

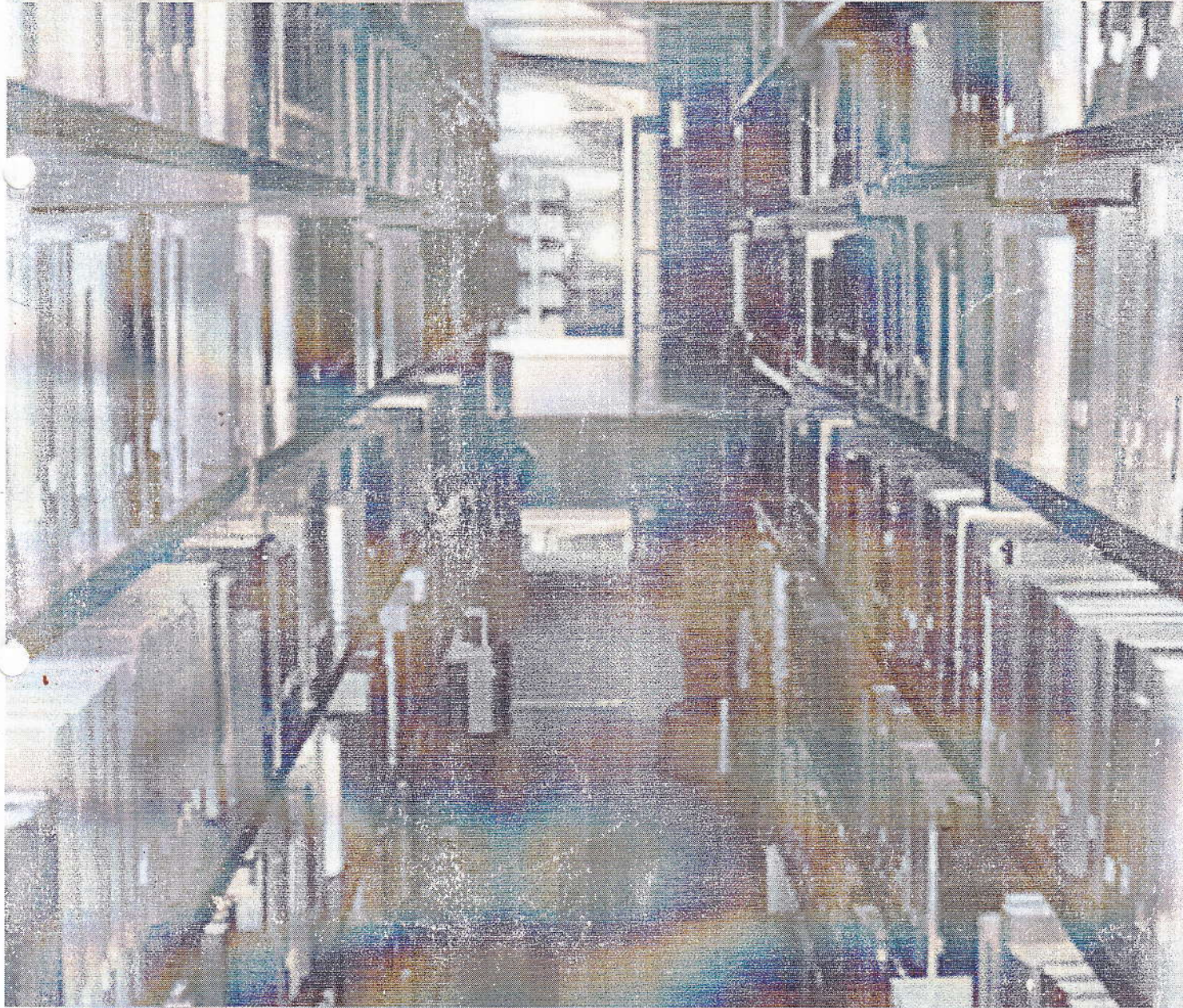
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Data Migration from CDS/ISIS to Koha (Integrated Library System)



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Abstract

Standards are important for quality and interoperability in any system. Bibliographic record creation standards such as MARC 21 (Machine Readable Catalogue), CCF (Common Communication Format), UNIMARC (Universal MARC) and their local variations, are in practice in library community. ILS (Integrated Library System) is using these standards for the design of databases and the creation of bibliographic records. Standards help in maintaining uniformity of the system and bibliographic data. Now-a-days the trend is towards using MARC 21. The problem arises when a library wants to change from one system to another using different standard. This paper discusses migration from one record standard to another, mapping of data and related issues. Data exported from Winisis CDS example database records to Koha MARC 21 based records are discussed as a case study. This methodology can be applied with few modifications in other bibliographic formats too. Freeware tool MARCEdit is taken as case study for migration, preparation and analysis of data.

