



National Library of Sweden

# Migration to MARC21 Swedish experiences

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# Issues

- LIBRIS (National Union Catalogue) up to 2002
- SWEMARC decision
- MARC21 decision
- Current state
- Expectations
- Multipart volumes
- Examples
- Conclusions



## LIBRIS, National Union Catalogue up to 2002

- LIBRIS co-operatively maintained by Swedish research libraries
- National cataloguing rules based on AACR2 since 1983 when the public and research library communities united.
- Two different library systems and formats both based on UKMARC
  - The LIBRIS MARC format used mainly by research libraries, run by the National Library.
  - The BTJ MARC format used mainly by public libraries, run by BTJ, a private company serving the public libraries.
- Many similarities between the formats, such as solutions for multipart volumes and linking possibilities.
- The formats were national. Conversion was needed each time records were to be imported or exported.



## LIBRIS up to 2002, cont.

- The LIBRIS system is getting out-of-date in the late 1990s, old, difficult to manage and to make changes to.
- Cataloguing somewhat complex.
- Communication with other library systems is complicated
- Imported records are bought from the LC, BNB and DB and converted to the internal MARC format before being entered into the database
- Need of international exchange is great.
- Need of rationalised cataloguing imminent.



## SWEMARC decision of 1998

- Decision to develop a Swedish SWEMARC format, more flexible and much more based on USMARC.
- 12 December 1998 – Contract with Dynix/Horizon on the development of a new Swedish cataloguing system based on the specifications for a SWEMARC format
- A few Swedish libraries implement SWEMARC
- 1999-2000: Work on the new format and system. Many difficulties with the implementation of the new format in the Horizon system. The tests are not very successful.
- 12 September 2000. The contract with Dynix/Horizon is cancelled



## MARC21 decision of 2000

- 19 December 2000. Decision to merge to MARC21 and to abolish the development of the SWEMARC format
- 15 June 2001. Contract with Endeavour/Voyager.
- 2001. The database is converted to MARC 21.



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## Sweden up to 2002

23 January 2002

The LIBRIS Systems starts using MARC21 and the Voyager system for cataloguing.



## Converting to MARC21

- 9 million bibliographic records converted to MARC21
- 15 million holdings records
- 30.000 subject heading authority records converted from an old format to the MARC21 authority format
- 80.000 system generated authority records created from old 9XX fields.
- 48.000 old authority records converted from an old authority format to MARC21.
- The format is taken more or less "as it is". Hardly any national extensions.



## Expectations of MARC21 in 2002

- Rationalise the cataloguing process, above all through national and international record exchange.
- Possibilities of joining and following international standards to a much greater extent than before.
- Sweden uses a Swedish version of AACR2 with some local practices. The aim of the research libraries is to leave as many of those local practices behind now.



## Expected "problems"

- MARC21 has an oldfashioned structure, very much developed for the printing of catalogue cards.
- Data very often needs to be entered twice.
- Some fields lack several important subfields, e.g. field 245.
- ISBD punctuation has to be entered manually.
- Multipart volumes are treated quite differently in MARC21 as compared to UKMARC, the format which the old Swedish format was based on.
- Dissimilarities in the use of authorised headings making the exchange of data somewhat more difficult than desired.



## How did it turn out?

- Many of the problems did occur:
  - MARC21 has a somewhat old fashioned structure
  - Data does need to be written twice in some cases, but can be done quite quickly through copy/paste.
  - Hard to understand why coded information often has to be written out in clear words as well.
  - The ISBD punctuation did cause some irritation in the beginning, but by the help of templates and through copying older records the problem is somewhat avoided.
  - The treatment of multipart volumes is still one of the greatest differences between the old format and MARC21.
  - Also some cataloguing rules needed to be adapted to AACR2 standard.
- But most problems were more easy to solve than expected!



## Advantages

- Much easier to work with an international standard that is accepted and well defined.
- International record exchange very easy since so many libraries either use MARC21 or offer converted records in MARC21.
- XML versions exist. No need to create own XML.
- Support is easily obtained from the Library of Congress.
- Documentation exists – in English.
- Rationalisations will be more easy to make in the future.
- After a few years with MARC21 the number of cataloguings per person appear to be increasing.



