

**Danish Z39.50 Implementers Group
danZIG**

danZIG Profile Specification v2002-06 r11

Prepared by

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Change Record Sheet

Moved to Annex 2.

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Introduction

This document describes danZIG Profile Specification v2002-06 r11.

The danZIG Profile Version 2002-06 was prepared by Leif Andresen <mailto:lea@bs.dk> and Poul Henrik Jørgensen (new email) <mailto:phj@portia.dk>.

The danZIG profile specifies the guidelines for systems interconnection between library applications in Denmark. The current version of the danZIG profile is primarily based on the ANSI/NISO Z39.50-1995 Protocol, a.k.a. ISO 23950.

Information about the Danish Z39.50 Implementers Group is available from the Web site of the Danish National Library Authority: <http://www.bs.dk/danzig/>

1. Background

The danZIG Profile Specification v2002-06 for use of Z39.50 is primarily based on the following specifications:

- **DanZIG Profile Version 1.** The previous version of the danZIG Profile including various modifications was approved by the danZIG in September 2001. This version is available here: <http://www.bs.dk/content.aspx?itemguid={A9254596-8D6B-4A59-A11B-ECFB5D23BCB4}#>
- **ONE-2 Profile Version 3.** The ONE-2 Profile Version 3 was prepared by the EU supported ONE-2 project. Parts of the danZIG profile version 2 is based on this ONE-2 Profile. Ref.: <http://www.one-2.org/> (not available)
- **Bath Profile.** The danZIG Profile Version 2 is aligned with the Bath profile in respect to attribute combinations for Bibliographic Search and Retrieval. The danZIG Profile is generally designed to include Bath Profile requirements as a subset of the corresponding danZIG Profile requirements. Ref.: <http://www.collectionscanada.ca/bath/bp-current.htm>
- **ZIG Holdings Schema.** The ZIG Holdings Abstract Schema is referenced by the danZIG Profile for retrieval of Holdings information. Ref.: <http://www.loc.gov/z3950/agency/defns/holdings1-4.html>
- **Z39.50/ILL Profile 1.** This profile is used by ONE-2 implementations to support ISO Interlibrary Loan (ILL) Transactions over Z39.50. Z39.50/ILL Profile 1. Ref.: <http://www.collectionscanada.ca/iso/ill/document/standard/z-ill-1a.pdf>
- **ILL XML Schema.** XML encoding of ILL transactions is used by ONE-2 implementations to support ILL transactions over E-mail (SMTP). The XML Schema for ISO ILL APDUs was developed by ONE-2 project. Ref.: <http://www.portia.dk/pubs/ill/schema/illv2/illv2.htm>
- **IPIG Profile for the ISO ILL Protocol.** The content of ISO ILL transactions within the ONE-2 Profile is based on the IPIG Profile v1. Ref.: <http://www.collectionscanada.ca/iso/ill/ipigprfl.htm>
- **Attribute Sets.** Search parameters etc. reference the Bib-1 and the Dan-1 attribute sets.
 - Bib-1.: <http://www.loc.gov/z3950/agency/defns/bib1.html>
 - Dan-1: <http://www.bs.dk/danzig/dan-1.htm>

The profiles listed here in turn references other relevant profiles and materials.

2. Scope

The primary objective of the danZIG Profile is to facilitate relevant communications between library systems located at different institutions in Denmark.

Access to local systems within an institution or to library systems at institutions outside Denmark may require additional features, that are outside the scope of the danZIG Profile Version 2.

3. Structure

The danZIG profile is intended to cover requirements of the following *functional areas*.

- A. Common Requirements
- B. Search and Retrieval of Library Catalogues.
- C. Search and Retrieval of Holdings information
- D. Item Ordering and Interlibrary Loans
- E. Cross-domain Search and Retrieval. (Removed)
- F. Update (Removed)
- G. Authority Records Search and Retrieval

Separate sets of specifications are described for each of the functional areas.

The specifications within a given functional area may describe one or more *levels* of requirements. The requirements levels within a given functional area are not necessarily cumulative. I.e. support for a higher level within a given functional area does not always imply support for lower levels within the same functional area.

The profile requirements may be viewed as an irregular matrix or tree:

- **Functional Areas** represent different “columns” of specifications
- **Levels** represent different “rows” of specifications

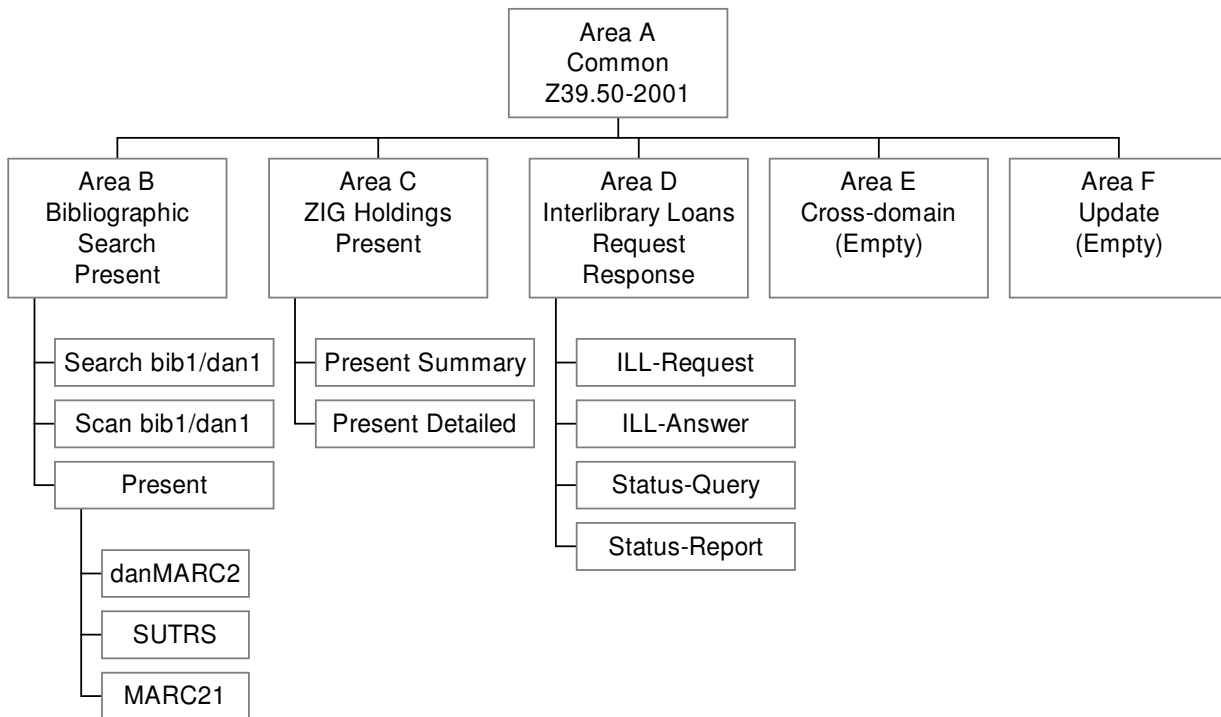
A system may support different levels of requirements within different functional areas. A system may for example support the highest level within functional area A (Search and Retrieval of Library Catalogues), but it may at the same time support only the lowest level within functional area B (Search and Retrieval of Holdings information).

All Z39.50 Target systems must support the Common Requirements of functional area A.

The terms *Target* and *Server* plus *Origin* and *Client* are used interchangeably in relation to Z39.50 Target- and Origin specifications.

The following diagram illustrates the original structure and logical dependencies of the danZIG Profile.

danZIGv2002-06 r1



Remark: Area E and F are removed; area G added and ILL-transactions are added.

4. A Common Requirements

Specifications pertaining to different functional areas and levels imply other general requirements in addition to those specified here, e.g. transfer syntax and Z39.50 Services.

The danZIG Profile primarily specifies requirements to Z39.50 Targets. Z-Target (Server) is for example expected to support all of specified Bibliographic Searches, while a Z39.50 Origin (Client) is only expected to support those facilities that are relevant to its usage.

4.1 A Protocol Version

Servers (Targets) and Clients (Origins) must support *ISO 23950 i.e. Z39.50-1995 Version 3*:

Ref.: <http://www.loc.gov/z3950/agency/1995doce.html>

This profile utilise a number of amendments to the above standard. The relevant amendments and clarifications are included in a new revision titled *Z39.50-2003*.

Ref.: <http://www.niso.org/standards/resources/Z39-50-2003.pdf>

4.2 A Attribute Sets

Servers and Clients must support mixed queries containing references to the *Bib-1* attribute set as well as the *Dan-1* attribute set (i.e., process requests and responses that contain the OID for Bib-1 plus optionally the OID for Dan-1):

<http://www.loc.gov/z3950/agency/defns/bib1.html>

<http://www.bs.dk/danzig/dan-1.htm>

Servers and Clients must support the Bib-1 Diagnostic set:

<http://www.loc.gov/z3950/agency/defns/bib1diag.html>

4.3 A Initialisation Facility

Servers and Clients must support the *Init* Service with ID/Authentication parameters *UserId* and *Password*.

Servers must support Character set negotiation as part of the *Init* service.

Servers must support ISO 8859-1:1998 Latin-1 plus the ISO 10646 BMP character set with UTF-8 or UTF-16 encoding.

Search and scan strings must be represented as the *InternationalString* (CHOICE in *Term* must be *charterString*) as specified in Z39.50 Version 3.

4.4 A Termination Facility

Servers and Clients must support the *Close* Service.

4.5 ExplainLite Facility

Servers are encouraged to utilise the *ExplainLite* concept, i.e. to return an XML document with configuration information in response when requested to do so by as part as an *Init* Request.

An example of the *ExplainLite* concept is given by the *ExplainLite* XML document, which is available from the ONE-2 Website: http://www.one-2.org/technical/el_dtd.html (not available). Another example of the same concept is is given by the *ZeeRex* activity: <http://explain.z3950.org/>

A common *ExplainLite* structure may be specified in future versions of this Profile.

5. B Bibliographic Search and Retrieval

Search and retrieval of Library Catalogues (Functional Area B) is specified in terms of one level only.

5.1 B Search Service

Targets and Origins must support Query-type *Type-1*, i.e. RPN.

Target must support the *Result-set-name* parameter and should attempt to retain at least two named result sets for the duration of a session, if the origin names at least two result sets.

Targets and Origins must support level-1 segmentation.

All of the six attribute types should be supplied in each query. This implies that a Z39.50 Origin should supply values for all six attribute types in every query.

The Target must interpret (i.e. neither ignore- nor substitute) the values supplied for all of those attribute types, which are submitted in a given query.

If one or more attribute types are missing in a query, the Server may choose to either substitute default values for the missing attribute type - or reject the incomplete query as "Unsupported Attribute Combinations".

A Server must accept search requests containing any of the attribute combinations specified below. A Server may not treat any of these specified attribute combinations as "Unsupported Attribute Combinations", but it may always choose to return zero hits.

The concepts of "fields" and "subfields" are not clearly defined in the context of the Z39.50 data model. Servers may therefore return the same hits, regardless of whether given *Completeness* and *Position* attributes refer to "fields" or "sub fields".

The following sections contain a complete enumeration of attribute combinations, which must be recognised by danZIG compliant Z-Servers in connection with Search Requests.

Remark that BIB-1 Relation, Position, Structure, Truncation and Completeness attributes are used in combination with DAN-1 Use attribute. The DAN-1 Attribute set only consist of the Use attributes.

Danish Guidelines for use of access paths are available here:

<http://www.bs.dk/publikationer/andre/praksisregler/index.htm>

5.1.1 Bib-1 Use Attributes for Search

Bib-1 *Use* (type 1) Attribute values for Search in danZIG Profile

Bib-1 Use Attribute Name	Bib-1 Use Value	Bib-1 Use Attribute Semantic Definition
<i>Title</i>	4	A word, phrase, character, or group of characters, normally appearing in an item, that names the item or the work contained in it.
<i>Title-series</i>	5	Collective title applying to a group of separate, but related, items.
<i>Title-uniform</i>	6	The particular title by which a work is to be identified for cataloguing purposes.
<i>Identifier-ISBN</i>	7	International Standard Book Number
<i>Identifier-ISSN</i>	8	International Standard Serial Number
<i>Control-number-local</i>	12	Character string that uniquely identifies a record in a local system.
<i>Classification-Dewey</i>	13	A classification number from the Dewey Decimal Classification developed by Melvil Dewey.
<i>Classification-UDC</i>	14	A classification number from Universal Decimal Classification, a system based on the Dewey Decimal Classification.
<i>Classification-LC</i>	16	A classification number from the US Library of Congress Classification.

Bib-1 Use Attribute Name	Bib-1 Use Value	Bib-1 Use Attribute Semantic Definition
<i>Classification-NLM</i>	17	A classification number from the US National Library of Medicine Classification.
<i>Classification-NAL</i>	18	A classification number from the US National Agriculture Library Classification.
<i>Classification-local</i>	20	A local classification number from a system not specified elsewhere in this list of attributes.
<i>Subject</i>	21	The primary topic on which a work is focused.
<i>Subject-MESH</i>	25	Subject headings from Medical Subject Headings maintained by the US National Library of Medicine.
<i>Date-publication</i>	31	The date (usually year) in which a document is published.
<i>Title-key</i>	33	The unique name assigned to a serial by the International Serials Data System (ISDS).
<i>Title-parallel</i>	35	The title proper in another language and/or script.
<i>Title-former</i>	42	A former title or title variation when one bibliographic record represents all issues of a serial that has changed title.
<i>Code-language</i>	54	A code that indicates the language of the item. The codes are defined by the Target.
<i>Code-geographic-area</i>	55	A code that indicates the geographic area(s) that appear or are implied in the headings assigned to the item during cataloguing.
<i>Name-geographic-place-publication</i>	59	City or town where an item was published.
<i>Identifier-CODEN</i>	60	A six-character, unique, alphanumeric code assigned to serial and monographic publications by the CODEN section of the Chemical Abstracts Service.
<i>Note</i>	63	A concise statement in which such information as extended physical description, relationship to other works, or contents may be recorded.
<i>Author-name</i>	1003	A personal or corporate author or a conference or meeting name.
<i>Author-name-personal</i>	1004	A person's real name, pseudonym, title of nobility, nickname, or initials.
<i>Author-name-corporate</i>	1005	An organisation or a group of persons that is identified by a particular name. (Differs from

Bib-1 Use Attribute Name	Bib-1 Use Value	Bib-1 Use Attribute Semantic Definition
		attribute "name-corporate (2)" in that corporate name subject headings are not included.)
<i>Identifier-standard</i>	1007	Standard numbers such as ISBN, ISSN, music publishers numbers, CODEN, etc., that are indexed together in many online public-access catalogues.
<i>Subject-name-personal</i>	1009	A person's real name, personal pseudonym, title of nobility nickname, or initials that appears in a subject heading.
<i>Any</i>	1016	When the Origin (Client) uses 'any' the intent is that the Target (Server) locate records via commonly used access points. The Target may define 'any' to refer to a selected set of Use attributes corresponding to its commonly used access points.
<i>Name-publisher</i>	1018	The organisation responsible for the publication of the item.
<i>Code-map-scale</i>	1024	Coded form of cartographic mathematical data, including scale, projection and/or co-ordinates related to the item.
<i>Title-related-periodical</i>	1026	Serial titles related to this periodical item, either the immediate predecessor or the immediate successor.
<i>Material-type</i>	1031	A free-form string, more specific than the one-letter code in Leader/06 that describes the material type of the item, e.g., cassette, kit, computer database, and computer file.
<i>Identifier-document</i>	1032	An identifier or Doc-ID, assigned by a server that uniquely identifies a document on that server. May or may not be persistent. May be, for example, a URL.
<i>Title-host-item</i>	1033	The title of the item containing the part described in the record, for example, a journal title when the record describes an article in the journal.
<i>Classification</i>	1040	The code or the section heading of a classification system. The attribute is a general (broad) attribute for codes, which do not exist as a search key.
<i>Control-number-linking</i>	1049	The unique identification number of the linked record.
<i>Subject-name-corporate</i>	1074	A corporate body name used as a subject heading.
<i>Subject-uncontrolled</i>	1080	An uncontrolled subject term. General (broad) attribute for subject terms not specified any further,

Bib-1 Use Attribute Name	Bib-1 Use Value	Bib-1 Use Attribute Semantic Definition
		existing as a search key.
<i>Subject-AGROVOC</i>	1085	A subject heading from the multilingual agricultural thesaurus from FAO.
<i>Subject-COMPASS</i>	1086	A subject heading from Computer Aided Subject System from British Library.
<i>Subject-EPT</i>	1087	A subject heading from European Pedagogical Thesaurus.
<i>Subject-NAL</i>	1088	A subject heading from National Agricultural Library.
<i>Classification-BCM</i>	1089	A classification number from British Catalogue of Music.
<i>Classification-DB</i>	1090	A classification number from Deutsche Bibliothek.
<i>Identifier-ISRC</i>	1091	ISRC. International standard recording code (ISO 3901).
<i>Identifier-ISMN</i>	1092	International standard music number (ISO 10957). ISMN
<i>Identifier-ISRN</i>	1093	ISRN. International standard technical report number (ISO 10444).
<i>Identifier-DOI</i>	1094	Digital Object Identifier.
<i>Code-language-original</i>	1095	A code that indicates the original language of the item
<i>Title-later</i>	1096	A later version of title.

5.1.2 Bib-1 Relation Attributes for Search

Bib-1 *Relation* (type 2) Attribute values for Search in danZIG Profile

Attribute values	Number	Note
Less-than	1	Only in combination with Use attribute number 31 (<i>Date-publication</i>)
Less- than-or-equal	2	Only in combination with Use attribute number 31 (<i>Date-publication</i>)
Equal	3	

Attribute values	Number	Note
Greater-or-equal	4	Only in combination with Use attribute number 31 (<i>Date-publication</i>)
Greater-than	5	Only in combination with Use attribute number 31 (<i>Date-publication</i>)

5.1.3 Bib-1 Position Attributes for Search

Bib-1 *Position* (type 3) Attribute values for Search in danZIG Profile

Attribute values	Number	Note
First-in-field	1	
Any-position-in-field	3	
<i>First-in-subfield</i> (value 2) is not used in the danZIG-profile. The reason is, that <i>First-in-subfield</i> has no meaning in a data model based on index terms – not the data itself. This profile also references First in field as first in index term.		