Introduction

Libraries from developing countries like Nepal wanted to use fully-featured library automation system. But when library automation started, the cost of commercial software was very high, and freeware and open sources software for Integrated Library System were not available. The only one software available as a freeware was CDS/ISIS (DOS based) and WINISIS (CDS/ISIS for windows). It is due to the free

availability of the software many libraries in Nepal as well as in this region adopted it without hesitation. However, CDS/ISIS was not prepared for integrated library system. It was designed specifically for automated cataloguing/bibliographic database of a library.

In creating worksheet for CDS/ISIS, CCF is widely used. Unesco supported this standard for common communication purpose for developing fields of worksheet in libraries. But now-a-days, better open source freeware ILS is available as an alternative to CDS/ISIS such as Koha ILS for libraries. But the problem is migration of data from CDS/ISIS to Koha. The reason is CDS/ISIS uses CCF whereas Koha uses MARC 21. CCF is maintained by Unesco and not updated frequently whereas MARC 21 is maintained by Library of Congress and is maintained frequently. This is why new tools such as Koha is using MARC 21. It was first adopted by Horowhenua Library Trust (HLT), now it is driven by growing community of libraries. It is also available free of charge. It also supports Unicode. This has given option for the libraries to use ILS like Koha instead of CDS/ISIS without spending huge money. The use of Koha however requires conversion of data from CCF to MARC 21.

Data Migration

A data migration means the transfer of data from one application to another. According to Wikipedia(1), data migration is a process of transferring data between storage types, formats or computer systems. For effective data migration the old or existing system has to be mapped with the new system.

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Method of Migration

For converting data from CCF or CDS/ISIS to Koha, certain procedure has to be adopted. We have adopted the following procedure:

1. Data Export in .iso format
 2. Analysis, mapping of data.
 3. Conversion of data using MARCEdit tool.
- Data import into Koha using bulkmarckimport tool for GUI Import tool of Koha.

Steps.

The steps are given as follows:

1. Install Marc Edit and CDS/ISIS

Download MARC Edit from

Download .NET Framework here

Download CDS-ISIS from

Open Marc Editor

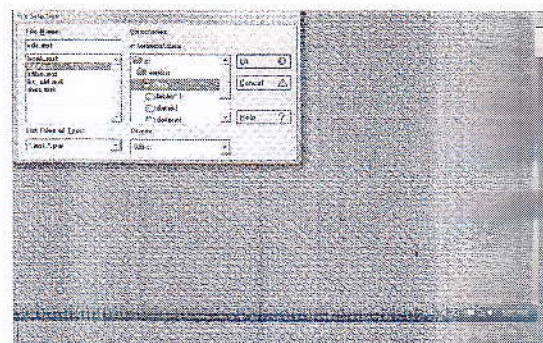


2. Make ISO using ISIS

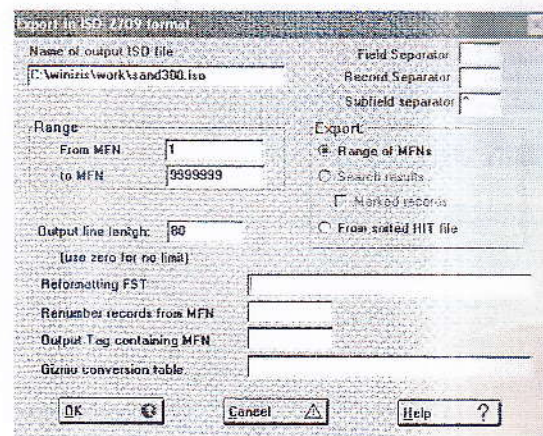
Export your data to ISO format. The procedure is as follows
Launch WinISIS



