Serials Standards Work: The Next Frontier

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Serials, one of the more complicated areas of library technical endeavors, has lacked the benefit of standards for a long time. Even now, with standards beginning to be available, the majority of institutions are not working within standard serials formats. A survey to determine the use of serials standards in libraries was conducted in 1988 by the American Library Association, Resources and Technical Services Division, Serials Section, Committee to Study Serials Standards. In the spring of 1988 a survey was sent to a group encompassing the Association of Research Libraries members, CONSER participants, United States Newspaper Program participants, Microform Project libraries, and some vendors and librarians who attended the Committee meetings on a regular basis.

The survey questionnaire assessed the current level of serials standards awareness of librarians and vendors. Topics included the type of serials systems used, standards relevant to serials control and union listing and whether or not they are implemented, types and levels of training staff received in the application of standards, benefits of the standards, and areas where standards are most needed.

As automated systems expand into new areas such as binding, cancellation, claiming, ordering, and other controls, the importance of existing and developing national standards for serials cannot be ignored. In May 1988 the ALA RTSD Serials Section Committee to Study Serials Standards (called Committee to Study Serials Records before July 1988) designed a questionnaire and conducted a survey to determine the use of serials standards in libraries.

Our goal was to assess the current level of standards awareness of both librarians and vendors and to encourage the implementation of national standards. Three hundred libraries were selected to participate in this survey. These libraries encompassed the Association of Research Libraries members, CONSER participants, United States Newspaper Program participants, Microform Project libraries, and some vendors and librarians who attended the Committee meetings on a regular basis.

SUMMARY OF GENERAL FINDINGS AND SYSTEMS IN USE
GENERAL: TYPES OF LIBRARIES

The total number of responses received was 94 with the overwhelming majority (69) coming from academic libraries (figure 1). A wide range of types of libraries was represented in the responses including academic, public, law, medical, state historical societies, and nonacademic research libraries such as the Library of Congress, National Agricultural Library, National Library of Medicine, and the National Library of Canada.
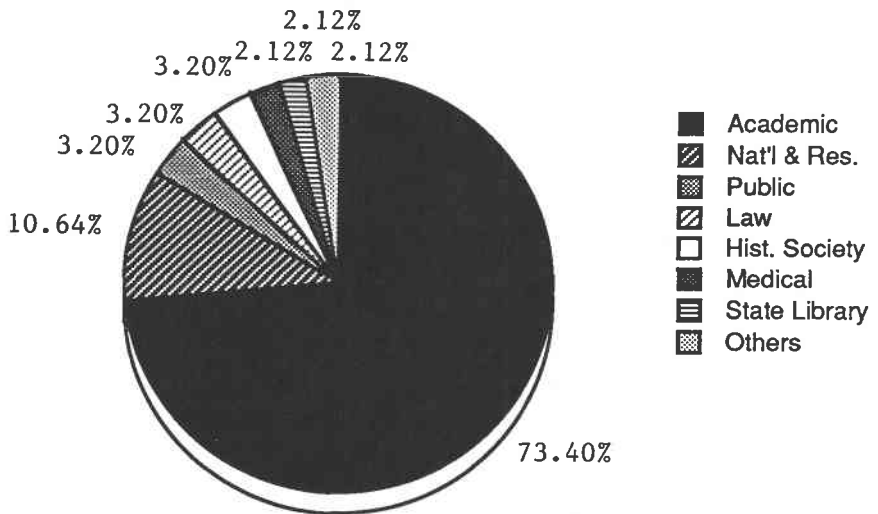
Figure 1. Types of Libraries

Questions 1–10 focused on whether a library's serials activities were automated or manual and the specific system used if the library reported that an automated system was used.

QUESTION 1: SERIALS CHECK-IN

In response to question 1, asking whether serials check-in was automated or manual, 34 libraries (38%) indicated check-in was automated and 57 (62%) indicated they operated a manual check-in system.

NOTIS and INNOVACQ were the most frequently used vendor systems although they were closely followed by GEAC and the FAXON LINX system. Several libraries reported using a system developed in-house that they did not name (figure 2).
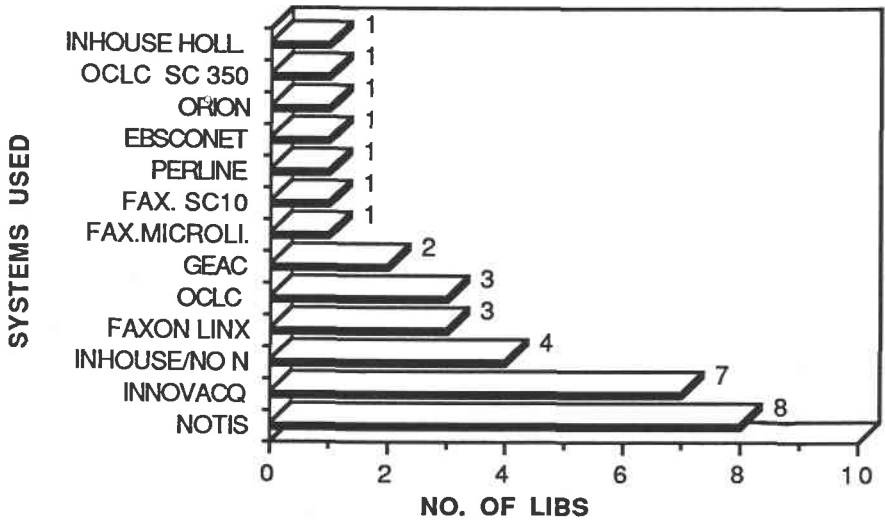
Figure 2. Serials Check-in Systems Used

QUESTION 2: SERIALS HOLDINGS

Question 2 dealt with whether libraries had automated their serials holdings. Fifty-one libraries (55%) reported that they had automated serials holdings while 37 (40%) reported they had manual serials holdings and 5 (5%) did not answer the question.