## Disadvantages

- Format is maintained by the Library of Congress. Communication concerning the format has to go through them
- Changes have to be proposed to the LC and the time to wait for an answer can be long. Formalised procedure.
- Format is still very US-focused, e.g. the treatment of multipart volumes and serials. But the increasing number of European libraries are slowly influencing the format.
- Training of staff used to the old format is sometimes a bit hard.
- Different forms of headings sometimes between Swedish and AACR standards.
- The differences between the public library system in Sweden and the research library system has become much bigger. The public libraries still use their old format. Conversions between the two formats more complex now.



## MARC21 in Sweden

- Sweden follows the full MARC21 format.
  - Bibliographic
  - Authority
  - Holdings
- As few national deviations as possible.
- In addition a special export format, that can be specially tailored for various local systems
- A format handbook in Swedish – a Swedish version of MARC21 (bibliographic, authority, holdings, record exchange, national extensions)
- Special Swedish rule interpretations are continuously being developed
- A Swedish "Cataloguer's Desktop" on it's way.



## MARC21 in Sweden, cont.

- Specific source codes have been applied for and granted for the Swedish national classification system and the subject heading system
  - kssb = Swedish classification (field 084)
  - sao = Swedish subject headings (field 650, 651)
- The use of relator codes have proven very efficient and is used by most libraries cataloguing in LIBRIS, e.g.
  - cmp = composer
  - trl = translator
  - art = artist
- A few local fields, and/or subfields, have been added, e.g.
  - 599 = Note field in the bibliographic record with invisible notes for others than the cataloguers
  - 042, subfield \$9. Bibliography code when an item should be included in a bibliography



## Not just a new format...

- New cataloguing system
  - Sweden has gone from our own cataloguing system, developed by our own developers to an international system in a modern technical environment.
  - But we build our own "subsystems", using standard developing tools, e.g. system for ILL.
  - Web based search interface for other users than librarians "WebSearch", developed by the LIBRIS Department at the National Library.  
(<http://websok.libris.kb.se/websearch/form?lang=eng>).
  - New versions continuously, the latest being released in the autumn of 2007.
- Integrated authority control
  - Names (closely following LC Authorities)
  - Titles (closely following LC Authorities)
  - Subject Headings (Svenska ämnesord, SAO, closely linked to LCSH)
  - DDC discussions.

