



Classic Z39.50 Server Configuration

This document provides detailed technical information regarding Sirsi's implementation of the Z39.50 standard for its Classic system. IR-Server, the existing Sirsi Classic Z39.50 server, conforms to Z39.50-1992 (Version 2) of the standard.

Table of Contents

- [Z39.50 Services Supported](#)
- [Servers Available for Testing at Sirsi \(St-Louis, MO\)](#)
- [Initialization Service](#)
- [Search Service](#)
- [Present Service](#)
- [Delete Service](#)
- [Access-control Service \(Empty Shell Support\)](#)
- [Resource-report Service](#)
- [Resource-control Service \(Empty Shell Support\)](#)
- [Trigger-resource-control Service \(Empty Shell Support\)](#)

Other Information:

- [Supported Bib-1 Attributes](#)
- [Element Set Names Available](#)
- [Record Syntaxes Available](#)
- [Supported Diagnostic Sets](#)
- [Supported Z39.50 Profiles](#)

The Sirsi Classic Z39.50 server supports the following services:

Initialization, Search, Present, Delete, Access-control, Resource-report, Resource-control, Trigger-resource-control

Servers Available for Testing at Sirsi (St-Louis, MO)

Test Server Domain name: dranet.dra.com (192.65.218.23)

Port: 210

Hours of availability: 24 hours a day, 365 days a year, except during routine updates and maintenance scheduled infrequently throughout the year.

Databases Available:

DREWDB - a copy of Drew University's database that Sirsi uses for demonstration purposes. This database contains approximately 450,000 bibliographic and authority records in USMARC format. Over one million associated item records are also contained in the database.

PUBLIC - a copy of the Hernando County Public Library System's database that Sirsi uses for demonstration purposes. This database contains approximately 140,000 bibliographic and authority records in USMARC format. Nearly 200,000 associated item records are also included in the database.

CIRCLE_ITEM_FILE - The generic database name that the Sirsi Classic server refers to in order to provide item and circulation information.

Initialization Service

Protocol Version

Z39.50-1992 (Version-2)

Options Supported

Search

Present

Delete

Access-control

Resource-report

Resource-control

Trigger-resource-control

Preferred Message Size

IR-Server prefers a message size of 65,535 bytes (64 K). It will accept, however, a maximum preferred message size of 262,143 bytes (256 K).

Maximum Record Size

IR-Server will accept a maximum record size of 262,143 bytes (256 K).

ID Authentication

Anonymous and Open User Id/Authentication types are supported.

Open format is: user[/pwd]

where:

- 'user' is a valid account id on local system (VMS)

- 'pwd' is the corresponding user account's password.

User ID and password are not required by the IR-Server server at this time.

Search Service

Result Set Name

In addition to 'default', IR-Server can maintain a maximum of 128 named result sets per Z-association. Result set names may have a maximum length of 23 characters.

Database Names

IR-Server supports searching one Classic database at a time, not combined.

Generic "CIRCLE_ITEM_FILE" database is the name IR-Server refers to in order to provide item and circulation information.

Element Set Names

Only generic element set names are supported at this time.

The list is detailed in [Element Set Names Available](#)

Preferred Record Syntax

IR-Server supports a subset of public and private Z39.50 record syntaxes.

Details follow in [Record Syntaxes Available](#).

Query types

Type 1 and Type 101 (proximity) are supported.

Attribute Set ID

Bib-1 only is supported.

Operand

The Result-set-id may be used in the Operand (for qualifying searches).

Operators Supported

AND OR AND-NOT

Proximity

Right proximity (within)
Right or left proximity (near).
A unit may be a word or phrase.

Present Service

Element Set Names

Only generic element set names are supported at this time.

The list is detailed in [Element Set Names Available](#)

Preferred Record Syntax

IR-Server supports a subset of public and private Z39.50 record syntaxes.

Details follow in [Record Syntaxes Available](#).

Delete Service

IR-Server supports both bulk and result sets list delete operations.

Access-control Service

IR-Server will accept Access-control response messages, but does not send requests.

