USER DOCUMENTATION (ALEPHINO 5.0)

Z39.50 Services

The bridge to knowledge

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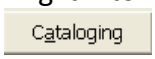
1 Description

Searches in further library catalogues via the Z39.50 gateway allow both the patron and the library staff to use additional information sources. Z39.50 in this context is the international standard protocol to - through a query - communicate in heterogeneous environments with several systems at the same time, without leaving the familiar interface of the WWW-OPAC or the Search tab.
Alephino supports Z39.50 and that way can integrate any information system which also supports Z39.50 into the search interface and present as search result next to the local titles. The bibliographic records may be taken over by the librarian from the search interface directly into the Alephino catalogue and edited there.
Thus, the Z39.50 gateway is not only a tool for supplying the patron with an enlarged choice of information but also an indispensable instrument for efficient cataloging by using records retrieved from external databases.
Z39.50 server is also available. Thus, you have the opportunity to offer your local database(s) to be retrieved via the internet using the Z39.50 standard protocol. Even Web-based search portals - like MetaLib from Exlibris is – will often use the Z39.50 protocol to address a variety of databases.
The Alephino Z39.50 gateway has in fact been available for a while independently from a version, but from version 2.2 onwards the formerly separate Z39.50 gateway environment has been completely integrated into the Alephino server environment. The administration and configuration of the gateway (e.g. defining the targets) may be done via a Web client.

2 Application

The Alephino server (bin\alephino[.exe]) and the Z39.50 Gateway (bin\zgate[.exe]) must be started. Please note that the operation of the Z39.50 Gateway requires a licence from Ex Libris (Deutschland) GmbH.
The workflow is as follows:

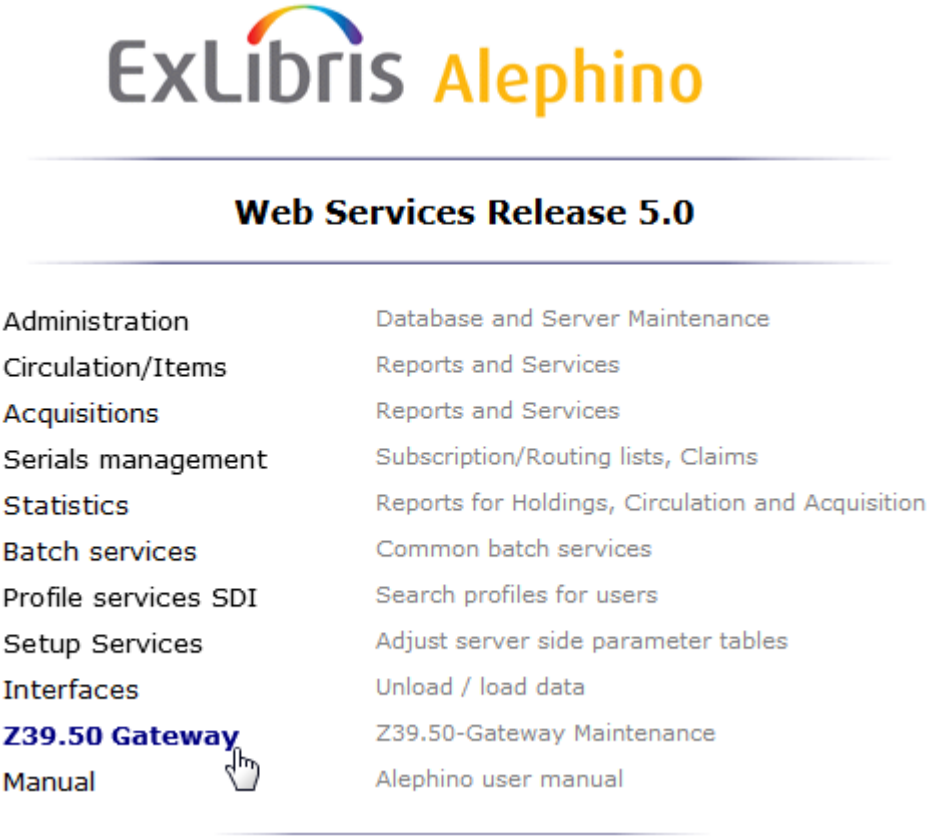
1. Start the Cataloging module and connect to your normal title masterfile
2. Activate the search tab and connect there to the desired target (e.g. Z-MRC)
3. Retrieve the desired title and bring it into full view
4. Push the record via the button 

to the cataloging tab
5. Duplicate the record into your local Alephino database (menu "Cataloging" / Duplicate record).
   Depending on the format of the source record, when saving the record in Alephino an implicit conversion into the Alephino format takes place. Authority records for links will automatically be created. This procedure allows per "On the fly" conversion to take over data from sources conform to MARC21 and MAB2 - if necessary after minor manual editing of the records in the cataloguing module.