5.1.4 Bib-1 Structure Attributes for Search

BIB-1 *Structure* (type 4) Attribute values for Search in danZIG Profile

Attribute values	Number	Note
Phrase	1	
Word	2	
Year	4	E.g.: 2002
Name-normalised	101	E.g.: Jensen, Poul Erik
Structure	103	Only in combination with <i>Use</i> attribute number 12 (<i>Control-number-local</i>)

5.1.5 Bib-1 Truncation Attributes for Search

BIB-1 *Truncation* (type 5) Attribute values for Search in danZIG Profile

Attribute values	Number	Note
Right-truncation	1	
Do-not-truncate	100	

5.1.6 Bib-1 Completeness Attributes for Search

Bib-1 *Completeness* (type 6) Attribute values for Search in danZIG Profile.

Attribute values	Number	Note
Incomplete-subfield	1	
Complete-subfield	2	
Complete-field	3	
The concepts of “fields” and “subfields” are not clearly defined in the context of the Z39.50 data model. Servers may therefore return the same hits, regardless of whether given <i>Completeness</i> and <i>Position</i> attributes refer to “fields” or “subfields”.		

5.1.7 Bib-1 Search Attribute Combinations

The following table enumerates the combinations of Bib-1 attributes that must be supported by a danZIG compliant Server as part of a Search Request.

BIB- 1 Attribute Combination name	1 Use	2 Relation	3 Position	4 Structure	5 Truncation	6 Completeness	Relation to Bath-profile (empty = no)
Title-eq-fif-ph-nt-cf	4	3	1	1	100	3	5.A.1.6
Title-eq-fif-ph-rt-cf	4	3	1	1	1	3	Map from 5.A.1.7 and 5.A.1.8
Title-eq-any-ph-nt-ic	4	3	3	1	100	1	
Title-eq-any-ph-rt-ic	4	3	3	1	1	1	
Title-eq-any-wo-nt-ic	4	3	3	2	100	1	5.A.0.2
Title-eq-any-wo-rt-ic	4	3	3	2	1	1	5.A.1.5
TitleSeries-eq-fif-ph-nt-cf	5	3	1	1	100	3	
TitleSeries-eq-fif-ph-rt-cf	5	3	1	1	1	3	
TitleSeries-eq-any-ph-nt-ic	5	3	3	1	100	1	
TitleSeries-eq-any-ph-rt-ic	5	3	3	1	1	1	
TitleSeries-eq-any-wo-nt-ic	5	3	3	2	100	1	
TitleSeries-eq-any-wo-rt-ic	5	3	3	2	1	1	
TitleUniform-eq-fif-ph-nt-cf	6	3	1	1	100	3	

BIB- 1 Attribute Combination name	1 Use	2 Relation	3 Position	4 Structure	5 Truncation	6 Completeness	Relation to Bath-profile (empty = no)
TitleUniform-eq-fif-ph-rt-cf	6	3	1	1	1	3	
TitleUniform-eq-any-ph-nt-ic	6	3	3	1	100	1	
TitleUniform-eq-any-ph-rt-ic	6	3	3	1	1	1	
TitleUniform-eq-any-wo-nt-ic	6	3	3	2	100	1	
TitleUniform-eq-any-wo-rt-ic	6	3	3	2	1	1	
ISBN-eq-any-ph-nt-cs	7	3	3	1	100	2	
ISSN-eq-any-ph-nt-cs	8	3	3	1	100	2	
ContNoLocal-eq-any-st-nt-cs	12	3	3	103	100	2	
Dewey-eq-any-ph-nt-cf	13	3	1	1	100	3	
Dewey-eq-any-ph-rt-cf	13	3	1	1	1	3	
UDC-eq-any-ph-nt-cf	14	3	1	1	100	3	
UDC-eq-any-ph-rt-cf	14	3	1	1	1	3	
LC-eq-any-ph-nt-cf	16	3	1	1	100	3	
LC-eq-any-ph-rt-cf	16	3	1	1	1	3	
NLM-eq-any-ph-nt-cf	17	3	1	1	100	3	
NLM-eq-any-ph-rt-cf	17	3	1	1	1	3	
NAL-eq-any-ph-nt-cf	18	3	1	1	100	3	
NAL-eq-any-ph-rt-cf	18	3	3	1	1	3	
ClassLoc-eq-fif-ph-nt-cf	20	3	1	1	100	3	
ClassLoc-eq-fif-ph-rt-cf	20	3	1	1	1	3	
ClassLoc-eq-any-ph-nt-ic	20	3	3	1	100	1	
ClassLoc-eq-any-ph-rt-ic	20	3	3	1	1	1	
ClassLoc-eq-any-wo-nt-ic	20	3	3	2	100	1	
ClassLoc-eq-any-wo-rt-ic	20	3	3	2	1	1	
Subject-eq-fif-ph-nt-cf	21	3	1	1	100	3	5.A.1.10

BIB- 1 Attribute Combination name	1 Use	2 Relation	3 Position	4 Structure	5 Truncation	6 Completeness	Relation to Bath-profile (empty = no)
Subject-eq-fif-ph-rt-cf	21	3	1	1	1	3	Map from 5.A.1.11 and 5.A.1.12
Subject-eq-any-ph-nt-ic	21	3	3	1	100	1	
Subject-eq-any-ph-rt-ic	21	3	3	1	1	1	
Subject-eq-any-wo-nt-ic	21	3	3	2	100	1	5.A.0.3
Subject-eq-any-wo-rt-ic	21	3	3	2	1	1	5.A.1.9
MESH-eq-fif-ph-nt-cf	25	3	1	1	100	3	
MESH-eq-fif-ph-rt-cf	25	3	1	1	1	3	
MESH-eq-any-ph-nt-ic	25	3	3	1	100	1	
MESH-eq-any-ph-rt-ic	25	3	3	1	1	1	
MESH-eq-any-wo-nt-ic	25	3	3	2	100	1	
MESH-eq-any-wo-rt-ic	25	3	3	2	1	1	
DatePubl-lt-any-dn-nt-cs	31	1	3	4	100	2	5.A.1.15
DatePubl-le-any-dn-nt-cs	31	2	3	4	100	2	5.A.1.15
DatePubl-eq-any-dn-nt-cs	31	3	3	4	100	2	5.A.1.15
DatePubl-ge-any-dn-nt-cs	31	4	3	4	100	2	5.A.1.15
DatePubl-gt-any-dn-nt-cs	31	5	3	4	100	2	5.A.1.15
TitleKey-eq-fif-ph-nt-cf	33	3	1	1	100	3	5.A.2.3
TitleKey-eq-fif-ph-rt-cf	33	3	1	1	1	3	Map from 5.A.2.4 and 5.A.2.5
TitleKey-eq-any-ph-nt-ic	33	3	3	1	100	1	
TitleKey-eq-any-ph-rt-ic	33	3	3	1	1	1	
TitleKey-eq-any-wo-nt-ic	33	3	3	2	100	1	5.A.2.1
TitleKey-eq-any-wo-rt-ic	33	3	3	2	1	1	5.A.2.2
TitlePar-eq-fif-ph-nt-cf	35	3	1	1	100	3	
TitlePar-eq-fif-ph-rt-cf	35	3	1	1	1	3	
TitlePar-eq-any-ph-nt-ic	35	3	3	1	100	1	

BIB- 1 Attribute Combination name	1 Use	2 Relation	3 Position	4 Structure	5 Truncation	6 Completeness	Relation to Bath-profile (empty = no)
TitlePar-eq-any-ph-rt-ic	35	3	3	1	1	1	
TitlePar-eq-any-wo-nt-ic	35	3	3	2	100	1	
TitlePar-eq-any-wo-rt-ic	35	3	3	2	1	1	
TitleForm-eq-fif-ph-nt-cf	42	3	1	1	100	3	
TitleForm-eq-fif-ph-rt-cf	42	3	1	1	1	3	
TitleForm-eq-any-ph-nt-ic	42	3	3	1	100	1	
TitleForm-eq-any-ph-rt-ic	42	3	3	1	1	1	
TitleForm-eq-any-wo-nt-ic	42	3	3	2	100	1	
TitleForm-eq-any-wo-rt-ic	42	3	3	2	1	1	
CodeLang-eq-any-wo-nt-cs	54	3	3	2	100	2	Map from 5.A.2.8
CodeGeo-eq-any-wo-nt-cs	55	3	3	2	100	2	
NameGeoPI-eq-any-wo-nt-cs	59	3	3	2	100	2	
NameGeoPI-eq-any-wo-rt-cs	59	3	3	2	1	2	
CODEN-eq-any-wo-nt-cs	60	3	3	2	100	2	
Note-eq-any-ph-nt-ic	63	3	3	1	100	1	
Note-eq-any-ph-rt-ic	63	3	3	1	1	1	
Note-eq-any-wo-nt-ic	63	3	3	2	100	1	
Note-eq-any-wo-rt-ic	63	3	3	2	1	1	
AuthorName-eq-fif-nn-nt-cs	1003	3	1	101	100	2	Map from 5.A.1.4
AuthorName-eq-fif-nn-rt-cs	1003	3	1	101	1	2	Map from 5.A.1.?
AuthorName-eq-any-wo-nt-ic	1003	3	3	2	100	1	5.A.1.2
AuthorName-eq-any-wo-rt-ic	1003	3	3	2	1	1	5.A.1.3
AuthorName-eq-any-nn-nt-ic	1003	3	3	101	100	1	5.A.0.1
AuthorName-eq-any-nn-rt-ic	1003	3	3	101	1	1	5.A.1.1
AuthorNamePer-eq-fif-nn-nt-cs	1004	3	1	101	100	2	
AuthorNamePer-eq-fif-nn-rt-cs	1004	3	1	101	1	2	

BIB- 1 Attribute Combination name	1 Use	2 Relation	3 Position	4 Structure	5 Truncation	6 Completeness	Relation to Bath-profile (empty = no)
AuthorNamePer-eq-any-wo-nt-ic	1004	3	3	2	100	1	
AuthorNamePer-eq-any-wo-rt-ic	1004	3	3	2	1	1	
AuthorNamePer-eq-any-nn-nt-ic	1004	3	3	101	100	1	
AuthorNamePer-eq-any-nn-rt-ic	1004	3	3	101	1	1	
AuthorNameCorp-eq-fif-nn-nt-cs	1005	3	1	101	100	2	
AuthorNameCorp-eq-fif-nn-rt-cs	1005	3	1	101	1	2	
AuthorNameCorp-eq-any-wo-nt-ic	1005	3	3	2	100	1	
AuthorNameCorp-eq-any-wo-rt-ic	1005	3	3	2	1	1	
AuthorNameCorp-eq-any-nn-nt-ic	1005	3	3	101	100	1	
AuthorNameCorp-eq-any-nn-rt-ic	1005	3	3	101	1	1	
IdentifierStd-eq-fif-ph-nt-ic	1007	3	1	1	100	1	5.A.1.14
SubjectNamePer-eq-fif-ph-nt-cf	1009	3	1	1	100	3	
SubjectNamePer-eq-fif-ph-rt-cf	1009	3	1	1	1	3	
SubjectNamePer-eq-any-ph-nt-ic	1009	3	3	1	100	1	
SubjectNamePer-eq-any-ph-rt-ic	1009	3	3	1	1	1	
SubjectNamePer-eq-any-wo-nt-ic	1009	3	3	2	100	1	
SubjectNamePer-eq-any-wo-rt-ic	1009	3	3	2	1	1	
Any-eq-any-ph-nt-ic	1016	3	3	1	100	1	
Any-eq-any-ph-rt-ic	1016	3	3	1	1	1	
Any-eq-any-wo-nt-ic	1016	3	3	2	100	1	5.A.0.4
Any-eq-any-wo-rt-ic	1016	3	3	2	1	1	5.A.1.13
NamePubl-eq-any-ph-nt-ic	1018	3	3	1	100	1	
NamePubl-eq-any-ph-rt-ic	1018	3	3	1	1	1	
CodeMap-eq-any-wo-nt-cs	1024	3	3	2	100	2	
TitleRelPeri-eq-fif-ph-nt-cf	1026	3	1	1	100	3	

BIB- 1 Attribute Combination name	1 Use	2 Relation	3 Position	4 Structure	5 Truncation	6 Completeness	Relation to Bath-profile (empty = no)
TitleRelPeri-eq-fif-ph-rt-cf	1026	3	1	1	1	3	
TitleRelPeri-eq-any-ph-nt-ic	1026	3	3	1	100	1	
TitleRelPeri-eq-any-ph-rt-ic	1026	3	3	1	1	1	
TitleRelPeri-eq-any-wo-nt-ic	1026	3	3	2	100	1	
TitleRelPeri-eq-any-wo-rt-ic	1026	3	3	2	1	1	
MatType-eq-any-wo-nt-cs	1031	3	3	2	100	2	Map from 5.A.2.6
MatType-eq-fif-ph-nt-ic	1031	3	1	1	100	1	5.A.2.7
IdentifierDoc-eq-any-ph-nt-cs	1032	3	3	1	100	2	
TitleHostItem-eq-fif-ph-nt-cf	1033	3	1	1	100	3	
TitleHostItem-eq-fif-ph-rt-cf	1033	3	1	1	1	3	
TitleHostItem-eq-any-ph-nt-ic	1033	3	3	1	100	1	
TitleHostItem-eq-any-ph-rt-ic	1033	3	3	1	1	1	
TitleHostItem-eq-any-wo-nt-ic	1033	3	3	2	100	1	
TitleHostItem-eq-any-wo-rt-ic	1033	3	3	2	1	1	
ClassPhrase-eq-fif-ph-nt-cf	1040	3	1	1	100	3	
ClassPhrase-eq-fif-ph-rt-cf	1040	3	1	1	1	3	
ClassPhrase-eq-any-ph-nt-ic	1040	3	3	1	100	1	
ClassPhrase-eq-any-ph-rt-ic	1040	3	3	1	1	1	
ClassPhrase-eq-any-wo-nt-ic	1040	3	3	2	100	1	
ClassPhrase-eq-any-wo-rt-ic	1040	3	3	2	1	1	
ControlNoLink-eq-any-wo-nt-cs	1049	3	3	2	100	2	
SubNameCor-eq-fif-ph-nt-cf	1074	3	1	1	100	3	
SubNameCor-eq-fif-ph-rt-cf	1074	3	1	1	1	3	
SubNameCor-eq-any-ph-nt-ic	1074	3	3	1	100	1	
SubNameCor-eq-any-ph-rt-ic	1074	3	3	1	1	1	
SubNameCor-eq-any-wo-nt-ic	1074	3	3	2	100	1	

BIB- 1 Attribute Combination name	1 Use	2 Relation	3 Position	4 Structure	5 Truncation	6 Completeness	Relation to Bath-profile (empty = no)
SubNameCor-eq-any-wo-rt-ic	1074	3	3	2	1	1	
SubUnCon-eq-fif-ph-nt-cf	1080	3	1	1	100	3	
SubUnCon-eq-fif-ph-rt-cf	1080	3	1	1	1	3	
SubUnCon-eq-any-ph-nt-ic	1080	3	3	1	100	1	
SubUnCon-eq-any-ph-rt-ic	1080	3	3	1	1	1	
SubUnCon-eq-any-wo-nt-ic	1080	3	3	2	100	1	
SubUnCon-eq-any-wo-rt-ic	1080	3	3	2	1	1	
AGROVOC-eq-fif-ph-nt-cf	1085	3	1	1	100	3	
AGROVOC-eq-fif-ph-rt-cf	1085	3	1	1	1	3	
AGROVOC-eq-any-ph-nt-ic	1085	3	3	1	100	1	
AGROVOC-eq-any-ph-rt-ic	1085	3	3	1	1	1	
AGROVOC-eq-any-wo-nt-ic	1085	3	3	2	100	1	
AGROVOC-eq-any-wo-rt-ic	1085	3	3	2	1	1	
COMPASS-eq-fif-ph-nt-cf	1086	3	1	1	100	3	
COMPASS-eq-fif-ph-rt-cf	1086	3	1	1	1	3	
COMPASS-eq-any-ph-nt-ic	1086	3	3	1	100	1	
COMPASS-eq-any-ph-rt-ic	1086	3	3	1	1	1	
COMPASS-eq-any-wo-nt-ic	1086	3	3	2	100	1	
COMPASS-eq-any-wo-rt-ic	1086	3	3	2	1	1	
EPT-eq-fif-ph-nt-cf	1087	3	1	1	100	3	
EPT-eq-fif-ph-rt-cf	1087	3	1	1	1	3	
EPT-eq-any-ph-nt-ic	1087	3	3	1	100	1	
EPT-eq-any-ph-rt-ic	1087	3	3	1	1	1	
EPT-eq-any-wo-nt-ic	1087	3	3	2	100	1	
EPT-eq-any-wo-rt-ic	1087	3	3	2	1	1	
NAL-eq-fif-ph-nt-cf	1088	3	1	1	100	3	

BIB- 1 Attribute Combination name	1 Use	2 Relation	3 Position	4 Structure	5 Truncation	6 Completeness	Relation to Bath-profile (empty = no)
NAL-eq-fif-ph-rt-cf	1088	3	1	1	1	3	
NAL-eq-any-ph-nt-ic	1088	3	3	1	100	1	
NAL-eq-any-ph-rt-ic	1088	3	3	1	1	1	
NAL-eq-any-wo-nt-ic	1088	3	3	2	100	1	
NAL-eq-any-wo-rt-ic	1088	3	3	2	1	1	
BCM-eq-fif-ph-nt-cf	1089	3	3	1	100	3	
BCM-eq-fif-ph-rt-cf	1089	3	3	1	1	3	
ClassDB-eq-fif-ph-nt-cf	1090	3	3	1	100	3	
ClassDB-eq-fif-ph-rt-cf	1090	3	3	1	1	3	
ISRC-eq-any-ph-nt-cs	1091	3	3	1	100	2	
ISMN-eq-any-ph-nt-cs	1092	3	3	1	100	2	
ISRN-eq-any-ph-nt-cs	1093	3	3	1	100	2	
DOI-eq-any-ph-nt-cs	1094	3	3	1	100	2	
CodeLangOri-eq-any-wo-nt-cs	1095	3	3	2	100	2	
TitleLater-eq-fif-ph-nt-cf	1096	3	1	1	100	3	
TitleLater-eq-fif-ph-rt-cf	1096	3	1	1	1	3	
TitleLater-eq-any-ph-nt-ic	1096	3	3	1	100	1	
TitleLater-eq-any-ph-rt-ic	1096	3	3	1	1	1	
TitleLater-eq-any-wo-nt-ic	1096	3	3	2	100	1	
TitleLater-eq-any-wo-rt-ic	1096	3	3	2	1	1	

5.1.8 Relationship with Bath Profile for Search

The following table illustrates the relationship between the Bath Profile attribute combinations and corresponding danZIG Profile attribute combinations.

