

**OCLC Print Archives Disclosure Pilot**  
**Final Report**  
**April 2012**

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## Executive Summary

Beginning in late 2010, an *ad hoc* Coordinating Committee consisting of several individuals who were active in the shared print (print archiving) community began to explore ways in which libraries could use OCLC features and services to disclose retention commitments and support resource sharing for shared print resources. The Coordinating Committee defined and conducted an OCLC Print Archives Pilot Project to develop a recommended approach and to test and validate its basic functionality.

The Coordinating Committee defined the goals of the OCLC Print Archives Pilot Project as:

1. Propose and assess the feasibility of a metadata standard for disclosing in the near term the location and status of archived print holdings ***for journals, using existing bibliographic infrastructure (OCLC and local ILS capabilities)***. That is, implementation would not require any software development.
2. Test processes to create individual and batch loaded records for sample titles from multiple print archiving initiatives, e.g. WEST, CIC, CRL.

3. Evaluate the impact of the proposed metadata standard on resource sharing workflows. The goal is to insure that common borrowing and lending activities can be accommodated.

A secondary goal of the project was to identify ways in which OCLC systems and services could be enhanced through future system development to support shared print requirements in a more effective way.

### **Recommendations for Libraries**

The Coordinating Committee developed and tested recommended metadata guidelines for journals using existing OCLC data structures and functionality, and recommends that libraries participating in shared print agreements begin to disclose preserved print journal holdings in WorldCat according to this method as soon as possible.

The recommended approach includes three key elements:

- Define separate OCLC Institution Symbols to identify print archived titles in facilities and full-service libraries
- Enter holdings-level print archives data in MARC Holdings records (OCLC Local Holdings Records, LHRs)
- Use the 583 Action Note to describe specific characteristics of the print archives action(s) for each set of holdings. The LHR will include one, two, or three 583 Action Notes, as appropriate. At a minimum, include one 583 Action Note to identify the retention commitment (“committed to retain”) and the retention period. If the print resources are reviewed for completeness, provide a second 583 Action Note (“completeness reviewed”) and note the outcomes of that review (e.g. missing units, binding anomalies, reprints). If the print resources are also reviewed for condition, provide a third 583 Action Note (“condition reviewed”) with the outcomes of that review.

Note: If a given title/holdings is archived under multiple print archives programs having different terms (e.g. different retention period, validation level), libraries should enter separate sets of 583 fields to describe the different terms that apply to these items.

While not functionally necessary to the registration of print archives, use of the 561 Ownership and Custodial History tag in the Local Holdings Record is encouraged to enable institutions to track the originating source of materials consolidated in shared print collections.

In addition, the use of Group Access Capability and Group Catalogs is recommended to support aggregated views of shared print holdings for resource sharing, collection management and collection analysis.

Please note that these guidelines were designed and tested for journal holdings. While the data structures theoretically would be usable for monographs, there may be variations in functionality related to using LHRs for monographs that have not been tested.

## **Recommendations for OCLC, Inc.**

Pilot participants suggested some improvements that OCLC might consider making to the current technical infrastructure and pricing models that would increase support for collaborative print archiving:

- Enhance the use and function of OCLC symbols to allow existing symbols to play multiple roles - that is, to signify ownership and/or physical possession, and/or location, or all of these at once
- Alternatively, provide mechanisms to govern resource-sharing behavior and aggregation for discovery at the item level (instead of OCLC symbol level), e.g. detect bibliographic records whose LHR's contain a "committed to retain" notation in the 583 ‡a, as an alternative method for aggregating shared print resources that would not require a proliferation of new OCLC symbols
- Provide a test environment for metadata management and resource sharing in which projects such as this one can be carried out
- Increase the number of OCLC symbols to which a library's collections can be compared using WorldCat collection analysis (currently limited to 5 symbols, while print archiving programs can attract dozens of participants)
- Reconsider pricing models to incentivize shared print archiving activity among libraries, especially in the areas of record loading (i.e. batch loading, cancel holdings, LHR profiling) and resource sharing (i.e. establishment of ILLiad satellite libraries)
- Expand support for discovery and delivery of shared print collections in WorldCat Local and WorldShare Management Services

## **Background**

A growing number of regional efforts are under way to consolidate and preserve print collections among multiple libraries in response to widespread availability of digital resources and increasing pressure for space in campus library buildings.

Academic and research libraries increasingly are planning and implementing programs to share the responsibility and costs of maintaining print collections. A number of factors are driving this change:

- A growing shift in scholarly attention from print to electronic formats means that low-use retrospective print collections are perceived to deliver less value.
- Competing demands for library space favor teaching, learning, and collaboration vs. "warehouse of books".
- The universe of institutions with both the mandate and the capacity to support long-term print preservation is shrinking.
- As the return on investment in local print collections diminishes, libraries seek to externalize print operations to shared repositories.

Several large-scale shared print programs are under way around the world, including the UK Research Reserve (UKRR), the Western Regional Storage Trust (WEST), the Committee on Institutional Cooperation Shared Print Repository (CIC-SPR), the Association of Southeastern Research Libraries

(ASERL) Journal Retention Program, and numerous others sponsored by library consortia at regional and local levels.

In this emerging environment, widespread dissemination of item- (copy-) level data for archived/shared materials is required to support:

- Preservation risk assessment: How many copies exist in the system? What is their condition? Are they subject to archival / persistence agreements?
- Collection management: Which copies in the local collection should be retained? How can space recovery be maximized? How can inventory be optimized?
- Resource sharing: Which retained copies can be accessed? by what means, under what terms and by whom?

The first priority for an enhanced bibliographic infrastructure capable of supporting collective collections is to address the need to record and disclose retention commitments for print resources. Since the majority of shared print programs assume an active accessible archive, the bibliographic infrastructure must also support resource sharing.

Beginning in late 2010, several individuals who were active in the shared print (print archiving) community began to explore ways in which OCLC could help to support libraries' immediate and future needs for shared print management. OCLC WorldCat was perceived as the logical basis for the required bibliographic infrastructure because of its global reach and integration with the workflow of most libraries that participate in shared print programs. OCLC's WorldCat and other services constitute a key part of the bibliographic infrastructure that will support and connect regional shared print initiatives.

## **Pilot Project Goals and Structure**

An *ad hoc* Coordinating Committee began meeting in late 2010 to develop recommendations for how libraries could use OCLC WorldCat metadata and services to support and disseminate information about shared print materials. The Working Group consisted of representatives both within and outside of OCLC, and included the following people at various times:

- Kathryn Harnish, Senior Product Manager, Cooperative Platform, OCLC
- Constance Malpas, Program Officer, OCLC Research
- Dennis Massie, Program Officer, OCLC Research
- Lizanne Payne, Shared Print Consultant to CRL and other organizations, and WEST Project Manager
- Emily Stambaugh, UC Shared Print Manager and WEST Assistant Project Manager

Experts from the library preservation, metadata and standards community were also consulted over the course of the project, to ensure that the metadata guidelines and implementation procedures were consistent with community norms. The names of individuals consulted are provided in Attachment 1.

The Coordinating Committee defined and conducted an OCLC Print Archives Disclosure Pilot Project to develop a recommended approach and to test and validate its basic functionality. Note: Among participating libraries, the terminology has evolved from “print archives” toward “shared print” as the preferred nomenclature, but the OCLC Pilot project will be described under its original name throughout this report for consistency with earlier presentations.

### **Pilot Project Goals**

As a first step, the Coordinating Committee defined the goals of the OCLC Print Archives Pilot Project as:

1. Propose and assess the feasibility of a metadata standard for disclosing the location and status of archived print holdings *for journals, using existing bibliographic infrastructure (OCLC and local ILS capabilities)*.

The goal is to use existing capabilities so that implementation would not require any software development and could be enacted directly by libraries using their own resources and timetables.

2. Test processes to create individual and batch loaded records for sample titles from multiple print archiving initiatives, e.g. WEST, CIC, CRL.

The goal is to insure the feasibility of both manual cataloging and batch loaded records (using existing capabilities) for efficient creation of records.

3. Evaluate the impact of the proposed metadata standard on resource sharing workflows.

The goal is to insure that common borrowing and lending activities can be accommodated using the proposed metadata standard, and to document any significant workflow changes or other impacts.

### **Pilot Project Participants, Process, and Timeline**

The Coordinating Committee convened representatives of several North American shared print programs to participate in the OCLC Pilot Project:

- Center for Research Libraries (CRL)
- CIC Shared Print Repository (Indiana University)
- University of Minnesota JSTOR archive
- WEST (member libraries Stanford, UCLA, UC San Diego, UC Southern Regional Library Facility (SRLF), University of Oregon)

The goal was to keep the group relatively small and efficient while still representing a variety of approaches to shared print agreements.

Members of these and other libraries and organizations participated in three Working Groups focused on different areas of interest:

- Metadata
- Preservation
- Resource-sharing

The Metadata and Preservation working groups convened several times by phone and developed recommendations related to resource description and disclosure practices. The Resource-Sharing working group participated in testing of the borrowing/lending activities using test data prepared according to the standard. See Attachment 1 for a list of working group participants.