The most numerous vendor-based systems were NOTIS (10) and OCLC (11). In this category, however, the largest response of automated libraries indicated they used systems developed in-house (13) (figure 3).

Figure 3. Serials Holdings Systems Used

QUESTION 3: SERIALS CLAIMING

Serials claiming is still largely a manual operation. Fifty-four libraries (58%) reported they operated a manual serials claiming system, while 37 (40%) indicated they had automated serials claiming; 2 libraries (2%) did not answer the question.
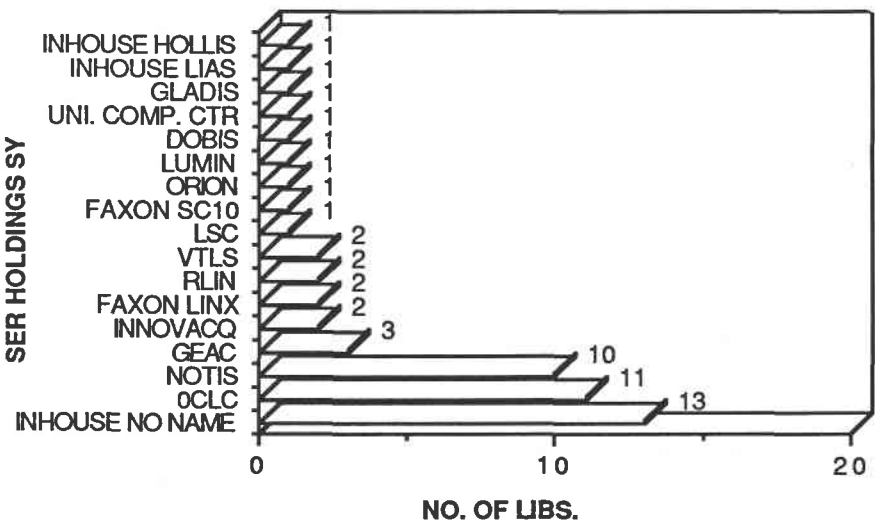
At least 5 libraries reported using a vendor-based system for claiming titles ordered through the vendor (FAXON or EBSCO or others); otherwise they were running a manual system. Among those libraries indicating they were automated, INNOVACQ, NOTIS, FAXON, MicroLINX, and Ebsconet were used most frequently (figure 4).
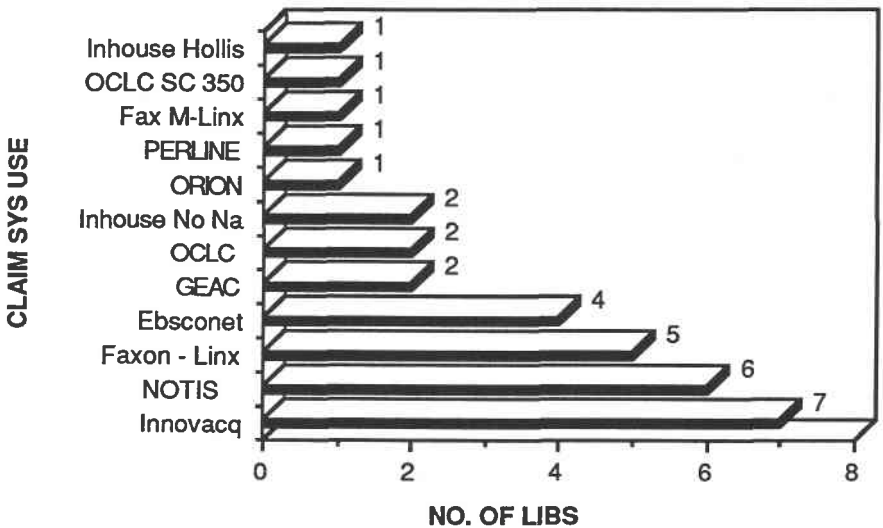
Figure 4. Serials Claiming Systems Used

QUESTION 4: SERIALS BINDING CONTROL

Question 4 surveyed the state of automation of serials binding. The majority of libraries (58) (62%) responding to this question reported they operated a manual system. Twenty-seven (28%) reported their operation was automated; 9 (10%) did not answer the question.

Of those indicating they were automated the largest number (9) used a system developed in-house. INNOVACQ was used by 5 libraries and among the bindery developed systems the ABLE, Heckman, and Hertzberg systems were mentioned.

QUESTION 5: SERIALS ACQUISITIONS

Responses to question 5 about serials acquisitions/ordering indicated an almost even division between automated and manual systems. Forty-five (48%) indicated their serials acquisitions were automated; 46 (49%) still operate manual systems and 3 (3%) did not answer the question.

At least 3 libraries reported using a vendor-based system for orders sent

to them (EBSCO or FAXON) and otherwise running a manual acquisitions system. Among those using automated systems, INNOVACQ and NOTIS were the vendor-based systems used most frequently; a significant number (9) reported using an in-house developed system.

QUESTION 6: SERIALS FISCAL CONTROL

Question 6 on serials fiscal control represents another area in which libraries that responded are about equally divided among automated (42) (45%) and manual systems (44) (47%); 7 (8%) did not respond.

