



## A-G AGent Z39.50 Target

The AGent customer databases are normally accessed through the web via the AGent user interface. However, the databases may also be searched using the Z39.50 protocol. This document provides the specifications related to the implementation of the Z39.50 Target that provides access to the database.

### **GENERAL INFORMATION**

**Domain:** xxxx-xxxx.auto-graphics.com

**Port:** 2010

### **TARGET INFORMATION**

**Authentication:** userid/password (optional)

### **DETAILS OF TARGET IMPLEMENTATION**

The Z39.50 target is configured to conform to Bath Level 0 and Level 1:

#### **Bath Level 0 Conformance**

##### **5.A.0. Functional Area A: Level 0 Basic Bibliographic Search and Retrieval**

- Target supports MARC21 as Bath Level 0 Retrieval requires.
- Target supports the following bib-1 Attributes Types and Values as required by Bath Level 0 Searching:

<b>Attribute Type</b>	<b>Attribute Values</b>	<b>Attribute Names</b>
Use (1)	4 21 1003 1016	title subject heading author any
Relation (2)	3	equal
Position (3)	3	any position in field
Structure (4)	2	word
Truncation (5)	100	do not truncate
Completeness (6)	1	incomplete subfield



A-G  
AGent Z39.50 Target

**Bath Level 1 Conformance**

**5.A.1. Functional Area A: Level 1 Bibliographic Search and Retrieval**

Target supports the following as required by Bath Level 1:

- Level 1 inherits all Level 0 search and retrieval requirements. Conformance with Level 1 Search enables basic and more precise Author, Title, and Subject searching as well as Standard Number and Date of Publication. Level 1 enhances keyword searching by providing truncation of words.
- Z39.50 Version 3 is required.
- Recognition of Character Set and Language Negotiation is required.
- Support of MARC21.
- The following bib-1 Attributes Types and Values:

Attribute Type	Attribute Values	Attribute Names
Use (1)	4 21 31 1003 1007 1016	title subject heading date of publication author identifier-standard any
Relation (2)	1 2 3 4 5	less than less than or equal equal greater than or equal greater than
Position (3)	1 3	first in field any position in field
Structure (4)	1 2 4	phrase word year
Truncation (5)	1 100	right truncation do not truncate
Completeness (6)	1 3	incomplete subfield complete field



## A-G AGent Z39.50 Target

Combinations of these Attributes Types and Values express the semantics of fifteen Level 1 Searches detailed below:

- Author Search -- Keyword with Right Truncation
- Author Search -- Exact Match
- Author Search -- First Words in Field
- Author Search -- First Characters in Field
- Title Search -- Keyword with Right Truncation
- Title Search -- Exact Match
- Title Search -- First Words in Field
- Title Search -- First Characters in Field
- Subject Search -- Keyword with Right Truncation
- Subject Search -- Exact Match
- Subject Search -- First Words in Field
- Subject Search -- First Characters in Field
- Any Search -- Keyword with Right Truncation
- Standard Identifier Search
- Date of Publication Search

Details of each of these Level 1 searches are outlined on the following pages.

Target also conforms to the Bath Level 1 requirement to support the use of SCAN as detailed in [Section 5.A.1.SCAN, Functional Area A: Level 1 Use of SCAN](#). Use of SCAN is a mechanism to browse indexes for authors, titles, subjects, and keywords when the searcher is not sure of how a term may be indexed in a database. A SCAN may be followed by a subsequent search once the appropriate term has been identified.

Details of SCAN are outlined on pages 9 and 10.

### 5.A.1.1. Author Search -- Keyword with Right Truncation

*Uses:* Searches for complete word beginning with the specified character string in fields that contain the name of a person or entity responsible for a resource.

Attribute Type	Attribute Values	Attribute Names
Use (1)	1003	author
Relation (2)	3	equal
Position (3)	3	any position in field
Structure (4)	2	word



A-G  
AGent Z39.50 Target

Truncation (5)	1	right truncation
Completeness (6)	1	incomplete subfield

**5.A.1.2. Author Search -- Exact Match**

*Uses:* Searches for the complete string as specified in fields that contain a name of a person or entity responsible for a resource. This search is needed to conduct a follow-up search when the user selects terms from an author index (e.g., from a SCAN).

Attribute Type	Attribute Values	Attribute Names
Use (1)	1003	author
Relation (2)	3	equal
Position (3)	1	first in field
Structure (4)	1	phrase
Truncation (5)	100	do not truncate
Completeness (6)	3	complete field

**5.A.1.3. Author Search – First Words in Field**

Use: Searches for complete word(s) in the order specified in author fields. The field must begin with the specified character string. This search is useful when you know the surname and first name of an author but not necessarily a complete name.