The OCLC Print Archives Pilot Project took place throughout most of 2011 and early 2012:

- Develop print archive metadata guidelines: January – May 2011
- Develop detailed record documentation (LHR instructions): June - August 2011
- Test individual record entry via Connexion: June-August 2011
- Test batch loading of records: August 2011 – March 2012
- Test resource-sharing transactions: December 2011 – March 2012

This report describes a recommended approach to print archives disclosure, the testing that was performed to evaluate its feasibility, and the findings and recommendations that emerged from the testing. The report was prepared by the Coordinating Committee and represents the culmination of effort by multiple expert groups (metadata, preservation, resource sharing). Its findings and recommendations are intended to advise and support the near-term disclosure of shared print resources in WorldCat.

It is hoped that as a result of this report, the proposed approach to print archives disclosure will be systematically implemented by libraries engaged in shared print initiatives in the United States and elsewhere. For this to happen, the metadata guidelines developed to support this project will need to be widely disseminated, incorporated into standard cataloging and record contribution documentation, and endorsed by one or more of the leading print archive initiatives. Gaps in existing bibliographic infrastructure, library management services and resource-sharing systems that impede wide-spread adoption will also need to be addressed.

## **Recommended Approach**

The recommended approach includes three key elements:

- Define separate OCLC Institution Symbols to identify print archived titles in facilities and full-service libraries
- Enter holdings-level print archives data in MARC Holdings records (OCLC Local Holdings Records, LHRs)

- Use the 583 Preservation Action Note to describe specific characteristics of the print archives action(s) for each set of holdings

Use of the 561 Ownership and Custodial History tag in the holdings record is also encouraged to enable institutions to track the originating source of print archive holdings sourced from multiple libraries.

In addition, the use of Group Access Capability and Group Catalogs is recommended to support aggregated views of shared print holdings for resource sharing, collection management and collection analysis.

## **Rationale**

### ***Separate OCLC Institution symbols***

Libraries participating in print archiving programs will need to define additional OCLC Institution Symbols to identify print archived titles in their library storage facilities and full-service, on-site collections. Separate OCLC Institution symbols readily identify the shared print status of a title at the title level. The symbols are needed to facilitate interoperability with resource-sharing and collection analysis systems and to support aggregating shared print resources in group catalogs.

The symbol indicates that a title is subject to some form of a retention commitment at a given institution, but it does not indicate the specific print archiving program(s) to which the materials are contributed. A particular repeatable subfield in the 583 is used to indicate the print archive program (‡f). The combination of shared print symbol and 583 ‡f allows institutions to contribute materials to multiple print archiving programs with minimal record maintenance.

The separate OCLC Institution Symbol allows the library or shared print program to define different lending behaviors for these items compared to materials in the general collection or storage facility. These different behaviors could include e.g. non-circulating, circulating only to certain borrowing institutions, last resort lender (or conversely, priority lender), and loans for building-use only.

As list of symbols established for the pilot is included in Attachment 2. The “Findings” and “Implementation Steps” sections of this report describe how the symbols are set up and associated costs.

### ***Local Holdings Records***

Local Holding Records (LHRs) are used to identify copy-specific holdings information in OCLC for print resources subject to a retention commitment. Archiving institutions create LHRs for their shared print resources, indicating the holdings to which the retention commitment applies. This extends use of the LHR as a vehicle for reporting item-level holdings in WorldCat.

For institutions that already provide LHRs to OCLC, libraries should remove the archived holdings from the original LHR or holdings data, so they will no longer be reflected under the original institution symbol. This is important to preserving the integrity of the holdings data and limiting the extent to which related holdings are duplicated across multiple institution symbols, which has implications for discovery, delivery and collection analysis. These implications are explored in greater detail in the section on Testing, below, and discussed in Attachment 4 (OCLC Statement on Additive LHR for Print Archives).

The 561 on the LHR is used to record the original institution symbol (or symbols, in the case of consolidated holdings from multiple institutions) to indicate original or prior ownership of some or all holdings subject to the retention commitment.

The LHR may include one, two, or three 583 Action Notes, as needed to document print archiving actions. At a minimum, the LHR will contain one 583 Action Note to identify the retention commitment (“committed to retain”) and the retention period. If the print resources are reviewed for completeness, a second 583 Action Note is included (“completeness reviewed”) and the outcomes of that review are noted (e.g. missing units, binding anomalies, reprints). If the print resources are also reviewed for condition, a third 583 Action Note is included (“condition reviewed”) and the outcomes of that review are noted. Additional 583 Action Notes may be needed to describe other preservation actions, including digitization, mass de-acidification, etc.

Note: If a given title/holdings is archived under multiple print archives programs having different terms (e.g. different retention period, validation level), libraries should enter separate sets of 583 fields to describe the different terms that apply to these items.

For validated holdings only, the bibliographic holdings statement(s) is updated once validation is complete (i.e. 85x/86x formatted holdings or 866 summary holdings statement).

Details about the LHR are provided in Attachment 3.

### ***583 Preservation Action Notes***

The 583 field is used to record information about preservation actions. For purposes of current and future shared print initiatives, the 583 is recommended for use in recording print retention commitments and related actions. Such commitments are made by an institution as part of its participation in a collaborative print archiving program.

The 583 field includes information about the following:

- Action and type of physical review undertaken to verify completeness or condition, if any (retained, condition reviewed, completeness reviewed)
- Retention commitment (date the retention commitment expires)
- Institution (i.e., making the commitment)
- Authorization (the Print Archive program(s) to which the materials are contributed)
- Validation level (none, volume, issue, or page level)



- Outcomes of validation (includes standard terms that are or will be integrated into the Preservation & Digitization Actions: Terminology for MARC 21 Field 583 (PDA). e.g. explicit enumeration of missing volumes, issues, presence of reprints, tight bindings, damage)
- Materials Specified (if different from the LHR 85x/86x)
- Uniform Resource Identifier (link to program documentation for print archiving program)

Specific details about the 583, its subfields, indices and controlled vocabulary are provided in Attachment 3.

### ***Group Access Capability***

The recommended approach is to establish Group Access Capability (GAC) profile for each print archiving program (e.g. WEST, Orbis-Cascade Alliance Distributed Print Repository, UC Shared Print) to facilitate resource sharing. An additional, more global GAC profile may also be desirable to unite all print archiving programs.

Group Access Capability facilitates borrowing and lending within and between institutions affiliated and not affiliated with archiving programs. Staff at affiliated and unaffiliated libraries can readily identify the aggregation of print holdings subject to a retention commitment within a program or programs without inspecting individual titles or holdings statements.

The GAC also facilitates local and group collection management decisions. Staff at affiliated and unaffiliated libraries can readily identify the aggregate print holdings that are subject to a retention commitment and within an archiving program, without the “noise” of other library holdings.

A GAC profile was established and tested for the pilot project. For more information, see the “Testing” and “Findings” sections of this report.

### ***Group Catalogs***

The recommended approach is to establish a Group Catalog for each print archiving program (e.g. WEST, Orbis-Cascade Alliance Distributed Print Repository, UC Shared Print, Committee on Institutional Cooperation Shared Print Repository) to facilitate local and group collection management decisions. An additional, more global group catalog may also be desirable to unite all print archiving programs.

A Group Catalog makes it possible for staff and users affiliated (and not affiliated) with a print archiving program to view aggregated holdings and to search for either aggregate holdings or individual titles in a print archiving program. The Group Catalog is useful to support inter-institutional visibility of resources subject to a shared print commitment (and their archived status) and to an individual library’s collection management decisions.

A Group Catalog was not established or tested for the pilot project as there are cost implications for setting one up. For more information about costs, see the “Findings” sections of this report; for more information about how to set one up, see the “Implementation Steps” section of this report.

## Testing

### *Testing: Record Creation and Contribution*

In the summer and fall of 2011, participants created holdings records in WorldCat for journals under their new print archiving OCLC symbols. These records included action notes in the 583 fields of the Local Holdings Records indicating a retention and preservation commitment on the part of the owning institution.

Two approaches to record creation and contribution were tested:

- Manual creation of LHRs using OCLC Connexion® browser
- Batch loading of LHRs using standard OCLC batch load procedures

Print archiving statements for more than one thousand titles were contributed over the course of the project. These served as a test-bed for evaluating record creation practices and resource-sharing workflows.

### **Real-time record creation in WorldCat**

Between June and September 2011, several pilot participants created print archiving holdings statements in WorldCat using the OCLC Connexion browser. The following institutions provided test data, using the draft print archiving metadata guidelines developed during spring 2011:

- Center for Research Libraries (CRL): 167 titles
- Indiana University: 4 titles
- Stanford University: 25 titles
- University of California, San Diego: 11 titles
- University of California, Los Angeles: 5 titles
- University of California Southern Regional Library Facility (SRLF): 5 titles
- University of Oregon: 23 titles

As might be expected, test data supplied during the pilot exhibited some variability both with respect to content (tag usage) and format (record syntax). These variations reflect evolving practice during a period when the print archiving metadata guidelines were being revised and refined; over the course of the project, local descriptive practices were normalized and contributed records assumed greater consistency. Consistency to the metadata guidelines will be critical to support discovery and collection analysis.

