because the shelving convention is by subject classification meaning that a new volume can be next to a very old volume on the same topic. General collections, which total about 34 million volumes, can be requested via interlibrary loan and mailed to the requesting library, or

requested by patrons on site from one of the more than twenty reading rooms. The Library takes the responsibility as the “library of record” for the United States, similar to National Libraries.

There are a wide variety of actions to address condition and usability of these materials when preservation action is needed. It is through collaboration across units within the Library using Quality Management of workflows based on set parameters that provide the best decision for the general collection so that this “collection on the move” can be accessed and used when needed. All these actions require appropriate decisions for the best treatment based on value, condition, copyright date, number of copies in collection and number of copies in the nation, as well as copies in other formats such as film or digital.

Many library divisions work with these collections to provide them to patrons, to mail to requesting libraries, to exhibit, to shelve and reshelve after use, to review for possible removal, to select for offsite shelving, to test for acidity and select for deacidification, to select for reformatting to digital format for out of copyright US or foreign materials and so on. Quality management is the act of overseeing all activities and tasks needed to maintain a desired level of excellence. This includes creating and implementing quality planning and assurance, as well as quality control and quality improvement. The Library of Congress uses quality management to first work together across units to determine the most efficient and appropriate action thereby providing the best decision making for the care of this vast collection of materials. Sharing the decision making across various units allows for efficient and more cost effective work. But how to do this across a large organization with different goals for these millions of volumes? A shared definition of purpose and various means to record actions is essential.

### **Using the Integrated Library System**

For many decisions the Integrated Library System (ILS) serves the purpose of documenting action and date of action and saving that information for any staff to view. In addition, by using the ILS to document action taken, reports can be run to determine the number of volumes having received a particular action. This also allows for follow up assuring the quality of the work. The ILS reports can also provide “Pick lists” of materials that fit criteria for an action thus providing the appropriate materials for a particular workflow, such as digitization. While not every action is recorded in the ILS, enough of them are to provide good management reports to evaluate the amount of time and so money for actions and to determine effectiveness as well as the value of continuing the action. Annual statistics can also be obtained and verification of staff work is documented through these reports. The Binding and Collections Care Division, which is one of the preservation divisions responsible for the preservation of the general collections uses the power of the ILS to record actions including commercial binding, mass deacidification, ILS cataloging work done by contractors and staff, treatment of volumes and location during work, such as when volumes go off site for deacidification or binding. Other divisions also track the movement of materials or materials out of the building through the Circulation module. Action options are completed by other divisions such as the Preservation Reformatting Division that provides digital or film version for out of copyright materials that are endangered of losing intellectual content. All workflows have common threads in terms of evaluation of physical condition, but additional work is required to determine the decision points, such as number of copies, condition of copies, availability of digital surrogates and even the number of other libraries holding the title. One might call this process of decisions and action the varied life path of a book (or serial) in the Library of Congress’ collection.

## **Determining the Path**

When materials come into the Library collection they are reviewed for preservation actions. New materials are tested for acidity of the text block and routed to deacidification if they are acidic. Materials tested that are alkaline are marked on the spine to identify that they have been tested and do not require additional action for deacidification. This is a useful visual identifier so that when retrospective work is done those volumes do not have to be tested again. New materials that are soft bound monographs are also evaluated for binding if needed. The goal is to take care of preservation needed before the item is shelved. This is the most efficient workflow for new materials in physical volumes. For serials coming in as physical volumes the preservation action happens when enough issues accumulate for a bindable unit. Then the title is bound and also tested for deacidification. The ILS record records when binding or deacidification is completed for an item. When item include other media that information is also recorded in the ILS. In both cases the ILS can be used to document and provide management reports of work completed or in progress.

Over 350,000 physical volumes on average come into the collection in an average year. But that is a small portion of the entire collection that makes up the General Collection. Older materials generally require more involved preservation action including conservation treatment, reformatting, housing or replacement.

**Treatment:** The conservation path could be to keep the volume in an improved physical state through conservation work. Decision points would be based on value such as original binding, condition of paper that is the strength, the number of color plates, the date that determines appropriate access for a digital copy. Is this the only copy in the collection? This status is determined by a check in the ILS using designed software that finds matches to the volume in hand for all formats. If there is a second copy that copy is requested to determine the best copy, which is given conservation and the more damaged copy, if within scope, is set aside for withdrawal from the collection. Withdrawn volumes go into a surplus workflow where other libraries can request the surplus volume for their own collection. Conservation treatment is predominately done on volumes with aesthetic value because of original and decorative bindings, or unique qualities. Materials that are damaged and not in original bindings but with strong paper can be sent to the commercial bindery for rebinding.