Attribute Type	Attribute Values	Attribute Names
Use (1)	1003	author
Relation (2)	3	equal
Position (3)	1	first in field
Structure (4)	1	phrase
Truncation (5)	100	do not truncate
Completeness (6)	1	incomplete subfield



## A-G AGent Z39.50 Target

### 5.A.1.4. Author Search – First Characters in Field

**Note:** This type of search first characters in field would be against the Alpha browse index or scan index for all similar searches.

*Use:* Searches for the specified character string in author fields. The field must begin with the specified character string. This search is useful when the searcher wants to retrieve all names beginning with a common stem or when a partial name is known (e.g., complete last name, first initial or other name).

Attribute Type	Attribute Values	Attribute Names
Use (1)	1003	author
Relation (2)	3	equal
Position (3)	1	first in field
Structure (4)	1	phrase
Truncation (5)	1	right truncation
Completeness (6)	1	incomplete field

### 5.A.1.5. Title Search -- Keyword with Right Truncation

*Uses:* Searches for complete word beginning with the specified character string in fields that contain a title of a resource.

Attribute Type	Attribute Values	Attribute Names
Use (1)	4	title
Relation (2)	3	equal
Position (3)	3	any position in field
Structure (4)	2	word
Truncation (5)	1	right truncation
Completeness (6)	1	incomplete subfield

### 5.A.1.6. Title Search -- Exact Match

*Uses:* Searches in fields that contain a title of a resource for an exact match on the complete string as specified. This search is useful for one or two word titles, often



## A-G AGent Z39.50 Target

serials, where a less precise search may retrieve a very large result set. This search is also needed to conduct a follow-up search when the user selects terms from a full title index (e.g., from a SCAN).

Note: The exact match title search may result in zero results if the server indexes an entire field including the statement of responsibility (i.e., information about the person(s) or entities responsible for the intellectual creation of the resource).

Attribute Type	Attribute Values	Attribute Names
Use (1)	4	title
Relation (2)	3	equal
Position (3)	1	first in field
Structure (4)	1	phrase
Truncation (5)	100	do not truncate
Completeness (6)	3	complete field

### 5.A.1.7. Title Search -- First Words in Field

*Uses:* Searches for complete word(s) in the order specified in fields that contain a title of a resource. The field must begin with the specified character string. This search is useful when the beginning words in a title are known to the user.

Attribute Type	Attribute Values	Attribute Names
Use (1)	4	title
Relation (2)	3	equal
Position (3)	1	first in field
Structure (4)	1	phrase
Truncation (5)	100	do not truncate
Completeness (6)	1	incomplete subfield

### 5.A.1.8. Title Search -- First Characters in Field

*Uses:* Searches for the specified character string in fields that contain a title of a resource. The field must begin with the specified character string. This search is useful when the beginning words in a title are known to the user but the user is not sure of the form or spelling of a particular word. For example, 'cat behav' will retrieve resources with titles beginning 'cat behavior' or 'cat behavior'.



A-G  
AGent Z39.50 Target

Attribute Type	Attribute Values	Attribute Names
Use (1)	4	title
Relation (2)	3	equal
Position (3)	1	first in field
Structure (4)	1	phrase
Truncation (5)	1	right truncation
Completeness (6)	1	incomplete subfield

**5.A.1.9. Subject Search -- Keyword with Right Truncation**

*Uses:* Searches for complete word beginning with the specified character string in subject fields of a record.

Attribute Type	Attribute Values	Attribute Name
Use (1)	21	subject heading
Relation (2)	3	equal
Position (3)	3	any position in field
Structure (4)	2	word
Truncation (5)	1	right truncation
Completeness (6)	1	incomplete subfield

**5.A.1.10. Subject Search -- Exact Match**

*Uses:* Searches in subject fields for the complete string as specified. This search is useful for limiting searches to a precise subject, especially where fields contain sub-headings. This search is needed to conduct a follow-up search when the user selects terms from a subject heading index (e.g., from a SCAN).

Attribute Type	Attribute Values	Attribute Names
Use (1)	21	subject heading
Relation (2)	3	equal
Position (3)	1	first in field
Structure (4)	1	phrase
Truncation (5)	100	do not truncate



## A-G AGent Z39.50 Target

Completeness (6)	3	complete field
------------------	---	----------------

### 5.A.1.11. Subject Search -- First Words in Field

*Uses:* Searches for complete word(s) in the order specified in subject fields. The field must begin with the specified character string. This search is useful when the searcher knows the main subject heading but not sub-headings.