Bath-code	Name of Attribute Combinations Bath-profile 1.1 with Amendments 1 and 7	Relation Bath / danZIG	danZIG-profile Attribute Combinations
5.A.0.1.	Precision Match for Established Name Heading	equal	AuthorName-eq-any-nn-nt-ic
5.A.0.2.	Title Search - Keyword	equal	Title-eq-any-wo-nt-ic
5.A.0.3.	Subject Search - Keyword	equal	Subject-eq-any-wo-nt-ic
5.A.0.4.	Any Search - Keyword	equal	Any-eq-any-wo-nt-ic
5.A.1.1.	Author Search - Precision Match for Established Name Heading with Right Truncation	equal	AuthorName-eq-any-nn-rt-ic
5.A.1.2.	Author Search - Keyword	equal	AuthorName-eq-any-wo-nt-ic
5.A.1.3.	Author Search - Keyword with Right Truncation	equal	AuthorName-eq-any-wo-rt-ic
5.A.1.4.	Author Search - Exact Match	map to	AuthorName-eq-fif-nn-nt-cs
5.A.1.5.	Title Search - Keyword with Right Truncation	equal	Title-eq-any-wo-rt-ic
5.A.1.6.	Title Search - Exact Match	equal	Title-eq-fif-ph-nt-cf
5.A.1.7.	Title Search – First Words in Field	map to	Title-eq-fif-ph-rt-cf
5.A.1.8.	Title Search - First Characters in Field	map to	Title-eq-fif-ph-rt-cf
5.A.1.9.	Subject Search - Keyword with Right Truncation	equal	Subject-eq-any-wo-rt-ic
5.A.1.10.	Subject Search - Exact Match	equal	Subject-eq-fif-ph-nt-cf
5.A.1.11.	Subject Search – First Words in Field	map to	Subject-eq-fif-ph-rt-cf
5.A.1.12.	Subject Search - First Characters in Field	map to	Subject-eq-fif-ph-rt-cf
5.A.1.13.	Any Search - Keyword with Right Truncation	equal	Any-eq-any-wo-rt-ic
5.A.1.14.	Standard Identifier Search	equal	IdentifierStd-eq-fif-ph-nt-ic
5.A.1.15.	Date of Publication Search	equal	DatePubl-lt-any-dn-nt-cs DatePubl-le-any-dn-nt-cs DatePubl-eq-any-dn-nt-cs DatePubl-ge-any-dn-nt-cs DatePubl-gt-any-dn-nt-cs

Bath-code	Name of Attribute Combinations Bath-profile 1.1 with Amendments 1 and 7	Relation Bath / danZIG	danZIG-profile Attribute Combinations
5.A.1? *)	Author Search - First Characters in Field	map to	AuthorName-eq-fif-nn-rt-cs
5.A.2.1.	Key Title Search - Keyword	equal	TitleKey-eq-any-wo-nt-ic
5.A.2.2.	Key Title Search - Keyword with Right Truncation	equal	TitleKey-eq-any-wo-rt-ic
5.A.2.3.	Key Title Search - Exact Match	equal	TitleKey-eq-fif-ph-nt-cf
5.A.2.4.	Key Title Search - First Words in Field	map to	TitleKey-eq-fif-ph-rt-cf
5.A.2.5.	Key Title Search - First Characters in Field	map to	TitleKey-eq-fif-ph-rt-cf
5.A.2.6.	Format/Type of Material Search – Keyword	map to	MatType-eq-any-wo-nt-cs
5.A.2.7.	Format/Type of Material Search - Phrase	equal	MatType-eq-fif-ph-nt-ic
5.A.2.8.	Language Search	map to	CodeLang-eq-any-wo-nt-cs
5.A.2.9	Date of Publication Range Search	No mapping	

*) Bath Profile Amendment 7: New Author Search in Functional Area A Level 1

Bath Profile Amendment 5: 5.A.1.2. Author Search – Keyword: *This search should be moved to Level 0 to replace 5.A.0.1 Author Search - Precision Match for Established Name Heading* is not reflected. Both 5.A.1.2. and 5.A.0.1. are listed in their original form.

5.1.9 Dan-1 Use Attributes for Search

Dan-1 Use (type 1) Attribute values for Search in danZIG Profile.

Dan-1 Use Attribute Value	Dan-1 Use Attribute Name
1	Classification-code-DK5
2	Subject-controlled
3	DBC-subject
4	DBC-non-fiction-subject
5	DBC-fiction-subject
6	DBC-music-subject

Dan-1 Use Attribute Value	Dan-1 Use Attribute Name
7	Format-as-subject
8	Subject-level
9	Shelf-mark
10	Classification-DK5
11	Classification-as-shelf-mark
12	Obsolete-shelf-mark
13	Subject-FUI
14	Catalogue-code
15	LIX-code
16	Music-notation
17	Item-number
18	Local-item-number
19	Previous-FAUST-code
20	Title-host-publication
21	Children/school-shelf-mark
22	Subject-controlled-non-fiction
23	Subject-controlled-fiction
24	Music-shelf-mark
25	Embossed-printing-abbreviated-version
26	Author-name-in-description
27	Technical-specification

5.1.10 Dan-1 Search Attribute Combinations

The following table enumerates the combinations of Dan-1 attributes that must be supported by a danZIG compliant Server as part of a Search Request.

Remark that BIB-1 Relation, Position, Structure, Truncation and Completeness attributes are used in combination with DAN-1 Use attribute.

DAN-1 Attribute Combination name	1 Use	2 Relation	3 Position	4 Structure	5 Truncation	6 Completeness
DK5Alfa-eq-fif-ph-rt-cf	1	3	1	1	1	3
DK5Alfa-eq-fif-ph-nt-cf	1	3	1	1	100	3
DK5Alfa-eq-any-ph-rt-ic	1	3	3	1	1	1
DK5Alfa-eq-any-ph-nt-ic	1	3	3	1	100	1
DK5Alfa-eq-any-wo-rt-ic	1	3	3	2	1	1
DK5Alfa-eq-any-wo-nt-ic	1	3	3	2	100	1
SubjectCon-eq-fif-ph-rt-cf	2	3	1	1	1	3
SubjectCon-eq-fif-ph-nt-cf	2	3	1	1	100	3
SubjectCon-eq-any-ph-rt-ic	2	3	3	1	1	1
SubjectCon-eq-any-ph-nt-ic	2	3	3	1	100	1
SubjectCon-eq-any-wo-rt-ic	2	3	3	2	1	1
SubjectCon-eq-any-wo-nt-ic	2	3	3	2	100	1
DBCSubject-eq-fif-ph-rt-cf	3	3	1	1	1	3
DBCSubject-eq-fif-ph-nt-cf	3	3	1	1	100	3
DBCSubject-eq-any-ph-rt-ic	3	3	3	1	1	1
DBCSubject-eq-any-ph-nt-ic	3	3	3	1	100	1
DBCSubject-eq-any-wo-rt-ic	3	3	3	2	1	1
DBCSubject-eq-any-wo-nt-ic	3	3	3	2	100	1
DBCSubjectNF-eq-fif-ph-rt-cf	4	3	1	1	1	3
DBCSubjectNF-eq-fif-ph-nt-cf	4	3	1	1	100	3
DBCSubjectNF-eq-any-ph-rt-ic	4	3	3	1	1	1
DBCSubjectNF-eq-any-ph-nt-ic	4	3	3	1	100	1
DBCSubjectNF-eq-any-wo-rt-ic	4	3	3	2	1	1
DBCSubjectNF-eq-any-wo-nt-ic	4	3	3	2	100	1
DBCSubjectF-eq-fif-ph-rt-cf	5	3	1	1	1	3
DBCSubjectF-eq-fif-ph-nt-cf	5	3	1	1	100	3

DAN-1 Attribute Combination name	1 Use	2 Relation	3 Position	4 Structure	5 Truncation	6 Completeness
DBCSubjectF-eq-any-ph-rt-ic	5	3	3	1	1	1
DBCSubjectF-eq-any-ph-nt-ic	5	3	3	1	100	1
DBCSubjectF-eq-any-wo-rt-ic	5	3	3	2	1	1
DBCSubjectF-eq-any-wo-nt-ic	5	3	3	2	100	1
DBCSubjectMus-eq-fif-ph-rt-cf	6	3	1	1	1	3
DBCSubjectMus-eq-fif-ph-nt-cf	6	3	1	1	100	3
DBCSubjectMus-eq-any-ph-rt-ic	6	3	3	1	1	1
DBCSubjectMus-eq-any-ph-nt-ic	6	3	3	1	100	1
DBCSubjectMus-eq-any-wo-rt-ic	6	3	3	2	1	1
DBCSubjectMus-eq-any-wo-nt-ic	6	3	3	2	100	1
FormatSubj-eq-fif-ph-rt-cf	7	3	1	1	1	3
FormatSubj-eq-fif-ph-nt-cf	7	3	1	1	100	3
FormatSubj-eq-any-ph-rt-ic	7	3	3	1	1	1
FormatSubj-eq-any-ph-nt-ic	7	3	3	1	100	1
FormatSubj-eq-any-wo-rt-ic	7	3	3	2	1	1
FormatSubj-eq-any-wo-nt-ic	7	3	3	2	100	1
SubjectLevel-eq-fif-ph-rt-cf	8	3	1	1	1	3
SubjectLevel-eq-fif-ph-nt-cf	8	3	1	1	100	3
SubjectLevel-eq-any-ph-rt-ic	8	3	3	1	1	1
SubjectLevel-eq-any-ph-nt-ic	8	3	3	1	100	1
SubjectLevel-eq-any-wo-rt-ic	8	3	3	2	1	1
SubjectLevel-eq-any-wo-nt-ic	8	3	3	2	100	1
ShelfMark-eq-fif-ph-rt-cf	9	3	1	1	1	3
ShelfMark-eq-fif-ph-nt-cf	9	3	1	1	100	3
ShelfMark-eq-any-ph-rt-ic	9	3	3	1	1	1
ShelfMark-eq-any-ph-nt-ic	9	3	3	1	100	1

DAN-1 Attribute Combination name	1 Use	2 Relation	3 Position	4 Structure	5 Truncation	6 Completeness
ShelfMark-eq-any-wo-rt-ic	9	3	3	2	1	1
ShelfMark-eq-any-wo-nt-ic	9	3	3	2	100	1
DK5-eq-fif-ph-rt-cf	10	3	1	1	1	3
DK5-eq-fif-ph-nt-cf	10	3	1	1	100	3
DK5-eq-any-ph-rt-ic	10	3	3	1	1	1
DK5-eq-any-ph-nt-ic	10	3	3	1	100	1
DK5-eq-any-wo-rt-ic	10	3	3	2	1	1
DK5-eq-any-wo-nt-ic	10	3	3	2	100	1
ClassSM-eq-fif-ph-rt-cf	11	3	1	1	1	3
ClassSM-eq-fif-ph-nt-cf	11	3	1	1	100	3
ClassSM-any-ph-rt-ic	11	3	3	1	1	1
ClassSM-any-ph-nt-ic	11	3	3	1	100	1
ClassSM-any-wo-rt-ic	11	3	3	2	1	1
ClassSM-any-wo-nt-ic	11	3	3	2	100	1
ObsoleteSM-eq-fif-ph-rt-cf	12	3	1	1	1	3
ObsoleteSM-eq-fif-ph-nt-cf	12	3	1	1	100	3
ObsoleteSM-eq-any-ph-rt-ic	12	3	3	1	1	1
ObsoleteSM-eq-any-ph-nt-ic	12	3	3	1	100	1
ObsoleteSM-eq-any-wo-rt-ic	12	3	3	2	1	1
ObsoleteSM-eq-any-wo-nt-ic	12	3	3	2	100	1
FUI-eq-any-wo-nt-cs	13	3	3	2	100	2
CatCode-eq-any-wo-nt-cs	14	3	3	2	100	2
LIX-eq-any-wo-nt-cs	15	3	3	2	100	2
MusicNot-eq-any-wo-nt-cs	16	3	3	2	100	2
ItemNo-eq-any-wo-nt-cs	17	3	3	2	100	2
LocItemNo-eq-any-wo-nt-cs	18	3	3	2	100	2

DAN-1 Attribute Combination name	1 Use	2 Relation	3 Position	4 Structure	5 Truncation	6 Completeness
PrevFAUST-eq-any-wo-nt-cs	19	3	3	2	100	2
TitleHost-eq-fif-ph-rt-cs	20	3	1	1	1	3
TitleHost-eq-fif-ph-nt-cs	20	3	1	1	100	3
ChildSchSM-eq-any-wo-nt-cs	21	3	3	2	100	2
SubjConNF-eq-fif-ph-rt-cf	22	3	1	1	1	3
SubjConNF-eq-fif-ph-nt-cf	22	3	1	1	100	3
SubjConNF-eq-any-ph-rt-ic	22	3	3	1	1	1
SubjConNF-eq-any-ph-nt-ic	22	3	3	1	100	1
SubjConNF-eq-any-wo-rt-ic	22	3	3	2	1	1
SubjConNF-eq-any-wo-nt-ic	22	3	3	2	100	1
SubjConF-eq-fif-ph-rt-cf	23	3	1	1	1	3
SubjConF-eq-fif-ph-nt-cf	23	3	1	1	100	3
SubjConF-eq-any-ph-rt-ic	23	3	3	1	1	1
SubjConF-eq-any-ph-nt-ic	23	3	3	1	100	1
SubjConF-eq-any-wo-rt-ic	23	3	3	2	1	1
SubjConF-eq-any-wo-nt-ic	23	3	3	2	100	1
MusicSM-eq-fif-ph-rt-cf	24	3	1	1	1	3
MusicSM-eq-fif-ph-nt-cf	24	3	1	1	100	3
MusicSM-eq-any-ph-rt-ic	24	3	3	1	1	1
MusicSM-eq-any-ph-nt-ic	24	3	3	1	100	1
MusicSM-eq-any-wo-rt-ic	24	3	3	2	1	1
MusicSM-eq-any-wo-nt-ic	24	3	3	2	100	1
EmbPrAbb-eq-any-wo-nt-cs	25	3	3	2	100	2
AuthorInDesc-eq-any-ph-rt-ic	26	3	3	1	1	1
AuthorInDesc-eq-any-ph-nt-ic	26	3	3	1	100	1
AuthorInDesc-eq-any-wo-rt-cs	26	3	3	2	1	2

DAN-1 Attribute Combination name	1 Use	2 Relation	3 Position	4 Structure	5 Truncation	6 Completeness
AuthorInDesc-eq-any-wo-nt-cs	26	3	3	2	100	2
TechSpec-eq-fif-ph-rt-cf	27	3	1	1	1	3
TechSpec-eq-fif-ph-nt-cf	27	3	1	1	100	3
TechSpec-eq-any-ph-rt-ic	27	3	3	1	1	1
TechSpec-eq-any-ph-nt-ic	27	3	3	1	100	1
TechSpec-eq-any-wo-rt-ic	27	3	3	2	1	1
TechSpec-eq-any-wo-nt-ic	27	3	3	2	100	1

5.2 B Scan Service

Targets must support scanning of the same *Use* attribute values as listed under Search Service requirements above, **except** the ones listed in the following table:

Bib-1 Use Attribute Name	Bib-1 Use Value
<i>Identifier-ISBN</i>	7
<i>Identifier-ISSN</i>	8
<i>Control-number-local</i>	12
<i>Date-publication</i>	31
<i>Identifier-standard</i>	1007
<i>Identifier-document</i>	1032
<i>Identifier-ISRC</i>	1091
<i>Identifier-ISMN</i>	1092
<i>Identifier-ISRN</i>	1093
<i>Identifier-DOI</i>	1094

Servers may ignore *Truncation* and *Relation* attributes specified in connection with Scan Requests. Other attribute types may not be ignored.

The Target must interpret (i.e. neither ignore- nor substitute) the values supplied for all of those attribute types, which are submitted in a given Scan Request.

If one or more attribute types are missing in a query, the Server may choose to either substitute default values for the missing attribute type - or reject the incomplete request as "Unsupported Attribute Combinations".

A Server must accept Scan requests containing any of the attribute combinations specified below. A Server may not treat any of these specified attribute combinations as "Unsupported Attribute Combinations", but it may always choose to return zero hits.

The concepts of "fields" and "subfields" are not clearly defined in the context of the Z39.50 data model. Servers may therefore return the same hits, regardless of whether given *Completeness* and *Position* attributes refer to "fields" or "subfields".

Target must support *Step-size* = 0, i.e. "do not skip any entries" and *Position-in-response* = 1.

Target must return the number of entries (hits) associated with each SCAN Term.

The following sections contain a complete enumeration of attribute combinations, which must be recognised by danZIG compliant Z-Servers in connection with Scan Requests.

