Barcoding of Periodicals in the UK

The International Serials Data System (ISDS)

"The ISDS is twenty years old. The project of creating an international system for the identification of serials, through a network of national registration centres, saw the light of day in 1971, during a meeting of UNISIST. The International Serials Data System is thus twenty years old, even if its International Centre was only officially established in 1974, through an agreement between UNESCO and the French Government. The work accomplished during this period is impressive: fifty operational centres cooperate through the International Centre in Paris and have thus far registered and identified more than 530,000 serials.... The ISDS Register has doubled in size during the last five years and is growing...."

THE passage above is quoted from the recently re-issued "News from ISDS". The ISDS system has to be an example of international cooperation at its best! The records, created in the National Centres, contain the ISSN, and a brief bibliographic description, including a unique title, an abbreviated title, publisher and date. The database is available on-line and in microfiche format and is due to be produced on CD ROM later this year. The abbreviated list of title words is produced separately. The UK database is available on-line via BLAISE.

The international database is managed by the Director and her staff at the ISDS Centre in Paris, and administered by a Governing Board of elected members, which meets annually, and a General Assembly, to which all member countries are invited to send representatives, meeting bi-

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annually. The National Centre Directors meet annually to discuss policy and administrative issues relating to the work of the Centres. The system is funded by contributions, based on level of use, from member countries with additional contributions from the French Government, as the host country, and UNESCO.

The allocation of a unique title and its accompanying ISSN to new serials as they are published, and increasingly before publication, has self-evident bibliographical uses for the handling of material in libraries and other organisations dealing with serials. Increasingly, the ISDS database is being used to produce union catalogues, and where the ISSN is employed as a linking device this prompts the early addition of data to the system.

Less immediately obvious perhaps but equally crucial is the development of the use of ISSN as a trigger for electronic data capture systems and this takes the ISDS system beyond the narrower world of libraries and bibliographies and into the commercial world of publishing and distribution.

The link between the bibliographic record produced by the ISDS and the data capture systems is the use of the ISSN in the barcode, now almost universally applied to commercial periodicals in the UK.

Barcodes And Article Numbering

Development towards widespread article numbering started in the US in 1970 when an ad hoc grocery trade committee was established to explore whether a standard code and symbol could be developed for the industry. By May 1973 the
Universal Product Code symbol (UPC) was published. Technical working parties were established in Europe in 1975 to establish a European system. In 1977 the European Article Numbering Association (EAN) was formally established to cover Europe and the rest of the world except North America.

The European article numbering system was developed from the UPC system and designed to be fully compatible with that system within the EAN domain. Periodicals were among the first non-grocery products to adopt the system. Following on the development of EAN in Europe, in the UK by 1979 initiatives were coming both from the Periodicals Publishers Association (PPA), which was becoming aware of trends within the industry in other countries, and from WH Smith, who decided to install barcode scanning equipment in its retail outlets.

The PPA initiated discussions within the existing framework of the International Article Numbering Association and in March 1980 they formed an All-Industry Working Party to consider the application of barcoding for the periodical industry. A Periodicals Barcoding committee was then set up drawn from members of the All-Industry Working Party. The British Library (as host of the UK National Serials Data Centre) was invited to join the Committee as by this time it had been agreed that the ISSN would form the basis of the European Article Number for periodicals. The purpose of the Committee was to develop and administer a barcoding system and to act as contractor with the European Article Numbering Association (EAN) and the ISDS International Centre.

Detailed technical specifications for the production of periodical barcodes were written, agreed and published, drawing heavily on those already published for the barcoding of books. A contract was drawn up and agreed between the European Article Numbering Association and the ISDS International Centre regarding the use of the ISSN.

The Periodicals Barcoding Committee was reconstituted as the Periodicals Barcoding Association (PBA) and became a member of the Article Number Association (UK) Limited (ANA) the UK arm of the EAN. The ANA is the only body in the UK which can provide technical details of EAN barcoding. The PBA is responsible for the administration and development of the barcoding system and as part of this publishes a Barcoding Manual and explanatory publicity for periodical publishers, technical specifications for film-master manufacturers for the production of ISSN/EAN barcodes, etc.