Pilot participants were asked to contribute print archive LHRs with varying levels of complexity, so that the extensibility of the metadata guidelines could be evaluated in practice. Working with the Connexion browser application gave participants an opportunity to test real-time record creation and editing functions and view the results in WorldCat immediately. For titles with relatively complex print archiving attributes -- content contributed to multiple archiving aggregations, subject to item-level validation, etc -- it was particularly important to develop a small test set of records that could be evaluated in advance of large-scale batch processing operations. The examples provided below are representative of the kinds of print archiving statements that were supplied during the Connexion test phase.

Local Holdings Record: Applied physics.		MARC Help	↓
OCLC 1786451	ISSN 0340-3793	Freq m	Dates 1973-1981
<a href="#">Summary</a>	v.1(1973)-25(1981)		
<a href="#">Leader</a>	ny 3n		
<a href="#">007</a>	ta		
<a href="#">008</a>	0906120u 0 0001uueng0120207		
<a href="#">005</a>	20120207111434.0		
<a href="#">014</a>	0_ .c1290447 #b (NONE)		
<a href="#">022</a>	0_ 0340-3793		
<a href="#">561</a>	1_ CUS #5 CU-S		
<a href="#">583</a>	1_ #3 v.1(1973)-25(1981) #a committed to retain #c 20110721 #d December 31, 2035 #f WEST #f WEST Bronze #f UCL Shared Print #j CUSSP #2 pda #5 CU-S		
<a href="#">852</a>	0_ CUSSP #b MAIN #c ea #h QC1 #i .A6512		
<a href="#">866</a>	_0 #8 0 #a v.1(1973)-25(1981)		
		MARC Help	↑

**Figure 1.** Local holdings record for an unvalidated (WEST “bronze”) print archive title held by the University of California, San Diego. This title is part of the WEST print archive and the UC Libraries Shared Print collection.

Local Holdings Record: Wireless networks.		MARC Help	↓
OCLC 32246288	ISSN <a href="#">1022-0038</a>	Freq b	Dates 1995-9999
+ Publication Pattern Data			
<a href="#">Summary</a>	v.1(1995)-v.7(2001), v.9(2003)-v.16(2010)		
<a href="#">Leader</a>	ny a3n		
<a href="#">007</a>	ta		
<a href="#">008</a>	1110055u 8 2001uu 0111005		
<a href="#">583</a>	1_ #3 v.1(1995)-v.7(2001),v.9(2003)-v.16(2010) #a committed to retain #c 20110101 #d December 31, 2035 #f OCA DPR #f WEST #f WEST Bronze #j ORUSP #u <a href="http://www.cdlib.org/services/west/">http://www.cdlib.org/services/west/</a> #2 pda #5 OrU		
<a href="#">852</a>	ORUSP #b MAIN #c SCIENCE #h SHELVED BY TITLE		
<a href="#">853</a>	33 #8 1 #a v. #i (year)		
<a href="#">863</a>	30 #8 1.1 #a 1-7 #i 1995-2001 #w g		
<a href="#">863</a>	30 #8 1.2 #a 9-16 #i 2003-2010		
		MARC Help	↑

**Figure 2.** Local holdings record for a title held by the University of Oregon that has been contributed to the Orbis-Cascade Distributed Print Archive and WEST print archive. This record indicates that 14 volumes (vols. 1-7 and vols. 9-16) are subject to a retention commitment through December 2035.

Local Holdings Record: Optima		MARC Help
OCLC 1639179	ISSN 0030-4050	Freq a
Dates 1951-9999		
+ Publication Pattern Data		
Summary	Local holdings available.	
Leader	cy a4n	
007	ta	
008	1107280u 8 0001aa 0110805	
583	1_ #3 v.9:no.1(1959:Mar.)-v.16:no.1(1966:Mar.),v.16:no.3(1966:Sept.)-v.51:no.3(2005:Dec.) #a committed to retain #c 20110614 #d December 31, 2035 #f WEST #f WEST Gold #j SAL3 #u http://www.cdlib.org/services/west/docs/WEST%20Program%20Statement.docx #2 pda #5 CSt	
583	1_ #3 v.9:no.1(1959:Mar.)-v.16:no.1(1966:Mar.),v.16:no.3(1966:Sept.)-v.51:no.3(2005:Dec.) #a completeness reviewed #c 20110614 #f WEST #f WEST Gold #j SAL3 #j issue-level validation #u http://www.cdlib.org/services/west/docs/WEST%20Program%20Statement.docx #i missing volumes #z missing v.1-8 #i missing issue #z missing v.16:no.2(1966:June) #2 pda #5 CSt	
583	1_ #3 v.9:no.1(1959:Mar.)-v.16:no.1(1966:Mar.),v.16:no.3(1966:Sept.)-v.51:no.3(2005:Dec.) #a condition reviewed #c 20110623 #f WEST #f WEST Gold #j SAL3 #j issue-level validation #u http://www.cdlib.org/services/west/docs/WEST%20Program%20Statement.docx #i acidic paper #z acidic paper v.9(1959)-v.31(1983), v.33(1985)-v.37(1989), v.44(1998)-v.52(2005) #z acidic paper pH pen test #i loose binding #z loose binding v.20:no.4(1970), v.26:no.1-no.2(1976), v.26:no.1:suppl.(1976) #i loose pages #z loose pages v.20:no.4(1970), v.26:no.1-no.2(1976) #i loose covers #z loose covers v.20:no.4(1970), v.26:no.1-no.2(1976) #i torn pages #z torn pages v.21(1971)-v.23(1973) #i warped/cockled #z warped/cockled v.9(1959)-v.12(1962), v.20:no.4(1970), v.26:no.3(1976)-v.27(1978), v.31(1983) #2 pda #5 CSt	
852	SL3SP #b SL3A	
866	41 #8 0 #a v.9:no.1(1959:Mar.)-v.16:no.1(1966:Mar.), v.16:no.3(1966:Sept.)-v.51:no.3(2005:Dec.)	
867	41 #8 0 #a 1959:Sept., 1960:Mar.-June, 1960:Dec., 1961:Mar.-June, v.26:no.1(1976), v.27:no.1(1977), v.27:no.3(1977), v.28:no.2(1979), v.30:no.2(1981:Sept.)-v.30:no.3(1982:June), v.31:no.1(1982:Oct.), v.31:no.3(1983:Sept.), v.36:no.4(1988:Dec.)	
		MARC Help

**Figure 3.** Local holdings record for an issue-validated (WEST “gold”) print archive title held by Stanford University. As shown, extensive detail about the condition and completeness of individual volumes is reported.

Participants reported no particular challenges with creating or editing print archiving statements in Connexion; this was unsurprising, since the metadata guidelines represent -- by design -- an extension of established cataloging practice, and the Connexion browser already supports core holdings maintenance operations. (Currently, local holdings maintenance is available in the Connexion browser, but not the Connexion client software.) A few institutions made use of the “constant data” feature in Connexion to create custom templates for print archive LHR, e.g. pre-populating selected sub-fields in the 583 to increase efficiency in manual record creation. Initial plans to develop a tutorial for print archive LHR maintenance in Connexion were abandoned after pilot participants reported the print archiving extensions to be acceptable. An important exception was made with respect to reporting the “materials specified” in print archiving statements, since these will vary almost every instance and hence cannot be easily automated.

Early in the test phase, important concerns were raised about the work required to modify existing local holdings to accommodate the new print archive symbols and the potential burden this represented for cataloging staff. As pilot institutions looked beyond the initial small-scale tests of real-time record

creation, they became apprehensive about the operational impact of additional item-level cataloging, especially for institutions managing large print archives. Creating the new holdings statements was viewed as a valuable investment in resource description, even in a period when investments in local cataloging are generally in decline; cleaning up or modifying existing records to remove volumes and/or holdings symbols based on varying situations was regarded as far too time-consuming and of dubious resulting value.

The impact of print archiving efforts on cataloging workflows will be determined in large part by the volume of material to be archived and the complexity of program-specific validation standards. Libraries that consolidate, validate, and ingest holdings under a print archiving agreement are doing so on behalf of and with the support of a broader group of libraries. The bibliographic and holdings records under development at those locations represent consolidated records (not just the records of a single institution) and the effort required accrues to the benefit of multiple libraries. It is important to recognize that even relatively modest changes in resource description may be perceived to have a “disproportionately” disruptive effect, whether that work is carried out in a cooperative cataloging utility like Connexion, or in a local ILS. It is equally important to consider the work that is required to prepare records for batch contribution to aggregators. The second phase of testing therefore focused on existing mechanisms for batch loading records created in local inventory systems, to WorldCat.