5.2.1 Bib-1 Use Attributes for Scan

Bib-1 *Use* (type 1) Attribute Combinations for Scan in danZIG Profile

BIB- 1 Attribute Combination name	1 Use	3 Position	4 Structure	6 Completeness	Relation to Bath-profile (empty = no)
Title-fif-ph-cf	4	1	1	3	Mapping
Title-any-wo-ic	4	3	2	1	Mapping
TitleSeries-fif-ph-cf	5	1	1	3	
TitleSeries-any-wo-ic	5	3	2	1	
TitleUniform-fif-ph-cf	6	1	1	3	
TitleUniform-any-wo-ic	6	3	2	1	
Dewey-any-ph-cf	13	1	1	3	
UDC-any-ph-cf	14	1	1	3	
LC-any-ph-cf	16	1	1	3	
NLM-any-ph-cf	17	1	1	3	
NAL-any-ph-cf	18	1	1	3	
ClassLoc-fif-ph-cf	20	1	1	3	
ClassLoc-any-wo-ic	20	3	2	1	

BIB- 1 Attribute Combination name	1 Use	3 Position	4 Structure	6 Completeness	Relation to Bath-profile (empty = no)
Subject-fif-ph-cf	21	1	1	3	Mapping
Subject-any-wo-ic	21	3	2	1	Mapping
MESH-fif-ph-cf	25	1	1	3	
MESH-any-wo-ic	25	3	2	1	
TitleKey-fif-ph-cf	33	1	1	3	
TitleKey-any-wo-ic	33	3	2	1	
TitlePar-fif-ph-cf	35	1	1	3	
TitlePar-any-wo-ic	35	3	2	1	
TitleForm-fif-ph-cf	42	1	1	3	
TitleForm-any-wo-ic	42	3	2	1	
CodeLang-any-wo-cs	54	3	2	2	
CodeGeo-any-wo-cs	55	3	2	2	
NameGeoPl-any-wo-cs	59	3	2	2	
CODEN-any-wo-cs	60	3	2	2	
Note-any-wo-ic	63	3	2	1	
AuthorName-fif-nn-cs	1003	1	101	2	Mapping
AuthorName-any-wo-ic	1003	3	2	1	
AuthorNamePer-fif-nn-cs	1004	1	101	2	
AuthorNamePer-any-wo-ic	1004	3	2	1	
AuthorNameCorp-fif-nn-cs	1005	1	101	2	
AuthorNameCorp-any-wo-ic	1005	3	2	1	
SubjectNamePer-fif-ph-cf	1009	1	1	3	
SubjectNamePer-any-wo-ic	1009	3	2	1	
Any-any-wo-ic	1016	3	2	1	
NamePubl-any-ph-ic	1018	3	1	1	

BIB- 1 Attribute Combination name	1 Use	3 Position	4 Structure	6 Completeness	Relation to Bath-profile (empty = no)
CodeMap-any-wo-cs	1024	3	2	2	
TitleRelPeri-fif-ph-cf	1026	1	1	3	
TitleRelPeri-any-wo-ic	1026	3	2	1	
MatType-any-wo-cs	1031	3	2	2	
MatType-fif-ph-cs	1031	1	1	1	
TitleHostItem-fif-ph-cf	1033	1	1	3	
TitleHostItem-any-wo-ic	1033	3	2	1	
ClassPhrase-fif-ph-cf	1040	1	1	3	
ClassPhrase-any-wo-ic	1040	3	2	1	
SubNameCor-fif-ph-cf	1074	1	1	3	
SubNameCor-any-wo-ic	1074	3	2	1	
SubUnCon-fif-ph-cf	1080	1	1	3	
SubUnCon-any-wo-ic	1080	3	2	1	
AGROVOC-fif-ph-cf	1085	1	1	3	
AGROVOC-any-wo-ic	1085	3	2	1	
COMPASS-fif-ph-cf	1086	1	1	3	
COMPASS-any-wo-ic	1086	3	2	1	
EPT-fif-ph-cf	1087	1	1	3	
EPT-any-wo-ic	1087	3	2	1	
NAL-fif-ph-cf	1088	1	1	3	
NAL-any-wo-ic	1088	3	2	1	
BCM-fif-ph-cf	1089	1	1	3	
ClassDB-fif-ph-cf	1090	1	1	3	
CodeLangOri-any-wo-cs	1095	3	2	2	
TitleLater-fif-ph-cf	1096	1	1	3	

BIB- 1 Attribute Combination name	1 Use	3 Position	4 Structure	6 Completeness	Relation to Bath-profile (empty = no)
TitleLater-any-wo-ic	1096	3	2	1	

5.2.2 Relationship with Bath Profile for Scan

The following table illustrates the relationship between the Bath Profile attribute combinations and corresponding danZIG Profile attribute combinations.

Bath-no	Bath-name	1 Use	2 Position	3 Structure	Equivalent danZIG SCAN attribute combination name
5.A.1SCAN.1.	Author - Exact Match	1003	1	1	AuthorName-fif-nn-cs
5.A.1SCAN.2.	Title - Exact Match	4	1	1	Title-fif-ph-cf
5.A.1SCAN.3.	Title - Keyword	4	3	2	Title-any-wo-ic
5.A.1SCAN.4.	Subject - Exact Match	21	1	1	Subject-fif-ph-cf
5.A.1SCAN.5.	Subject - Keyword	21	3	2	Subject-any-wo-ic
5.A.1SCAN.6.	Any - Keyword	1016	3	2	Any-any-wo-ic

The danZIG-profile specifies the Completeness Attribute and the Bath-profile does not. In addition 5.A.1SCAN.1. - *Author - Exact Match* use Structure Attribute Value 1 where the equivalent danZIG combination AuthorName-fif-nn-cs use Attribute Value 101.

5.2.3 Dan-1 Use Attributes for Scan

Dan-1 *Use* Attribute Combinations for SCAN.

Remark that BIB-1 Position, Structure, and Completeness attributes are used in combination with DAN-1 Use attribute.

DAN-1 Attribute Combination name	1 <i>Dan-1 Use Attribute Value</i>	3 <i>Position Attribute Value</i>	4 <i>Structure Attribute Value</i>	6 <i>Com- pleteness Attribute Value</i>
DK5Alfa-fif-ph-cf	1	1	1	3
DK5Alfa-any-wo-ic	1	3	2	1
SubjectCon-fif-ph-cf	2	1	1	3
SubjectCon-any-wo-ic	2	3	2	1
DBCSubject-fif-ph-cf	3	1	1	3
DBCSubject-any-wo-ic	3	3	2	1
DBCSubjectNF-fif-ph-cf	4	1	1	3
DBCSubjectNF-any-wo-ic	4	3	2	1
DBCSubjectF-fif-ph-cf	5	1	1	3
DBCSubjectF-any-wo-ic	5	3	2	1
DBCSubjectMus-fif-ph-cf	6	1	1	3
DBCSubjectMus-any-wo-ic	6	3	2	1
FormatSubj-fif-ph-cf	7	1	1	3
FormatSubj-any-wo-ic	7	3	2	1
SubjectLevel-fif-ph-cf	8	1	1	3
SubjectLevel-any-wo-ic	8	3	2	1
ShelfMark-fif-ph-cf	9	1	1	3
ShelfMark-any-wo-ic	9	3	2	1
DK5-fif-ph-cf	10	1	1	3
DK5-any-wo-ic	10	3	2	1
ClassSM-fif-ph-cf	11	1	1	3
ClassSM-any-wo-ic	11	3	2	1
ObsoleteSM-fif-ph-cf	12	1	1	3
ObsoleteSM-any-wo-ic	12	3	2	1
FUI-any-wo-cs	13	3	2	2
CatCode-any-wo-cs	14	3	2	2

DAN-1 Attribute Combination name	1 <i>Dan-1 Use</i> Attribute Value	3 <i>Position</i> Attribute Value	4 <i>Structure</i> Attribute Value	6 <i>Com- pleteness</i> Attribute Value
LIX-any-wo-cs	15	3	2	2
MusicNot-any-wo-cs	16	3	2	2
ItemNo-any-wo-cs	17	3	2	2
LocItemNo-any-wo-cs	18	3	2	2
TitleHost-fif-ph-cs	20	1	1	3
ChildSchSM-any-wo-cs	21	3	2	2
SubjConNF-fif-ph-cf	22	1	1	3
SubjConNF-any-wo-ic	22	3	2	1
SubjConF-fif-ph-cf	23	1	1	3
SubjConF-any-wo-ic	23	3	2	1
MusicSM-fif-ph-cf	24	1	1	3
MusicSM-any-wo-ic	24	3	2	1
EmbPrAbb-any-wo-cs	25	3	2	2
AuthorInDesc-any-wo-cs	26	3	2	2
TechSpec-fif-ph-cf	27	1	1	3
TechSpec-any-wo-ic	27	3	2	1

5.3 B Present Service

Targets must support the following *Element-set-names* in relation to bibliographic MARC records:

- *F* for Full, e.g. all available bibliographic elements. Servers may optionally include summary Holdings data, if this information is available from the bibliographic MARC record (e.g. MARC21 fields 85x and 86x)
- *B* for Brief, e.g. Author, Title and Publication date.

Targets *must* support the following types of *Preferred-record-syntaxes*:

- SUTRS
- DanMARC2

Targets are *recommended* to support the MARC21 Concise format for bibliographic data.

Targets *may* optionally use the Preferred-record-syntax *DanMARC2X* if they deliver MARC (ISO2709) records, which include danMARC2 as a subset in addition to any *private* extensions.

The principles for assigning of Object Identifiers to this type of extended formats are defined in <http://www.loc.gov/z3950/agency/defns/oids.html#5> (last paragraph).

The following table illustrates the relationships between record syntax and element set names.

<i>ESN</i>	danMARC2	MARC21	SUTRS	DanMARC2X
<i>F</i>	+	+	+	+
<i>B</i>	-	-	+	-

Strictly speaking, a record is not conforming to the danMARC2 specifications, if this record contains private extensions to danMARC2. Z39.50 Servers operated by some institutions do however sometimes return records with private extensions in response to requests for danMARC2. This is why the DanMARC2X record syntax was introduced.

OID's for format used in this specification:

Record syntax	OID
danMARC2	1.2.840.10003.5.14
MARC21	1.2.840.10003.5.10.1
SUTRS	1.2.840.10003.5.101
danMARC2X	1.2.840.10003.5.14.100

Multi-volume works may be handled as follows: When a client sends a PresentRequest for a given record, the target returns the requested record only (i.e. no related superior- or subordinate records). If the requested record is part of a multi-volume work, the client must extract the 014 and 015 fields in the danMARC2 format in order to search- and request the upper and/or the lower records in the multi-volume tree using BIB1 Use attribute 12.

6. C Holdings Information Search and Retrieval

Search and retrieval of bibliographic Holdings information is specified in two levels:

- Level 1: Retrieval of Summary Holdings information in an XML structure according to the ZIG Holdings Schema Element Set *B2*
- Level 2: Retrieval of Detailed Holdings information in an XML structure according to the ZIG Holdings Schema Element Set *B3*

Servers are not required to support searching of the Holdings attribute set within either level 1 or 2.

Servers are recommended to support the *Use* attribute number 1044 i.e. *Possessing-Institution* within bibliographic searches.

A two-step process can retrieve holdings information:

- First perform a bibliographic search with Bib-1 and/or Dan-1 attributes

- Then retrieve the relevant Holdings records via traditional Present Requests, which specify the desired Record Syntax, Record Schema and Element Set Name

Record Syntax is XML and is specified in *preferredRecordSyntax* with:

- OID = 1.2.840.10003.5.109.10

Record Schema and ESN are specified by means of the Z39.50 *compSpec* feature:

- Record Schema: ZIG Holdings Abstract Schema
 - OID = 1.2.840.10003.13.7.2
- Element Set Name:
 - B2 for Summary Bibliographic Level Holdings or
 - B3 for Detailed Bibliographic Level Holdings

The ZIG Holdings Abstract Schema and the corresponding Holdings XML Schemas are available via the US Library of Congress: <http://www.loc.gov/z3950/agency/defns/holdings1-4.html>

For validation of records the danZIG Profile recommends to use the general XML Schema for holdings and not the specific ESN schemas. Actual schema is:

<http://www.loc.gov/z3950/agency/defns/HoldingsSchema8.xsd>

The corresponding data element tables in the text below are for information purposes only.

For information: The Danish National Union Catalogue DanBib allows an extension to element set name B2 with a library code (syntax: B2:[library code]). This code define the sorting of other libraries based on the specified library's reported order. If no such extension added, DanBib will provide holdings information sorted by default.

6.1 C Level-1 Holdings Retrieval

Level-1 Holdings supports retrieval of Summary bibliographic level holdings information according to the ZIG Holdings Abstract Schema Element Set B2 (*summaryBibLevelHoldings*).

This level of Holdings information may be supplied by either Union Catalogues (e.g. DanBib) or local libraries. DanBib for example will only supply general holdings information.

A library must return its earliest expected shipment date for the bibliographic item. Alternatively, the library may return information to the effect, that the bibliographic item is not available for loans (to the prospective borrower).

If the material is unavailable for loans, but is available by other means (e.g. in the library reading room), then this information must be supplied in a suitable clear-text message (e.g. "Udlånes kun til brug på læsesal").

Dynamic information about periodicals holdings must be supplied within the *SummaryEnum* element in a structured format with top-level issue and chronology (e.g. "årstal 1982-1993 og Vol. 41 – 52").

More static holdings information derived from danMARC2 records must be returned within the *HoldingsNotes* element.

6.1.1 Summary Bibliographic Holdings Structure

This section contains an informal overview of data elements within the Summary BibLevel Holdings Element Set (B2).

HoldingsStructure		Tag 0
BibItemInfo as targetItemId	Local bibliographic identifier	Tag 1
HoldingsStatement	Pointer to HoldingsStatement	Tag 4

HoldingsStatment		Tag 4
HoldingsSiteLocation	Pointer to SiteLocation	Tag 6
UnionCatShelfMark	Local shelfmark	Tag 9
localHoldings as bibView	Pointer to BibPart	Tag 10

SiteLocation		Tag 125
TargetLocationId	Identifier in local system	Tag 26
isilCode	Library number	Tag 29
networkAddress	Networksaddress (Z39.50 URL)	Tag 33
SiteNotes	Accessibility	Tag 34

BibPart		Tag 126
targetBibPartId	Identifier in local system	Tag 40
bibPartLendingInfo	Pointer to ServiceInfo	Tag 115
bibPartReproductionInfo	Pointer to ServiceInfo	Tag 116
childEnumChronSummary structured	Pointer to SummaryEnumSeq	Tag 51
bibPartNotes	Description of volume (no. etc)	Tag 54

SummaryEnumSeq		Tag 130
TargetSequenceId	Identifier in local system	Tag 86

primaryEnum	Pointer to SummaryEnum	Tag 87
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SummaryEnum		Tag 131
startingEnum	Pointer to Enumeration	Tag 89
startingChron	Pointer to Chronology	Tag 90
endingEnum	Pointer to Enumeration	Tag 91
endingChron	Pointer to Chronology	Tag 92

Enumeration		Tag 132
enumLevel	Level 1	Tag 93
enumCaption	Term for enumeration	Tag 94
specificEnumeration	Value for enumeration	Tag 95
childEnumeration	Empty	Tag 137

Chronology		Tag 133
chronLevel	Level 1	Tag 96
chronCaption	Term for chronology	Tag 97
specificChronology	Value for chronology	Tag 98
childChronology	Empty	Tag 138

ServiceInfo		Tag 136
servicePolicy	Value 0/1/2	Tag 109
serviceFee	Price	Tag 110
ExpectedDiaspatchDate	Expected day of delivery	Tag 111
serviceNotes	Text about terms of delivery	Tag 112

6.2 Level-2 Holdings Retrieval

Level-2 Holdings supports retrieval of Detailed bibliographic level holdings information according to the ZIG Holdings Abstract Schema Element Set B3 (*detailedBibLevelHoldings*).

Level-2 supplements Level-1 by detailed holdings information about individual issues of periodicals. It is possible to report up to six levels of enumerations and up to four levels of chronology.

Each entry may include both a value (*enumeration/chronology*) plus a description (*enumCaption/chronCaption*). For example value="1998" plus description ="ÅR" & value="11" plus description="Hæfte".

If the local system has encoded value and description within a single data element, then both types of information are turned as a value element.

The different levels are not guided by any fixed rules. Volume may usually represent the top-level enumeration, while the year should always represent the top-level chronology information.

6.2.1 Detailed Bibliographic Holdings Structure

This section contains an informal overview of data elements within the Detailed Bibliographic Holdings Element Set (B3).