Attribute Type	Attribute Values	Attribute Names
Use (1)	21	subject heading
Relation (2)	3	equal
Position (3)	1	first in field
Structure (4)	1	phrase
Truncation (5)	100	do not truncate
Completeness (6)	1	incomplete subfield

### 5.A.1.12. Subject Search -- First Characters in Field

*Uses:* Searches for the specified character string in subject fields. The field must begin with the specified character string. This search is useful when the searcher wants to retrieve all headings beginning with a common stem. For example, 'catalog' will retrieve resources on 'cataloging', 'catalog cards', 'catalog use', etc.

Attribute Type	Attribute Values	Attribute Names
Use (1)	21	subject heading
Relation (2)	3	equal
Position (3)	1	first in field
Structure (4)	1	phrase
Truncation (5)	1	right truncation
Completeness (6)	1	incomplete subfield

### 5.A.1.13. Any Search -- Keyword with Right Truncation

*Uses:* Searches for complete word beginning with the specified character string in fields that are commonly used as access points (as defined by the server). Any searches





## A-G AGent Z39.50 Target

comprising more than one keyword are interpreted in such a way that the terms may exist in the same or different attributes.

Example: a search on "Dick AND Twi" might conceivably find "Dickens" in the Author Use Attribute (1003) and "Twist" in the Title Use Attribute (4).

Attribute Type	Attribute Values	Attribute Name
Use (1)	1016	any
Relation (2)	3	equal
Position (3)	3	any position in field
Structure (4)	2	word
Truncation (5)	1	right truncation
Completeness (6)	1	incomplete subfield

**5.A.1.14. Standard Identifier Search** - this will be "all numbers" as is the case for A-G database targets

*Uses:* Searches standard identifiers such as ISBN, ISSN, Music Standard numbers, CODEN, Superintendent of Documents Item Number, etc., but does not identify a specific standard number scheme.

Attribute Type	Attribute Values	Attribute Names
Use (1)	1007	identifier-standard
Relation (2)	3	equal
Position (3)	1	first in field
Structure (4)	1	phrase
Truncation (5)	100	do not truncate
Completeness (6)	1	incomplete subfield

**5.A.1.15. Date of Publication Search**

*Uses:* Searches for the year in which a resource is published.



## A-G AGent Z39.50 Target

The Date of Publication Use attribute must be used as a search limiter in conjunction with another operand (i.e., used to limit a search using other Use attribute values). Z-servers may reject a query that only includes the Date of Publication Use attribute.

Attribute Type	Attribute Value	Attribute Name
Use (1)	31	date of publication
Relation (2)	1, 2, 3, 4, 5	less than, less than or equal, equal, greater than or equal, greater than
Position (3)	1	first in field
Structure (4)	4	year
Truncation (5)	100	do not truncate
Completeness (6)	1	incomplete subfield

### 5.A.1.SCAN. Functional Area A: Level 1 Use of SCAN

The Z39.50 SCAN Service is an effective mechanism for identifying appropriate search terms to be submitted in a query to a single database or server. It is required at Functional Area A: Level 1 Bibliographic Search and Retrieval.

The following requirements apply for SCAN:

- Z-clients must support Term and DisplayTerm, and display DisplayTerm if sent. If DisplayTerm is not sent, Term must be displayed.
- Required values for parameter *preferredPositionInResponse* are 0 and 1.
- Stepsize is 0.

Three SCANS are defined:

- Author -- Exact Match
- Title -- Exact Match
- Subject -- Exact Match

Unlike the other searches specified in this Profile, it is not necessary to specify the Relation, Completeness and Truncation attributes of a SCAN.



## A-G AGent Z39.50 Target

Guidance in using terms found from a SCAN in a subsequent search can be found at the Maintenance Agency site as a Related Specification/Contribution (see <http://lcweb.loc.gov/z3950/agency/contributions/2.html>).

### 5.A.1.SCAN.1. Author -- Exact Match

*Uses:* To browse an ordered list of author names.

The termlist for an Author Exact Match SCAN is:

Attribute Type	Attribute Values	Attribute Names
Use (1)	1003	author
Position (3)	1	first in field
Structure (4)	1	phrase

### 5.A.1.SCAN.2. Title -- Exact Match

*Uses:* To browse an ordered list of complete titles.

The termlist for a Title Exact Match SCAN is:

Attribute Type	Attribute Values	Attribute Names
Use (1)	4	title
Position (3)	1	first in field
Structure (4)	1	phrase

### 5.A.1.SCAN.3. Subject -- Exact Match

*Uses:* To browse an ordered list of complete subject terms and headings.

The termlist for a Subject Exact Match SCAN is:

Attribute Type	Attribute Values	Attribute Names
Use (1)	21	subject
Position (3)	1	first in field
Structure (4)	1	phrase