### **Batch load of LHRs**

Pilot participants first prepared for the batch loading test by creating local holdings records for large sets (100 titles or more) of print archive titles in their local integrated library system. An effort was made to ensure that multiple ILSs were represented in the pilot, so that differences in export capability and batch processing (macro-based edits) could be evaluated.

Between January and March 2012, 4 pilot participants contributed more than one thousand print archive LHRs using the WorldCat batch load utility:

<b>Pilot site</b>	<b>Print Archive Symbol</b>	<b>Local System</b>	<b>Total LHR batch loaded to WorldCat</b>
UCLA	CLUSP	Ex Libris Voyager®	447
UCSD	CUSSP	Innovative Interfaces, Inc. Millenium	170
UC SRLF	ZASSP	Ex Libris Voyager®	167
Stanford	STFSP	SirsiDynix Symphony®	107
Stanford	SL3SP	SirsiDynix Symphony®	106

Two additional pilot participants using Innovative Interfaces' Millenium expressed interest in testing the batch load process but lacked the requisite export module and found the cost of adding it prohibitive for the current scale of their print archive operations. A third Millenium site concluded that the volume of records to be contributed did not warrant batch loading.

None of the institutions that contributed print archive LHRs via batch loads during the pilot reported any technical difficulties. However, it was reasonably observed that the additional charges (and labor) associated with establishing batch loads under a new symbol -- as was necessarily the case for pilot participants using newly-minted print archive symbols -- represented a disincentive to record contribution. This is especially true for print archiving institutions already maintaining local holdings in WorldCat, since existing holdings would need to be reloaded in order to be associated with a distinctive print archive symbol. This concern was communicated to OCLC product managers for consideration.

A sample list of titles for which print archiving statements were contributed during the course of the pilot is provided in Attachment 6. These titles and corresponding holdings may be viewed in WorldCat, using FirstSearch or Connexion. LHR data is not displayed in WorldCat.org, but can be selectively activated in WorldCat Local sites.

*Note: Additive vs. Substitutive approaches*

In keeping with local practice, some pilot institutions opted to contribute print archiving LHRs that duplicated item-level holdings on a related local symbol in WorldCat. For example, where a partial run of serial holdings was subject to a print archiving commitment, some libraries preferred to maintain local holdings on the original library symbol, in addition to providing a print archiving holdings statement on a different symbol. This practice became known as the "additive approach," to distinguish it from the recommended practice of replacing (substituting) holdings statements on the main symbol with holdings statements on the new print archiving symbols. As reported below, the additive approach resulted in unanticipated complications in resource sharing workflows and is expected to further complicate collection analysis and management. Thus, while it might be considered as a strategy for diminishing (or at least avoiding additional) record maintenance in the cataloging division, it has the negative

consequence of creating additional work downstream. During the course of this project, OCLC put forward an official statement discouraging use of the “additive approach” to holdings maintenance for print archives. (See Attachment 4.)

### ***Testing: Resource Sharing***

A working group was formed and assigned the task of determining what impact the project’s disclosure strategy would have on resource sharing workflows. Given that existing inter-library lending (ILL) systems function primarily via OCLC Institution Symbols and make no automated use of action notes in the 583 field of Local Holdings Records, the project’s disclosure strategy presumed and required the use of new OCLC symbols. The goal of testing resource sharing workflows was to determine the resulting efficacy of this approach and to determine the impact of accommodating the introduction of multiple new OCLC symbols across the system.

Participant libraries provided a diverse ILL testing ground, with multiple resource-sharing management systems in play. One set of participants uses VDX for ILL interactions among themselves, with requests to and from partners outside the circle being passed via the ISO ILL protocols to OCLC’s centralized inter-library lending system, WorldCat Resource Sharing (WCRS). Another participant library uses ILLiad, which acts as a front-end shell over WorldCat Resource Sharing, as its tool for managing ILL interactions with all resource sharing partners. Yet another participant library uses ILLiad for interactions with nearly all resource sharing partners but maintains a special relationship with the first-mentioned group of libraries operating on the VDX system; ILL transactions traveling between the VDX group and this last participant library are transmitted server-to-server via the ISO ILL protocols, rather than from one centralized system to another via the protocols.

### **Methodology**

Testing scenarios were purposefully kept simple and lightweight. Not every possible type of request nor every variety of response was tested. The testing focused on purely technical systems interactions: ensuring that borrowing requests could be placed on a new symbol, that the requests were received on the new symbol at the lending institution and that the possibility of a loan was generated. Actual physical loans were not transacted. And the testing did not verify human-policy interpretation at the lender institution which may result in unfilled requests. Exploring how the currently available ILL systems might support privileged access to certain partners for materials covered by print archiving agreements was considered but declared outside the scope of the pilot project. Also declared out of scope was making the new print archiving symbols first-resort lenders within the VDX group. While both functions (the ability to support privileged access and to prioritize delivery of shared print resources) are likely to be needed in the near future, the basic functions of lending and borrowing were the focus of the pilot.

One participant library chose to take part in the testing only as a borrower from outside the various shared print agreements, managing the requests on ILLiad and borrowing using its original OCLC symbol. This particular test, at least for borrowing, is likely to be the most ubiquitously used in the community.



Participant libraries within the circle of VDX users tested among themselves using the new print archiving symbols, outside the production environment. Twenty requests were circulated among three institutions in the group and taken to the point of producing pick slips. After some further system configuration by library staff and by VDX support specialists, the VDX group of libraries was also ready to accept borrowing requests from an “outside” borrower that was using ILLiad, and to trade server-to-server requests with the final pilot participant library, with which they maintain a special relationship.

Yet another participant library, which enjoys a special relationship with the VDX group, was keen on closely mirroring its everyday resource sharing environment in the testing. First this library set up its new shared OCLC print symbol in ILLiad. Since ILLiad is basically designed to manage one OCLC symbol for ILL purposes, and this library was already managing its main OCLC ILL symbol in an existing instance of ILLiad, a new “satellite” library had to be created for the print archiving symbol. (Normally a satellite library costs about \$1,200 per year, but OCLC waived the fee for the pilot project.) The satellite library allowed this institution to lend to the afore-mentioned “outside” library, borrowing under its main OCLC symbol using ILLiad. This satellite library was also configured so the new symbol could trade requests server-to-server with the VDX group using the ISO ILL protocols.

Testing took place as each participant library became functional in the methods necessary to interact with each testing partner.

A Group Access Capability (GAC) called SHRP was created for the pilot. It included the new shared print symbols for Stanford (SL3SP), UCLA (CLUSP), UCSD (CUSP), and SRLF (ZASSP). ILL testers did not utilize this capability, as they were given known items to request and searched for them using the OCLC number for each item. However, the GAC was extremely useful when project organizers were compiling a list of print archiving records to be used in the ILL testing.

## **Results**

In nearly all cases, the technical systems for borrowing and lending functioned as expected: for the most part, requests to borrow shared print materials were transmitted to the new symbols, requests were received on the new symbols, and the requests could be fulfilled (pick-lists were generated). The only test not completed successfully was borrowing by ILLiad from VDX server-to-server, using the ISO ILL protocols; a diagnosis is still being sought as of this writing, but it appears to be a configuration problem not specific to the pilot project’s disclosure strategy. VDX did lend successfully to ILLiad via ISO ILL.

Once the various inter-library loan systems were set up and properly configured, exchanging test requests was routine. While the pilot project is diverging widely from traditional practice in the way OCLC symbols are being used (e.g., to indicate a status [print archived] as much as a location), in resource sharing terms the task at hand became merely to accommodate the insertion of new OCLC symbols into the resource sharing system.

With ILL systems most commonly in use (ILLiad, WCRS), borrowing libraries need to know about the new shared print symbols only if they plan to give them some sort of priority when constructing lender strings. Most systems allow for the automatic generation of lender strings of the symbols of “preferred”

ILL partners who happen to turn up as owning libraries when a wanted item is searched for. A borrowing staff person must know about a new print archiving OCLC symbol at least once if he is to insert it into the tables that govern the generation of lender strings. (With VDX, any new symbol inside or outside the group must be configured in the system tables before a VDX library can trade ILL requests with that institution.)

Beyond this one-time set up of the “preferred” lender tables, tests showed that **the print archiving project’s retention commitment disclosure strategy had no impact whatsoever on the borrowing workflows** in resource sharing.

On the lender side, testing showed mostly minimal impact of the project’s disclosure strategy on resource sharing workflows. By far the most significant impact, which surfaced in the internal testing of the VDX group, can occur when the lending library has used the “additive approach” to noting retention commitments in the 583 action notes of the Local Holdings Records – meaning that the library has retained the holdings information on the original OCLC symbol but also attached it to the new print archiving symbol. In some cases, the VDX group saw both the original and the shared print symbol appear in the lender string. In instances where the request went unfilled, lending staff sometimes had to respond twice (once for each symbol) before the request moved on to another potential lender. **The “additive approach” effectively shifts workload from cataloging to ILL and may result in unnecessary delays in a request reaching a lender who can fill it.**

One impact that the disclosure strategy would have on resource sharing workflows would be the need for lending staff to monitor two OCLC symbols for incoming ILL requests, where before they had to monitor only one. This was viewed as a relatively minor issue given the anticipated low use of the print serials being archived by pilot participants. If the demand profile for the archived resources were substantially different, the resource sharing impact might be more keenly felt.