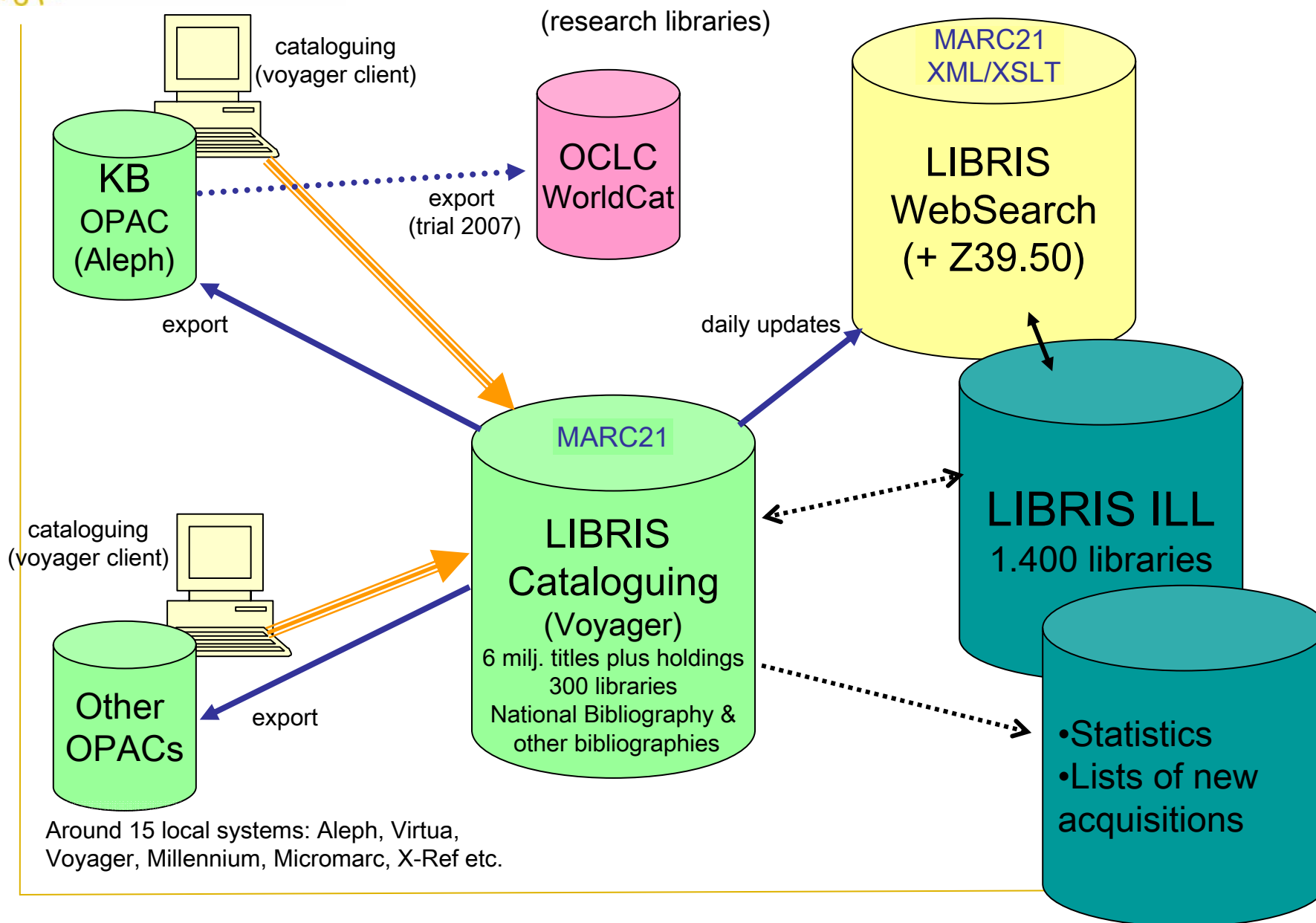


## MARC21 Swedish Export format

- A special export format was created to be able to transport embedded authority information to those libraries that do not use authority files. This format still uses the old fields 900-950.
- Subfield \$5, which in the standard MARC21 format is used for library codes, had to be used to register embedded local information from the holdings records to the local systems.



# The Swedish model





## Multipart monographs

- MARC21 conversion
  - a uniform model was used for the conversion. All multipart volumes were treated in the same way
  - Result in most cases satisfactory, but in a few cases the records became somewhat "heavy".
- AACR2 1.1.B9 is applied
  - Title, title of part and number is described according to the title page.
  - The hierarchical structure of the edition is not always followed.
  - No main records are made for new multipart volumes.



## Different methods for multipart monographs

- New guidelines for cataloguing of multipart monographs. Guidelines have to take into account the treatment of the old converted multipart monographs. Five methods are possible:
  1. [The converted model](#). The old "main record" is kept, but is no longer used. The records for the parts have been converted to monographic records with a field 772 linking the monographic part to the old "main record".
  2. [Monographic method](#).
    - Every part is described as an ordinary monograph
    - Title in 245 -\$a; part title in \$p and number in \$n.
    - No 772 field is added.



## Different methods for multipart monographs, cont.

3. [Making a serial catalogue record](#) (e.g. collected works)
  - each part is described as a monograph in a series
  - Title of the part in 245 \$a
  - Title of "the whole" and number of part in 440 or 490 (+8XX)
4. [All parts being described in one catalogue record.](#)
  - Very often used by the LoC.
  - Not very common in Sweden.
  - All titles of parts in a 505 field.
5. [Supplements etc.](#)
  - Are treated as ordinary monographs
  - linking field 772 to the main record.



## Example 1: Converted multipart monograph

Voyager Cataloging - [Bib 0203293 : August Strindbergs samlade verk : [nationalupplaga]. 22. Han och hon : en själs utvecklingshistoria (1875-76) / texten red]

File Edit Record Related Records Display Options Window Help

New Open Save Search Headings Titles Save to DB New Hldgs Get Hldgs New Items Get Items Hierarchy Help