3 Setup and administration

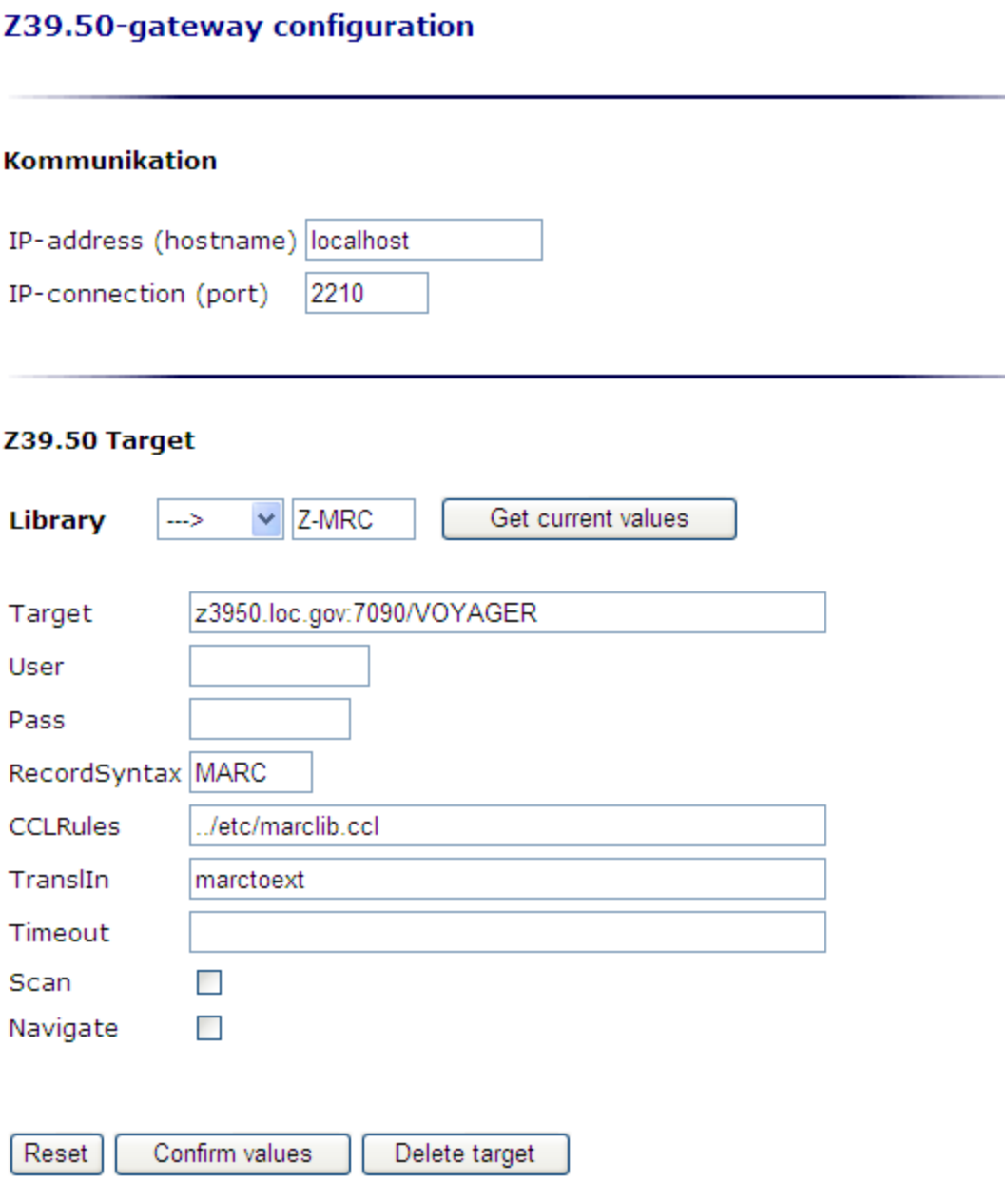
3.1 Defining and modifying a target

To define and modify a target call up the Alephino Web Service Module and select "Z39.50 Gateway":



Via the link you get to the web-based administration interface for the Z39.50 Gateway:

Select the menu "Setup Services" and then "Gateway configuration":



Here, you may modify all defined targets.
In the help for the input mask you will find explanations on the individual fields.