HoldingsStructure		Tag 0
BibItemInfo as targetItemId	Local bibliographic identificator	Tag 1
holdingsStatement	Pointer to HoldingsStatement	Tag 4

HoldingsStatment		Tag 4
holdingsSiteLocation	Pointer to SiteLocation	Tag 6
unionCatShelfMark	Local shelfmark	Tag 9
unionCatLendingInfo	Pointer to ServiceInfo	Tag 19
localHoldings as bibView	Pointer to BibPart	Tag 10
holdingsNotes	Holdings for serials	Tag 25

SiteLocation		Tag 125
targetLocationId	Identificator in local system	Tag 26
isilCode	Library number	Tag 29
networkAddress	Networksaddress (Z39.50 URL)	Tag 33
siteNotes	Accessibility	Tag 34

BibPart		Tag 126
targetBibPartId	Identificator in local system	Tag 40

bibPartLendingInfo	Pointer to ServiceInfo	Tag 115
bibPartReproductionInfo	Pointer to ServiceInfo	Tag 116
bibPartEnumeration	Pointer to Enumeration	Tag 45
bibPartChronology	Pointer to Chronology	Tag 46
bibPartNotes	Description of volume (no. etc)	Tag 54

Enumeration		Tag 132
enumLevel	Level 1	Tag 93
enumCaption	Term for enumeration	Tag 94
specificEnumeration	Value for enumeration	Tag 95
childEnumeration	Pointer to Enumeration level 2	Tag 137

Enumeration		Tag 132
enumLevel	Level 2	Tag 93
enumCaption	Term for enumeration	Tag 94
specificEnumeration	Value for enumeration	Tag 95
childEnumeration	Pointer to Enumeration level 3	Tag 137

Enumeration		Tag 132
enumLevel	Level 3	Tag 93
enumCaption	Term for enumeration	Tag 94
specificEnumeration	Value for enumeration	Tag 95
childEnumeration	Pointer to Enumeration level 4	Tag 137

Enumeration		Tag 132
enumLevel	Level 4	Tag 93
enumCaption	Term for enumeration	Tag 94
specificEnumeration	Value for enumeration	Tag 95
childEnumeration	Pointer to Enumeration level 5	Tag 137

Enumeration		Tag 132
enumLevel	Level 5	Tag 93
enumCaption	Term for enumeration	Tag 94
specificEnumeration	Value for enumeration	Tag 95
childEnumeration	Pointer to Enumeration level 6	Tag 137

Enumeration		Tag 132
enumLevel	Level 6	Tag 93
enumCaption	Term for enumeration	Tag 94
specificEnumeration	Value for enumeration	Tag 95
childEnumeration	Empty	Tag 137

Chronology		Tag 133
chronLevel	Level 1	Tag 96
chronCaption	Term for chronology	Tag 97
specificChronology	Value for chronology	Tag 98
childChronology	Pointer to Chronology level 2	Tag 138

Chronology		Tag 133
chronLevel	Level 2	Tag 96
chronCaption	Term for chronology	Tag 97
specificChronology	Value for chronology	Tag 98
childChronology	Pointer to Chronology level 3	Tag 138

Chronology		Tag 133
chronLevel	Level 3	Tag 96
chronCaption	Term for chronology	Tag 97
specificChronology	Value for chronology	Tag 98
childChronology	Pointer to Chronology level 4	Tag 138

Chronology		Tag 133
chronLevel	Level 4	Tag 96
chronCaption	Term for chronology	Tag 97
specificChronology	Value for chronology	Tag 98
childChronology	Empty	Tag 138

ServiceInfo		Tag 136
servicePolicy	Value 0/1/2	Tag 109
serviceFee	Price	Tag 110
ExpectedDiaspatchDate	Expected day of delivery	Tag 111
ServiceNotes	Text about terms of delivery	Tag 112

6.3 Holdings Structure Comments

If the target is a union catalogue with only summary holdings information, only HoldingsStructure, HoldingsStatment, SiteLocation and ServiceInfo are relevant.

In HoldingsStatment, unionCatLendingInfo are only filled in, if target is a union catalogue.

In HoldingsStatment, localHoldings as bibView is only filled in, if target is a local library.

networkAddress: In DanBib the networkAddress is the library's Z39.50 URL if the library has one. If not, the networkAddress is Z39.50 URL for DanBib.

holdingsNotes: Can be used for a text-note describing the holdings of the library. Normal source will be danMARC2-tag 980 (*Bibliotekets beholdning af et periodicum*).

BibPart: If the bibliographic record describes a multi volume in one record. And there is no physical items connected to the bibliographic record, then bibPartNotes may include the following information from tag 247 or 248:

- subtag g: *bindnummer eller supplementsbetegnelse*
- subtag a: *bindtitel eller supplementstitel*
- subtag w: *udgavebetegnelse:*

ServicePolicy: If ServiceInfo exist, it is mandatory to use the following codes:

- Value 0 : Conditions for loan not known or too complicated. Conditions must be described with a text in *serviceNotes*.
- Value 1 : Yes

- Value 2 : No

If target is the national union catalogue DanBib, the value is 2 ...

- if sub tag l or u in tag 096 (for) is reported for a research library
- or if a h-mark is reported for a public library.

ExpectedDispatchDate: Empty if target is the national union catalogue DanBib.

ServiceNotes: If *servicePolicy* is 2 for No, ServiceNotes can be used for supplementary information such as "*Kun tilgængelig på læsesal*". The individual library must transform status codes to human readable text.

Enumeration: For level B3, levels 1 to 6 are filled in order of priority by:

- Series
- Volume
- Issue number
- Start page
- End page

Chronology: For level B3, levels 1 to 4 are filled in order of priority by:

- Year
- Month / season
- Week
- Day

7. D Ordering and Interlibrary Loans

This profile addresses the ordering of items between parties acting as either borrowers (ISO ILL Requester) or lenders (ISO ILL Responder). Other ISO ILL Transaction modes and roles, e.g. Intermediary parties are outside the scope of this profile.

DanZIG Profile 2 is intended to support communications between two ISO ILL conformant systems.

The content of ISO ILL messages supported by ONE-2 ILL Level-2 conforms to the corresponding IPIG Profile specifications.

Encoding of ILL messages conforms to a revised version of the ILL XML Schema produced as part of the ONE-2 project.

The normative specification of the current ILL XML Schema called *illv5.xsd* is available here:

<http://www.loc.gov/z3950/agency/defns/illv5.xsd>

(Actual here <http://www.bs.dk/standards/illv5.xsd> waiting for update by Z39.50 MA – you can find *illv4.xsd* on the MA website: <http://www.loc.gov/z3950/agency/defns/illv4.xsd>)

The corresponding data element tables in the text below are for information purposes only.

The use of Z39.50 Item Order transport is guided by the *Z39.50/ILL Profile 1* for the Use of Z39.50 Item Order Extended service to Transport ILL Protocol APDUs. Z39.50/ILL Profile 1 is available from the National Library of Canada: <http://www.collectionscanada.ca/iso/ill/document/standard/z-ill-1a.pdf>

It is assumed, that a ILL-Request is immediately preceded by a corresponding check of Holdings information within the same (Z39.50) Session in order to verify, that the intended lending institution does indeed hold the bibliographic item in question.

The requested item is identified by the following elements:

Bibliographic record	TargetLocation Id
Sub-record from danMARC2 field 247 or 248	TargetBibPartId
Serial issue number	TargetBibPartId
Copy of periodical *)	TargetPieceId

*) not required by the current version of the danZIG Profile.

The ISO ILL Services used by the current level of the danZIG Z39.50 Profile for Client and Server are listed in the following table.

Role	Service	Function
Requester	ILL-REQUEST	Client
Requester	STATUS-QUERY	Client
Responder	ILL-ANSWER	Server
Responder	STATUS-OR-ERROR-REPORT	Server
Requester	CANCEL	Client
Responder	CANCEL-REPLY	Server
Requester	RECALL	Server
Requester	OVERDUE	Server
Requester	RENEW	Client
Responder	RENEW-ANSWER	Server
Requester	SHIPPING	Server

The ILL-Answer transaction includes a data element to return information about the expected delivery date of a requested item. But the ILL Status-or-Error-Report transaction does not include such a data element.

In order to return the expected delivery date, an ILL Responder system is therefore required to return both an ILL Status-or-Error-Report plus and ILL-Answer transaction in response to a single ILL Status-Query request.

The supplemental ILL-Answer is only necessary, when the ILL Status-or-Error-Report contains a Provider-Status-Report data element with the code value *In-Process*. Otherwise there is no need to return any expected delivery date.

Both of the two ILL transactions (Status-or-Error-Report plus ILL-Answer) must be returned as XML documents carried within a single Z39.50 Item-Order response.

7.1 ILL Transaction Structures

This section includes an informal overview of the relevant ILL Transaction data elements referenced by the danZIG Profile.

7.1.1 ILL-Request

Parameter	Mandatory	Comments and values
transaction-id	M	Unique serial number assigned by the library who request. Are used as ID for following transactions
service-date-time		
- date-time-of-this-service		
- - date	M	ISO-date: YYYY-MM-DD
- - time		ISO-time: hh:mm:ss
requester-id	M	Identification of the library which dispatch the request: ISIL, e.g.: DK-810010 for Royal Library
responder-id	M	Identification of the library which receive the request: ISIL, e.g.: DK-810010 for Royal Library
iLL-service-type	M	It is mandatory to support service type 1 and 2. loan (1) copy-non-returnable (2) locations (3) estimate (4) responder-specific (5)
search-type		
- need-before-date		
- expiry-flag		need-Before-Date (1) other-Date (2)

Parameter	Mandatory	Comments and values
		no-Expiry (3)
- expiry-date		If expiry-flag is 1, this is date of latest interest
place-on-hold		Place-On-Hold-Type : yes (1) no (2) according-to-responder-policy (3)
item-id		
- system-no	M	Unique identification from Z39.50 Holdings Schema: TargetLocationId, TargetBibPartId or TargetPieceId
- author-of-article		
- title-of-article		
- pagination		

7.1.2 ILL-Answer

Parameter	Mandatory	Comments and values
transaction-id	M	Unique identification defined in the original ILL-Request
service-date-time		
- date-time-of-this-service		
- - date	M	ISO-date: CCYY-MM-DD
- - time		ISO-time: hh:mm:ss
requester-id	M	Identification of the library which dispatch the request: ISIL, e.g.: DK-810010 for Royal Library
responder-id	M	Identification of the library which receive the request: ISIL, e.g.: DK-810010 for Royal Library
transaction-results	M	It is mandatory to support transaction-results type 3, 5 and 6 conditional (1) retry (2) unfilled (3) locations-provided (4)

Parameter	Mandatory	Comments and values
		will-supply (5) hold-placed (6) estimate (7)
results-explanation		
- unfilled-results		
- - reason-unfilled	M	Translation to Danish, see following section. in-use-on-loan (1) in-process (2) lost (3) non-circulating (4) not-owned (5) on-order (6) volume-issue-not-yet-available (7) at-bindery (8) lacking (9) not-on-shelf (10) on-reserve (11) poor-condition (12) cost-exceeds-limit (13) charges (14) prepayment-required (15) lacks-copyright-compliance (16) not-found-as-cited (17) locations-not-found (18) on-hold (19) policy-problem (20) mandatory-messaging-not-supported (21) expiry-not-supported (22) requested-delivery-services-not-supported (23) preferred-delivery-time-not-possible (24) other (27) responder-specific (28)

Parameter	Mandatory	Comments and values
- will-supply-results		
-- reason-will-supply	M	Translation to Danish, see following section in-use-on-loan (1) in-process (2) on-order (6) at-bindery (8) on-hold (19) being-processed-for-supply (26) other (27) responder-specific (28) electronic-delivery (30)
-- supply-date		
- hold-placed-results		
-- estimated-date-available		

7.1.3 Status-Query

Parameter	Mandatory	Comments and values
transaction-id	M	Unique identification defined in the original ILL-Request
service-date-time		
- date-time-of-this-service		
-- date	M	ISO-date: CCYY-MM-DD
-- time		ISO-time: hh:mm:ss
requester-id	M	Identification of the library which dispatch the Status-query: ISIL, e.g.: DK-810010 for Royal Library
responder-id	M	Identification of the library which receive the Status-query: ISIL, e.g.: DK-810010 for Royal Library

7.1.4 Status-or-Error-Report

Parameter	Mandatory	Comments and values
transaction-id	M	Unique identification defined in the original ILL-Request

Parameter	Mandatory	Comments and values
service-date-time		
- date-time-of-this-service		
-- date	M	ISO-date: CCYY-MM-DD
-- time		ISO-time: hh:mm:ss
requester-id	M	Identification of the library which dispatch the Status-or-Error-Report: ISIL, e.g.: DK-810010 for Royal Library
responder-id	M	Identification of the library which receive the Status-or-Error-Report: ISIL, e.g.: DK-810010 for Royal Library
reason-no-report		If status-report or error-report is empty, is reason-no-report mandatory: temporary (1) permanent (2)
status-report		
- user-status-report		
-- date-of-last-transition		Date for last change of status – also if the change was not result of an ILL-transaction
-- most-recent-service		The last ILL-transaction: iLL-REQUEST (1) fORWARD (21) fORWARD-NOTIFICATION (2) sHIPPED (3) iLL-ANSWER (4) cONDITIONAL-REPLY (5) cANCEL (6) cANCEL-REPLY (7) rECEIVED (8) rECALL (9) rETURNED (10) cHECKED-IN (11) rENEW-ANSWER (14) lOST (15) dAMAGED (16)

Parameter	Mandatory	Comments and values
		mESSAGE (17) sTATUS-QUERY (18) sTATUS-OR-ERROR-REPORT (19) eXPIRED (20)
-- date-of-most-recent-service		Date for last ILL-transaction
-- initiator-of-most-recent-service		Identification of the library which initiated the last ILL-transaction: ISIL, e.g.: DK-810010 for Royal Library
-- shipped-service-type		If SHIPPED or RECEIVED is used earlier, the newest service-type. Allowed are: loan (1) copy-non-returnable (2)
-- transaction-results		See ILL-Answer, transaction-results
-- most-recent-service-note		Text
- provider-status-report		Explanation of some status codes in X.Y.Z nOT-SUPPLIED (1) pENDING (2) iN-PROCESS (3) fORWARD (4) cONDITIONAL (5) cANCEL-PENDING (6) cANCELLED (7) sHIPPED (8) rECEIVED (9) rENEW-PENDING (10) nOT-RECEIVED-OVERDUE (11) rENEW-OVERDUE (12) oVERDUE (13) rETURNED (14) cHECKED-IN (15) rECALL (16) lOST (17) uNKNOWN (18)

Parameter	Mandatory	Comments and values
error-report		
- correlation-information		This parameter includes information that permits correlation of the error-report with the ILL service to which it applies.
- report-source		Values: user: user-error-report is filled in provider: provider-error-report is filled in
- user-error-report		
- - already-forwarded		
- - - responder-id		See ILL-Request, responder-id
- - security-problem		Text
- - unable-to-perform		not-available (1) resource-limitation (2) other (3)
- provider-error-report		
- - general-problem		unrecognized-APDU (1) mistyped-APDU (2) badly-structured-APDU (3) protocol-version-not-supported (4) other (5)
- - transaction-id-problem		duplicate-transaction-id (1) invalid-transaction-id (2) unknown-transaction-id (3)
- - state-transition-prohibited		
- - - aPDU-type		iLL-REQUEST (1) fORWARD-NOTIFICATION (2) sHIPPED (3) iLL-ANSWER (4) cONDITIONAL-REPLY (5) cANCEL (6) cANCEL-REPLY (7)

Parameter	Mandatory	Comments and values
		rECEIVED (8) rECALL (9) rETURNED (10) cHECKED-IN (11) rENEW-ANSWER (14) lOST (15) dAMAGED (16) mESSAGE (17) sTATUS-QUERY (18) sTATUS-OR-ERROR-REPORT (19) eXPIRED (20)
- - - current-state		nOT-SUPPLIED (1) pENDING (2) iN-PROCESS (3) fORWARD (4) cONDITIONAL (5) cANCEL-PENDING (6) cANCELLED (7) sHIPPED (8) rECEIVED (9) rENEW-PENDING (10) nOT-RECEIVED-OVERDUE (11) rENEW-OVERDUE (12) oVERDUE (13) rETURNED (14) cHECKED-IN (15) rECALL (16) lOST (17) uNKNOWN (18)
note		Text

7.1.5 Cancel

Parameter	Mandatory	Comments and values
transaction-id	M	Unique identification defined in the original ILL-Request
service-date-time		
- date-time-of-this-service		
-- date	M	ISO-date: CCYY-MM-DD
-- time		ISO-time: hh:mm:ss
requester-id	M	Identification of the library which dispatch the Status-or-Error-Report: ISIL, e.g.: DK-810010 for Royal Library
Responder-id	M	Identification of the library which receive the Status-or-Error-Report: ISIL, e.g.: DK-810010 for Royal Library
Requester-note		Not used

7.1.6 Cancel-reply

Parameter	Mandatory	Comments and values
Transaction-id	M	Unique identification defined in the original ILL-Request
service-date-time		
- date-time-of-this-service		
-- date	M	ISO-date: CCYY-MM-DD
-- time		ISO-time: hh:mm:ss
requester-id	M	Identification of the library which dispatch the Status-or-Error-Report: ISIL, e.g.: DK-810010 for Royal Library
responder-id	M	Identification of the library which receive the Status-or-Error-Report: ISIL, e.g.: DK-810010 for Royal Library
answer	M	Values: YES NO
responder-note		Only used is answer is NO

7.1.7 Recall

Parameter	Mandatory	Comments and values
transaction-id	M	Unique identification defined in the original ILL-Request
service-date-time		
- date-time-of-this-service		
-- date	M	ISO-date: CCYY-MM-DD
-- time		ISO-time: hh:mm:ss
requester-id	M	Identification of the library which dispatch the Status-or-Error-Report: ISIL, e.g.: DK-810010 for Royal Library
responder-id	M	Identification of the library which receive the Status-or-Error-Report: ISIL, e.g.: DK-810010 for Royal Library
responder-note		Not used

7.1.8 Overdue

Parameter	Mandatory	Comments and values
transaction-id	M	Unique identification defined in the original ILL-Request
service-date-time		
- date-time-of-this-service		
-- date	M	ISO-date: CCYY-MM-DD
-- time		ISO-time: hh:mm:ss
requester-id	M	Identification of the library which dispatch the Status-or-Error-Report: ISIL, e.g.: DK-810010 for Royal Library
responder-id	M	Identification of the library which receive the Status-or-Error-Report: ISIL, e.g.: DK-810010 for Royal Library
date-due		New return date
responder-note		Not used

7.1.9 Renew

Parameter	Mandatory	Comments and values
transaction-id	M	Unique identification defined in the original ILL-Request
service-date-time		

Parameter	Mandatory	Comments and values
- date-time-of-this-service		
- - date	M	ISO-date: CCYY-MM-DD
- - time		ISO-time: hh:mm:ss
requester-id	M	Identification of the library which dispatch the Status-or-Error-Report: ISIL, e.g.: DK-810010 for Royal Library
responder-id	M	Identification of the library which receive the Status-or-Error-Report: ISIL, e.g.: DK-810010 for Royal Library
Desired-due-date	M	Expected new return date
Responder-note		Not used

7.1.10 Renew-answer

Parameter	Mandatory	Comments and values
transaction-id	M	Unique identification defined in the original ILL-Request
service-date-time		
- date-time-of-this-service		
- - date	M	ISO-date: CCYY-MM-DD
- - time		ISO-time: hh:mm:ss
requester-id	M	Identification of the library which dispatch the Status-or-Error-Report: ISIL, e.g.: DK-810010 for Royal Library
responder-id	M	Identification of the library which receive the Status-or-Error-Report: ISIL, e.g.: DK-810010 for Royal Library
answer	M	Values: YES NO
responder-note		Only used is answer is NO

7.1.11 Shipped

Parameter	Mandatory	Comments and values
-----------	-----------	---------------------

Parameter	Mandatory	Comments and values
transaction-id	M	Unique serial number assigned by the library who request. Are used as ID for following transactions
service-date-time		
- date-time-of-this-service		
-- date	M	ISO-date: CCYY-MM-DD
-- time		ISO-time: hh:mm:ss
requester-id	M	Identification of the library which dispatch the request: ISIL, e.g.: DK-810010 for Royal Library
responder-id	M	Identification of the library which receive the request: ISIL, e.g.: DK-810010 for Royal Library
supply-details		
date-shipped	M	ISO-date: CCYY-MM-DD
supplemental-item-description		External defined: code for item identification (barcode/RFIDitemcode)

7.2 ILL Codes in Danish

This section defines Danish language translations corresponding to selected code-values within relevant ILL data elements.