Resource-report Service

Preferred Resource Report Format

IR-Server provides a resource report using the Resource-1 resource report format. The report contains two estimates: the session's incurred costs so far as well as the session's total time duration (as of the time of report request).

Resource-control Service

IR-Server will accept Resource-control request messages, but does not send responses.

Trigger-resource-control Service

IR-Server will accept Trigger-resource-control request messages, but will not actually trigger a 'resource-control' request back to the client (as a consequence).

Supported Bib-1 Attributes

IR-Server supports, for each defined Classic system search type, the following bib-1 attribute combinations. Values in gray cells are optional and do not need to be specified. When more than one is available, (D) indicates the implicit default value implemented by the server. Similarly, (P) indicates the preferred Structure attribute value, when more than one is eligible.

Classic	Bib-1 Attribute combinations					
Search Types	Use	Relation	Position	Structure	Truncation	Compl.
Title	4-Title	3-Equal	3-Any	1-Phrase (P) 2-Word 6-Word list (D)	100-Do not truncate (D) 101-Proc.#	1- Inc .subfield
Series	5-Title series	3-Equal	3-Any	1-Phrase (P) 2-Word 6-Word list (D)	100-Do not truncate (D) 101-Proc.#	1- Inc.subfield
Title uniform	6-Title Uniform	3-Equal	3-Any	1-Phrase (P) 2-Word 6-Word list (D)	100-Do not truncate (D) 101-Proc.#	1- Inc.subfield
ISBN ¹	7-ISBN	3-Equal	3-Any	2-Word	100-Do not truncate (D) 101-Proc.#	1- Inc. subfield
ISSN ²	8-ISSN	3-Equal	3-Any	2-Word	100-Do not truncate (D) 101-Proc.#	1- Inc. subfield
LCCN	9-LCCN	3-Equal	3-Any	2-Word	100-Do not truncate (D) 101-Proc.#	1- Inc. subfield

Reference	1007-Identifier -- standard 5014-Sirsi local reference number (see note below)	<i>3-Equal</i>	<i>3-Any</i>	<i>2-Word</i>	<i>100-Do not truncate (D)</i> <i>101-Proc.#</i>	<i>1-Inc. subfield</i>
Local call number	53-Local call number	<i>3-Equal</i>	<i>3-Any</i>	<i>2-Word</i>	<i>100-Do not truncate (D)</i> <i>101-Proc.#</i>	<i>1-Inc. subfield</i>
Subject	21-Subject Heading	<i>3-Equal</i>	<i>3-Any</i>	1-Phrase (P) 2-Word 6-Word list (D)	<i>100-Do not truncate (D)</i> <i>101-Proc.#</i>	<i>1-Inc. subfield</i>
Imprint	59-Place publication	<i>3-Equal</i>	<i>3-Any</i>	1-Phrase (P) 2-Word 6-Word list (D)	<i>100-Do not truncate (D)</i> <i>101-Proc.#</i>	<i>1-Inc. subfield</i>
Notes	63-Note	<i>3-Equal</i>	<i>3-Any</i>	1-Phrase (P) 2-Word 6-Word list (D)	<i>100-Do not truncate (D)</i> <i>101-Proc.#</i>	<i>1-Inc. subfield</i>
Author	1003-Author	<i>3-Equal</i>	<i>3-Any</i>	1-Phrase (P) 2-Word 6-Word list (D) 102-Name (un-normalized)	<i>100-Do not truncate (D)</i> <i>101-Proc.#</i>	<i>1-Inc. subfield</i>
Default numeric	30-Date 32-Date of acquisition 54-Code -- language 55-Code -- geographic area 56-Code -- institution 1011-Date/time added to database 1012-Date/time last modified 1013-Authority/format identifier	<i>3-Equal</i>	<i>3-Any</i>	<i>2-Word</i>	<i>100-Do not truncate (D)</i> <i>101-Proc.#</i>	<i>1-Inc. subfield</i>
Default non numeric	1016-Any	<i>3-Equal</i>	<i>3-Any</i>	1-Phrase (P) 2-Word 6-Word list (D) 102-Name (un-normalized)	<i>100-Do not truncate (D)</i> <i>101-Proc.#</i>	<i>1-Inc. subfield</i>
Program	5012-Sirsi Local -- Program	<i>3-Equal</i>	<i>3-Any</i>	1-Phrase (P) 2-Word 6-Word list (D) 102-Name (un-normalized)	<i>100-Do not truncate (D)</i> <i>101-Proc.#</i>	<i>1-Inc. subfield</i>
Number	5015-Sirsi Local -- Misc. Number	<i>3-Equal</i>	<i>3-Any</i>	<i>2-Word</i>	<i>100-Do not truncate (D)</i> <i>101-Proc.#</i>	<i>1-Inc. subfield</i>
Agency	5016-Sirsi Local -- Agency	<i>3-Equal</i>	<i>3-Any</i>	1-Phrase (P) 2-Word 6-Word list (D) 102-Name (un-normalized)	<i>100-Do not truncate (D)</i> <i>101-Proc.#</i>	<i>1-Inc. subfield</i>
Contact	5017-Sirsi Local -- Contact	<i>3-Equal</i>	<i>3-Any</i>	1-Phrase (P) 2-Word 6-Word list (D) 102-Name (un-normalized)	<i>100-Do not truncate (D)</i> <i>101-Proc.#</i>	<i>1-Inc. subfield</i>
Funding	5018-Sirsi Local -- Funding	<i>3-Equal</i>	<i>3-Any</i>	1-Phrase (P) 2-Word	<i>100-Do not truncate (D)</i>	<i>1-Inc. subfield</i>