Open the file having the mst files



Export the data using Export to ISO

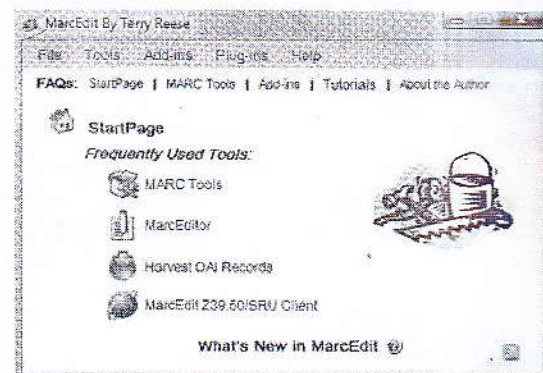


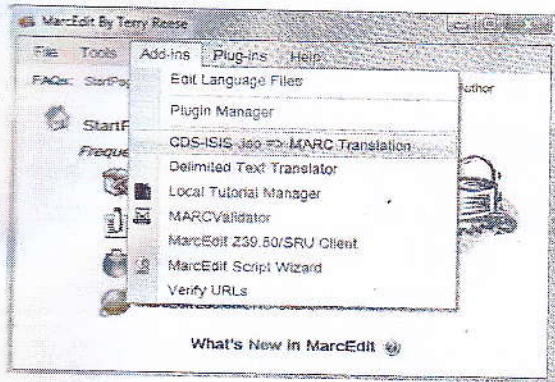
It will save your ISIS data in ISO format.

Converting ISO file to MARC

3. Processing MARC Edit

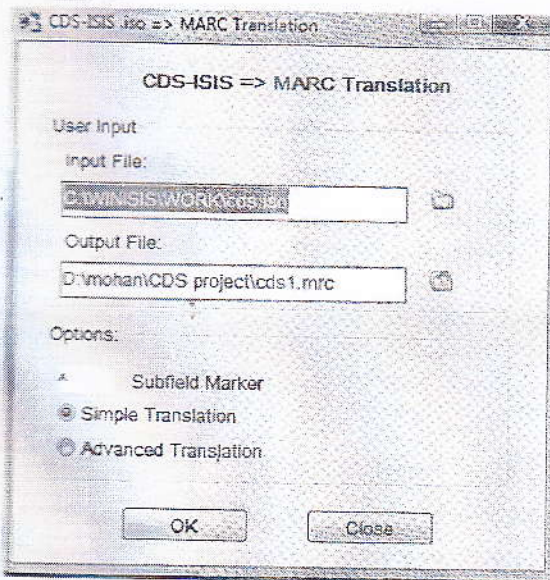
- 3a. Open MarcEdit and select Add-ins>CDS-ISIS.iso=>MARC Translation





3b. Locate your iso file and find the place to save the output .mrc file.

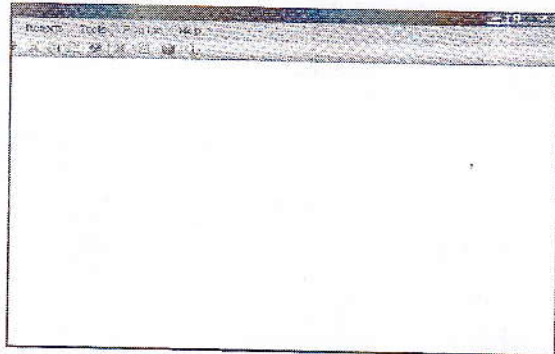
Check Simple Translation and Click OK button. This process will convert your ISO file to MARC file with the extension .mrc.



3c. List out your CDS/ISIS field numbers against MARC field number for the convenience of mapping process.

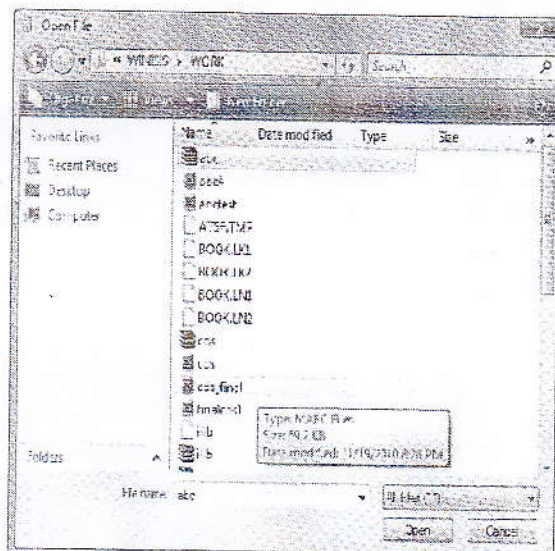
Catalogue Fields	CDS/ISIS field number	MARC-21 field number
Author	70	100
Title	24	245
Edition	25	250
Imprint	26	260
Subject	69	650

3d. Open MarcEditor from main window of MarcEdit.