7.2.1 Reason-unfilled (ILL-Answer)

Code	Value	Danish translation	Note
1	in-use-on-loan	udlånt	
2	in-process	i proces	
3	lost	bortkommet	
4	non-circulating	udlånes ikke	
5	not-owned	haves ikke	
6	on-order	i bestilling	
7	volume-issue-not-yet-available	Bind/hæfte endnu ikke tilgængeligt	
8	at-bindery	hos bogbinder	
9	lacking	bortkommet	
10	not-on-shelf	pt. bortkommet	

Code	Value	Danish translation	Note
11	on-reserve	udlånes pt. ikke	
12	poor-condition	skrøbelig	
13	cost-exceeds-limit	gebyr overstiger maximum	*)
14	charges	gebyr	
15	prepayment-required	forudbetaling krævet	*)
16	lacks-copyright-compliance	accept af ophavsretsbestemmelser mangler	*)
17	not-found-as-cited	kan ej findes på de foreliggende oplysninger	
18	locations-not-found	kan ej lokaliseres	
19	on-hold	reserveret	
20	policy-problem	reglementært problem	
21	mandatory-messaging-not-supported	obligatorisk besked ej understøttet	*)
22	expiry-not-supported	udløb ej understøttet	*)
23	requested-delivery-services-not-supported	ønsket leveringsform ej understøttet	*)
24	preferred-delivery-time-not-possible	foretrukket leveringstidspunkt ej muligt	*)
27	other	andet	*)
28	responder-specific	svargiver-afhængigt	*)

Note: *) Not used in Danish libraries.

7.2.2 Reason-will-supply (ILL-Answer)

Code	Value	Danish translation	Note
1	in-use-on-loan	Udlånt	
2	in-proces	i proces	
6	on-order	i bestilling	
8	at-bindery	hos bogbinder	
19	on-hold	reserveret	
26	being-processed-for-supply	sendes	
27	other	andet	*)
28	responder-specific	svargiver-afhængigt	*)
30	electronic-delivery	leveres elektronisk	*)

Note: *) Not used in Danish libraries.

7.2.3 Provider-status-report (Status-or-Error-Report)

Code	Value	Danish translation	Note
2	pENDING	modtaget og ligger og venter uden at der er sket noget endnu	
3	iN-PROCESS	modtaget og der er sket noget - det kan f.eks. være at den ikke er fundet på hylden og efterfølgende aktion ikke er besluttet	
6	cANCEL-PENDING	Sletning af bestilling modtaget, men ikke effektueret	*)
10	rENEW-PENDING	fornyelse af bestilling modtaget, men ikke effektueret	*)
11	nOT-RECEIVED-OVERDUE	lånene bibliotek har hjemkaldt hos slutlåner	

Note: *) Not expected to be used in Danish libraries.

7.3 Packaging of ILL as XML document

The danZIG Profile prescribe XML encoding of the ISO ILL PDUs in Z39.50/ILL Profile 1 - instead of the customary BER encoding. The ILL XML document is packaged within itemRequest.

Request (e.g. ILL-Request) is packaged as follows:

```

ExtendedServicesRequest->
  taskSpecificParameters (EXTERNAL) which contains...
  ItemOrder->
  esRequest->
  notToKeep->
  itemRequest (EXTERNAL)

```

The ILL XML record itself is placed within itemRequest EXTERNAL.

Response (e.g. ILL Answer) is packaged as follows:

```

ExtendedServicesResponse->
  taskPackage (EXTERNAL) which contains:
  TaskPackage->

```

taskSpecificParameters (EXTERNAL) which contains:

ItemOrder->

taskPackage->

targetPart->

itemRequest (EXTERNAL)

The itemRequest EXTERNAL contains the ILL XML record itself.

The datatype in the EXTERNAL is octet-aligned.

8. E Cross-domain Search and Retrieval

This section is deliberately left empty. At the danZIG meeting September 2005 decided not to fill in this section.

9. F Update

This section is deliberately left empty in this version. At the danZIG meeting September 2005 decided not to fill in this section.

10. G Authority Record Search and Retrieval

10.1 G Search Service

10.1.1 Bib-1 Use Attributes for Search

Bib-1 *Use* (type 1) Attribute values for Search in danZIG Profile

Bib-1 Use Attribute Name	Bib-1 Use Value	Bib-1 Use Attribute Semantic Definition
<i>Name-personal</i>	1	Personal name used as an author, subject or reference
<i>Name-corporate</i>	2	Corporate name used as an author, subject or reference (Note: includes conference names)
<i>Title</i>	4	Title incl. uniform and serial titles used as a heading or reference

<i>Title-series</i>	5	Serial title used as a heading or reference
<i>Title-uniform</i>	6	Uniform title used as a heading or reference
<i>Identifier-ISSN</i>	8	International Standard Serial Number
<i>Control-number-local</i>	12	Character string that uniquely identifies a record in a local system
<i>Subject</i>	21	Subject term, including personal and corporate names used as a subject
<i>Subject-MESH</i>	25	Subject heading from Medical Subject Headings maintained by the US National Library of Medicine
<i>Subject-headings-LC</i>	27	Subject heading from the Library of Congress
<i>Subject-geographic</i>	58	Geographic name used as and in headings or references
<i>Note</i>	63	Extended information about the heading or references in the record
<i>Name-personal-corporate</i>	1002	Personal, corporate or conference name used as an author, subject or reference
<i>Identifier-standard</i>	1007	Standard number such as ISSN
<i>Subject-name-personal</i>	1009	Personal name used as a subject heading or reference
<i>Date-added</i>	1011	Date/time when the record is added to the database
<i>Date-modified</i>	1012	Date/time when the record is last modified in the database
<i>Any</i>	1016	Default search in a selected set of use attributes defined by the target (Note: recommends use 1=4, 1=21, 1=1002)
<i>Material-type</i>	1031	Free-form string more specific than the one-letter code in Leader/06 that describes the type of authority record e.g. name, subject or title record
<i>Classification</i>	1040	Classification of a subject heading in any classification system
<i>Subject-name-corporate</i>	1074	Corporate or conference name used as a subject heading or reference
<i>Subject-chronological</i>	1077	Chronological subject heading incl. verbal forms
<i>Subject-title</i>	1078	Title used as a subject heading or reference
<i>Subject-AGROVOC</i>	1085	Subject heading from the multilingual agricultural thesaurus from FAO
<i>Subject-COMPASS</i>	1086	Subject heading from Computer Aided Subject System from British Library
<i>Subject-EPT</i>	1087	Subject heading from European Pedagogical Thesaurus (Note: Danish translation of EUDISED)
<i>Subject-NAL</i>	1088	Subject heading from National Agricultural Library

<i>Nationality-person-corporation</i>	1217	Nationality of a person or corporation
---------------------------------------	------	----------------------------------------

10.1.2 Bib-1 Relation, Position, Structure, Truncation, Completeness

Definitions in 5.1.1-6

10.1.3 Bib-1 Search Attribute combinations

The following table enumerates the combinations of Bib-1 attributes that must be supported by a danZIG compliant Server as part of a Search Request

Bib-1 Attribute combination name	1 Use	2 Relation	3 Position	4 Structure	5 Truncation	6 Completeness	Relation to Bath-profile (empty = no)
NamePer-eq-fif-nn-nt-cs	1	3	1	101	100	2	5.D.2.3 (4=1,6=3)
NamePer-eq-fif-nn-rt-cs	1	3	1	101	1	2	5.D.2.4 (4=1,6=1)
NamePer-eq-any-wo-nt-ic	1	3	3	2	100	1	5.D.2.1
NamePer-eq-any-wo-rt-ic	1	3	3	2	1	1	5.D.2.2
NamePer-eq-any-nn-nt-ic	1	3	3	101	100	1	
NamePer-eq-any-nn-rt-ic	1	3	3	101	1	1	5.D.2.4 (3=1,4=1)
NameCorp-eq-fif-nn-nt-cs	2	3	1	101	100	2	5.D.2.7 (4=1,6=3)
NameCorp-eq-fif-nn-rt-cs	2	3	1	101	1	2	5.D.2.8 (4=1,6=1)
NameCorp-eq-any-wo-nt-ic	2	3	3	2	100	1	5.D.2.5
NameCorp-eq-any-wo-rt-ic	2	3	3	2	1	1	5.D.2.6
NameCorp-eq-any-nn-nt-ic	2	3	3	101	100	1	
NameCorp-eq-any-nn-rt-ic	2	3	3	101	1	1	5.D.2.8 (3=1,4=1)
Title-eq-fif-ph-nt-cf	4	3	1	1	100	3	5.D.1.7
Title-eq-fif-ph-rt-cf	4	3	1	1	1	3	5.D.1.9 (6=1)
Title-eq-any-ph-nt-ic	4	3	3	1	100	1	5.D.2.24
Title-eq-any-ph-rt-ic	4	3	3	1	1	1	5.D.1.9 (3=1)
Title-eq-any-wo-nt-ic	4	3	3	2	100	1	5.D.1.5
Title-eq-any-wo-rt-ic	4	3	3	2	1	1	5.D.1.6

TitleSeries-eq-fif-ph-nt-cf	5	3	1	1	100	3	
TitleSeries-eq-fif-ph-rt-cf	5	3	1	1	1	3	
TitleSeries-eq-any-ph-nt-ic	5	3	3	1	100	1	
TitleSeries-eq-any-ph-rt-ic	5	3	3	1	1	1	
TitleSeries-eq-any-wo-nt-ic	5	3	3	2	100	1	
TitleSeries-eq-any-wo-rt-ic	5	3	3	2	1	1	
TitleUniform-eq-fif-ph-nt-cf	6	3	1	1	100	3	5.D.2.15
TitleUniform-eq-fif-ph-rt-cf	6	3	1	1	1	3	5.D.2.16 (6=1)
TitleUniform-eq-any-ph-nt-ic	6	3	3	1	100	1	5.D.2.17 (3=1)
TitleUniform-eq-any-ph-rt-ic	6	3	3	1	1	1	5.D.2.16 (3=1)
TitleUniform-eq-any-wo-nt-ic	6	3	3	2	100	1	5.D.2.13
TitleUniform-eq-any-wo-rt-ic	6	3	3	2	1	1	5.D.2.14
ISSN-eq-any-ph-nt-cs	8	3	3	1	100	2	5.D.2.18 (3=1,6=1)
ContNoLocal-eq-any-st-nt-cs	12	3	3	103	100	2	5.D.2.19 (3=1,4=1,6=1)
Subject-eq-fif-ph-nt-cf	21	3	1	1	100	3	5.D.1.12
Subject-eq-fif-ph-rt-cf	21	3	1	1	1	3	5.D.1.14 (6=1)
Subject-eq-any-ph-nt-ic	21	3	3	1	100	1	5.D.2.25
Subject-eq-any-ph-rt-ic	21	3	3	1	1	1	5.D.1.14 (3=1)
Subject-eq-any-wo-nt-ic	21	3	3	2	100	1	5.D.1.10
Subject-eq-any-wo-rt-ic	21	3	3	2	1	1	5.D.1.11
MESH-eq-fif-ph-nt-cf	25	3	1	1	100	3	
MESH-eq-fif-ph-rt-cf	25	3	1	1	1	3	
MESH-eq-any-ph-nt-ic	25	3	3	1	100	1	
MESH-eq-any-ph-rt-ic	25	3	3	1	1	1	
MESH-eq-any-wo-nt-ic	25	3	3	2	100	1	
MESH-eq-any-wo-rt-ic	25	3	3	2	1	1	
LCHead-eq-fif-ph-nt-cf	27	3	1	1	100	3	
LCHead-eq-fif-ph-rt-cf	27	3	1	1	1	3	
LCHead-eq-any-ph-nt-ic	27	3	3	1	100	1	
LCHead-eq-any-ph-rt-ic	27	3	3	1	1	1	
LCHead-eq-any-wo-nt-ic	27	3	3	2	100	1	
LCHead-eq-any-wo-rt-ic	27	3	3	2	1	1	
SubjectGeogr-eq-fif-ph-nt-cf	58	3	1	1	100	3	5.D.2.22

SubjectGeogr-eq-fif-ph-rt-cf	58	3	1	1	1	3	5.D.2.23 (6=1)
SubjectGeogr-eq-any-ph-nt-ic	58	3	3	1	100	1	
SubjectGeogr-eq-any-ph-rt-ic	58	3	3	1	1	1	5.D.2.23 (3=1)
SubjectGeogr-eq-any-wo-nt-ic	58	3	3	2	100	1	5.D.2.20
SubjectGeogr-eq-any-wo-rt-ic	58	3	3	2	1	1	5.D.2.21
Note-eq-any-ph-nt-ic	63	3	3	1	100	1	
Note-eq-any-ph-rt-ic	63	3	3	1	1	1	
Note-eq-any-wo-nt-ic	63	3	3	2	100	1	5.D.2.27
Note-eq-any-wo-rt-ic	63	3	3	2	1	1	5.D.2.28
NamePerCorp-eq-fif-ph-nt-cf	1002	3	1	1	100	3	5.D.1.3
NamePerCorp-eq-fif-ph-rt-cf	1002	3	1	1	1	3	5.D.1.4 (6=1)
NamePerCorp-eq-any-wo-nt-ic	1002	3	3	2	100	1	5.D.1.1
NamePerCorp-eq-any-wo-rt-ic	1002	3	3	2	1	1	5.D.1.2
NamePerCorp-eq-any-ph-nt-ic	1002	3	3	1	100	1	5.D.2.26
NamePerCorp-eq-any-ph-rt-ic	1002	3	3	1	1	1	5.D.1.4 (3=1)
IdentifierStd-eq-fif-ph-nt-ic	1007	3	1	1	100	1	
SubjectNamePer-eq-fif-ph-nt-cf	1009	3	1	1	100	3	
SubjectNamePer-eq-fif-ph-rt-cf	1009	3	1	1	1	3	
SubjectNamePer-eq-any-ph-nt-ic	1009	3	3	1	100	1	
SubjectNamePer-eq-any-ph-rt-ic	1009	3	3	1	1	1	
SubjectNamePer-eq-any-wo-nt-ic	1009	3	3	2	100	1	
SubjectNamePer-eq-any-wo-rt-ic	1009	3	3	2	1	1	
DateAdded-lt-any-date-nt-cs	1011	1	3	5	100	2	
DateAdded-le-any-date-nt-cs	1011	2	3	5	100	2	
DateAdded-eq-any-date-nt-cs	1011	3	3	5	100	2	
DateAdded-ge-any-date-nt-cs	1011	4	3	5	100	2	
DateAdded-gt-any-date-nt-cs	1011	5	3	5	100	2	
DateModified-lt-any-date-nt-cs	1012	1	3	5	100	2	
DateModified-le-any-date-nt-cs	1012	2	3	5	100	2	
DateModified-eq-any-date-nt-cs	1012	3	3	5	100	2	
DateModified-ge-any-date-nt-cs	1012	4	3	5	100	2	
DateModified-gt-any-date-nt-cs	1012	5	3	5	100	2	
Any-eq-any-ph-nt-ic	1016	3	3	1	100	1	

Any-eq-any-ph-rt-ic	1016	3	3	1	1	1	
Any-eq-any-wo-nt-ic	1016	3	3	2	100	1	5.D.2.29
Any-eq-any-wo-rt-ic	1016	3	3	2	1	1	5.D.2.30
MatType-eq-any-wo-nt-cs	1031	3	3	2	100	2	
MatType-eq-fif-ph-nt-ic	1031	3	1	1	100	1	
ClassPhrase-eq-fif-ph-nt-cf	1040	3	1	1	100	3	
ClassPhrase-eq-fif-ph-rt-cf	1040	3	1	1	1	3	
ClassPhrase-eq-any-ph-nt-ic	1040	3	3	1	100	1	
ClassPhrase-eq-any-ph-rt-ic	1040	3	3	1	1	1	
ClassPhrase-eq-any-wo-nt-ic	1040	3	3	2	100	1	
ClassPhrase-eq-any-wo-rt-ic	1040	3	3	2	1	1	
SubjectNameCor-eq-fif-ph-nt-cf	1074	3	1	1	100	3	
SubjectNameCor-eq-fif-ph-rt-cf	1074	3	1	1	1	3	
SubjectNameCor-eq-any-ph-nt-ic	1074	3	3	1	100	1	
SubjectNameCor-eq-any-ph-rt-ic	1074	3	3	1	1	1	
SubjectNameCor-eq-any-wo-nt-ic	1074	3	3	2	100	1	
SubjectNameCor-eq-any-wo-rt-ic	1074	3	3	2	1	1	
SubjectChron-eq-fif-ph-nt-cf	1077	3	1	1	100	3	
SubjectChron-eq-fif-ph-rt-cf	1077	3	1	1	1	3	
SubjectChron-eq-any-ph-nt-ic	1077	3	3	1	100	1	
SubjectChron-eq-any-ph-rt-ic	1077	3	3	1	1	1	
SubjectChron-eq-any-wo-nt-ic	1077	3	3	2	100	1	
SubjectChron-eq-any-wo-rt-ic	1077	3	3	2	1	1	
SubjectTitle-eq-fif-ph-nt-cf	1078	3	1	1	100	3	
SubjectTitle-eq-fif-ph-rt-cf	1078	3	1	1	1	3	
SubjectTitle-eq-any-ph-nt-ic	1078	3	3	1	100	1	
SubjectTitle-eq-any-ph-rt-ic	1078	3	3	1	1	1	
SubjectTitle-eq-any-wo-nt-ic	1078	3	3	2	100	1	
SubjectTitle-eq-any-wo-rt-ic	1078	3	3	2	1	1	
AGROVOC-eq-fif-ph-nt-cf	1085	3	1	1	100	3	
AGROVOC-eq-fif-ph-rt-cf	1085	3	1	1	1	3	
AGROVOC-eq-any-ph-nt-ic	1085	3	3	1	100	1	
AGROVOC-eq-any-ph-rt-ic	1085	3	3	1	1	1	