Fifteen reported they operated their fiscal control system on an in-house developed system while INNOVACQ was the clear leader among vendor systems (figure 5).
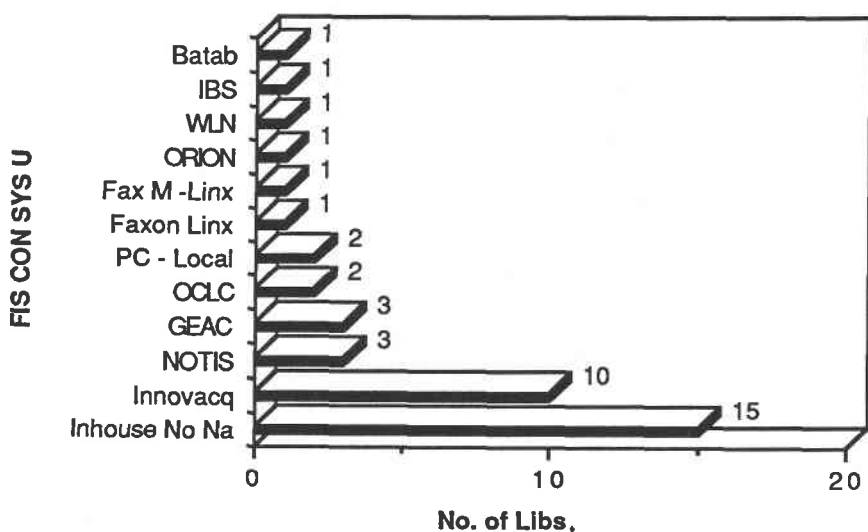
Figure 5. Serials Fiscal Control Systems Used

QUESTION 7: ONLINE CATALOG INCLUDES SERIALS

Sixty-eight libraries (73%) indicated they have an online catalog that lists their serials; 17 (18%) reported they had only a manual system while 8 (9%) did not answer the question.

One library reported an online catalog with no periodicals but other serials. Four libraries reported an automated online catalog, but didn't specify the name. Among the vendor-based systems NOTIS and GEAC were the most numerous used; however, the exceptionally large number of systems used by libraries (24) is worth noting.

QUESTION 8: ONLINE CATALOG INCLUDES SERIALS HOLDINGS

Question 8 surveyed whether libraries had online catalogs with serials holdings included in them. Fifty-one libraries (55%) reported they had automated this aspect while 26 (28%) reported they were manual and 16 (17%) did not answer the question. NOTIS was the most frequently used

vendor-supported system (9) but an exceptionally large number of systems was mentioned.

QUESTION 9: CIRCULATION INCLUDES SERIALS

Question 9 surveyed the question of circulation. Forty-eight (48) libraries (52%) indicated they have automated circulation systems while 33 (35%) operated manual systems; 12 respondents (13%) did not answer the question.

A significant number of libraries (8) operate a system developed in-house. Among the vendor-based systems CLSI, NOTIS, and GEAC were cited most frequently (figure 6).
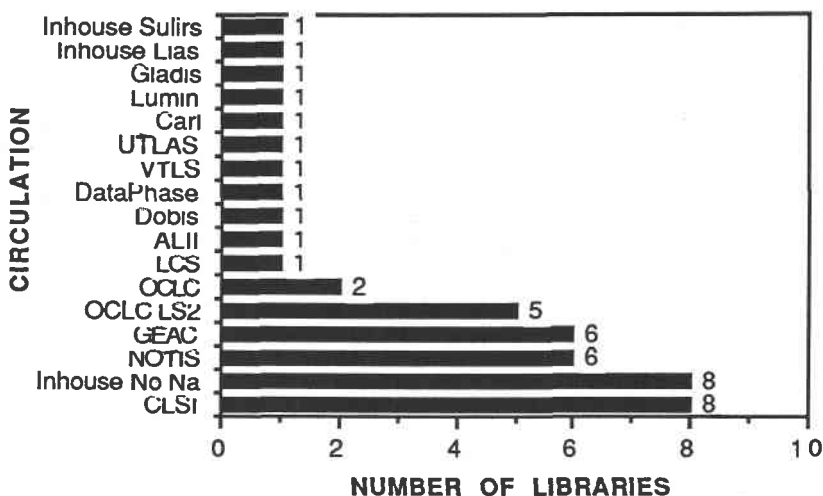
Figure 6. Serials Circulation Systems Used

IMPLICATIONS OF THE FINDINGS

The wide range of automated systems, including those developed in-house, points to the importance of utilizing national standards. As automated systems continue to develop, libraries will move from system to system. The ability to move all types of records associated with serials including bibliographic, binding, check-in, claiming, fiscal control, and holdings information becomes increasingly important. If libraries adhere to national standards moving from one system to another becomes little more than a matter of loading tapes with the relevant data into the new system. Vendor-based systems are also developing and undergoing change. Although two systems, NOTIS and INNOVACQ, seem to dominate the field at the present time, the survey indicates that there are a large number of vendor systems used by research libraries. It seems likely that movement within this group will continue as libraries learn more about their needs with serials and automation.

Whether libraries use an in-house system or a vendor-based system the need for them to utilize national standards is abundantly clear. The need to

encourage vendor-based systems to adopt and to implement national standards is of vital importance in library automation.

SUMMARY OF FINDINGS ON STANDARDS
GENERAL

The International Standard Serial Number (Z39.9-1979 (R1984)) was, of all standards listed in the questionnaire, the one with the highest favorable response. This was the only standard a simple majority of responding librarians felt was in use in their libraries. A large percentage (72%) of respondents made some use, either partial or full, of some of the standards affecting holdings information. Thirty-six percent made use of the Summary Level Holdings (Z39.42-1980) in their libraries; 33% made use of the standard that superseded it: Summary Level Holdings (Z39.44-1986), and 21% made use of the USMARC Holdings/Location standard. Thirteen of the respondents indicated that they had implemented, either fully or partially, both Z39.42-1980 and Z39.44-1986. The response to questions on the use of Claims for Missing Issues of Serials (Z39.45-1983), Computerized Serials Orders, Claims (Z39.55-198X), Serial Item Identifier (Z39.56-198X), Standard Address Number (Z39.33-1977 (1982)), and the SISAC Code was largely or overwhelmingly negative.