To define and modify new targets, enter the code of the new target in the input field for Library (e.g. Z-NEW) and click on „Get current values“. An empty form is displayed for specifying the parameters for the new target. With finally clicking on the disk symbol "Save", your settings will be written to the system configuration file *etc/zgate.cfg*. To activate the changes, the Alephino Z39.50 gateway must be restarted.

3.2 Server side adaptations

The Z39.50 gateway in its initial state, analogous to the master files of a local Alephino database, knows two symbolic files that are predefined. The corresponding entries are located in file **etc/z39file.ext**.
While the one named "MAB" is to use as a prototype of a data source with MAB2-formatted data sets, the “MRC" designated file figures for prototype of a MARC21 compatible target:

```
************************************************************
* Definition Files
************************************************************
(zfiles)
FILE=MAB,DEFIN=011,INDEX=z39mabidx,LOCATE=mabloc
FILE=MRC,DEFIN=012,INDEX=z39mrcidx,LOCATE=mrcloc
```

MARC-derivates like Unimarc, Picamarc, Danmark etc. as well as „free“ formats, also called SUTRS or OPAC, are not supported.

Example:

The Library of the Unversity of Glasgow is to be "tapped". This target provides MARC21 format. For this we use the target Z-GLA already contained in the factory setting of the configuration file etc/zgate.cfg.

1. Process file **etc/z39file.ext**. First, duplicate the declaration that fits to the syntax of the target you want to address, in our case it's FILE=MRC, then apply a name to it, let it be FILE=**GLA**. Finally add declaration **FORM=MRC** to that declaration line. With that the system will know that all definitions controlling the display- and print-formatting that are valid for the predefined virtual file **MRC** are to be adopted for our **GLA** as well:

```
************************************************************
* Definition Files
************************************************************
(zfiles)
FILE=MAB,DEFIN=011,INDEX=z39mabidx,LOCATE=mabloc
FILE=MRC,DEFIN=012,INDEX=z39mrcidx,LOCATE=mrcloc
FILE=GLA,DEFIN=012,INDEX=z39mrcidx,LOCATE=mrcloc,FORM=MRC
```

2. Make a copy of file pc_MRC.pck that is located in directory etc/client, and name it pc_***GLA***.pck. This file represents the so called client-package covering files that are valid to control the GUI client and hence are to be transferred to the client on establishing connection to the Z39.50 gateway.

3. Finally the Alephino server needs to know what procedure is to be applied for automatic conversion of records fetched from our target ***GLA*** into the native Alephino data format. For this we add the following entry to section (Convert) in file etc/alephino.cfg:

```
(Convert)
Z-MRC = ../etc/marc_alephino
CatConv = ../etc/catconv.tab
ConvTest = ../temp/convert.dat
Z-GLA = ../etc/marc_alephino
```

3.3 Setup of the Alephino clients and the Web OPAC

The Alephino Z39.50 Gateway acts from the point of view of the Alephino Windows applications and the OPAC as server. The services provided by the Gateway have to be introduced as symbolic libraries in the configuration files of the Alephino applications (search module, cataloguing, Web OPAC).

In the initial state of the Gateway configuration there is 1 symbolic library:

- Z-MRC = Z39.50 target with MARC-Format (Library of congress)

Of course, further sources may be integrated via Alephino Z39.50 Gateway.

Edit the following files in the installation directory of the Alephino clients (e.g. C:\Programme\ExLibris\Alephino_50) and add the following parameter lines as follows:

- Subdirectory *alephcom**tab* file *library.ini*

```
!------------------------ +-----  +--------------------------->
Z39.50-LoC                Z-MRC   localhost:2210
Z39.50-GLA                Z-GLA   localhost:2210
```

Please note that 'localhost' may need to be replaced with the address of your server. To avoid mistakes when editing this and the following tables it is advisable to copy an existing parameter line per copy/paste as model.