Another impact would be the one-time set-up that would be required if a lender wanted to treat borrowing requests coming from a new OCLC symbol in a particular way, e.g. with special pricing or privileges.

While actual daily resource sharing workflows were not impacted at all for borrowing and only minimally for lending, staff at participant libraries had to expend considerable effort establishing new OCLC symbols, activating those symbols for ILL, configuring their own symbols in the local ILL management infrastructure, and accommodating the new symbols being created by partner institutions. This caused several weeks of delays for the pilot project as we worked to get all of the participant libraries set up properly for the tests. While it should be noted that setting up a new OCLC symbol or purchasing a license for an ILLiad satellite library are normally routine and straightforward processes, these activities were complicated unnecessarily by a perception that the pilot project required unique processes. See Attachment 5, Implementation Steps, for lists of service requests and technical recalibrations that must be made in order to accommodate the new print archiving symbols, along with some suggested language to be used when communicating with the service agency.

**Table 1:** Summary Borrowing/Lending Testing Results

Workflow aspect	One-time	Workflow impact
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	<b>or ongoing</b>	
<b>Overall Setup</b>		<b>Moderate</b>
Print archiving initiative staff publicize new symbols to ILL staff to facilitate setup	One-time setup	Minimal
Set up new OCLC Symbols, Activate symbols for ILL, configure symbols in local ILL management infrastructure, accommodate new symbols created for partner institutions	One-time setup	Simple for WorldCat Resource Sharing users; Significant for ILLiad and VDX users
Set up privileged borrowing parameters	One-time setup	Minimal
<b>Ongoing Borrowing/Lending</b>		<b>Minimal</b>
Lending staff monitor multiple symbols for incoming ILL requests	On-going	Minimal
Lending and borrowing staff receive ILL requests for same item on both old and new symbols when the “additive” LHR approach is used (not recommended); may have to say “no” twice if unfilled.	On-going	Moderate (assuming relatively low use)

## Key Findings

Overall the results of the pilot project and its testing were positive. Participants successfully demonstrated that existing data models and bibliographic infrastructure (local and shared systems) can be adapted to serve emerging cooperative approaches to print management. Currently available cataloging and disclosure mechanisms provide acceptable, if not yet ideal, means of identifying and describing shared print collections in individual libraries and across the library system as whole. We further demonstrated that commonly used resource sharing systems can process borrowing requests and lending actions for materials designated as shared print resources, when the proposed disclosure method is correctly implemented. Some adverse consequences of selective implementation (e.g. the “additive approach” to holdings maintenance) were noted.

As a result of the project, print archive holdings from several major US initiatives were made visible in a standard format, substantially improving our view of emerging preservation infrastructure. The potential impact of a broader effort to disclose print archive holdings in WorldCat may be judged if one considers how the value of local print archive commitments is amplified through aggregation. For example, an average of 400 libraries (in WorldCat) hold one or more copies of each the more than 1200 print archive titles registered during the short-term pilot; some of the archived titles are held by thousands of libraries. The registration and disclosure efforts of a relatively small number of motivated libraries can fundamentally alter the range of options that are available to individual libraries -- to contribute content to archives, contract for print management services, or raise institutional visibility as an archiving organization.

While the outcome of the pilot were generally positive, a few problematic issues were revealed that are worthy of emphasis.

### ***Operational concerns***

As noted above, pilot participants voiced concern about the operational impacts of implementing the recommended procedures for cataloging and disclosing institutional print archives. The single greatest concern was that the work associated with modifying existing local holdings records to reflect volume-level changes in preservation status or access policies (in the case where portions of an existing serial holding were reassigned to a shared print collection) was likely to pose an undue burden on cataloging staff. As reported above, several pilot sites experimented with an “additive approach” to print archive LHR creation, with the view that duplicative reporting of item level holdings in the local system was unlikely to have any impact on local title-level discovery. Subsequent testing of inter-lending shared print archive titles suggested that this work-around simply shifted the operational burden downstream, since inter-lending staff were challenged to identify which of the item level holdings was available (or not) for resource sharing. Equally, important the “additive approach” has negative consequences for collection management functions such as collection analysis and reporting of institutional volume counts.

### ***Technical issues***

Much of the complexity of the recommended approach results from the need to establish new OCLC Institution Symbols to indicate the combined status and location of print archived materials. This is a solution of convenience, relying on existing OCLC functionality, and is not optimal. An optimal solution would drive discovery and resource-sharing behavior based on metadata recorded at the item level. There will be items shelved in the same location whose accessibility for resource-sharing or inclusion in a “print archives catalog” varies only based on their print-archived status. The existing “deflection rules” already provide a mechanism to indicate that certain materials won’t be loaned, but the rules are based on bibliographic-level (not item-level) fields, that don’t correspond to print-archive-status data. The Coordinating Committee believes it was important to develop a procedure that could be implemented right away by individual libraries, but recognizes that a better solution, that would require OCLC software development, would be based on data in LHRs or item records.

Several participants were frustrated in their attempts to export print archive holdings from local inventory management systems. As an increasing number of libraries begin to shift print management functions to the group level and seek “network -level” intelligence about the collective resource, we are likely to see pressure on all library service providers to improve support for data export and reuse. This has important implications for existing library management technology and business models.

Some technical issues that were encountered over the course of the project remain unresolved. For example, University of California (UC) pilot sites experienced difficulty in seeing UCLA's batch loaded LHRs in UC's shared WorldCat Local instance, even after they were activated in the configuration profile. It is not clear if the problems encountered were specific to local circumstance or system configurations or

if they represent general interoperability problems. As noted in the Recommendations for OCLC (above), these and other issues will need to be addressed as print archiving activities move into the mainstream of library operations.

Pilot participants identified three additional functions that were out of scope for the disclosure pilot but have technical ramifications that are now or will be very important as print inventories are reconfigured across libraries:

1. **Discovery of shared print resources**, revealing the shared print status of a resource in discovery layers such as WorldCat Local and/or FirstSearch. Several participants acknowledged the need to reveal the print archive status of resources selectively to different audiences. Additional policy and technical work is needed to identify the appropriate audiences and discovery layers to whom/in which the archive status should be made known.
2. **Privileged access**. Some print archives may wish to establish different access behaviors and/or privileged access and pricing terms for member vs. non-members of their print archiving program. This may become more of an issue as shared print programs begin to focus on reconfiguring monograph inventories.
3. **Prioritization/deprecation of shared print resources within a consortia or print archive program**. Print archive programs are shifting away from the notion of “dark archives”, as there is little evidence to suggest restricted access is needed in an environment of already declining print usage. There is a significant shift in thinking to make shared copies the norm rather than something “extra”. Indeed some programs are considering whether to place greater reliance on shared print copies from a service perspective, which would in turn help to better gauge overall demand and the need for multiple copies in the system. Otherwise, by distributing requests among a larger number of available copies, it’s difficult to assemble a picture of the number of copies truly needed to satisfy demand. So the intention behind prioritizing shared print resources in the context of duplicates is to help move libraries in the direction of reliance on a reduced number of copies in the system rather than treating shared print as a backup, shadow copy.

Some consortia or shared print groups are likely to want to move in the direction of prioritizing delivery of their shared resources, others may wish to deprecate theirs in the context of duplicates. From a technical perspective, this requires the ability to re-program automated lending/borrowing systems (e.g. rota lists) to prioritize or deprecate the shared print copy in the context of other duplicates held within a consortia or group. The union catalogs maintained by consortia (including WorldCat Local consortia groups) and borrowing/lending systems that communicate with them need to be able to detect the new shared print symbols and circulation status at the item level to be able to re-prioritize these resources in the context of duplicates within a group of libraries.

## ***Cost implications***

Given the relatively small number of titles for which print archive LHR were created during this pilot, we do not have sufficient information to evaluate the personnel costs associated with routine cataloging or holdings maintenance activities associated with implementing the recommended approach. These are arguably part of the cost of doing business in an environment where print management is a shared enterprise that depends on improved item-level control. Instead, we focus here on unanticipated library cost implications that emerged over the course of the project.

As noted above, ILS vendors provide different capabilities for creating, editing and exporting item-level holdings information from local systems. In some cases, holdings export functions require the purchase of an additional module. For institutions that expect to contribute item-level holdings for only a small part of their total collection to print archiving (or other) aggregations, the additional cost of the module may be difficult to justify.

