

# **Pybliographer Design Handbook**

Frédéric Gobry and Peter Schulte-Stracke

February 21, 2003



---

# Contents

<b>I</b>	<b>Use cases</b>	<b>I</b>
<b>2</b>	<b>Glossary</b>	<b>3</b>
<b>3</b>	<b>Usecases</b>	<b>9</b>
3.1	Usecase 000: Simple Search . . . . .	10
3.2	Usecase 002: Modified Search . . . . .	11
3.3	Usecase 003: Expert Search . . . . .	12
3.4	Usecase 005: Add an note to an item . . . . .	13
3.5	Usecase 003: Output Item . . . . .	14
3.6	Usecase 004: Mark and list Items . . . . .	15
3.7	Usecase 008: Add an action to an item . . . . .	16
3.8	Usecase 009: Navigation in result sets . . . . .	17
3.9	Usecase 007: Browse an index . . . . .	18
3.10	Usecase 006: Select a database . . . . .	19
3.11	Usecase 012: Cite a reference . . . . .	20
3.12	Usecase 013: Manage references . . . . .	21
3.13	Usecase 014: Select display and output formats. . . . .	22
3.14	Usecase 011: Make a bibliography (reference list) . . . . .	23
3.15	Usecase 016: Operate on result sets . . . . .	24
3.16	Usecase 017: Organise folders and Databases . . . . .	25
3.17	Usecase 020: Create a Record . . . . .	26
3.18	Usecase 021: Modify or delete a record . . . . .	27
3.19	Usecase 023: Preset input . . . . .	28
3.20	Usecase 024: Search and replace records . . . . .	29
3.21	Usecase 025: Import data . . . . .	30
3.22	Usecase 015: User administration . . . . .	31
3.23	Usecase 018: Control external connections . . . . .	32

## *Contents*

---

## Chapter I. Use cases

- **(Simple Search)** *A simple search (known item search) is performed. The result set is displayed.*
- **(Modified Search)** *A search that was not fully satisfying is done again with slight variations or on the result set to further reduce it.*
- **(Expert Search )** *A so called expert search is prepared and executed (perhaps it is stored or reused).*
- **(Add an note to an item )** *A note is added to an item.*
- **(Output Item)** *An item is selected from a result set, formatted (according to preset choices) and presented via drag and drop or other means to the user for inclusion in other documents etc.*
- **(Mark and list Items )** *Make a list of items for further processing (e.g., mark the items and retrieve them together)*
- **(Add an action to an item )** *An item (or a set of them) is selected for further processing, an indicative action is added to them.*
- **(Navigation in result sets )** *Most activities produce result sets. It is important to be able to look back at them, combine them, etc. (This is a difficult job – I know of no good example to follow!)*
- **(Browse an index)** *An index, or equally valid, any result set, is browsed.*
- **(Select a database )** *All processing is against a database (?). A choice is given, even if a default database is defined.*
- **(Cite a reference )** *Place a marker in a document to indicate a cited reference.*

*This function needs the collaboration of the document processor/editor.*

## 1 Use cases

- **(Manage references )** *The references that form part of a certain reference list (i.e. that are cited by a certain document) are collected.*  
*Sometimes database services already produce such lists, there are also projects to extract these data from documents (OpCit).*
- **(Select display and output formats. )** *For various display purposes as well as for output to diverse targets the user can select and modify the applicable formatting.*
- **(Make a bibliography (reference list) )** *This is the equivalent of running bibtex.*
- **(Operate on result sets )** *Result sets are a fundamental UI element, in addition one can use them for set algebra.*
- **(Organise folders and Databases )** *The Pybliographer database is logically organised as a folder hierarchy; external databases are listed separately. Those lists and the associated entries may need user attention.*
- **(Create a Record )** *A record is created. This can be a Topic record or a Bibliographical record.*
- **(Modify or delete a record )**
- **(Preset input )** *This usecase groups various ways to simplify data entry.*
- **(Search and replace records )** *Perform a (regexp) search-and-replace action on a result set.*  
*It is important that the replacing can be suitably limited.*
- **(Import data )** *Obtain and store data from external sources.*

---

## Chapter 2. Glossary

### Access point

Any name, word or other designation under which a record can be found. Typically the name of the author and the title. The determination of access points has been crucial, both for the cataloguer and for the principal, as for every access point a catalogue card was needed. At a first glance, this concept has lost its importance with the advent of online catalogues, as now easily every field can be searched, but that is not (quite) the case.