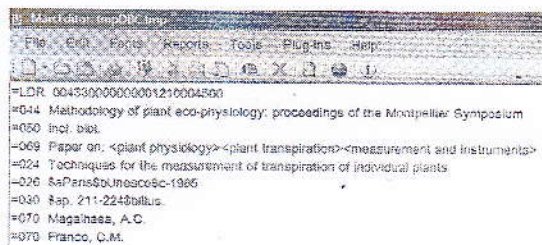


3e. Open your .mrc file from File > Open.

Select "MARC Files (*.mrc)" from "Files of type" option to see .mrc file you generated from ISO file. Click on the MARC file and Open it.



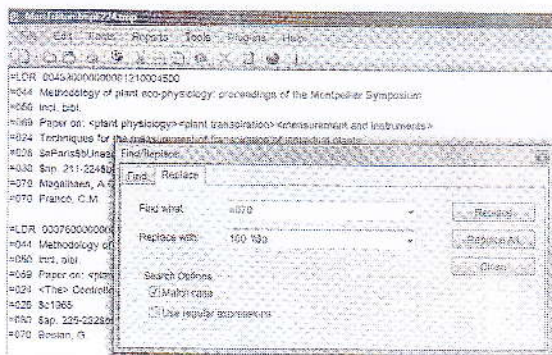
It will display your MARC records in MarcEditor.



3f. Changing of field numbers.

We are going to edit the field numbers compatible with MARC-21 suitable for Koha.

Open **Edit>Replace**



100 = Author field according to MARC-21

\$a = Sub field for Author Personal name

This action will change all tag number of title (070) to 100.

The same way you can try to change other fields

Press **Close** button after changes made.

4. Add/Delete Fields in Marc Edit

4a. If you want to delete any unneeded fields such as 050, 090, etc in Marc Edit do the following:

- Go to **Tools > Add/Delete Fields**
- In the fields box, enter the field number you want to delete
- Click in **Delete Field**

4b. Add a 942 item field

- In the field box enter **942**
- In the field data box enter **\\\$c[ITEM_TYPE]**
eg. **\\\$cBK**
- Click in **Add Field**

4c. Replace the 852 field with 952 field

- Go to **Edit > Replace**
- In the **Find** box enter **"=852"**
- In the **Replace** box enter **"=952"**
- Click on **Replace All**

4d. Edit a subfield

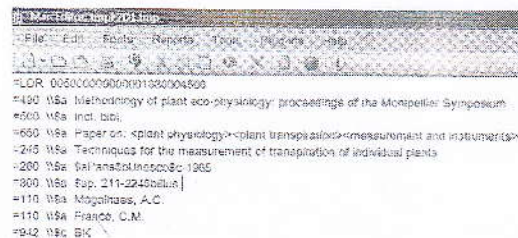
- Go to **Tools > Edit Subfield Data**
- In the **Field** box enter **952**
- In the **Sub-field** box enter **a**
- Click on **Replace Text**

4f. Swap sub field H with sub field O

- Go to **Tools > Swap Field Data**
- Under **Original Data** field enter **952**
- In the **Sub Field** box enter **H**
- Under modified data in the field box enter **952**
- In the **Sub Field** box enter **O**
- Under **Search Options**, put a checkmark in the **Copy Source** box and the **Add to Existing Field** box
- Click on **Progress**

4g. Save and Close the Edited Marc Record

- Go to **File > Compile File into Marc**
- Select the file name and click **SAVE**
- Compile the records, **File > Compile File into MARC**
- Save the file by giving a different name.
- See the display of records after completing the editing process



You can use the resulted .mrc file to import into Koha using **Koha Home > Tools > Stage MARC Records for Import**.

