

Holding Patterns: Current Trends in Serial Holdings Statements

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This work reports on the results of a survey conducted on current trends in serial holdings statements. Respondents described the type of formats used in constructing holdings statements and associated display and system issues. The value of holdings statements, often misunderstood, was deliberated, considering library staff efforts to maintain accuracy. The study examines what libraries are currently doing to convert their holdings statements to comply with the American National Standards Institute/National Information Standards Organization Z39.71-2006 display standard and MARC21 Format for Holdings Data.

KEYWORDS *serial holdings statements, MARC holdings, MARC21 Format for Holdings Data, American National Standards Institute, National Information Standards Organization, standards*

Serial holdings statements in the online catalog provide the library user with information about serial titles and serial issues a given library owns or has access to via gift or subscription. The statements may reflect enumeration, chronology, missing issues, location, and format of issues. Behind the scenes, detailed and involved work is required by library staff to update and maintain the accuracy of serial holdings while attempting to make them readable to patrons. With the inception of the new standard of the American National Standards Institute (ANSI) and the National Information Standards Organization (NISO), ANSI/NISO Z39.71-2006, replacing the 1999 version, libraries are obligated to ensure that holdings statements comply with the latest standard. The ongoing transition of print serials to electronic form increases the importance of evaluating holdings statements in the OPAC. This article reports how libraries around the United States and Canada are

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handling conversion to the revised standard, given staff constraints. Several studies have discussed serial holdings statements, but few have focused on how libraries are formatting holdings, given the idiosyncrasies associated with integrated library systems. This research attempts to fill a gap in the current literature.

HOLDINGS STANDARDS

A brief review of the history of standards shows that the ANSI in New York released a standard in 1980 (ANSI Z39.42-1980) for serial holdings at the summary level 3, the highest level of enumeration and chronology. In 1986, a second standard (ANSI Z39.44-1986) replaced the first and covered serial holdings at both the summary level and the detailed level 4. Three years later, a consolidated standard for monographs and non-serial items was created. ANSI Committee Z39 became known as the NISO and released ANSI/NISO Z39.57-1989. In 1997, in Geneva, Switzerland, the International Organization for Standardization (ISO) issued a standard for holdings at the summary level (ISO 10324:1997).

Compatibility with international standards prompted a proposed holdings standard to replace both Z39.44 and Z39.57, which led to Z39.71-1999. The draft was based on ISO 10324. It addressed both serial and monographic materials and defined display requirements for holdings statements. It also covered electronic resources and could be used for both manual and automated recording of holdings.

NISO standards are reviewed every five years. The latest standard (ANSI/NISO Z39.71-2006) was approved by ANSI on October 6, 2006.¹ This version was a maintenance revision of the 1999 standard with minor updates, corrections, and clarifications based on review of the older standard. The new flexible standard specified display requirements in regards to layout and punctuation for holdings statements for bibliographic items in any physical format or electronic medium. It was intended to promote consistency in the communication and exchange of holdings (MARC21 format). Holdings statements created under earlier standards were accommodated in the 2006 version with multiple presentation options possible.

Both Ellen Rappaport² (2000) and Marjorie Bloss and Helen Gbala³ (2001) provide excellent brief histories of standards development up to Z39.71-1999.

TYPES OF HOLDINGS

For this study, libraries were asked to expound on the type of formats they used to construct holdings statements. Descriptions are based on the Sirsi-

Dynix Unicorn serials check-in module but can be applied to all automated check-in systems.

The purpose of a serial holding statement is to convey useful information to those who operate, depend upon, or use the data to verify or locate a specific serial issue. Ultimately, a holding statement must evolve to the issue-specific level.⁴ Holdings statements may be organized into several constructed information fields such as a general union list statement, bound or unbound holdings, special issues or supplements, cumulative index holdings, and missing issues.

The MARC21 Format for Holdings Data (MFHD) is in the communication format, not a display format, which carries holdings information and defines the structure and coding of data elements for serial items.⁵ The NISO standard specifies the content for holdings statements, while MARC21 provides the structure for holdings records. The MARC 852 field denotes the location of the serial items. There are subsequently four sets of holdings data fields. Natural language identifiers, also referred to as captions and patterns, are designated in fields 853–855. These can be automatically generated by the serials check-in system and establish the format of the display. Issue identification data, the enumeration, and chronology are contained in fields 863–865. These fields are also system-generated and indicate the actual enumeration and chronology for the received issues. Holdings are updated automatically as individual serial issues are checked in. If the feature is selected, the most recently arrived issue will display in the OPAC. Textual holdings fields 866, 867, and 868 contain a textual description of holdings. They can be generated automatically or manually entered. An 866 is generated when receiving an unpredicted basic issue, an 867 is generated to receive supplements, and an 868 is generated to receive index issues. A holdings record may contain information for physical items at one or more locations and is recorded in fields 876–878. An 856 field may be used to link electronic resources to the MARC holdings record. It allows for the electronic transfer of a file, subscription to an electronic journal, or logon to an electronic resource.