There are also several areas where new or additional OCLC costs would be incurred as a result of using the recommended approach to print archives disclosure:

- New LHR profiling, batch load profiling, and cancel holdings set-up for the new symbol (can be one-time charge or separate charges, several hundred dollars each, depending on the timing and particulars)
- Lending charges under new Institution Symbol (ongoing, based on transaction volume)
- ILLiad charges to establish new “satellite library” for lending from additional OCLC symbol (one-time, est. \$1,200)

Note: Shared print archiving is behavior that is good for the library community and its users and should be encouraged. However, the pricing models for some of the library services available for supporting this behavior, particularly in the area of resource sharing, do not appear to take into account the fact that all this activity centers around material that by its very nature is low-use. Some institutions, such as Stanford, with many campus and off-site storage libraries already operating under their own OCLC symbols, will now be considering adding half a dozen new shared print symbols. If they wish to manage the resource sharing aspects of these symbols under their current workflows, they will be required to purchase six additional satellite libraries for ILLiad, paying \$7,200 per year to support symbols that may lend only a few dozen items per year. A new pricing model that takes into the consideration the purpose of the new satellite library, e.g. shared print archiving, would serve to incentivize behavior considered to be beneficial to the library community and its users.

## Conclusions

The Coordinating Committee considers that the proposed approach is the best way using available functionality for shared print/print archives programs to disseminate information widely about the retention and archiving commitments they have made. While more effective and efficient ways could be designed and developed to support specific shared print requirements using WorldCat or other bibliographic utilities (e.g. COPAC, AMICUS, DOCLINE), we believe it is very important for the libraries and institutions that are already archiving print materials to make those commitments known in

WorldCat and other shared catalogs as soon as possible. Therefore we encourage all participants in shared print activities to adopt the procedures outlined in this document for describing and disclosing print archive holdings. We particularly encourage more systematic use of the descriptive metadata guidelines (Attachment 3) by institutions creating or contributing to shared print collections.

We believe that the positive impacts of shared print management -- opportunities for library space recovery, cost avoidance, and a renewal of the library's core value proposition -- will not be generally felt until a common approach to registration and disclosure of print archives is adopted. As the *de facto* national bibliographic infrastructure provider in North America, OCLC can play an important role in supporting the evolution of library operations by helping to promulgate the proposed metadata guidelines, incorporating them (with appropriate revisions) into official documentation for WorldCat holdings maintenance, and encouraging members to view the contribution of print archives metadata as an important component of participation in the global cooperative. Library service providers from the commercial and not-for-profit sector alike can improve support for cooperative print management by addressing critical gaps in existing infrastructure and revising cost models to acknowledge the accelerating shift from local to group acquisition and stewardship of print resources.

## **Appendices**

**Attachment 1:** OCLC Print Archives Pilot Project Working Groups

**Attachment 2:** Shared Print Symbols created during the pilot project

**Attachment 3:** Metadata Guidelines

**Attachment 4:** OCLC Statement on Additive LHR for Print Archives

**Attachment 5:** Implementation Steps

**Attachment 6:** Sample journal titles with print archive LHRs created during pilot

**Attachment 1**  
**OCLC Print Archives Disclosure Pilot**  
**Working Group Participants**

Metadata Working Group

- Linda Barnhart, University of California, San Diego
- Colleen Carlton, UC Southern Regional Library Facility
- Mecheal Charbonneau, Indiana University
- Ryan Finnerty, University of California, San Diego
- Betsy Friesen, University of Minnesota
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- Phil Schreur, Stanford University
- Lizanne Payne, Shared Print consultant, convener

Preservation Working Group

- Kate Contakos, Stanford University
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- Mary Miller, University of Minnesota
- Jake Nadal, University of California, Los Angeles
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- Constance Malpas, OCLC Research, convener

Resource-sharing Working Group

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- Sherri Michaels, Indiana University
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Inter-library Loan Testers

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- Jennifer Lee, University of California, Los Angeles
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- Rita D. Rogers, Indiana University



The following individuals were also consulted and provided valuable expertise and input during the course of the project:

- Rebecca Guenther, Senior Networking Specialist, Library of Congress
- Katie Birch, Portfolio Director, Delivery Services, OCLC
- Meghan Hopkins, Product Manager, WorldCat Collection Analysis, OCLC
- Becky Hurley, Director, Order Fulfillment & Distribution, OCLC
- Kem Lang, Product Manager, WorldCat Local, OCLC
- Tony Melvyn, Product Manager, WorldCat Resource Sharing, OCLC
- Myrtle Myers, Senior Product Analyst, WorldShare Management Services, OCLC
- Kathleen Quinton, Manager, Development Communications, OCLC

**Attachment 2**  
**Shared print symbols created during the pilot project**

<b>Symbol</b>	<b>Description</b>
CLUSP	UCLA Shared Print in Place
CUSSP	UCSD Shared Print in Place
CRLAA	CRL Print Journal Archive
IULSP	Indiana University Shared Print in Storage
MLCSP	University of Minnesota Shared Print in Storage
STFSP	Stanford Libraries Shared Print in Place
SL3SP	Stanford SAL3 Shared Print in Storage
ORUSP	University of Oregon Shared Print in Place
ZASSP	UC SRLF Shared Print in Storage

### Attachment 3 Metadata Guidelines

The OCLC Local Holdings Record Updating service (LHRUS) processes separate holdings records that are compliant with the [MARC21 Format for Holdings Data](#) (MFHD) for the purpose of updating local holdings records (LHRs) in WorldCat. An institution may have one or many LHRs for any given bibliographic record in WorldCat.

While LHRs are based on MFHD, there are a few key aspects of OCLC's implementation of the standard that should be noted:

- WorldCat LHRs are copy-specific, separate holdings records.
- OCLC does not accept holdings data embedded in bibliographic records.

Holdings records sent by libraries may contain any element in the [MARC21 Format for Holdings Data](#). However, only those data elements defined for use in the OCLC LHR format will be used. Complete information on LHR data elements can be found in [OCLC-MARC Local Holdings Format and Standards](#).

<b>583</b>	<p>Create a Local Holdings Record (LHR) for each title to define location (Institution Symbol), print archiving program, archiving action(s), retention period, and holdings archived. This LHR will be associated with the new Print Archive institution symbol. The LHR will include one, two, or three 583 Action Notes in the LHR as appropriate:</p> <ul style="list-style-type: none"> <li>● At minimum, a single 583 ‡ a <b>Action</b>="committed to retain"</li> <li>● If the title was validated for completeness, include another 583 to summarize the action and report any identified gaps. Include ‡ a <b>Action</b>="completeness reviewed" with appropriate ‡l <b>Status</b> terms to report evidence of missing units, binding anomalies or reprints; use the ‡ z <b>Public note</b> to specify gaps and missing materials.</li> <li>● If the title was validated for condition, include another 583 to summarize the action and record the conditions found. Include ‡ a <b>Action</b>="condition reviewed" with one ‡l <b>Status</b> and one ‡ z <b>Public note</b> <u>for each condition found</u>, reporting the condition and indicating the volumes to which it applies.</li> </ul> <p><b>For validated holdings only</b>, update the bibliographic holdings statement(s) once validation is complete (i.e. 85x/86x formatted holdings or 866 summary holdings statement).</p>
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<b>Required Fields for LHRUS Print Archiving Pilot processing</b>	<p>Fields that <b>must</b> be present in a holdings record for successful LHRUS processing by OCLC are:</p> <p>A field containing the <b>OCLC control number</b> of the corresponding WorldCat bibliographic record. This can be the <b>004, 014</b> or <b>035</b> field but it must consistently be in the same location in all records.</p>
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	<p><b>Leader and Directory</b>  <b>001</b> - Local System Control Number  <b>007</b> - Physical Description Fixed Field  <b>008</b> - Fixed-Length Data Elements  <b>583</b>- Action Note(s)  <b>852</b> - Location  —‡a - <b>Location</b>  —‡b - <b>Sublocation or collection</b>  The presence of other fields will vary depending on content. OCLC can often supply default values for certain elements if they are lacking.</p>
<p><b>583 Action Note</b></p>	<p><b>First Indicator-Privacy: For print archiving purposes, the default value of the first indicator should be “1” i.e., not private.</b></p> <p>‡3 <b>Materials specified:</b> Detailed holdings to which action applies, should be same range of holdings described in LHR 85x/86x or 866. Indicate gaps if known.</p> <p>‡5 <b>Institution:</b> Archiving institution, controlled terms using MARC organization code</p> <p>‡a <b>Action:</b> “committed to retain” or “completeness reviewed” or “condition reviewed” are the expected ‡a Action terms for print archives.</p> <p>‡c <b>Time/Date of Action:</b> Date action taken, YYYYMMDD</p> <p>‡d <b>Action interval:</b> When ‡a=“committed to retain”, specify date when retention commitment expires. If the term of the commitment is not known, indicate “retention period not specified”.</p> <p>‡f <b>Authorization:</b> Archiving program e.g. WEST, ASERL, CIC-SPA, UC Shared Print, UKRR etc.</p> <p>‡i <b>Method of Action:</b> Validation level (volume-level, issue-level, page-level), used when if ‡a=“condition reviewed” or “completeness reviewed”</p> <p>‡j <b>Site of Action:</b> Holdings Location Code (HLC)</p> <p>‡l <b>Status:</b> When ‡a=“condition reviewed” or “completeness reviewed” use preferred print archiving terms as set forth below in Attachments 1 &amp; 2. These terms will be integrated into the <a href="#">Preservation &amp; Digitization Actions: Terminology for MARC 21 Field 583</a> (PDA) during the course of the Print Archives Pilot project.</p>