QUESTION 11: INTERNATIONAL STANDARD SERIAL NUMBERING—Z39.9-1979 (R1984)

Fifty-four libraries indicated that they had fully implemented use of the ISSN, while 14 had made partial use of it. Their percentages of 57% and 15% respectively combine to indicate that 72% of the libraries surveyed were making conscious use of the ISSN in their operations. Eighteen libraries (19%) did not use ISSN and 8 (9%) did not answer the question.

Ten libraries indicated they had implemented use of the ISSN from 1971 to 1979 while 12 had implemented its use between 1980 and 1987, and others did not provide the year of implementation.

QUESTION 12: SUMMARY LEVEL HOLDINGS—Z39.42-1980

Twenty-four libraries (25%) made full use of this standard, and 9 libraries (10%) made partial use of it in their operations. Their percentages of 25% and 10% combine to make 35% of all respondents. Approximately 51 libraries (54%) indicated they were not using this standard and 10 (11%) did not answer the question. Fourteen libraries implemented the standard in full or partially since its publication in 1981. Two of the libraries that were not using it indicated that they had plans to implement it in 1988 or 1989.

QUESTION 13: SERIALS HOLDINGS STATEMENTS (SUMMARY AND DETAIL LEVEL HOLDINGS)—Z39.44-1986

Fifteen respondents made full, and 16 made partial implementation of this standard. Their percentages were 17% and 18%, respectively or 35% altogether. Fifty-five libraries (56%) did not use the standard and 8 (9%) did not answer the question (figure 7).

Eighteen libraries began implementation from 1982–1988. Some of

9%   17%

Implemented
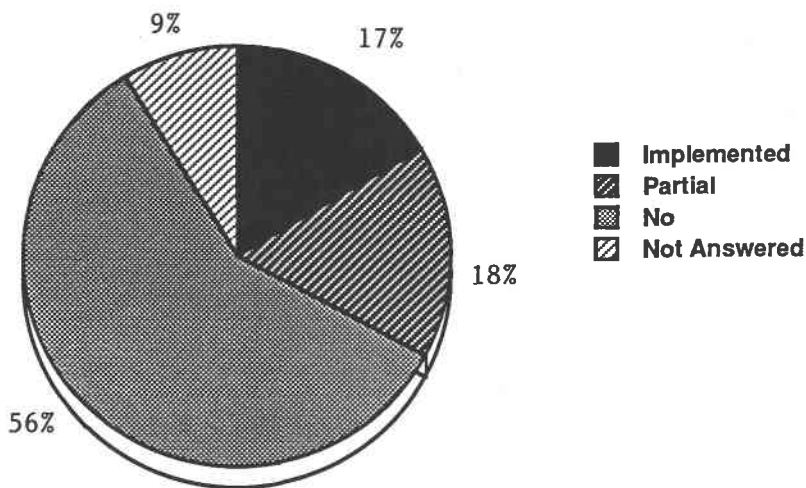**Partial**
No
Not Answered

18%

56%

Figure 7. Summary and Detail Level Holdings Z39.44-1986

these libraries implemented the standard for the U.S. Newspaper Project. Again, two of those libraries not currently implementing this standard had plans to do so in 1989 or 1990.

Note: 51 respondents use either Z39.42-1980 or Z39.44-1986, its successor, in some form or another.

QUESTION 14: COMMUNICATION OF HOLDINGS/LOCATION
DATA—USMARC HOLDINGS

For those answering positively, 14 made full use, and 5 made partial use of this standard. Their respective percentages, 15% and 5%, combine to produce 20%. Sixty-three libraries (67%) did not implement the standard while 12 (13%) did not answer the question. Seven libraries that had either given a negative response or not specified their response indicated that they had plans to use this standard between 1988 and 1989 (figure 8).

QUESTION 15: CLAIMS FOR MISSING ISSUES
OF SERIALS—Z39.45-1983

Seven libraries were making full use, and 2 partial use of this standard. Their percentages, 8% and 2%, combine to indicate a rate of 10% overall. Seventy-three libraries (78%) did not use the standard and 12 (12%) did not answer the question. However, 3 libraries had plans to use it between 1988–1989.

QUESTION 16: COMPUTERIZED SERIALS ORDERS,
CLAIMS—Z39.55-198X (DRAFT)

Two libraries made full, and two partial use of it. Their percentages of 2% each combine to an overall 4%. Seventy-six libraries (81%) did not use the standard and 14 (15%) did not answer the question. Five libraries indicated future plans for its use in 1988 or 1989.
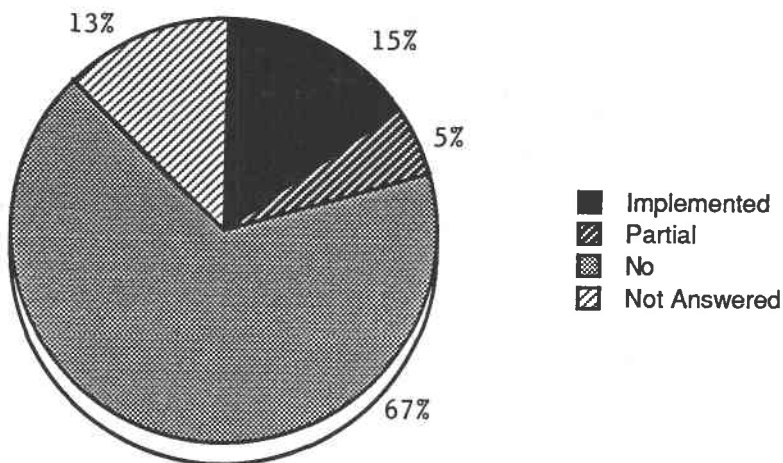
Figure 8. Data from USMARC Holdings/Location

QUESTION 17: SERIAL ITEM IDENTIFIER—Z39.56-198X (DRAFT)

One library each made full and partial use of this standard respectively. Their percentages of 1% each combine to form 2%. Seventy-nine libraries (84%) did not use the standard and 13 (14%) did not answer the question.