Holdings may be recorded at general or issue-specific levels. Summary-level encoding (level 3) indicates that holdings are recorded at the first level of enumeration or chronology in a compressed form, using the first and last issues only in the holdings statement. At the detailed or itemized encoding (level 4), each serial item is listed individually. Z39.71-2006 allows a mixed level of holdings statements with part at the summary level and part at the detailed level.

THE SURVEY

An online survey was conducted to obtain general information from a group of diverse libraries on the following questions:

- What is the type of library and what library automation system do you use?
- Do you check in serials? If so, do the checked-in issues display in the OPAC?
- What type of formats do you use for constructing holdings statements?
- For which types of serials are holdings statements done?
- Are holdings statements formatted according to the latest ANSI/NISO Standard Z39.71-2006?
- Do holdings statements reflect your institution's OCLC holdings?
- Who is responsible for updating serial holdings statements?
- How much time is spent each week updating holdings statements?
- Are holdings statements easy for patrons to read? Are they worth the time and effort to maintain?

An electronic link to the survey was sent to the SERIALST listserv, which serves as an informal electronic forum for those involved in most aspects of serials processing in libraries. The online survey was sent out on April 1, 2008, and data collection closed on April 18, 2008. Information on type of library and library automation system was collected for comparative purposes.

RESULTS

Responses from 236 libraries were collected and analyzed. The majority of the responding libraries were from within the United States, but there were also some responses from libraries in Australia, Canada, India, the Middle East, New Zealand, and South Africa. The findings of the survey are summarized below, followed by discussion based on the responses.

- Of the 236 libraries responding to the survey, 61.7% were university libraries, 17.4% four-year college libraries, 11.5% special libraries, 4.7% community college libraries, and 4.7% public libraries.
- A large part of the academic libraries responding (39.5%) used Innovative Interfaces as the library automation system. Ex Libris (Aleph and Voyager) accounted for 33.2%, SirsiDynix (Dynix, Horizon, and Unicorn) was used in 21.8% of institutions, and Endeavor in 5.5% of libraries. A few libraries used DRA Classic, EOS, Follett, Innovative Millenium, InMagic, OLIB, SOUL (India), SydneyPlus (Australia), TLC Library Solutions, Virtua, or an in-house system.
- Of the 236 libraries responding, 219 (92.8%) checked in serials for which the issues displayed in the OPAC. Fifteen libraries (6.4%) had serial issues that did not display, and two libraries (0.8%) did not check in serials.
- Libraries were asked to describe the types of formats they used to construct holdings statements. More than one category could apply. More libraries

(31.3%) used compressed holdings (first and last issues only) in contrast to expanded itemized holdings (19.7%), where each issue was listed. The majority of respondents (67.4%) recorded gaps when an issue was missing (detailed level) as opposed to not accounting for gaps (25.3%) with summary-level holdings. Enumeration and chronology were mostly recorded adjacent to each other (58.8%; e.g., v.5 (1999)–v.7 (2001)), compared to separate enumeration and chronology (30.5%; e.g., v.5–7 (1999–2001)). Libraries (71.7%) used broad phrases such as “Library retains current year,” for limited retention titles. Open-ended statements (e.g., 1999– ; 63.1% of libraries) and captions (e.g., v. for volume; 46.8%) were also used in constructing their holdings statements. An “Other” category was used for individual libraries to give examples of their holdings statements. Many used a combination of formats depending on the material or collection, often resulting from change in practice over time (see Table 1).

- Holding statements in libraries were done for a variety of materials. More than one category could apply. Most statements were done for bound print journals (93.1%) and microform (81.4%). Holdings were also created for monographic series (42.0%), electronic serials (37.2%), and analyzed serials (36.4%). These were serials where each volume had a distinctive title that received an individual bibliographic record (analytic). Summary holdings may be attached to the main serial record (see Table 2).
- More than one-third of respondents (34.4%) had no idea if their holdings statements were formatted to comply with the latest ANSI/NISO Z39.71-2006 standard. Many libraries (33.0%) believed their statements were compliant, 9.6% were in the process of conversion, and 23.0% had no plans at present to redo their holdings to comply with the current standard (see Table 3).
- Most of the libraries’ holdings statements (47.2%) reflected the institution’s OCLC holdings in WorldCat, whereas 7.3% did not. Holdings were partially reflected in OCLC for 33.9%, while 8.6% of libraries had no idea if they were; seven libraries (3.0%) were not OCLC members.