	<p>‡u Uniform Resource Identifier (link to program documentation for print archiving program identified in ‡f)</p> <p>‡z <b>Public Note:</b> When ‡a=“condition reviewed” or “completeness reviewed” use the ‡z Public Note to specify the physical units for which condition or completeness problems have been identified. Specify the condition or completeness problem, followed by the units to which it applies. For example, ‡z text block obscured in volume 2 (1982), p.38, or ‡z missing volume 13 (1937). Use one ‡z Note per completeness or condition status.</p>
<b>852</b>	<p>‡a Location (Use Print Archives Institution Symbol)</p> <p>‡b Sublocation (Use Holdings Location Code)</p>
<b>85x/86x</b>	Coded holdings
<b>866-8</b>	‡a Textual holdings (Summary holdings) if no 85x/86x formatted holdings pairs

<b>Desired Fields for LHRUS Print Archiving Pilot processing</b>	<p>The following fields are desired, where applicable and available, to support the LHRUS print archiving pilot:</p> <p>022 – International Standard Serial Number (ISSN)</p> <p>561 – Ownership and Custodial History</p> <p><b>Where applicable and feasible, use the 561 to record the original owner of holdings for archived materials that have been consolidated under a new print archive symbol. This may occur for existing holdings moved to a print archive status, for shared storage facilities with a single copy policy or for in-place archives where gaps are filled from contributions by other libraries.)</b></p> <p>When used for shared archives, provide a separate 561 for each original owner, e.g.:</p> <p>561 1 ‡a CUI ‡5 CU-I</p> <p>561 1 ‡a CLU ‡5 CL-U</p>
<b>022 International Standard Serial Number (ISSN)</b>	<p>‡a ISSN: for the title record corresponding to the OCLC number provided in <b>004, 014</b> or <b>035</b> field.</p> <p>In case of multiple ISSNs, use the first 022 ‡a.</p> <p><b>Inclusion of the ISSN provides a standard match point to support linking of</b></p>

	<b>LHR information with other data sources.</b>
<b>561 Ownership and Custodial History</b>	<p><b>First Indicator-Privacy: For print archiving purposes, the default value of the first indicator should be “1” i.e., not private.</b></p> <p>‡3 Materials specified: Optional. If used, includes holdings originally owned by the institution identified in ‡a History</p> <p>‡5 Institution: Original owning institution, controlled terms using MARC organization code</p> <p>‡a History: Institution Symbol of library or institution that provided materials to the Print Archive identified in 852 ‡a Location. The 561 provides a means of identifying the original owner of material that was contributed to the Print Archive (identified in 852 ‡a Location).</p> <p><b>In cases where an archived serial run comprises material contributed by several libraries, a separate 561 per contributing library is recommended to note (via the ‡3 specific holdings contributed by each library.</b></p>

Holdings contributed to multiple archiving programs	If archived content is contributed to multiple shared print aggregations is subject to different retention and/or access policies, separate 583 statements should be supplied for each program. If content is contributed to multiple programs that share common preservation and access policies, a single 583 may be used. In such cases, multiple ‡f should be supplied to identify each of the relevant programs.
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NB the following fictional examples are provided for illustrative purposes only

**Example 1: Use of the 583 to record retention for unvalidated journal holdings; minimal form of 583 for print archiving.**

Retention 583:

583 1# ‡a committed to retain ‡c 20115103 ‡d December 31, 2035 ‡f WEST ‡f WEST Bronze ‡u <http://www.cdlib.org/services/west/docs/WESTProgramStatement.pdf>

**Example 2: Use of the 583 to record retention commitments and outcomes of validation for journal holdings, when holdings are only reviewed for completeness. Two 583 Action Notes are created.**

Retention 583:

583 1# ¶3 v.1-v.45 (1960-2002) ¶a committed to retain ¶c 20110101 ¶d December 31, 2035 ¶f OCA DPR ¶f WEST ¶f WEST Silver ¶j ORUS ¶2 pda ¶5 OrU

Completeness 583:

583 1# ¶3 v.1-v.3 (1960-1962), v.5-v.37(1964-1997), v.39-v.45 (1999-2002) ¶a completeness reviewed ¶c 20110101 ¶f OCA DPR ¶f WEST ¶f WEST Silver ¶i volume-level validation ¶l missing volumes ¶z missing v. 4, v.38 ¶2 pda ¶5 OrU

**Example 3: Use of the 583 to record retention commitments and outcomes of validation for journal holdings, when holdings are reviewed for completeness and condition. Three 583 Action Notes are created to record the retention commitment, completeness review and condition assessment.**

Retention 583:

583 1# ¶3 v.1-v.50 (1951-2005) ¶a committed to retain ¶c 20110101 ¶d December 31, 2035 ¶f WEST ¶f WEST Gold ¶j AZFSP ¶2 pda ¶5 AzTeS

Completeness 583:

583 1# ¶3 v.1-v.50 (1951-2005) ¶a completeness reviewed ¶c 20110101 ¶f WEST ¶f WEST Gold ¶j AZFSP ¶i issue-level validation ¶l missing volumes ¶l reprints ¶z missing v.6-v.7 (1959-1960), v.17 (1970) ¶z reprints v.3-v.5 (1951-1958) ¶2 pda ¶5 AzTeS

Condition 583:

583 1# ¶3 v.1-v.50 (1951-2005) ¶a condition reviewed ¶c 20110101 ¶f WEST ¶f WEST Gold ¶i issue-level validation ¶j AZFSP ¶l tight bindings ¶z tight bindings v.30-v.35 (1973-1978) ¶2 pda ¶5 AzTeS

**Preferred ¶l Status terms when ¶a = “condition reviewed”**

Term	Usage guidelines
Acidic paper	Method used to identify acidic paper should be reported in ¶z Public note, e.g. pH pen test etc.
Alkaline paper	Method used to identify alkaline paper should be reported in ¶z Public note, e.g. publisher note on title page, pH pen test etc.
Brittle paper	Assessment method and outcome should be reported in in ¶z Public note, e.g. Double Fold test – breakage on second fold.
Faded	Specify faded text, faded cover, etc. Use ¶z Public note to specify which pages, issues or volumes are faded.
Foxed	Specify foxed pages, foxed cover, etc. Use ¶z Public note to specify which pages, issues or volumes are foxed.

Highlighting/Underlining	Use ‡z Public note to specify location of highlighted or underlined text.
Insect damaged	Use ‡z Public note to specify which pages, issues or volumes are insect damaged.
Loose	Specify loose pages, loose binding, loose covers, etc. Use ‡z Public note to specify issue or volume with loose binding, covers, pages etc.
Marginalia	Use ‡z Public note to specify issue or volume where marginalia is found.
Mold damaged	Use ‡z Public note to specify which issues or volumes are damaged.
Obscured text block	Use ‡z Public note to specify location of obscured text.
Rebacked	Use ‡z Public note to specify which issues or volumes have been rebacked.
Rehoused poorly	Use ‡z Public note to specify which issues or volumes were inappropriately rehoused, so that they may be identified for future preservation actions.
Repaired poorly	Use ‡z Public note to specify which issues or volumes were inadequately or inappropriately repaired, so that they may be identified for future preservation action.
Repaired soundly	Use ‡z Public note to specify which issues or volumes show evidence of prior repair.
Stained	Specify covers, pages, etc. Use ‡z Public note to specify which pages, issues or volumes are stained.
Tight binding	Use ‡z Public note to specify tightly bound issues or volumes.
Torn	Specify covers, pages, etc. Use ‡z Public note to specify which pages, issues or volumes are torn.
Warped/cockled	Use ‡z Public note to specify which pages, issues or volumes are water damaged.
Yellowed/browning pages	Use ‡z Public note to specify location of yellowed or browning pages.

**Preferred ‡l Status terms when ‡a = “completeness reviewed”**

<b>Term</b>	<b>Usage guidelines</b>
Binding patterns vary	Use ‡z Public note to specify volumes where binding patterns differ. E.g., “Vols 32-35 bound as single unit.”



Missing	Specify what physical material is missing, e.g. missing foldouts, pages, issues, volumes etc. Use ‡z Public note to specify which issues or volumes are missing or where covers/pages are missing.
Reprints	Use ‡z Public note to specify which issues or volumes are reprints.

**Attachment 4**  
**OCLC Statement on Additive LHR for Print Archives**

Re: OCLC Policy on Print Archive Local Holdings Records  
Date: October 25, 2011

OCLC understands that, in the course of evaluating and implementing the LHR creation guidelines for the Print Archive Pilot project, pilot participants have expressed concern about the maintenance of holdings records. The guidelines, which were created and reviewed with representatives from the WEST project in late 2010, document requirements both to create a new LHR representing the materials committed to retention in the archive AND to update the existing LHR representing the range of materials still associated with the library's main institution symbol. Instead, libraries prefer an "additive" method, in which the LHR for the main institution symbol is not changed when materials are committed to a shared print/Print Archive project.