- Subdirectory *alephcom**tab* file *searbase.dat*

```
!!!!!!!!!!!!!!!!!!!! +!!!!!!!!!!!!!!! +!!!!!
!!!!                  !!!!               
Z39.50-LoC            Z-MRC              Z-MRC
```

Z39.50-GLA Z-GLA Z-GLA

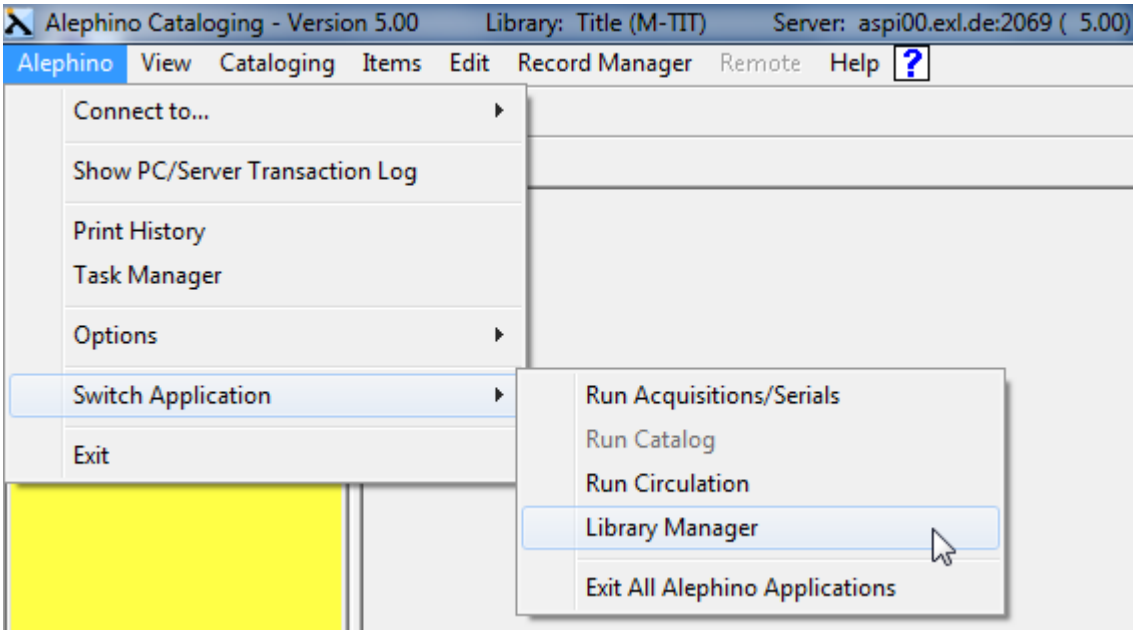
- Subdirectory *catalog**tab* file *per_lib.ini*