TABLE 1 Type of Formats Used to Construct Holdings Statements (233 Responses)^a

	Count	Percentage
A. Compressed (first and last issues only)	73	31.3
B. Itemized (list each issue)	46	19.7
C. Summary level 3	59	25.3
D. Detailed level 4	157	67.4
E. Enumeration and chronology adjacent	137	58.8
F. Enumeration and chronology separate	71	30.5
G. Captions	109	46.8
H. Open-ended statements	147	63.1
I. Broad phrases	167	71.7

^aMore than one category could apply.

TABLE 2 Types of Serials for Which Holdings Statements are Done (231 Responses)^a

	Count	Percentage
A. Bound print serials	215	93.1
B. Analyzed serials	84	36.4
C. Electronic serials	86	37.2
D. Microform	188	81.4
E. Monographic series	97	42.0

^aMore than one category could apply.

- Paraprofessional staff (in 74.8% of libraries), such as library technicians, assistants, and some student workers, were primarily responsible for updating and maintaining serial holdings statements, while 25.2% of libraries relied on professional staff. The replies in the “Other” category gave details of staffing, showing that in many cases, both paraprofessional and professional staff worked on holdings statements. Paraprofessional staff did most of the input and updating, while professional staff was responsible for quality control.
- The majority of libraries updated holdings statements only when needed (59.5%). Others estimated they spent about 90 minutes each day for one to two days per week (8.2%), one to two hours per week (10.8%), one hour or more daily (20.2%), or not at all (1.3%) maintaining holdings statements, which involved revising them to reflect receipt of current issues, as well as compressing lengthy holdings statements.
- One hundred and seven libraries responded to the question regarding whether their library’s holdings statements were user-friendly and worth the time and effort to maintain. The primary response (43.9%) was that maintaining serial holdings statements were worth the staff’s time and effort. Only 19.6% voiced concern that staff time could be better spent doing other things, since “patrons don’t usually read them [holdings statements] anyway.” A few libraries (5.6%) thought that library staff received more benefit from holdings statements than patrons. Over 10% of libraries were in the process of converting their statements. Some (17.8%) were simply undecided regarding the value of serial holdings statements (see Table 4).

TABLE 3 Holdings Statements Formatted According to ANSI/NISO Z39.71-2006 (230 Responses)

	Count	Percentage
A. Yes, they are	76	33.0
B. In process of conversion	22	9.6
C. No plans to re-do holdings	53	23.0
D. Have no idea	79	34.4

TABLE 4 Perceived Value of Holdings Statements in OPAC (107 Responses)

	Count	Percentage
A. Yes, they are worth time and effort to maintain	47	43.9
B. No, they are not worth time and effort to maintain	21	19.6
C. More benefit to library staff than patrons	6	5.6
D. Process of conversion	14	13.1
E. Undecided (includes no comment)	19	17.8

EXAMPLES OF HOLDINGS STATEMENTS

The following are illustrations of different types of holdings statements for the same title, *JAMA: The Journal of the American Medical Association*.

University Library: Unicorn (Sirsi)

This statement combines both general and issue specific elements. Enumeration and chronology are adjacent.

v47(1906)-248[#1-16
18-24]249-273#18(1995)
v273:19(05/17/1995)-278:23(12/17/1997)
v279:1(01/07/1998)-288:20(11/27/2002)
v288:23(12/18/2002)-290:2(07/09/2003)
v.290:no.6(2003:Aug.13)-v.290:no.23(2003:Dec.17)
v.291:no.1(2004:Jan.7)-v.294:no.2(2005:July13)
v.294:no.4(2005:July27)-v.296:no.23(2006:Dec.20)
v.297:no.1(2007:Jan.3)-v.299:no.11(2008:Mar.19)
v.299:no.13 (2008:Apr. 2)-v.299:no.16 (2008:Apr. 23)

Community College: Aleph (ex Libris)

This shows group holdings for colleges in a consortium. Enumeration and chronology are separate. There is use of broad statements and format is specified.