To ensure the integrity of bibliographic and holdings data stored in the WorldCat database, OCLC requires libraries involved in the Print Archive pilot and other shared print management activities to maintain accurate holdings data on each of the symbols used by the project. For example:

- A library holds Nature, v. 1-100, in its main collection. This information is represented in an LHR associated with the primary institution symbol.
- That library elects to contribute v. 1-50 to the Print Archive project. To represent these holdings, the library creates a new LHR, associated with the shared print symbol, for v. 1-50 (in the 85x/86x paired fields or in the 866 summary holdings field).
- The library **MUST** update the LHR for the main institution symbol to reflect holdings of v. 51-100.

While OCLC recognizes that this requires additional effort for libraries when contributing materials to a shared print/Print Archive project, this method is the only way of ensuring that data is accurate, consistently represented, and useful in any number of downstream processes, including resource sharing and analytics. Further, as OCLC libraries make greater use of LHR records (e.g., in Webscale management applications), it will become increasingly important to maintain the accuracy of the information contained therein.

Put simply, **OCLC cannot support a Print Archive model that encourages the creation of duplicative and inaccurate data.**

## **Attachment 5**

### **Implementation steps**

This is a summary of the implementation steps that were needed at each institution.

#### **Areas for coordination by a print archives project manager**

- Work with and propose the new Institution Symbols for members of the print archiving initiative, following the recommended nomenclature as best as possible. Work with OCLC to determine availability of the proposed symbols. (Requests for symbol set-up and other activities should be directed to [orders@oclc.org](mailto:orders@oclc.org).) Provide guidance to member libraries about settings for the symbols (supplier/non-supplier) as appropriate for the shared print initiative.
- Facilitate contacts between member libraries and OCLC's customer service units to set up new institutions symbols.
- Establish common vocabulary specific to the print archiving initiative for use in the 583. For example, retention period, archiving program name, selected preservation terms from the PDA vocabulary, URL for the print archive initiative documentation.
- Establish a URL for the print archiving initiative documentation. Post policies, guidelines, validation standards and/or definitions for condition and completeness review there.
- Facilitate setup of Group Access Capability and Group Catalogs for the print archiving initiative, negotiate group pricing as appropriate.

#### **Areas for coordination by a resource sharing manager, sorted by ILL system**

For **all libraries**, if the library will be lending using the new print archiving OCLC symbol:

- Ensure that the new OCLC symbol is enabled for ILL
- Obtain authorization and password information through OCLC Order Services
- Go into the OCLC Policies Directory to set up contact information, lending policies and any desired deflection rules, and change the symbol from Non-supplier to Supplier

For **WorldCat Resource Sharing** libraries:

- Do basic set-up for new OCLC symbol (Constant Data, etc.)
- If desired, add other new shared print archiving OCLC symbols to custom holdings groups and paths, in order to influence where such symbols appear in automatically-created lender strings
- Address questions to OCLC customer support.

For **ILLiad** libraries:

- If the library is supporting only the new shared print OCLC symbol with its instance of ILLiad, do basic set up. Address questions to OCLC customer support.

- If the library is supporting more than one OCLC symbol with the same instance of ILLiad, it must purchase a license for a “satellite” library, at a cost of about \$1,200 per year. Address questions about establishment of satellite library to Atlas Systems customer support.
- *(An alternative to establishing a satellite library would be to manage ILL requests sent to the new print archiving symbol using WorldCat Resource Sharing. This would be cheaper and, given the low-use nature of the covered material, not onerous. But it would take this aspect of ILL out of the institution’s normal workflow.)*
- Further calibration is needed if a library intends to use the ISO ILL capability of ILLiad, to communicate with other ISO-compliant ILL partners server-to-server rather than through a centralized inter-lending system. Address questions to OCLC customer support.

For **VDX** libraries:

- For trading requests within the VDX group, all new OCLC symbols will need to be added to the system tables by the group’s agency
- For trading requests outside the VDX with partners using WorldCat Resource Sharing or ILLiad, put in a request through TopDesk account to have VDX support turn on ISO ILL for all the new print archiving symbols. Make sure all OCLC symbols for desired partners are configured in system tables.

Further calibration is needed if a VDX library intends to interact with an outside partner server-to-server via the ISO ILL protocols. Address questions to VDX support staff. VDX library staff will have to work closely with staff at partner libraries to ensure proper configuration on both sides of the ISO ILL capability.

**Attachment 6**  
**Sample Journal Titles for which Print Archive LHRs were Created**

Participants in the pilot project contributed Print Archive Local Holdings Records for 1237 titles over the course of the project. A sample of 20 titles -- representing 4 titles from each of the 5 participants who contributed data -- is provided here.

Title	OCLC No.	WorldCat Holdings (April 2012)	OCLC Symbol associated with LHR
American journal of political science. Hoboken, NJ [etc.] Wiley-Blackwell Pub. on behalf of the Midwest Political Science Association [etc.] v. 28 cm.	1789847	981	CRLAA
Black American literature forum. [Terre Haute, IN, School of Education, etc., Indiana State University] 16 v. ill. 28 cm.	2757016	638	CRLAA
Callaloo. Baton Rouge, La. : Callaloo, c1976- v. : ill. ; 22-25 cm.	3880433	565	CRLAA
Demography. Silver Spring, MD [etc.] Population Association of America, 2010- v. ill. 25 cm.	1566147	753	CRLAA
The Emu : official organ of the Australasian Ornithologists' Union. Melbourne : The Union, (Melbourne : Walker, May & Co., Printers) v. : ill. (some col.) ; 25 cm.	1567848	230	CLUSP
Heythrop journal; a bimonthly review of philosophy and theology. Oxford, Blackwell Pub. [etc.] 23 cm.	1587186	416	CLUSP
International social work. Bombay, India : Mrs. C. Dave v. ; 28 cm.	1753722	447	CLUSP
Journal of educational psychology. [Washington, etc.] American Psychological Association. v. : ill., diagrs. ; 25 cm.	1754557	1736	CLUSP
Journal of macromolecular science. Reviews in macromolecular chemistry. New York, N.Y. : M. Dekker, c1967-c1982. 21 v. : ill. ; 24 cm.	4985402	311	CUSSP
Journal of perinatal medicine. Berlin ; New York : De Gruyter, v. : ill. ; 25 cm.	2105671	260	CUSSP

Lymphokine research. New York, NY : Mary Ann Liebert, c1982-c1990. 9 v. : ill. ; 26 cm.	7625677	112	CUSSP
Marine behaviour and physiology. New York, Gordon and Breach Science Publishers. 24 v. ill. 23 cm.	1789191	189	CUSSP
Developmental review : DR. New York : Academic Press, c1981- v. ; 23 cm.	7033929	379	IULSP
Ethology and sociobiology. New York, Elsevier [etc.] 17 v. ill. 26 cm.	4148763	292	IULSP
Pharmacology, biochemistry and behavior. Amsterdam, Elsevier. v. ill. 29 cm.	1787728	439	IULSP
Social science research. San Diego [etc.] Academic Press [etc.] v. 23 cm.	1765694	516	IULSP
Computing surveys. [Baltimore, Association for Computing Machinery] 3 v. 26 cm.	1564621	466	ORUSP
Development, growth & differentiation. Nagoya, Japan : Japanese Society of Developmental Biologists, 1969- v. : ill. ; 26-30 cm.	1566536	347	ORUSP
Sedimentary geology. [Amsterdam, New York, Elsevier Scientific Pub. Co.] v. ill., maps. 24 cm.	1606241	445	ORUSP
Wireless networks. Amsterdam : Baltzer Science Publishers, c1995- v. : ill. ; 29 cm.	32246288	424	ORUSP
Biologisches Zentralblatt. Leipzig [etc.] VEB Georg Thieme [etc.] v. ill., plates. 24 cm.	1536443	68	SL3SP
Cognitive psychology. San Diego [etc.] Academic Press. v. ill. 23 cm.	1411264	891	SL3SP
Educational theatre journal. [Washington, etc., American Theatre Association, etc.] 30 v. 26 cm.	1567630	785	SL3SP
Folk music journal. [S.I.] The English Folk Dance and Song Society. v. 20 cm.	1569568	221	SL3SP
SIG security, audit & control review / ACM, Association for Computing Machinery. New York, N.Y. : Association for Computing Machinery, [1981?- v. : ill. ; 28 cm.	7661727	268	ZASSP

Urban ecology. [Amsterdam, Elsevier Scientific Pub. Co.] 9 v. ill. 24 cm.	2441186	208	ZASSP
Vascular pharmacology. New York, NY : Elsevier Science, c2002- v. : ill. ; 28 cm.	48001679	189	ZASSP
Zeitschrift für Hautkrankheiten. Berlin, Grosse Verlag. v.	1777670	126	ZASSP