Z-MRC
Z-GLA

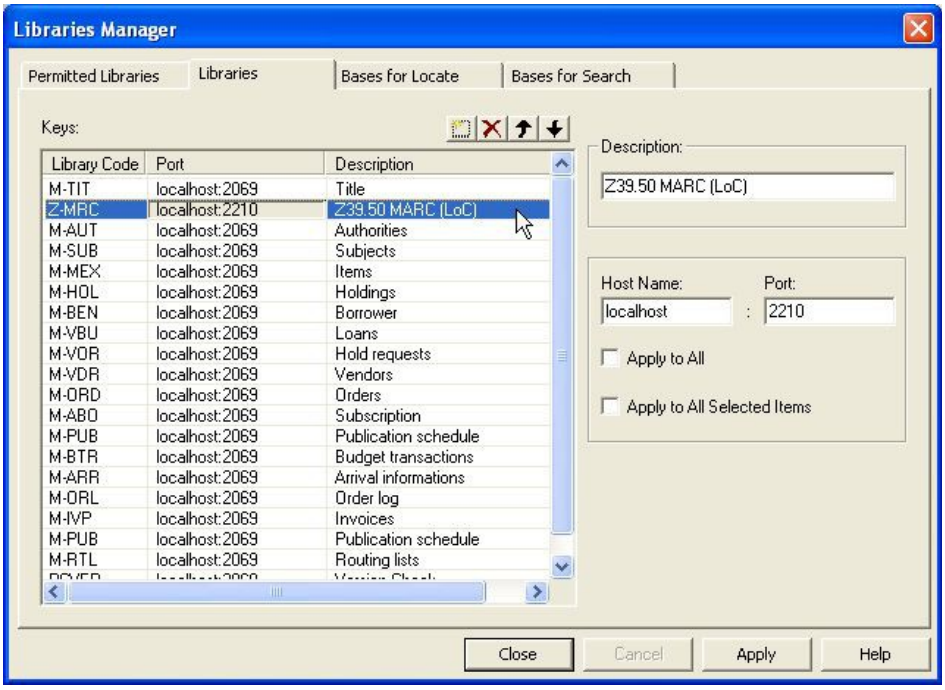
3.4 The Alephino Library Manager

In Alephino there is a comfortable way to edit these files. Please use the *Library manager*, which is integrated in the cataloguing module, to add more databases to the configuration of your Alephino GUI applications or to delete or rename them:

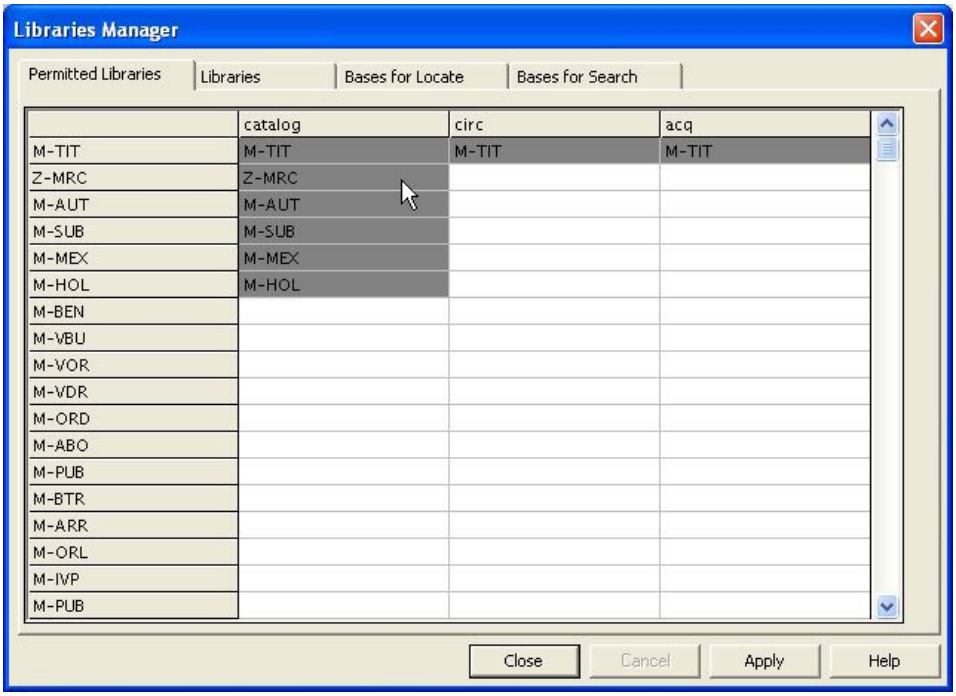
1. **Call up the function (Cataloging module, menu „Alephino“ / Switch Application)**