MARC System History

Leader 01479nam a2200337 r4500 006

005: 007

008 960605 s 1996 sw 0 0 0 f swe

Tag	11	12	Subfield Data
020			‡a 91-1-964412-4 (inb.) : ‡c 310:00
035			‡9 9119644124
040			‡a NB
042			‡9 NB ‡9 SLB
084			‡a Hc ‡2 kssb
100	1		‡a Strindberg, August, ‡d 1849-1912
245	0	0	‡a August Strindbergs samlade verk : ‡b [nationalupplaga]. ‡n 22, ‡p Han och hon : en själs utvecklingshistoria (1875-76) / ‡c texten redigerad och kommenterad av Hans Sandberg
260			‡a Stockholm : ‡b Norstedt, ‡c 1996 ‡e (Uppsala : ‡f A & W)
300			‡a 315, [1] s., [16] pl.-s. ; ‡c 23 cm
500			‡a 1981-1985 utg. av Strindbergssällskapet på Almqvist & Wiksells förl.
599			‡a hum
599			‡a H: pb
599			‡a Li:S
→ 700	1		‡a Dahlbäck, Lars, ‡d 1938- ‡4 oth
700	1		‡a Sandberg, Hans, ‡d 1932- ‡4 oth
700	1		‡a Strindberg, August, ‡d 1849-1912. ‡t Han och hon
710	2		‡a Strindbergssällskapet ‡4 oth
710	2		‡a Stockholms universitet. ‡b Litteraturvetenskapliga institutionen ‡4 oth
740	0		‡a Han och hon
740	0		‡a samlade verk
772	0	0	‡7 p1 ‡a Strindberg, August, 1849-1912 ‡t August Strindbergs samlade verk : [nationalupplaga] ‡c [utges av Stockholms universitet genom dess litteraturvetenskapliga institution ; huvudredaktör: Lars Dahlbäck] ‡d Stockholm : Norstedt, 1981- ‡w 9902493491 ‡9 22

Biuppslag - Personnamn 15:00

[www.kb.se](http://www.kb.se)



## Example 2: Monographic method

Voyager Cataloging - [Bib 10321505 : Chrono crusade. Vol. 2 / av Daisuke Moriyama ; översatt från japanska av Nika Hashiguchi och Richard Schicke]

File Edit Record Related Records Display Options Window Help

New Open Save Search Headings Titles Save to DB New Hldgs Get Hldgs New Items Get Items Hierarchy Help

MARC System History

Leader 00644cam a22002173a 4500 006

005 20070315132340.0 007

008 070118 s 2007 dk III i 0 0 l c swe

Tag	I1	I2	Subfield Data
020			‡a 978-87-639-3156-4
040			‡a NB
041	1		‡a swe ‡h jpn
042			‡9 NB
084			‡a Hci,u ‡2 kssb/8
100	1		‡a Moriyama, Daisuke
245	1	0	‡a Chrono crusade. ‡n Vol. 2 / ‡c av Daisuke Moriyama ; [översatt från japanska av Nika Hashiguchi och Richard Schicke]
250			‡a 1. uppl.
260			‡a Köpenhamn : ‡b Mangismo, ‡c 2007
300			‡a 192 s. : ‡b ill.
500			‡a Första svenska upplaga 2007
700	1		‡a Hashiguchi, Nika ‡4 trl
700	1		‡a Schicke, Richard ‡4 trl

Internationellt standardboknummer (ISBN)

15.05



## Example 3: Serial catalogue record

Voyager Cataloging - [Bib 10410947 : Erzählungen 1958-1966 / Anna Seghers ; Bandbearbeitung Ute Brandes]

File Edit Record Related Records Display Options Window Help

New Open Save Search Headings Titles Save to DB New Hldgs Get Hldgs New Items Get Items Hierarchy Help

MARC System History

Leader 00627cam a22002057a 4500 006

005 20070416164629.0 007

008 070416 s 2007 gw \_ \_ \_ \_ \_ 0 0 0 \_ i \_ ger \_ c

Tag	I1	I2	Subfield Data
020			‡a 3-351-03466-5
040			‡a S
084			‡a Hf.01 ‡2 kssb/8
100	1		‡a Seghers, Anna, ‡d 1900-1983
240	1	0	‡a Noveller. ‡k Urval
245	0	0	‡a Erzählungen 1958-1966 / ‡c Anna Seghers ; Bandbearbeitung Ute Brandes
250			‡a 1. Aufl.
260			‡a Berlin : ‡b Aufbau-Verlag, ‡c 2007
300			‡a 180 s.
490	1		‡a Werkausgabe. Das erzählerische Werk ; ‡v 2:5
700	1		‡a Brandes, Ute ‡4 edt
800	1		‡a Seghers, Anna, ‡d 1900-1983. ‡t Samlade verk. ‡f 2000 ; ‡v 2:5