QUESTION 18: IDENTIFICATION CODE FOR THE BOOK INDUSTRY (STANDARD ADDRESS NUMBER (SAN))—Z39.43-1977 (1980)

Eight libraries made full use of this standard, and 4 partial use. Their percentages were 9% and 4% respectively, or a total of 13%. Sixty-nine libraries (73%) did not use the standard and 13 (14%) did not answer the question. Note: One library implemented this standard for the U.S. Newspaper Project only.

QUESTION 19: SISAC BARCODE ISSUE/ARTICLE IDENTIFIER—SISAC CODE

No library surveyed is yet using it in full, but 2 indicated making partial use of it. Seventy-nine libraries (84%) did not use the standard and 13 (14%) did not answer the question. Two more libraries indicated plans for the future use of the SISAC code in 1989.

There are a multitude of serial item identifiers in existence, some of which are in a kind of competition with each other and some of which are complementary. For example, the SISAC barcode is merely the special barcode symbology used to represent the Serial Item Identifier or SIID (Z39.56-198X). The SIID is made up of the ISSN, the issue date, and the issue number. The Serial Article Identifier (SAID) is composed of the same elements, but adds a page number and a title code to the string. The Serial Issue and Article Identifiers were developed at the national level and are compatible with the international standard, ISO 9115, also called the BIBLID. A competing and noncompatible serial item code is the ADONIS

identifier. It is a 16-digit code consisting of the ISSN, year of publication, and a 5-digit running number that begins at "1" for each calendar year of each journal. As page-independent code, ADONIS numbers have an advantage in that they can be assigned before a journal issue is actually printed. Unlike the SAID and SIID, however, users cannot generate them logically from complete bibliographic citations. Our survey considered two of these evolving identifiers, the SIID and the special symbology known as the SISAC barcode.

QUESTION 20: OTHER STANDARDS

There were few answers to this write-in question, but one national library brought up the fact that they were using ANSI Z39.5-1985 (Abbreviations of Titles of Publications). One library used locally developed holdings standards for summary holdings statements in a local online catalog and circulation system. These standards fall somewhere between level 3 and level 4 of holdings described in Z39.44.

SUMMARY TABLES

(See tables 1 and 2.)

TABLE 1

TOTALS OF ANSWERS TO QUESTIONS 11–19 PART B

	Yes	Partial	No	No Answer
11. ISSN (Z39.9-1979 (R1984))	54	14	18	8
12. Summary level holdings (Z39.42-1980)	24	9	51	10
13. Summary/detail level (Z39.44-1986)	15	16	55	8
14. Holdings/location data (USMARC Holdings)	14	5	63	12
15. Claims (Z39.45-1983)	7	2	73	12
16. Serials orders/claims (Z39.55-198X (draft))	2	2	76	14
17. Serial item identifier (Z39.56-198X (draft))	1	1	79	13
18. Standard Address Number (Z39.43-1977)	8	4	69	12
19. Barcode issue/article (SISAC code)	0	2	79	13

TABLE 2

PERCENTAGES OF ALL ANSWERS

	Yes	Partial	No	No Answer
11. ISSN (Z39.9-1979 (R1984))	57	15	19	9
12. Summary level holdings (Z39.42-1980)	25	10	54	11
13. Summary/detail level (Z39.44-1986)	17	18	56	9
14. Holdings/location data (USMARC Holdings)	15	5	67	13
15. Claims (Z39.45-1983)	8	2	78	12
16. Serials orders/claims (Z39.55-198X (draft))	2	2	81	15
17. Serial item identifier (Z39.56-198X (draft))	1	1	84	14
18. Standard Address Number (Z39.43-1977)	9	4	73	14
19. Barcode issue/article (SISAC code)	0	2	84	14

ADDITIONAL COMMENTS

Special libraries indicated they do not circulate their materials and they felt they have little need for those standards.

Some libraries indicated that since they lack the time, staff, professional

literature, or energy even to become aware of serials standards, they would like to be told the easiest way to obtain copies of the Z39 items. A list of current Z39 publications is cited with ordering information at the end of this article as a general reference.

A few libraries did not mark any answers or marked ''No'' often, but indicated that they followed all practices required by the utilities or vendor-based systems. These systems may or may not partially implement the standards. Some vendors developed their own standards before national standards were published and are reluctant to change.

Some libraries said that standards are not applicable to their present manual system, some use the vendors' Summary Holdings Statements in their online catalogs, and some vendors' standards are based on the ANSI draft standard.

IMPLICATIONS OF FINDINGS ON STANDARDS USE

Promotion of the implementation of serials standards is definitely needed and information on the availability of national standards will be helpful to all types of libraries. Librarians need to unite to request their vendors support and implement national standards, thus making it:

1. feasible to transfer data from one system to another without requiring major changes;
2. efficient in union listings; and
3. effective in sharing resources.

FINDINGS ON QUESTIONS 21–34
QUESTION 21: WHY DID YOU DECIDE NOT TO WAIT FOR A FINAL VERSION?

There was a high number of nonrespondents to this question. The total number of respondents who left the question blank or who responded with N/A (not applicable) was 63. While nonautomated libraries most frequently chose not to answer, many automated libraries also declined.

The most common answer ($n=14$), when one was given, was some form of what the Committee calls the ''timetable'' response: plans for automation were under way at the institution, and serials were expected to automate along with the rest, whether standards were available for them or not. Sometimes ($n=3$) the respondent clearly indicated that a funding timetable was involved. Some institutions indicated the timetable for system developments did not permit waiting for standards to be finalized. Some institutions said that their collections are too odd/strange for them to think about standards very much. Some received funds or grants for automation and could not wait for standards. Some institutions started automating in the late 1970s before many of the standards had been thought of. Another said it must work within fiscal realities, must be ready to move on projects. Other times it was clear that the timetable in question was a chosen vendor's incapacity to implement national level standards ($n=3$).