**How Barcodes Are Allocated**

The first requirement is for each title to be allocated a unique ISSN. The UK National Serials Data Centre (UKNSDC) provides this service. The PBA provides the information on national specifications for the creation of the barcode, rules for the location of the symbol on the periodical itself, use of background colour, etc., and lists of specialist suppliers of film masters who can provide barcodes conforming to the specifications. The publisher then arranges with his printer to print the barcodes.

**How the Barcoding System Works**

The machine readable barcode symbol is printed on each issue enabling data to be captured automatically, directly from the copy. In the UK system apart from the ISSN incorporated in the barcode there is also a printed representation of the ISSN in a special font above the barcode. The presence of the ISSN as well as the full barcode has the advantage of allowing the barcode to be read by scanning equipment, and the ISSN, printed in a special font, to be read by electronic data capture equipment. By linking the two numbers, existing computer systems based on one number become more easily converted to
interface with systems based on the other number.

**SAMPLE:** The ISSN/EAN Symbol and its constituent parts:

<table>
<thead>
<tr>
<th>ISSN 1234-5679</th>
<th>ISSN directly presented</th>
</tr>
</thead>
<tbody>
<tr>
<td>04</td>
<td>Issue Number in 2-digit supplementary code</td>
</tr>
<tr>
<td>9771234567003</td>
<td>EAN check digit</td>
</tr>
<tr>
<td></td>
<td>Sequence Variant</td>
</tr>
<tr>
<td>ISSN (without ISSN check digit)</td>
<td></td>
</tr>
<tr>
<td>EAN Prefix for ISSN</td>
<td></td>
</tr>
</tbody>
</table>

The benefits to the UKNSDC and thus to libraries are the increase in requests for assignment of ISSN leading to an increase in records entered on the international database. Requests for pre-publication allocation of ISSN have also increased with the widespread use of barcodes and this also has advantages in the timely production of records.

**Barcoding In The UK**

Publishers in the UK voluntarily adopted the use of machine readable codes on periodicals "in a spirit of cooperation with retailers and others in the periodical industry". The system is now widespread and used by many of the large retailers. The imaginative use of barcodes by major periodical publishing houses has dispelled initial reluctance to attach barcodes from an aesthetic point of view to commercial publications, although the academic publishers have not yet taken up the use of barcodes to the same degree.

More recently, newspaper publishers have been requesting barcodes in order to use the commercial outlets, such as the major supermarkets, now generally equipped with barcode reading machinery. This is now raising some discussion on the extension of the barcode to incorporate the more complex demands of newspaper editions.

The latest potential use for barcoding and ISSN as an administrative tool has been instigated by the Copyright Licensing Agency who are seeking links between photocopy licence holders and the periodical publishers. Some research in this area is already underway and this could have both an encouraging effect on the extension of the use of barcodes, and even on the development of ISSN-based article identifier codes such as those currently being developed in the US.
The Future

The development of barcoding and its effects on the use of the ISSN is one of the incentives which has led the ISDS Governing Board to commission a user survey. The survey aims to collect information on the ISDS and its services in order to assist in future policy decisions on the content of the record, the types of product, etc. and also on specific policy issues e.g. the assignment of ISSN to multi media publications.

Mr Russell Sweeney is conducting the survey on behalf of ISDS, under the aegis of The Centre for Bibliographic Management, University of Bath, and would welcome any comments or other contributions, requests for questionnaires, etc.

Address: Mr Russell Sweeney, 53 West Park Avenue, Leeds, LS8 2EB. Telephone: 0532-664721.

ISDS Publications

Information on the availability of the international database in its various product forms is available from:

ISDS International Centre
20 rue Bachaumont
75002 Paris
France

Queries on the assignment of ISSN and on the UK database should be addressed to:

The UKNSDC
British Library
2 Sheraton Street
London W1V 4BH

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