Location: Key West Periodicals

Holdings: v.285:no.1-v.288:no.17 (2001:Jan.01-2002:Nov.16) Scattered issues

Location: Gulf Coast Periodicals SERIAL

Holdings: v.287:no.1-v.298:no.12 (2002:Jan.-2007:Sep.) Bound, Current issues on display

Location: Hillsborough Periodicals

Holdings: Retains hard copy one year plus current year

Public Library: (Innovative Interfaces)

Holdings are format specific. Open-ended dash is used as well as a broad statement of location.

Paper: Vol. 133 (1947)-v.221, no. 13 (Sept. 25, 1972)

Microfilm: Vol. 219 (1972)-v.222 (1972)

Paper: Vol. 223 (1973)-

Current issue on display

Electronic Holdings Statement: (Serial Solutions)

This entry was in the A-Z list of e-journals. A link to full text holdings is present. The link was also present in the OPAC via a Find It button.

JAMA: the journal of the American Medical Association (0098-7474)

from 01/01/1998 to present in American Medical Association journals

DISCUSSION

Benefits Derived from Holdings Statements

According to the survey, serial holdings statements were considered to be invaluable to reference and public service staff and useful to library patrons. Some believed that librarians probably used them more than patrons. Many have made a concerted effort in their library to make holdings patron-readable; one special library taught users how to read the statements. Detailed but compressed holdings statements seemed to be easier to read, especially in the case of long runs. In this day and age of remote users, who are geographically distant or unable to physically visit the library, a good indication of a library's holdings was important. The patron was spared the time and expense of additional queries and/or an unnecessary trip to the library.

Accurate holdings information was an essential part of the serial record. The belief was expressed that users do not want "serials," they want "serial issues." This was particularly true with supplements and special issues such as the swimsuit issue of *Sports Illustrated*.

Close to 50% of libraries responded that their institution's holdings statements reflected their OCLC holdings in WorldCat. Therefore, the accuracy of these holdings was vital to interlibrary loan operations that rely on a union list. OCLC holdings were not as detailed as those in the OPAC, however, and often relied on broad phrases such as "Library retains two years" in local data records (LDRs) to minimize holdings maintenance. Some libraries did not maintain LDRs, but updated their holdings on the serial bibliographic records in OCLC.

Serial holdings statements were essential for inventory control and fiscal accountability. Several libraries maintained holdings only for those titles that were paid subscriptions separate from aggregated databases. Unless serial items were barcoded, such as bound periodicals, holdings statements were the only way to account for thousands of pieces. The statements were vital to inventory. Libraries felt obliged to those who funded the library to have an accounting for every issue received. This became important when claiming issues as well. Holdings records were useful for tracking/payment purposes for such materials as analyzed and monographic series that were cataloged separately.

Disadvantages Associated with Holdings Statements

According to the survey, the major problem with current serial holdings statements appeared to be the manner in which the formatted holdings displayed in the OPAC, regardless of the integrated library system used. Holdings were cryptic, difficult to read, and confusing to patrons. The results of adhering to strict traditional rules were not easily interpreted by patrons. Mixed practices over the years made holdings displays even more confusing and unreliable. Accounting for gaps confounded the display of the holdings. Due to time and staff constraints, holdings were not always updated, becoming inaccurate or incomplete in the catalog. Furthermore, holdings did not necessarily reflect what was available on the shelf but rather what issues had been checked in.

Usability was a big issue. Many libraries expressed concern that patrons do not actually read the holdings statements. They checked the publication date or a call number and expected the issue to be on the shelf. Students were not instructed on how to read the holdings statements. Many users did not have a clue as to what the holdings statements meant. It could be frustrating for the user to scroll down to the bottom of the screen to read the holdings. The terminology and punctuation used in statements may not be self-evident to a layperson. Individual library holdings occasionally may be confused with bibliographic holdings in the MARC 362 field. To compound difficulties, members of consortia had their holdings displayed together in the OPAC. One special library stated that interpreting serials holdings information in the OPAC continued to give users more difficulty than anything else.

Electronic Serial Holdings

Today's shifting focus toward electronic journal content has most likely compelled libraries to evaluate their print serial collections and holdings. Approximately 37% of responding libraries maintained holdings data for electronic serials. Typically, libraries use electronic resource management (ERM) software or a coverage service such as EBSCO's A-Z, Innovative's

Content Access Service (CASE), MARCIt! by Ex Libris, or Serials Solutions. These supply holdings data for electronic journals through the e-journal portal. Additionally, some libraries use OCLC's e-serials holdings service to keep electronic holdings current in OCLC. These holdings were represented with open-ended statements in the OPAC, as well as in an A–Z list. When patrons link from the link resolver to a title (registered full text via the publisher), they are directed to the OPAC, and so accurate holdings are essential. However, many integrated library system holdings are very difficult or impossible to export to a format usable by the link resolver.