				6-Word list (D) 102-Name (un-normalized)	101-Proc.#	
Target	5019-Sirsi Local -- Target Group	3-Equal	3-Any	1-Phrase (P) 2-Word 6-Word list (D) 102-Name (un-normalized)	100-Do not truncate (D) 101-Proc.#	1-Inc. subfield
Local number	5020-Sirsi Local -- Database Control Number	3-Equal	3-Any	2-Word	100-Do not truncate (D) 101-Proc.#	1- Inc. subfield

¹The ISBN should be entered without dashes.

²The ISSN should be entered without dashes.

Notes: The Sirsi 5000 series local use attributes are used for accessing Community Information.

Element Set Names Available

Generic element set names, per category, are as follow:

US-MARC related element set names:

- 'B' for Brief US-MARC records, which includes the following MARC tags:

{ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 18, 20, 22, 24, 27, 28, 33, 34, 40, 41, 42, 43, 50, 51, 52, 66, 86, 88, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 110, 111, 130, 150, 151, 222, 240, 243, 245, 246, 247, 250, 254, 255, 256, 257, 260, 261, 262, 300, 305, 306, 310, 315, 340, 362, 400, 410, 410, 411, 490, 506, 508, 511, 515, 525, 533, 534, 547, 550, 580, 600, 610, 611, 630, 650, 651, 653, 654, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 710, 711, 730, 740, 765, 772, 773, 775, 777, 780, 785, 800, 810, 811, 830, 840, 852 }

- 'F' for Full US-MARC records (F is the default)

Sirsi's implementation of Multimedia items element set names:

- 'TEXT-0' for Sirsi-Text items inquiry

- 'TEXT[-page]' for Sirsi-Text items retrieval, where 'page' is the page number to retrieve

- 'IMAGE-0' for Sirsi-Image items inquiry

- 'IMAGE' for Sirsi-Image items retrieval records

- 'SOUND-0' for Sirsi-Sound items inquiry

- 'SOUND' for Sirsi-Sound items retrieval records

Record Syntaxes Available

IR-Server supports the following Z39.50 public syntaxes:
US-MARC (default)

IR-Server also supports the following Sirsi local record syntaxes:
Sirsi-Holdings, Sirsi-Text, Sirsi-Image, Sirsi-Sound, Sirsi-Service, Sirsi-LocTranslation

Supported Diagnostic Sets

Bib-1 is the default diagnostic set supported. General format of diagnostics consists in a diagnostic code followed by a contextual description.

Supported Z39.50 Profiles

IR-Server conforms with the following Z39.50 profiles:

- ATS-1
- Z39.50 over TCP