A few institutions with in-house systems ($n=2$) indicated that the special nature of their materials promised to cause problems for any set of serials standards. A few more ($n=3$) indicated that they were perfectly happy with the local standards they had to develop. Two institutions indicated

that they were still waiting for final versions of the standards before applying them.

One librarian had the honesty to respond that he/she had simply been unaware of the standards. A few institutions use what standards were available when they went into automation or built their union lists a few years ago.

QUESTION 22: HOW DID YOU DEAL WITH DIFFERENCES BETWEEN THE INTERIM DRAFT YOU APPLIED AND THE FINAL VERSION?

The total number of institutions that gave no response to this question was 73. Five other institutions indicated that, while they had not implemented any serials standards yet, they were making some preparations for future compatibility with the new standards. With their responses added in, the total number of institutions that didn't answer the question rises to 82. Some institutions (n=5) that had indeed implemented a draft standard did indicate that no changes were currently being made.

The responses given often lacked specificity. One institution said, for example, that the differences between the draft and the interim versions were minimal; but gave no indication as to how this minimal difference was being handled, if indeed any action was felt to be necessary. Some interesting information was nonetheless gleaned from this more tangential type of response, for example, "We have not changed our procedures for summary holdings for union listing since the vendor program cannot support the latest format yet."

Not all the responses were vague. One institution said it depended upon its good communication with the in-house programmers. Another indicated that as its system became capable of handling the new format, newer records would conform to the standard, while older records would be at the mercy of the transfer program. Some institutions (n=5) indicated that no changes were currently being made. One institution indicated that changes were being made only when older records came under scrutiny for other reasons. Some institutions stated their experiences with the interim draft helped in developing the final version; differences were minimal between their implementation of the draft and the published final version. One institution was requesting in its proposal for a new system that it meet the standards.

QUESTION 23: HOW DID YOU TRAIN YOUR STAFF IN THE APPLICATION OF STANDARDS?

The largest single category of response was, again, no response (n=56; N/A=24, and 0=32).

The range of detail offered by respondents varied widely, and can only be classified quite subjectively. One institution was content to state that "We showed them how we wanted data recorded," while another informed us that it used "Z39.44-1986 and the vendor's paper on holdings, which [was] discussed with the staff."

All kinds of training methods are in use: small groups orientations and workshops (n=10), one-on-one instruction (n=7); memos and procedure manuals (n=14), and self-instruction (n=6). Whether written or oral,

standards-training material was often integrated into other standard on-the-job training (n=7). Twenty-five of the 37 libraries that had a training method used more than one approach to standards training. One institution found that the ISSN, which was the only standard it used, required no special training.

Some institutions had librarians study the standards and prepare documentation or develop a local procedures manual with format examples. Some went through vendors' manuals with staff or issued local policy statements as needed.

QUESTION 24: WHAT LEVEL OF DETAIL DID YOU EXPECT THEM TO KNOW?

Only 50 of the libraries surveyed did not answer this question (0=35; N/A=15). Ten institutions required partial knowledge of the standard; eight required minimal; and four indicated that the level of knowledge required varied with the level of the staff involved.

Of those institutions responding, the majority (n=20) required their staff to have full command of the standard. The level of training that accompanied this expectation varied, with one institution requiring full command, but apparently relying on the serials cataloger and the serials librarian to educate themselves on the subject. However, there were also instances of no training, group and/or individual training, accompanying the full gamut of responses to this question. No pattern could be detected.

QUESTION 25: DID YOU DESIGN SPECIFIC TRAINING MATERIALS IN THIS AREA?

Eighty-four of the respondents gave a negative response to this question (34=0; 12=N/A; 37=No). Ten said that they did design specific training materials for standards.

All but one of the ten institutions that indicated they had designed specific training materials for standards work also indicated (in question 23) that they had some type of written procedures for the use of their staff.

In response to question 23, 37 institutions claimed to have trained their staff in the use of serials standards. Seven of these institutions made it clear that they had integrated the standards training into other training programs for other systems. However, in light of this question, that number should perhaps be adjusted upwards to 27. All in all, there was some troublesome correspondence in the answers to this part of the survey. One institution, for example, indicated in response to question 25 that it had relied upon vendor's documentation for their standards training; however, in response to question 23, it cited the standards document that it had had the staff read without reference to its provenance.

A handful of libraries responding to the questionnaire provided samples of their training documentation.

QUESTION 26: WHAT EFFORTS HAVE YOU MADE TO FAMILIARIZE YOUR PUBLIC SERVICES STAFF WITH THE STANDARDS YOU EMPLOY?

QUESTION 27: WHAT LEVEL OF DETAIL DID YOU ENCOURAGE THEM TO KNOW?

QUESTION 28: HAVE YOU DESIGNED ANY INFORMATION MATERIALS FOR THEM?

Questions 26–28 concern the promulgation of standards to the library staff itself—particularly public services staff. Training for standards interpretation took place both in general demonstrations and orientations to a library's automated systems and more commonly, in specific seminars given by technical services personnel. They developed and distributed guides, handouts, examples, memos, and other training materials. Understandably, the interpretation of holdings data was the most commonly mentioned topic for training sessions. The libraries' goal was generally to aim for an understanding of standards at the partial to minimal level. Very few libraries required their public services personnel to know the various standards fully. Public services staff, at some institutions, participated on all committees concerned with decisions to implement standards.

QUESTION 29: HAVE YOU TRIED TO APPLY STANDARDS AND THEN HAD TO TAILOR THEM FOR LOCAL USE?