Compliance with ANSI/NISO Z39.71-2006

Currently, 33.0% of the libraries that responded, mainly universities and four-year colleges, were compliant with the Z39.71 standard published in 2006. There were 9.6% that are in the process of conversion, while 23.0% reported no immediate plans to redo their holdings. Another 34.4% did not know if their holdings statements were formatted according to the latest standard.

Numerous methods were implemented by those libraries that are in the process of converting their holdings statements. Some institutions combined holdings statements for various formats into one inclusive, compact statement. Others switched from level 4 textual holdings (fields 866–868) to pattern and coded field (853/863) pairs for some serials. Holdings statements for inactive and dead run titles were eliminated. The textual holdings fields for active titles were also deleted. Conversely, a few libraries switched to using 866 detailed summary holdings and maintained them manually. In retrospective serials conversion projects, older serial records were re-cataloged and detailed holdings listed.

Conversion of holdings statements was well received by reference and interlibrary loan personnel. Libraries tried their best to conform, but some were unsure if it was done correctly. Several libraries expected to migrate to MFHD in the near future—driven by systems issues rather than by patron usability. Many were induced to redo holdings after migration to a new ILS system. OPAC display, time, and staff were considered in decisions to comply. One four-year college, in particular, regretted the effort its staff went through to convert to the latest standard. A university librarian was of the opinion that we spend far too much time trying to maintain these holdings statements and correcting them to match the standard.

CONCLUSIONS

The survey examined how libraries constructed holdings statements and their efforts to comply with the latest ANSI/NISO standard Z39.71-2006. The question remains: Were holdings statements worth the time and effort to

maintain? Wallace (1997) searched 372 online library catalogs and surveyed 80 of them to determine to what degree libraries were providing holdings information in their OPACs.⁶ She concluded that reliance upon summary holdings statements to assist users in locating serial volumes was a necessity, rather than a 'nuisance,' for most academic libraries. No replacement was acceptable.

This study similarly concludes that the majority of libraries responding (see Table 4; 43.9%) agreed that the maintenance of serial holdings statements was of vital importance to library operations and its users. It was shown that paraprofessional staff was chiefly responsible for most of the maintenance of holdings in libraries (74.8%). Professional librarians were responsible for quality control measures. The time spent updating these holdings varied from about one hour or more daily (20.2%), 90 minutes each day for one to two days per week (8.2%), or one to two hours per week (10.8%). Most libraries updated their holdings only when needed (59.5%) or not at all (1.3%). Libraries that did not update at all had their holdings automatically updated on check-in by the integrated library system.

Nearly all libraries with reference and interlibrary loan capabilities are citation-driven. Users with a citation in hand require explicit detailed holdings in order to locate material. Titles frequently requested through interlibrary loan call for up-to-date holdings information. Detailed holdings were also important in special libraries that possessed unique titles, less common serials, or rare collections.

However, with more libraries undergoing a transition from print to electronic serials, it may not be efficacious to continue to maintain holdings for some print titles. Radical changes such as eliminating serials check-in would do away with claiming individual serial issues and consequently curtail holdings data-maintenance.

Overall, holdings were perceived as an integral part of serials maintenance, and holdings statements were invaluable for library staff that assist users. Yet efforts must be balanced by time constraints and overall usefulness of the information.

FUTURE IMPLICATIONS

The future of holdings has been pondered for quite some time. Ten years ago, Frieda Rosenberg (1998) spoke at a North American Serials Interest Group (NASIG) workshop when ANSI/NISO Standard Z39.71-1999 had recently been approved and was soon to be released.⁷ She noted there were many frontiers in holdings. Web linking between citations on remote databases and individual local holdings records was already being offered by some commercial companies. In terms of public service, user-friendly holdings notes regarding format and title changes were being added to the local

holding records. At the time, libraries wanted more consistency in holdings, a better model, and better system implementations. Now, this is still the case. With holdings automatically updated on serial check-in, OPAC display issues are still a primary concern. The new standard accommodates older practices from previous standards. Of the 236 libraries surveyed, a small percentage was in the process of converting their holdings to meet the new standard and MARC21 format, while a third had no plans for conversion. Many have postponed conversion due to system limitations or until integrated library systems improve the way holdings data is displayed. Ultimately, holdings were deemed worthwhile from a librarian's viewpoint.

NOTES

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