AGROVOC-eq-any-wo-nt-ic	1085	3	3	2	100	1	
AGROVOC-eq-any-wo-rt-ic	1085	3	3	2	1	1	
COMPASS-eq-fif-ph-nt-cf	1086	3	1	1	100	3	
COMPASS-eq-fif-ph-rt-cf	1086	3	1	1	1	3	
COMPASS-eq-any-ph-nt-ic	1086	3	3	1	100	1	
COMPASS-eq-any-ph-rt-ic	1086	3	3	1	1	1	
COMPASS-eq-any-wo-nt-ic	1086	3	3	2	100	1	
COMPASS-eq-any-wo-rt-ic	1086	3	3	2	1	1	
EPT-eq-fif-ph-nt-cf	1087	3	1	1	100	3	
EPT-eq-fif-ph-rt-cf	1087	3	1	1	1	3	
EPT-eq-any-ph-nt-ic	1087	3	3	1	100	1	
EPT-eq-any-ph-rt-ic	1087	3	3	1	1	1	
EPT-eq-any-wo-nt-ic	1087	3	3	2	100	1	
EPT-eq-any-wo-rt-ic	1087	3	3	2	1	1	
NAL-eq-fif-ph-nt-cf	1088	3	1	1	100	3	
NAL-eq-fif-ph-rt-cf	1088	3	1	1	1	3	
NAL-eq-any-ph-nt-ic	1088	3	3	1	100	1	
NAL-eq-any-ph-rt-ic	1088	3	3	1	1	1	
NAL-eq-any-wo-nt-ic	1088	3	3	2	100	1	
NAL-eq-any-wo-rt-ic	1088	3	3	2	1	1	
CodeNatPerCorp-eq-any-wo-nt-ic	1217	3	3	2	100	1	

10.1.4 Relationship with Bath Profile for Search

The following table illustrates the relationship between the Bath Profile attribute combinations and corresponding danZIG Profile attribute combinations

Bath-code	Name of Attribute Combinations Bath-profile 2.0	Relation Bath / danZIG	danZIG-profile Attribute Combinations
5.D.1.1	Name Search -- Keyword	equal	NamePerCorp-eq-any-wo-nt-ic
5.D.1.2	Name Search -- Keyword with Right Truncation	equal	NamePerCorp-eq-any-wo-rt-ic
5.D.1.3	Name Search -- Exact Match	equal	NamePerCorp-eq-fif-ph-nt-cf

5.D.1.4	Name Search -- First Characters in Field	map to	NamePerCorp-eq-any-ph-rt-ic
5.D.1.4	Name Search -- First Characters in Field	map to	NamePerCorp-eq-fif-nn-rt-cf
5.D.1.5	Title Search -- Keyword	equal	Title-eq-any-wo-nt-ic
5.D.1.6	Title Search -- Keyword with Right Truncation	equal	Title-eq-any-wo-rt-ic
5.D.1.7	Title Search -- Exact Match	equal	Title-eq-fif-ph-nt-cf
5.D.1.8	Title Search -- First Words in Field	map to	Title-eq-fif-ph-rt-cf
5.D.1.9	Title Search -- First Characters in Field	map to	Title-eq-fif-ph-rt-cf
5.D.1.9	Title Search -- First Characters in Field	map to	Title-eq-any-ph-rt-ic
5.D.1.10	Subject Search -- Keyword	equal	Subject-eq-any-wo-nt-ic
5.D.1.11	Subject Search -- Keyword with Right Truncation	equal	Subject-eq-any-wo-rt-ic
5.D.1.12	Subject Search -- Exact Match	equal	Subject-eq-fif-ph-nt-cf
5.D.1.13	Subject Search -- First Words in Field	map to	Subject-eq-fif-ph-rt-cf
5.D.1.14	Subject Search -- First Characters in Field	map to	Subject-eq-fif-ph-rt-cf
5.D.1.14	Subject Search -- First Characters in Field	map to	Subject-eq-any-ph-rt-ic
5.D.2.1	Personal Name Search -- Keyword	equal	NamePer-eq-any-wo-nt-ic
5.D.2.2	Personal Name Search -- Keyword with Right Truncation	equal	NamePer-eq-any-wo-rt-ic
5.D.2.3	Personal Name Search -- Exact Match	map to	NamePer-eq-fif-nn-nt-cs
5.D.2.4	Personal Name Search -- First Characters in Field	map to	NamePer-eq-fif-nn-rt-cs
5.D.2.4	Personal Name Search -- First Characters in Field	map to	NamePer-eq-any-nn-rt-ic
5.D.2.5	Corporate Name Search -- Keyword	equal	NameCorp-eq-any-wo-nt-ic
5.D.2.6	Corporate Name Search -- Keyword with Right Truncation	equal	NameCorp-eq-any-wo-rt-ic
5.D.2.7	Corporate Name Search -- Exact Match	map to	NameCorp-eq-fif-nn-nt-cs
5.D.2.8	Corporate Name Search -- First Characters in Field	map to	NameCorp-eq-fif-nn-rt-cs
5.D.2.8	Corporate Name Search -- First Characters in Field	map to	NameCorp-eq-any-nn-rt-ic
5.D.2.9	Conference Name -- Keyword	map to	NameCorp-eq-any-wo-nt-ic
5.D.2.10	Conference Name Search -- Keyword with Right Truncation	map to	NameCorp-eq-any-wo-rt-ic
5.D.2.11	Conference Name Search -- Exact Match	map to	NameCorp-eq-fif-nn-nt-cs

5.D.2.12	Conference Name Search -- First Characters in Field	map to	NameCorp-eq-fif-nn-rt-cs
5.D.2.12	Corporate Name Search -- First Characters in Field	map to	NameCorp-eq-any-nn-rt-ic
5.D.2.13	Uniform Title Search -- Keyword	equal	TitleUniform-eq-any-wo-nt-ic
5.D.2.14	Uniform Title Search -- Keyword with Right Truncation	equal	TitleUniform-eq-any-wo-rt-ic
5.D.2.15	Uniform Title Search -- Exact Match	equal	TitleUniform-eq-fif-ph-nt-cf
5.D.2.16	Uniform Title Search -- First Characters in Field	map to	TitleUniform-eq-fif-ph-rt-cf
5.D.2.16	Uniform Title Search -- First Characters in Field	map to	TitleUniform-eq-any-ph-rt-ic
5.D.2.17	Uniform Title Search -- First Words in Field	map to	TitleUniform-eq-any-ph-nt-ic
5.D.2.18	ISSN Search	map to	ISSN-eq-any-ph-nt-cs
5.D.2.19	Remote System Record Number Search	map to	ContNoLocal-eq-any-st-nt-cs
5.D.2.20	Geographic Name Search -- Keyword	equal	GeogrName-eq-any-wo-nt-ic
5.D.2.21	Geographic Name Search -- Keyword with Right Truncation	equal	GeogrName-eq-any-wo-rt-ic
5.D.2.22	Geographic Name Search -- Exact Match	equal	GeogrName-eq-fif-ph-nt-cf
5.D.2.23	Geographic Name Search -- First Characters in Field	map to	GeogrName-eq-fif-ph-rt-cf
5.D.2.23	Geographic Name Search -- First Characters in Field	map to	GeogrName-eq-any-ph-rt-ic
5.D.2.24	Title Search -- Unanchored Phrase	equal	Title-eq-any-ph-nt-ic
5.D.2.25	Subject Search -- Unanchored Phrase	equal	Subject-eq-any-ph-nt-ic
5.D.2.26	Name Search -- Unanchored Phrase	equal	NamePerCorp-eq-any-ph-nt-ic
5.D.2.27	Note Search -- Keyword	equal	Note-eq-any-wo-nt-ic
5.D.2.28	Note Search -- Keyword with Right Truncation	equal	Note-eq-any-wo-rt-ic
5.D.2.29	Any Search -- Keyword	equal	Any-eq-any-wo-nt-ic
5.D.2.30	Any Search -- Keyword with Right Truncation	equal	Any-eq-any-wo-rt-ic
5.D.2.31	Topical Subject Search -- Keyword	no mapping	
5.D.2.32	Topical Subject Search -- Keyword with Right Truncation	no mapping	

5.D.2.33	Topical Subject Search -- Exact Match	no mapping	
5.D.2.34	Topical Subject Search -- First Words in Field	no mapping	
5.D.2.35	Topical Subject Search -- First Characters in Field	no mapping	
5.D.2.36	Genre/form Subject Search -- Keyword	no mapping	
5.D.2.37	Genre/form Subject Search -- Keyword with Right Truncation	no mapping	
5.D.2.38	Genre/form Subject Search -- Exact Match	no mapping	
5.D.2.39	Genre/form Subject Search -- First Words in Field	no mapping	
5.D.2.40	Genre/form Subject Search -- First Characters in Field	no mapping	

10.1.5 Dan-1 Use Attributes for Search

Dan-1 *Use* (type 1) Attribute values for Search in danZIG Profile

Dan-1 Use Value	Dan-1 Use Attribute Name
1	Classification-code-DK5 (Note: for classification of the heading)
2	Subject-controlled (identical with Bib-1 Use 21)
3	DBC-subject
4	DBC-subject-non-fiction
5	DBC-subject-fiction
6	DBC-subject-music
7	Subject-form-DBC
8	Subject-level-DBC
10	Classification-DK5
14	Catalogue-code
17	Item-number
19	FAUST-code-previous
22	Subject-controlled-non-fiction

23	Subject-controlled-fiction
26	Name-author-in-description
28	Heading (name, title, subject)
29	Subject-chronological-DBC
30	Subject-geographic-DBC
31	Authentication-code
32	Transliteration-code
33	Language-person-corporation
34	DBC-subject-general

10.1.6 Dan-1 Search Attribute combinations

The following table enumerates the combinations of Dan-1 attributes that must be supported by a danZIG compliant Server as part of a Search Request

Dan-1 Relation, Position, Structure, Truncation, Completeness - definitions in 5.1.1-6

Dan-1 Attribute combination name	1 Use	2 Relation	3 Position	4 Structure	5 Truncation	6 Completeness
SubjectCon-eq-fif-ph-nt-cf	2	3	1	1	100	3
SubjectCon-eq-fif-ph-rt-cf	2	3	1	1	1	3
SubjectCon-eq-any-ph-nt-ic	2	3	3	1	100	1
SubjectCon-eq-any-ph-rt-ic	2	3	3	1	1	1
SubjectCon-eq-any-wo-nt-ic	2	3	3	2	100	1
SubjectCon-eq-any-wo-rt-ic	2	3	3	2	1	1
DBCSubject-eq-fif-ph-nt-cf	3	3	1	1	100	3
DBCSubject-eq-fif-ph-rt-cf	3	3	1	1	1	3
DBCSubject-eq-any-ph-nt-ic	3	3	3	1	100	1
DBCSubject-eq-any-ph-rt-ic	3	3	3	1	1	1
DBCSubject-eq-any-wo-nt-ic	3	3	3	2	100	1

DBCSubject-eq-any-wo-rt-ic	3	3	3	2	1	1
DBCSubjectNF-eq-fif-ph-nt-cf	4	3	1	1	100	3
DBCSubjectNF-eq-fif-ph-rt-cf	4	3	1	1	1	3
DBCSubjectNF-eq-any-ph-nt-ic	4	3	3	1	100	1
DBCSubjectNF-eq-any-ph-rt-ic	4	3	3	1	1	1
DBCSubjectNF-eq-any-wo-nt-ic	4	3	3	2	100	1
DBCSubjectNF-eq-any-wo-rt-ic	4	3	3	2	1	1
DBCSubjectF-eq-fif-ph-nt-cf	5	3	1	1	100	3
DBCSubjectF-eq-fif-ph-rt-cf	5	3	1	1	1	3
DBCSubjectF-eq-any-ph-nt-ic	5	3	3	1	100	1
DBCSubjectF-eq-any-ph-rt-ic	5	3	3	1	1	1
DBCSubjectF-eq-any-wo-nt-ic	5	3	3	2	100	1
DBCSubjectF-eq-any-wo-rt-ic	5	3	3	2	1	1
DBCSubjectMus-eq-fif-ph-nt-cf	6	3	1	1	100	3
DBCSubjectMus-eq-fif-ph-rt-cf	6	3	1	1	1	3
DBCSubjectMus-eq-any-ph-nt-ic	6	3	3	1	100	1
DBCSubjectMus-eq-any-ph-rt-ic	6	3	3	1	1	1
DBCSubjectMus-eq-any-wo-nt-ic	6	3	3	2	100	1
DBCSubjectMus-eq-any-wo-rt-ic	6	3	3	2	1	1
SubjectFormDBC-eq-fif-ph-nt-cf	7	3	1	1	100	3
SubjectFormDBC-eq-fif-ph-rt-cf	7	3	1	1	1	3
SubjectFormDBC-eq-any-ph-nt-ic	7	3	3	1	100	1
SubjectFormDBC-eq-any-ph-rt-ic	7	3	3	1	1	1
SubjectFormDBC-eq-any-wo-nt-ic	7	3	3	2	100	1
SubjectFormDBC-eq-any-wo-rt-ic	7	3	3	2	1	1
SubjectLevelDBC-eq-fif-ph-nt-cf	8	3	1	1	100	3
SubjectLevelDBC-eq-fif-ph-rt-cf	8	3	1	1	1	3
SubjectLevelDBC-eq-any-ph-nt-ic	8	3	3	1	100	1
SubjectLevelDBC-eq-any-ph-rt-ic	8	3	3	1	1	1
SubjectLevelDBC-eq-any-wo-nt-ic	8	3	3	2	100	1
SubjectLevelDBC-eq-any-wo-rt-ic	8	3	3	2	1	1
DK5-eq-fif-ph-nt-cf	10	3	1	1	100	3
DK5-eq-fif-ph-rt-cf	10	3	1	1	1	3

DK5-eq-any-ph-nt-ic	10	3	3	1	100	1
DK5-eq-any-ph-rt-ic	10	3	3	1	1	1
DK5-eq-any-wo-nt-ic	10	3	3	2	100	1
DK5-eq-any-wo-rt-ic	10	3	3	2	1	1
CatCode-eq-any-wo-nt-cs	14	3	3	2	100	2
ItemNo-eq-any-wo-nt-cs	17	3	3	2	100	2
PrevFAUST-eq-any-wo-nt-cs	19	3	3	2	100	2
SubjectNF-eq-fif-ph-nt-cf	22	3	1	1	100	3
SubjectNF-eq-fif-ph-rt-cf	22	3	1	1	1	3
SubjectNF-eq-any-ph-nt-ic	22	3	3	1	100	1
SubjectNF-eq-any-ph-rt-ic	22	3	3	1	1	1
SubjectNF-eq-any-wo-nt-ic	22	3	3	2	100	1
SubjectNF-eq-any-wo-rt-ic	22	3	3	2	1	1
SubjectF-eq-fif-ph-nt-cf	23	3	1	1	100	3
SubjectF-eq-fif-ph-rt-cf	23	3	1	1	1	3
SubjectF-eq-any-ph-nt-ic	23	3	3	1	100	1
SubjectF-eq-any-ph-rt-ic	23	3	3	1	1	1
SubjectF-eq-any-wo-nt-ic	23	3	3	2	100	1
SubjectF-eq-any-wo-rt-ic	23	3	3	2	1	1
AuthorInDesc-eq-any-ph-nt-ic	26	3	3	1	100	1
AuthorInDesc-eq-any-ph-rt-ic	26	3	3	1	1	1
AuthorInDesc-eq-any-wo-nt-cs	26	3	3	2	100	2
AuthorInDesc-eq-any-wo-rt-cs	26	3	3	2	1	2
HeadingNorm-eq-fif-ph-nt-cf	28	3	1	1	100	3
HeadingNorm-eq-fif-ph-rt-cf	28	3	1	1	1	3
HeadingNorm-eq-any-ph-nt-ic	28	3	3	1	100	1
HeadingNorm-eq-any-ph-rt-ic	28	3	3	1	1	1
HeadingNorm-eq-any-wo-nt-ic	28	3	3	2	100	1
HeadingNorm-eq-any-wo-rt-ic	28	3	3	2	1	1
SubjectChronDBC-eq-fif-ph-nt-cf	29	3	1	1	100	3
SubjectChronDBC-eq-fif-ph-rt-cf	29	3	1	1	1	3
SubjectChronDBC-eq-any-ph-nt-ic	29	3	3	1	100	1
SubjectChronDBC-eq-any-ph-rt-ic	29	3	3	1	1	1

SubjectChronDBC-eq-any-wo-nt-ic	29	3	3	2	100	1
SubjectChronDBC-eq-any-wo-rt-ic	29	3	3	2	1	1
SubjectGeogrDBC-eq-fif-ph-nt-cf	30	3	1	1	100	3
SubjectGeogrDBC-eq-fif-ph-rt-cf	30	3	1	1	1	3
SubjectGeogrDBC-eq-any-ph-nt-ic	30	3	3	1	100	1
SubjectGeogrDBC-eq-any-ph-rt-ic	30	3	3	1	1	1
SubjectGeogrDBC-eq-any-wo-nt-ic	30	3	3	2	100	1
SubjectGeogrDBC-eq-any-wo-rt-ic	30	3	3	2	1	1
AuthenticationCode-eq-any-wo-nt-cs	31	3	3	2	100	2
TransliterationCode-eq-any-wo-nt-cs	32	3	3	2	100	2
CodeLangPerCor-eq-any-wo-nt-cs	33	3	3	2	100	2
DBCSubjectGen-eq-fif-ph-nt-cf	34	3	1	1	100	3
DBCSubjectGen-eq-fif-ph-rt-cf	34	3	1	1	1	3
DBCSubjectGen-eq-any-ph-nt-ic	34	3	3	1	100	1
DBCSubjectGen-eq-any-ph-rt-ic	34	3	3	1	1	1
DBCSubjectGen-eq-any-wo-nt-ic	34	3	3	2	100	1
DBCSubjectGen-eq-any-wo-rt-ic	34	3	3	2	1	1

10.2 G Scan Service

Target must support scanning of the same *Use* attribute values as listed under Search Service requirements above, **except** the ones listed in the following table:

Bib-1 Use Attribute Name	Bib-1 Use Value
<i>Identifier-ISSN</i>	8
<i>Control-number-local</i>	12
<i>Date-publication</i>	31
<i>Identifier-standard</i>	1007
<i>Date-added</i>	1011
<i>Date-modified</i>	1012

Servers may ignore *Truncation* and *Relation* attributes specified in connection with Scan Requests. Other attribute types may not be ignored.