In the area of application of standards the overwhelming indication of the libraries surveyed was to tailor standards to accommodate local usage. Only one library stated that it altered local practice in order to adhere to a national standard.

QUESTION 30: DO YOU FIND IT USEFUL IF THE VENDOR HAS APPLIED STANDARDS?

QUESTION 31: IN WORKING WITH VENDORS, HOW BENEFICIAL HAVE YOU FOUND STANDARDS TO BE?

When asked if they had found standards useful when working with vendors on questions 30–31, libraries responded in a resoundingly positive fashion. Cited among the advantages of standards implementation were ease of communication, efficient process and transfer of data, and how vital standards are to long-range planning efforts. Some institutions stated that if their vendors had incorporated standards in systems they would have implemented the standards. Unfortunately, some of the vendors, one of which was on top of the list as most used, do not use ANSI standards.

As might be expected, the standard most frequently cited as beneficial to a more efficient serials operation is the ISSN.

QUESTION 32: IN WHAT NEW AREAS ARE STANDARDS MOST NEEDED?

Only 24 libraries responded to this question. The majority of responses did not actually deal with new standards. Instead some respondents urged that draft versions of standards be finalized, while others urged more widespread adoption of existing standards. There were also a few respondents that seemed to be ignorant of the existence of several of the standards. There were suggestions concerning the need for some standards dealing with publishers' practices, such as standards for title pages, formats, enumeration, etc.

QUESTION 33: REASONS FOR NOT IMPLEMENTING STANDARDS?

As can be seen from the responses to Part B of the survey, use of standards relevant to serials control is not widespread. The only standard used by more than 50% of the libraries responding to the survey is the International Standard Serial Number (ISSN). Full or partial use of the other standards varied from 2% to 36%. The reasons given by libraries for this low level of use fall into five categories:

1. Twenty-eight libraries stated that they were waiting for the automation of their serials operations before adopting standards.
2. Nineteen libraries, most of which had automated their serials operations, said that the conversion of existing serial records to conform to standards would be too costly and time consuming. These libraries indicated that they either did not have the resources to undertake a conversion project, or that there was no real need or incentive to undertake such a project. These responses are evidence of one of the major obstacles to widespread adoption of standards. That is, the difficulties would outweigh any advantages gained from using standards for serial records.
3. Twelve libraries with automated serials operations responded that they were waiting for their vendors to implement standards in their system.*
4. Five libraries are waiting for the final versions of various standards before proceeding with their implementation.
5. Four libraries indicated that there were problems connected with the public displays of serials records using standards, and that this was what was delaying their implementation.

QUESTION 34: COMMENTS

Most respondents to the survey seemed to agree that standards are "essential" and "extremely important." Most libraries seem to wait until their serials operations are automated before adopting standards. But beyond automation is the costly and time-consuming process of converting serial records to conform to standards.

CONCLUSION

It seems unbelievable that serials, one of the more complicated areas of technical endeavor in the library, have lacked the benefit of standards for so long. Even now, with standards beginning to be available, the majority of institutions are not working within the majority of standard serials formats. Library administrators or other persons in control of the purse strings have had to make hard decisions about the scope of automation efforts in libraries. Rushes to automate have complicated continuing advances in serials standards work. Moreover, the naturally complex nature

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*It is interesting to compare this response with the responses of six vendors who were interviewed during a preliminary survey of serials standard use in 1987. This survey was also done by the Committee. In that preliminary survey only one of the vendors said that it had implemented standards other than ISSN. Most of the vendors stated that they would respond to their customers' demands, but up to that time their customers had not insisted upon implementing serials standards.

of serials seems to have combined with a desire to set problems aside that retards the wholesale creation and acceptance of serials standards by systems vendors. But the most disheartening fact about serials standards work is that most technical services librarians don't seem to know about them, don't have anything to say about them, and haven't really considered them.

RECOMMENDATIONS

1. Members of the ALA RTSD SS Committee to Study Serials Standards recommend that there be more programs, workshops, and seminars on serials standards. There is a need for more education concerning the existence of standards, the content of these standards, and the advantages of using standards.
2. We recommend that there be a trial period for any new draft standards. Participating libraries should encompass all types of libraries so as to receive sufficient feedback and input before a draft becomes an official standard. Therefore libraries do not have to tailor them for local use at a later date.
3. We recommend that librarians strongly consider choosing and requesting systems that meet the standards as the prerequisite for long-range library planning efforts.
4. We recommend that programmers adhere to national standards and that there be a continuing effort to modify and make plans for modification of local or present systems to conform to national standards or to handle changes and revisions in available standards.
5. We recommend widespread adoption of standards for better communication, information exchange and sharing, data transfer from one system to another, union listing, etc.

APPENDIX A: NISO STANDARDS AVAILABLE AS OF MAY 1989

Z39.1-1977	Periodicals: Format and Arrangement
Z39.2-1985	Bibliographic Information Interchange
Z39.4-1984	Basic Criteria for Indexes
Z39.5-1985	Abbreviation of Titles of Publications
Z39.6-1983	Trade Catalogs
Z39.7-1983	Library Statistics
Z39.8-1977 (R1984)	Compiling Book Publishing Statistics
Z39.9-1979 (R1984)	International Standard Serial Numbering (ISSN)
Z39.10-1971 (R1977)	Directories of Libraries and Information Centers
Z39.11-1972 (1983)	System for the Romanization of Japanese
Z39.12-1972 (R1984)	System for the Romanization of Arabic
Z39.13-1979 (R1984)	Describing Books in Advertisements, Catalogs, Promotional Materials and Book Jackets
Z39.14-1979 (1987)	Writing Abstracts
Z39.15-1980	Title Leaves of a Book
Z39.16-1979 (R1985)	Preparation of Scientific Papers for Written or Oral Presentation
Z39.18-1987	Scientific and Technical Reports—Organization, Preparation and Production
Z39.19-1980	Guidelines for Thesaurus Structure, Construction and Use
Z39.20-1983	Criteria for Price Indexes for Library Materials
Z39.21-1980	Book Numbering (ISBN)
Z39.22-1981	Proof Corrections