Internationellt standardboknummer (ISBN) 15:53



## Example 4: All parts in one monographic record

Voyager Cataloging - [Bib 8211184 : Nationalencyklopedin : ett uppslagsverk på vetenskaplig grund utarbetat på initiativ av Statens kulturråd / [divisionschef]

File Edit Record Related Records Display Options Window Help

New Open Save Search Headings Titles Save to DB New Hldgs Get Hldgs New Items Get Items Hierarchy Help

MARC System History

Leader 01312cam a2200349 a 4500 006

005: 20070426160656.0 007

008 870907 m 1989 9999 sw \_ \_ \_ \_ e \_ \_ 0 0 0 \_ 0 swe \_ \_

Tag	I1	I2	Subfield Data
020			‡a 91-7024-619-X (bd 1-20 (konstläderbd)
020			‡a 91-7024-620-3 (bd 1-20 (halvfr. bd)
020			‡a 91-7024-621-1 (1-20 (helfr. bd)
035			‡9 990674569X
040			‡a NB
042			‡9 Mak ‡9 NB ‡9 NBI ‡9 SEE ‡9 Ssm
080			‡a 030.1
082			‡a 038.7
084			‡a Ba-c ‡2 kssb/6
084			‡a AE
245	0	0	‡a Nationalencyklopedin : ‡b ett uppslagsverk på vetenskaplig grund utarbetat på initiativ av Statens kulturråd / ‡c [divisionschef och chefredaktör: Kari Marklund]
246	1	4	‡a NE
260			‡a Hôganås : ‡b Bra böcker, ‡c 1989-
300			‡a Bd 1- ; ‡b ill. (vissa i färg), diagr. (vissa i färg), kartor (huvudsakligen i färg), tab. ; ‡c 29 cm
500			‡a Bd 12-20: Chefredaktör: Christer Engström, bd 21-: Chefredaktör : Kenneth Åström
→ 500			‡a Bibliofilupplaga i helfranskt band
650		4	‡a Encyklopedier ‡z Sverige
700	1		‡a Åström, Kenneth, ‡d 1946- ‡4 edt
700	1		‡a Engström, Christer, ‡d 1950- ‡4 edt
700	1		‡a Marklund, Kari, ‡d 1938- ‡4 edt
710	2		‡a Statens kulturråd ‡4 pbl

Anmärkning: Allmän

16:07

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## Example 5: Supplements etc.

Voyager Cataloging - [Bib 8901650 : Diskret matematik. Övningsbok / Lars-Christer Böiers]

File Edit Record Related Records Display Options Window Help

New Open Save Search Headings Titles Save to DB New Hldgs Get Hldgs New Items Get Items Hierarchy Help

MARC System History

Leader: 00612cam a2200205 ar4500 006

005: 20070426161617.0 007

008 030512 s 2003 sw III \_ \_ \_ \_ | 0 0 | \_ 0 \_ swe \_ c

Tag	I1	I2	Subfield Data
020			‡a 91-44-03015-0
040			‡a NB
042			‡9 NB
084			‡a Ta ‡2 kssb/7
084			‡a 00A ‡2 msc
084			‡a 05-01 ‡2 msc
100	1		‡a Böiers, Lars-Christer, ‡d 1944-
245	0	0	‡a Diskret matematik. ‡p Övningsbok / ‡c Lars-Christer Böiers
260			‡a Lund : ‡b Studentlitteratur, ‡c 2003 ‡e (Lund : ‡f Studentlitteratur)
→ 300			‡a vi, 160 s. ; ‡c 23 cm
650		7	‡a Diskret matematik ‡2 sao
772	0		‡t Diskret matematik ‡d 2003 ‡z 91-44-03014-2 ‡w 8899505

Fysisk beskrivning 16:16



## Did we take the right decision?

From a strategic point-of-view:

- MARC21 not perfect, but the internationally leading format and it is getting better!
- A move for us in FRBR direction has become much easier to take.
- Technical development a lot easier now.
- Good basis for future developments and international co-operation
- Rationalisations much easier than before

Many problems and challenges  
... but we can solve them!