Another path for materials within the copyright restriction but on acidic paper is to deacidify that textblock to extend the life of the material. It is sometimes the case that both conservation and deacidification is needed and when that is true it is done. All volumes that fit the criteria for paper that will benefit from deacidification are tested for acidity and marked if alkaline and if acidic treated and both physically marked on the spine and documented in the ILS. In this way the collections have a visual mark on the spine of the book to show it has been tested or deacidified. In the case of deacidification that action is recorded in the ILS. Because the treatment of acidic paper has been done at the library for over fifteen years, recording the volumes that have been treated is important to document the treatment but also to allow reporting on the program over time and demonstrating the amount that has been treated. Materials that are printed on alkaline paper can also be recorded in the ILS, but the bibliographic record frequently identifies alkaline paper for a title so using that field that is already in the catalog record is more efficient than recording it in the item record using staff time to add a statement.

**Reformatting:**

The Library of Congress has a multi-faceted approach to digitizing collections but there is also the desire to avoid duplication of effort with other efforts world-wide. While in the being stages of digital conversion projects in the early 1990's, duplication was not an issue, in today's world where many cultural institutions provide access to parts of their collections through digital surrogates, there is a need for discovery of titles in digital format before moving titles into a reformatting digital workflow. This is most needed for general published works out of copyright where the title may be held by a larger number of institutions.

With the membership to HathiTrust and the additional links from the ILS to those links, it is possible to check a physical volume with a minimum of effort to discover other copies of that title in digital format. This application works in an elegant way. It searches across the ILS for holding records, which show multiple copies and copies in all formats where the copy links to the bibliographic record. For catalogers familiar with MARC records this is the 856 field. This program is used to review all general collections titles selected for digital based on copyright year, (pre 1923 for U.S. imprints). The appropriate step to do this review works well because when a title is discovered to be in digital format that title is then moved to another workflow which prepares materials for offsite storage, without additional preservation action required. Cold storage provides an environment that slows the chemical deterioration of materials while still being cost effective. Before scanning work can begin there is a review of the physical volume. Should that review reveal the need, a technician provides stabilization for physical volumes that otherwise might be damaged from the scanning process. This includes such action as paper mends, replacement pages for missing pages, reattachment of covers, and loosening of tight binding to assure good image capture while retaining binding structure. While stabilization is not as time consuming or as detailed as a full treatment it does provide what is needed to preserve the volume both for the scanning action and for possible future use. It is the general policy to limit resources appropriately, meaning that the predominant resource goes to the digitalization not to the full treatment of a volume that will be used in digital format while the physical volume will be safely stored and not used. Additional review is sometimes done to determine if a title has been digitized but is not in Hathi Trust, which is a membership aggregator of digital materials. Not all digital programs belong to Hathi Trust so further searching across the Internet and World Cat an aggregated international catalogue of library resources can discover a digital copy that can then be linked to the bibliographic record in the ILS.

When the Library's copy is damaged so that a complete digital copy cannot be obtained then further searching is warranted to see if perhaps another institution has already created a digital version and if that search is not successful than a search in World Cat for any copy may provide a partner institution to digitalize a complete copy by working together.

**Replacement:**

If a damaged volume is incomplete and too damaged to either treat or capture, and if the title is found to be available in microfilm that may be a solution. In general the Library continues to film newspapers that would not otherwise be available, but for many years microfilming was done for many embrittled materials in collections across the United States and the record of that quality film is in World Cat, so the Library might decide to purchase film if no replacement volume is available. But replacement is an option for severely damaged materials and that is another option for maintaining the general collections for use. A copy available on the market maybe a better and more cost effective action than digitizing, filming or conservation treatment. Replacement if often the best decision for materials that are water

damaged, moldy, or blocked due to irradiation. In those cases it is best to try to replace the volume and a replacement budget is provided for that need.

In conclusion the quality management of the general collections at the Library of Congress is effected through decision making are various points in a volume's life path. As the volume ages it is given care or it is replaced, or it is put into another form to continue the life path of the intellectual content of the volumes within our care. This collection is a collection for the world's use when needed which is always the goal for preservation actions.

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