Z39.23-1983	Standard Technical Report Number (STRN), Format and Creation
Z39.24-1976	System for the Romanization of Slavic, Cyrillic Characters
Z39.25-1975	Romanization of Hebrew
Z39.26-1981	Advertising of Micropublications
Z39.27-1984	Structure for the Representation of Names of Countries, Dependencies, and Areas of Special Sovereignty for Information Interchange
Z39.29-1977	Bibliographic References
Z39.30-1982	Order Form for Single Titles of Library Materials in 3-inch-by-5-inch Format
Z39.31-1976 (R1983)	Format for Scientific and Technical Translations
Z39.32-1981	Information on Microfiche Headings
Z39.33-1977 (R1988)	Development of Identification Codes for Use by the Bibliographic Community
Z39.34-1977 (R1983)	Synoptics
Z39.35-1979	System for the Romanization of Lao, Khmer and Pali
Z39.37-1979	System for the Romanization of Armenian
Z39.39-1979 (R1988)	Compiling Newspaper and Periodical Publishing Statistics
Z39.40-1979 (1987)	Compiling U.S. Microform Publishing Statistics
Z39.41-1979	Book Spine Formats
Z39.42-1980	Summary Level Holdings (Superseded by Z39.44)
Z39.43-1980	Identification Code for the Book Industry (SAN)
Z39.44-1986	Serials Holding Statements
Z39.45-1983	Claims for Missing Issues of Serials
Z39.46-1983	Identification of Bibliographic Data on and Relating to Patent Documents
Z39.47-1985	Extended Latin Alphabet Coded Character Set for Bibliographic Use (ANSEL)
Z39.48-1984	Permanence of Paper for Printed Library Materials
Z39.49-1985	Computerized Book Ordering
Z39.50-1988	Information Retrieval Service Definition and Protocol Specification
Z39.52-1987	Standard Order Form for Multiple Titles of Library Materials
Z39.53-1987	Codes for the Representation of Languages for Information Interchange for Library Applications
Z39.61-1987	Recording, Use, and Display of Patent Application Data in Printed and Computer-Readable Publications and Services
Z85.1-1980 Catalog	Permanent and Durable Library Cards
Z39.55-198X (draft)	Computerized Serials Orders, Claims, etc.
Z39.56-198X (draft)	Serial Item Identifier

The above standards are available from Transaction Publishers, Dept. NISO Standards, Rutgers-The State University, New Brunswick, NJ 08903.

NISO Standards are also available from ANSI, American National Standards Institute, and from the National Information Standards Organization, National Institute of Standards and Technology, National Bureau of Standards, Administration 101, Library Room E-106, Gaithersburg, MD 20899. Telephone: 301-975-2814. Patricia Harris, Executive Director.

SISAC stands for the Serials Industry Systems Advisory Committee. SISAC is an industry group formed in 1982 to develop voluntary standardized formats for electronically transmitting serial information and to present the formats for adoption as American national standards. For more information please contact: Book Industry Study Group, Inc., 160 Fifth Avenue, New York, NY 10010. Telephone: 212-929-1393.

APPENDIX B: INSTITUTIONS THAT PARTICIPATED IN THIS SURVEY

American Antiquarian Society
California Institute of Technology
Canada Institute for Scientific and Technical Information, National Research Council of Canada

Case Western Reserve University
Center for Research Libraries
Colorado State University
Columbia University
Cornell University
EBSCO Subscription Services
Emory University
Florida State University
Free Library of Philadelphia
George Washington University. Burns Law Library
George Washington University. Gelman Library
Harvard University
Historical Society of Pennsylvania
Iowa State University
Kansas State Historical Society
Kansas State University
Kent State University
Library of Congress. Serial Record Division
Library of Congress. Serials & Government Publications Division, Newspaper Section
Los Angeles County Law Library
Mississippi College
Mississippi Library Commission
Mississippi State University
National Agricultural Library
National Library of Canada
National Library of Medicine
New York Public Library
Newberry Library
North Carolina State University
Northwestern University
Northwestern University. Medical Library
Pasadena Dept. of Information Services
Pennsylvania State University
Queen's University
Rice University
Rutgers University
San Francisco State University
Smithsonian Institution
Southern Illinois University at Carbondale
State Historical Society of Wisconsin
State Library of Pennsylvania
State University of New York, Buffalo
State University of New York, Buffalo. Health Science Library
Syracuse University
Temple University
Texas Tech University
Trinity University
Union College
United States Dept. of the Interior. Division of Information & Library Services
University of Alabama
University of California, Berkeley
University of California, Davis
University of California, Irvine
University of California, Riverside
University of California, San Diego
University of Colorado, Boulder
University of Georgia
University of Hawaii, Honolulu
University of Hawaii, Manoa
University of Iowa

University of Kansas
University of Kentucky
University of La Verne
University of Lowell
University of Manitoba
University of Maryland, College Park
University of Massachusetts, Amherst
University of Miami
University of Mississippi
University of Missouri, Kansas City
University of Nebraska, Lincoln
University of Nebraska, Omaha
University of Nevada, Las Vegas
University of New Mexico
University of North Carolina, Chapel Hill
University of North Carolina, Charlotte
University of Oklahoma
University of Oregon, Eugene
University of Pennsylvania
University of South Carolina
University of Toronto
University of Utah
University of Virginia
University of Washington
University of Wisconsin, Madison
Virginia Polytechnic Institute & State University
Washington State University
Washington University, St. Louis
West Chester University
Yeshiva University Law Library
York University