The Target must interpret (i.e. neither ignore- nor substitute) the values supplied for all of those attribute types, which are submitted in a given Scan Request.

If one or more attribute types are missing in a query, the Server may choose to either substitute default values for the missing attribute type - or reject the incomplete request as "Unsupported Attribute Combinations".

A Server must accept Scan requests containing any of the attribute combinations specified below. A Server may not treat any of these specified attribute combinations as "Unsupported Attribute Combinations", but it may always choose to return zero hits.

The concepts of "fields" and "subfields" are not clearly defined in the context of the Z39.50 data model. Servers may therefore return the same hits, regardless of whether given *Completeness* and *Position* attributes refer to "fields" or "subfields".

Target must support *Step-size* = 0, i.e. "do not skip any entries" and *Position-in-response* = 1.

Target must return the number of entries (hits) associated with each SCAN Term.

The following sections contain a complete enumeration of attribute combinations, which must be recognised by danZIG compliant Z-Servers in connection with Scan Requests.

10.2.1 Bib-1 Use Attributes for Scan

Bib-1 *Use* (type 1) Attribute Combinations for Scan in danZIG Profile

Bib-1 Attribute combination name	1 Use	3 Position	4 Structure	6 Completeness	Relation to Bath- profile (empty = no)
NamePer-fif-nn-cs	1	1	101	2	
NamePer-any-wo-ic	1	3	2	1	
NameCorp-fif-nn-cs	2	1	101	2	
NameCorp-any-wo-ic	2	3	2	1	
Title-fif-ph-cf	4	1	1	3	5.D.1.SCAN.2 (6=und)
Title-any-wo-ic	4	3	2	1	5.D.2.SCAN.2 (6=und)
TitleSeries-fif-ph-cf	5	1	1	3	
TitleSeries-any-wo-ic	5	3	2	1	
TitleUniform-fif-ph-cf	6	1	1	3	
TitleUniform-any-wo-ic	6	3	2	1	
Subject-fif-ph-cf	21	1	1	3	5.D.1.SCAN.3 (6=und)
Subject-any-wo-ic	21	3	2	1	5.D.2.SCAN.3 (6=und)

MESH-fif-ph-cf	25	1	1	3	
MESH-any-wo-ic	25	3	2	1	
LCHead-fif-ph-cf	27	1	1	3	
LCHead-any-wo-ic	27	3	2	1	
SubjectGeogr-fif-ph-cf	58	1	1	3	
SubjectGeogr-any-wo-ic	58	3	2	1	
Note-any-wo-ic	63	3	2	1	
NamePerCorp-fif-ph-cf	1002	1	1	3	5.D.1.SCAN.1 (6=und)
NamePerCorp-any-wo-ic	1002	3	2	1	5.D.2.SCAN.1 (6=und)
SubjectNamePer-fif-ph-cf	1009	1	1	3	
SubjectNamePer-any-wo-ic	1009	3	2	1	
Any-any-wo-ic	1016	3	2	1	
MatType-any-wo-cs	1031	3	2	2	
MatType-fif-ph-ic	1031	1	1	1	
ClassPhrase-fif-ph-cf	1040	1	1	3	
ClassPhrase-any-wo-ic	1040	3	2	1	
SubjectNameCor-fif-ph-cf	1074	1	1	3	
SubjectNameCor-any-wo-ic	1074	3	2	1	
SubjectChron-fif-ph-cf	1077	1	1	3	
SubjectChron-any-wo-ic	1077	3	2	1	
SubjectTitle-fif-ph-cf	1078	1	1	3	
SubjectTitle-any-wo-ic	1078	3	2	1	
AGROVOC-fif-ph-cf	1085	1	1	3	
AGROVOC-any-wo-ic	1085	3	2	1	
COMPASS-fif-ph-cf	1086	1	1	3	
COMPASS-any-wo-ic	1086	3	2	1	
EPT-fif-ph-cf	1087	1	1	3	
EPT-any-wo-ic	1087	3	2	1	
NAL-fif-ph-cf	1088	1	1	3	
NAL-any-wo-ic	1088	3	2	1	
CodeNatPerCorp-any-wo-ic	1217	3	2	1	

10.2.2 Relationship with Bath Profile for Scan

The following table illustrates the relationship between the Bath Profile attribute combinations and corresponding danZIG Profile attribute combinations

Bath-code	Name of Attribute Combinations Bath-profile 2.0	1 Use	3 Position	4 Structure	Equivalent danZIG SCAN attribute combination name
5.D.1.SCAN.1	Name -- Exact Match	1002	1	1	NamePerCorp-fif-ph-cf
5.D.1.SCAN.2	Title -- Exact Match	4	1	1	Title-fif-ph-cf
5.D.1.SCAN.3	Subject -- Exact Match	21	1	1	Subject-fif-ph-cf
5.D.2.SCAN.1	Name -- Keyword	1002	3	2	NamePerCorp-any-wo-ic
5.D.2.SCAN.2	Title -- Keyword	4	3	2	Title-any-wo-ic
5.D.2.SCAN.3	Subject -- Keyword	21	3	2	Subject-any-wo-ic

10.2.3 Dan-1 Use Attributes for Scan

Dan-1 *Use* Attribute Combinations for SCAN

Dan-1 Relation, Position, Structure, Truncation, Completeness - definitions in 5.1.1-6

Dan-1 Attribute combination name	1 Use	3 Position	4 Structure	6 Completeness
SubjectCon-fif-ph-cf	2	1	1	3
SubjectCon-any-wo-ic	2	3	2	1
DBCSubject-fif-ph-cf	3	1	1	3
DBCSubject-any-wo-ic	3	3	2	1
DBCSubjectNF-fif-ph-cf	4	1	1	3
DBCSubjectNF-any-wo-ic	4	3	2	1
DBCSubjectF-fif-ph-cf	5	1	1	3

DBCSubjectF-any-wo-ic	5	3	2	1
DBCSubjectMus-fif-ph-cf	6	1	1	3
DBCSubjectMus-any-wo-ic	6	3	2	1
SubjectFormDBC-fif-ph-cf	7	1	1	3
SubjectFormDBC-any-wo-ic	7	3	2	1
SubjectLevelDBC-fif-ph-cf	8	1	1	3
SubjectLevelDBC-any-wo-ic	8	3	2	1
DK5-fif-ph-cf	10	1	1	3
DK5-any-wo-ic	10	3	2	1
CatCode-any-wo-cs	14	3	2	2
ItemNo-any-wo-cs	17	3	2	2
PrevFAUST-any-wo-cs	19	3	2	2
SubjectNF-fif-ph-cf	22	1	1	3
SubjectNF-any-wo-ic	22	3	2	1
SubjectF-fif-ph-cf	23	1	1	3
SubjectF-any-wo-ic	23	3	2	1
AuthorInDesc-any-wo-cs	26	3	2	2
HeadingNorm-fif-ph-cf	28	1	1	3
HeadingNorm-any-wo-ic	28	3	2	1
SubjectChronDBC-fif-ph-cf	29	1	1	3
SubjectChronDBC-any-wo-ic	29	3	2	1
SubjectGeogrDBC-fif-ph-cf	30	1	1	3
SubjectGeogrDBC-any-wo-ic	30	3	2	1
AuthenticationCode-any-wo-cs	31	3	2	2
TransliterationCode-any-wo-cs	32	3	2	2
CodeLangPerCor-any-wo-cs	33	3	2	2
DBCSubjectGen-fif-ph-cf	34	1	1	3
DBCSubjectGen-any-wo-ic	34	3	2	1

10.3 G Present Service

Targets must support the following *Element-set-names* in relation to authority MARC records:

- *F* for Full, e.g. all available authority elements.
- *B* for Brief.

Targets *must* support the following type of *Preferred-record-syntaxes*:

- DanMARC2

Annex 1: Mapping to Praksisregler for søgeveje

Mappings between Bib-1/Dan-1 use attributes and codes for searching as defined in "Praksisregler for søgeveje" by The National Danish Library Authority:

<http://www.bs.dk/publikationer/andre/praksisregler/index.htm>

Bib-1 Use Attribute Name	Value	Single Word	Phrase
Title	4	ti	lti
Title-series	5	se	lse
Title-uniform	6	ut	lut
Identifier-ISBN	7	ib	
Identifier-ISSN	8	in	
Control-number-local	12	id	
Classification-Dewey	13		ddc
Classification-UDC	14		udk
Classification-LC	16		lcc
Classification-NLM	17		nlm
Classification-NAL	18		nal
Classification-local	20	kl	lkl
Subject	21	em	lem
Subject-MESH	25	ms	lms
Date-publication	31	år	
Title-key	33	nt	lnt
Title-parallel	35	pa	lpa
Title-former	42	tt	ltt
Code-language	54	sp	
Code-geographic-area	55	ul	
Name-geographic-place-publication	59	pu	
Identifier-CODEN	60	co	
Note	63	no	
Author-name	1003	fo	lfo

Bib-1 Use Attribute Name	Value	Single Word	Phrase
Author-name-personal	1004	pe	lpe
Author-name-corporate	1005	ko	lko
Identifier-standard	1007	is	
Subject-name-personal	1009	ep	lep
Any	1016	default	
Name-publisher	1018	fl	
Code-map-scale	1024	km	
Title-related-periodical	1026	rt	lrt
Material-type	1031	ma	lma
Identifier-document	1032	ww	
Title-host-item	1033	vp	lvp
Classification	1040	cl	lcl
Subject-name-corporate	1074	ek	lek
Subject-uncontrolled	1080	uk	luk
Subject-AGROVOC	1085	ac	lac
Subject-COMPASS	1086	cp	lcp
Subject-EPT	1087	ed	led
Subject-NAL	1088	ag	lag
Classification-BCM	1089		bcm
Classification-DB	1090		dbk
Identifier-ISRC	1091	ic	
Identifier-ISMN	1092	im	
Identifier-ISRN	1093	ir	
Code-language-original	1095	ou	
Title-later	1096	st	lst

Dan-1 Use Attribute Name	Value	Single Word	Phrase
Classification-code-DK5	1	au	lau
Subject-controlled	2	ke	lke
DBC-subject	3	db	ldb
DBC-non-fiction-subject	4	df	ldf
DBC-fiction-subject	5	ds	lds
DBC-music-subject	6	me	lme
Format-as-subject	7	fm	lfm
Subject-level	8	nb	lnb
Shelf-mark	9	po	lpo
Classification-DK5	10	dk	ldk
Classification-as-shelf-mark	11	ok	lok
Obsolete-shelf-mark	12	gd	lgd
Subject-FUI	13	fg	
Catalogue-code	14	kk	
LIX-code	15	ix	
Music-notation	16	nm	
Item-number	17	nr	
Local-item-number	18	en	
Previous-FAUST-code	19	tf	
Title-host-publication	20		lvx
Children/school-shelf-mark	21	bs	
Subject-controlled-non-fiction	22	ef	lef
Subject-controlled-fiction	23	es	les
Music-shelf-mark	24	mo	lmo
Embossed-printing-abbreviated-version	25	fv	
Author-name-in-description	26	fb	
Technical-specification	27	ts	lts

Mapping to Praksisregler for Søgeveje - supplement for authorities

Mappings between Bib-1/Dan-1 use attributes and codes for searching as defined in ” Søgeveje til hjælpepostformatet til danMARC2” by The National Danish Library Authority:

<http://www.bs.dk/content.aspx?itemguid={9C6AD7BC-813D-4347-BD9F-172F2E073393}#>

Bib-1 Use Attribute Name	Value	Single Word	Phrase
Name-personal	1	np	lnp
Name-corporate	2	nk	lnk
Subject-headings-LC	27	ce	lce
Subject-geographic	58	el	lel
Name-personal-corporate	1002	na	lna
Date-added	1011	op	
Date-modified	1012	aj	
Subject-chronological	1077	et	let
Subject-title	1078	te	lte
Nationality-person-corporation	1217	fn	

Dan-1 Use Attribute Name	Value	Single Word	Phrase
Heading-normative (name, title, subject)	28	kv	lkv
Subject-chronological-DBC	29	ta	lta
Subject-geographic-DBC	30	sn	lsn
Authorization-code	31	ak	
Transliteration-code	32	tr	
Language-person-corporation	33	fs	
DBC-subject-general	34	da	lda

Annex 2: Change Record Sheet

Revision	Date	Details	Editor
11	2006-01-24	<p>Change history moved to annex 2.</p> <p>7.3 Packaging of ILL as XML document added.</p> <p>Links are updated.</p> <p>ISIL example changed (used library obsolete)</p> <p>Changes agreed at danZIG meeting 41:</p> <p>7.1.11 Shipped added.</p> <p>Area E (8.) Cross-domain Search and Retrieval let empty for ever.</p> <p>Area F (9.) Update let empty for ever.</p> <p>In 5.1.7 MatType-eq-fif-ph-nt-cs changed to MatType-eq-fif-ph-nt-ic (error correction)</p> <p>For ILL “time” M for mandatory was deleted.</p> <p>For ILL “date” and “time” example was added.</p> <p>Changes agreed at danZIG meeting 41:</p> <p>New Area G Authority Record Search and Retrieval added.</p>	LEA
10	2004-03-15	<p>Editorial details agreed at danZIG meeting 39:</p> <p>Section 7D: List of transactions expanded from 4 to 10</p> <p>Section 4.3: New text about search strings (last sentence)</p> <p>Section 5.1: Make clear that DAN-1 only include USE attributtes and that the five others attributtes are BIB-1:</p> <ul style="list-style-type: none"> • 5.1, sentence number 4: the word Bib-1 deleted • 5.1: New text as third last sentense: “Remark that BIB-1 Relation, Position, Structure, Truncation and Completeness attributtes are used in combination with DAN-1 Use attribute. The DAN-1 Attributte set only consist of the Use attributes.” • As consequence similar tekst in new 5.1.10 and 5.2.3. 5.1.10 to 5.1.14 deleted and old 5.1.15 now 5.1.10 <p>Section 5.3: danMARC2 OID:</p> <ul style="list-style-type: none"> • OID’s for format used in this specification added • Reference to “The principles for assigning”.. OID’s 	LEA

		<p>updated from proposal to registration.</p> <p>Annex 1 added with mapping between BIB-1 / DAN-1 and Danish Guidelines for use of access paths added. Thanks to Henrik Dahl from Dantek for this contribution.</p>	
9	2003-01-20	<p>Section 6.1.1:</p> <ul style="list-style-type: none"> In SiteLocation institutionOrSiteId changed to ISILCode <p>Section 6.2.1:</p> <ul style="list-style-type: none"> In SiteLocation institutionOrSiteId changed to ISILCode <p>Section 7.1.1:</p> <ul style="list-style-type: none"> In parameter item-id added: author-of-article, title-of-article and pagination <p>New sections added:</p> <ul style="list-style-type: none"> 7.1.5 Cancel 7.1.6 Cancel-reply 7.1.7 Recall 7.1.8 Overdue 7.1.9 Renew 7.1.10 Renew-Answer <p>Section 7.2.1:</p> <ul style="list-style-type: none"> Note for Code 20 deleted (Was: Not used in Danish libraries) <p>Section 7.2.2:</p> <ul style="list-style-type: none"> Danish translation for code 26 changed to “sendes” 	LEA
8	2002-11-22	<p>Page footers:</p> <ul style="list-style-type: none"> Revision date updated. <p>Section 5.2:</p> <ul style="list-style-type: none"> Inserted note about treatment of records for multi-volume works. 	PHJ
7	2002-11-22	<p>Section 5.2:</p> <ul style="list-style-type: none"> Removed requirement to support database name “<i>xxdefault</i>” <p>Section 5.2.1:</p> <ul style="list-style-type: none"> Changed <i>BCM-fif-ph-cf</i> position attribute to “1” Changed <i>ClassDB-fif-ph-cf</i> position attribute to “1” <p>Section 5.2.3:</p>	PHJ

		<p>Removed <i>AuthorInDesc-any-ph-ic</i> combination</p> <p>Section 5.3:</p> <ul style="list-style-type: none"> • Removed references to Element set name DM2PX. • Changed requirement to support MARC21 changed to a recommendation to support MARC21. • Inserted option to support danMARC2 Extensions designated as Preferred record syntax. • Inserted reference to proposed OID for extended MARC formats. <p>Section 7:</p> <ul style="list-style-type: none"> • Removed reference to piggyback present. • Inserted reference to revised ILL XML v3 Schema. 	
6	2002-08-26	<p>Minor editorial changes.</p> <p>Requirement to support database name “<i>xxdefault</i>” removed.</p> <p>Diagram updated.</p>	PHJ
5	2002-08-20	Edited according to results from danZIG Meeting June 3 rd 2002	PHJ
4	2002-05-23	Edited according to minutes of danZIG Meeting number 35 on March 20 th 2002	PHJ
3	2002-03-19	<p>Updated ILL specifications</p> <p>Editorial changes.</p> <p>Changed table layouts.</p> <p>Updated diagram in chapter 4.</p>	PHJ
2	2002-03-13	Included updated tables etc.	PHJ
1	2002-02-13	First draft	PHJ

PHJ = Poul Henrik Jørgensen

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