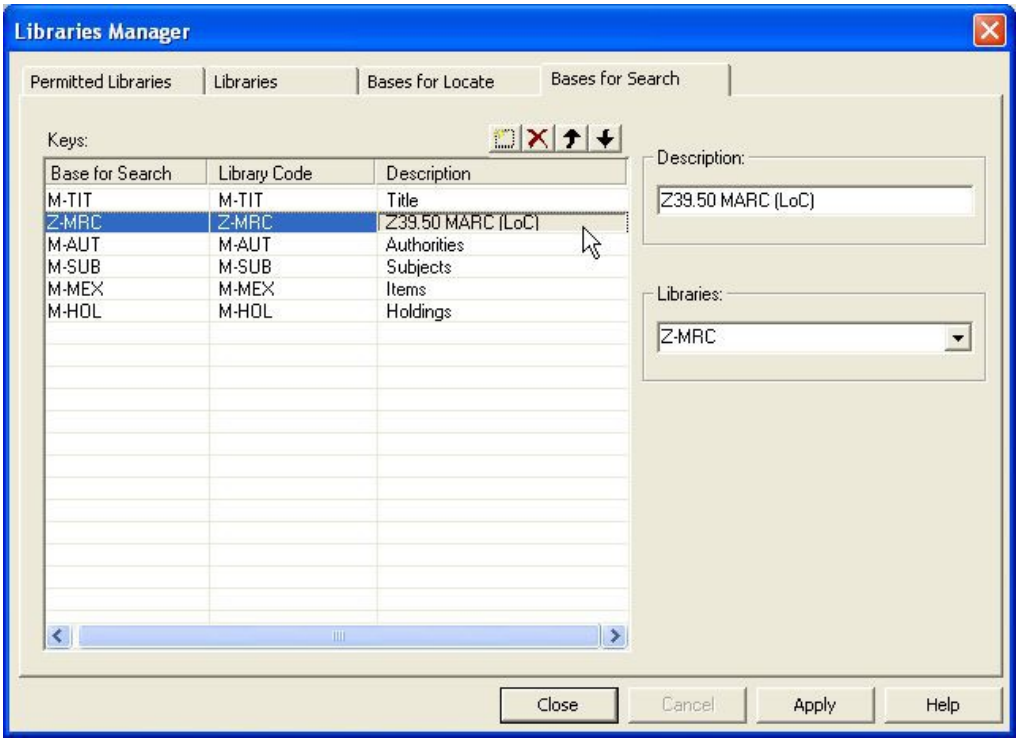
2. **Add the symbolic database and its Gateway address**



3. **Add the symbolic database to the permitted libraries of the Cataloging module**



4. **Add the symbolic database to the bases available in the Search tabs**



If you want to integrate the Z39.50 libraries in the database menu of the Web OPAC you must edit its configuration file *alipac.cfg* in the (server) directory *etc*:

- Section *(Libraries)*

Z-MRC = localhost:2210
Z-GLA = localhost:2210

- Sections *(NamesGER)* und *(NamesENG)*

Z-MRC = Z39.50-Library of Congress
Z-GLA = Z39.50-University of Glasgow

(Of course the names of the libraries can be chosen freely.)

4 Setup of the Z39.50 server

The Alephino Z39.50-server supports the following services of the Z39.50-protocol:

- INIT (AUTH)
- SEARCH
- SCAN
- FETCH (PRESENT)
- SORT

The program is controlled by configuration file etc/zserver.cfg. The basic configuration already contains all the entries needed to address the predefined Alephino-database "M-TIT" (MARC21). In order to adress a Z39.50-source using an appropriate Z39.50-Client (BookWhere, EndNote ...) the following parameters will always be needed:

Designation	Parameters in etc/zserver.cfg
IP-address of the server (also DNS-Name)	
Port number	(Communication) Port = **2010**
Virtual database	(Libraries) **MARCUS** = M-TIT
If the access is to be restricted to authorized users...	(Communication) **User = Z39** **Pass = Z39**

Since the basic configuration does already cover all necessary parameters, it is sufficient to simply start the server. If you have defined additional local Alephino databases and want to provide them via Z39.50 as well, they must be added to parameter section ***(Libraries)*** in file ***etc/zserver.cfg***.

5 Appendix A: Selected access information

Please note, that the access may be customer-specific and not free of charge, i.e. user/password may be need to be asked for at the institutions. There is no warranty for the validity of the following.

----- Extract from zgate.cfg ----
*
*** Library of Congress (no SCAN)**
*
(Z-MRC)
Target = z3950.loc.gov:7090/VOYAGER
CCLRules = ../etc/marclib.ccl
RecordSyntax = MARC
TranslIn = marctoext
Timeout =
*
*** Glasgow University**
*
(Z-GLA)
Target = eleanor.lib.gla.ac.uk:210/innopac
CCLRules = ../etc/marclib.ccl
RecordSyntax = MARC
TranslIn = marctoext
Timeout =
*
*** NEBIS Switzerland**
*
(Z-NEB)
Target = opac.nebis.ch:9909/NEBIS
CCLRules = ../etc/marclib.ccl
TranslIn = marctoext
RecordSyntax = MARC
Timeout =
*
*** HeBIS Frankfurt/Main**
*
(Z-HEB)
Target = tolk.hebis.de:20210/hebis
CCLRules = ../etc/marclib.ccl
TranslIn = marctoext
RecordSyntax = MARC
User = 3950
Pass = Z3950
Timeout =
*

In addition, we would like to recommend the following link (the most extensive resource on Z39.50 targets world wide): *http://irspy.indexdata.com*