Now you can import data to KOHA using either **bulkmarcimport** or **GUI**

5. Import Marc File using bulkmarcimport.pl

In your terminal type:

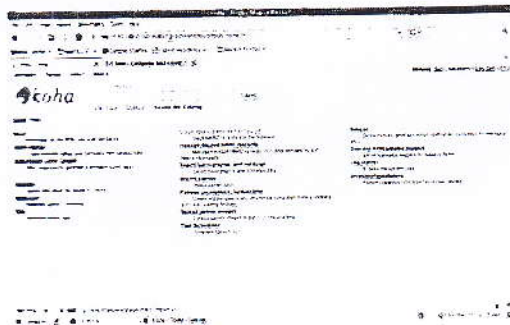
```
# /usr/share/koha/bin/migration_tools/  
bulkmarcimport.pl -d -file <path-to-mrc> -n  
100
```

You can view the switches to use in bulkmarcimport by typing

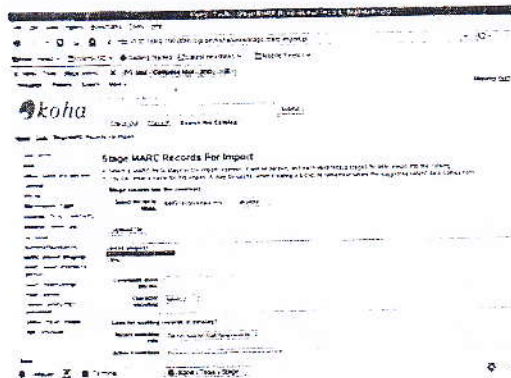
```
# /usr/share/koha/bin/migration_tools/  
bulkmarcimport.pl --help
```

6. Import Marc File using KOHA GUI

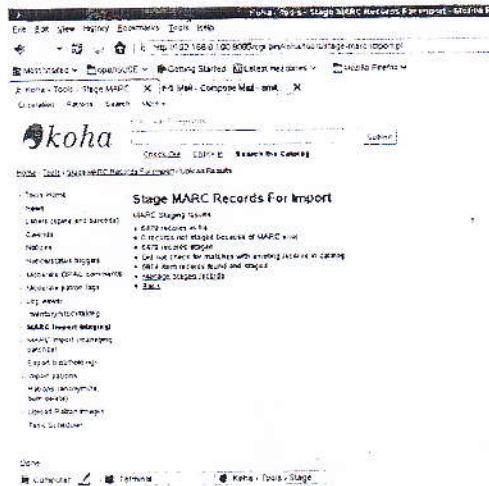
Go to Staff Client --> Tools --> Stage MARC Records for Import:



Upload your .mrc file



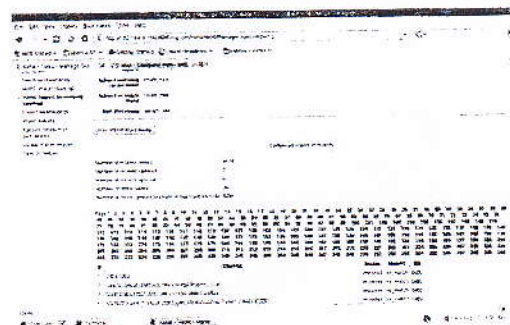
Stage marc records for import:



View Staged Records



Import records into catalog:



7. Rebuild KOHA authorities and bilbois

Now to get the new records indexed by search we need to rebuild the zebra index.

In your terminal type:

```
# /usr/share/koha/bin/migration_tools/  
rebuild_zebra.pl -b -r -v
```

You can view the switches to use in rebuild_zebra by typing

```
# /usr/share/koha/bin/migration_tools/  
rebuild_zebra.pl --help
```

Conclusion

Migration of data from one system to another needs a through mapping of corresponding fields. Understanding and study of both systems and formats are very much required. Problems arise when provision of corresponding tags value cannot be found in either the target or source format.

Reference

1. Wikipedia. Data migration.
http://en.wikipedia.org/wiki/data_migration
Accessed on June 7, 2011.

The advertisement for ADBL Remit features a map of India with various regions highlighted in different colors. Text in Hindi is overlaid on the map. At the top left, there is a logo for 'Remit' with the tagline 'for all the money & more which you need for'. Below the map, there are two bullet points: '• शीघ्र और सस्ते दरों पर' and '• शीघ्र और आसानी से'. At the bottom, the text reads 'Agricultural Development Bank Ltd. कृषि विकास बैंक लिमिटेड' and 'www.adbl.gov.in'.

I like being around books.
It makes me feel civilized.

The only way to do all the
things you'd like to do is to
read."

~ Tom Clancy ~

"Information is power"

"Information is doubled
when it is shared"