*See also:* Heading

### Added entry

In the times of the card catalogue, a second card that was filed at a different place, e.g., for the title, or for a collaborator. With online catalogues this question is moot but returns as one of suitably determining access points.

*See also:* Main entry

**Alternative title** The second part of a title proper that is given as an alternative by the copula ‘or’ or its equivalents as in *The tempest, or, The enchanted island*

### analytic

In the field of bibliography (so called library science), one calls analytic a description or record for a work that is contained in another bibliographic unit, i.e., an article that is published in a (volume of a) journal and not as an individual physical unit. In German, one speaks of publications that are (un)selbstständig, (in)dependant.

Analytic description is usually considered the province of database services, not of the library system, so the cataloguing rules and standards mostly ignore this topic.

*See also:* Collection, Monograph

**Anglo-American Cataloguing Rules (second edition, revised) CR2R**

*See also:* RAK

**autopsy, autoptic** Description based upon one’s own observation (book in hand). Also called primary (of a bibliography).

## 2 Glossary

### **Bibliography**

The collection of descriptive information about all publications that fall under a certain delimitation. For example, for a national bibliography one records all books (and certain non-books) published during a year in a given state, etc. Also the result of this collection, published as journal or year book, or as a, say national bibliographic data base.

A list of books, articles etc. given in a publication for reference purposes, but also (without clear demarcation) to assist in the study of a specific subject.

Generally a data base of descriptive information about documents and sometimes other items.

The field and practice of describing books *See also*: Cataloguing

### **Book**

Defined as “non-periodical literary publication containing forty-nine or more pages, not counting covers.” A pamphlet has less than 49 pages, a broadside or printed sheet is printed upon on only one side and usually destined to be posted. Often called **monographic**.

*See also*: Journal, serial, series, non-book materials

### **Classifier**

A generic (sub-)heading.

*See also*: Heading

**Conference** A periodic or non-periodic meeting devoted to the discussion of one subject; often assimilated to a corporate body. (Difficult rules!)

**Corporate body** A collective that acts under its own name (independent of its legal state). Families and conferences are more or less assimilated. So this comprises everything but individuals if either producing or being subject matter of a document.

### **Dates associated with an item.**

In the publication statement the year of publication is given; today often instead (or in addition) the copyright year, which is preceded according to AACR practice with a small c.

There are other dates that are of importance, if only in special cases. the most important class associates the item with an event: the promulgation of a law, the signing of a treaty, the convening of a congress, the formal revision of a technical document and so on.



Dates are as well associated (as distinguishing marks) with persons, or other items, and form part of, or define historical subjects.

*See also:* subject headings; persons;

### **Document**

Perhaps a less specific term than book, publication, and less colourless than item? Specifically a publication that is accessible through the system, an electronic resource.

*See also:* Resource

### **Expression**

An equivalence class of **manifestations** , which share certain characteristic dependencies.

Examples are translations of a work, that are traditionally equipped with an **uniform title** composed of the uniform title of the original work and a language indication: Shakespeare, William: Othello <ger.>

Other common cases are pieces of music which can be expressed as scores or recorded performances, etc.

*See also:* Work

*See also:* Manifestation

*See also:* Heading

### **Folder**

A subset of a database. An item may be in several folders, at the same time. A folder may contain either items or folders (?).

For an example look at Biblioscope.

### **Format**

#### **General material designation (MARC 245.h) [GMD]**

“A generic term used to identify the general category of material to which an item belongs and to distinguish one general category from another in a catalog containing records for more than one type of material” (Maxwell’s Hdb. AACR2R, p.23)

In our use this is a **Classifier** .

### **Imprint***Publication Statement*

#### **International Standard for Bibliographical Description [ISBD]**

*See also:* AACR2R, PI, RAK

### **Journal**

AACR ?

## 2 Glossary

A collection of articles by more than one author that appears in multiple volumes without planned extent and at regular intervals.

Distinguished from a series by the individual volumes being collections.  
*See also:* Series, Collection, Integrating resources

### Person

An individual (or whoever appears to be an individual, Nicholas Bourbaki, say). There are two ways to handle persons in bibliography, as individuals or as names. For searching, the latter is usually sufficient, so this the German usage until the present. The American usage is informed by the idea of the dictionary catalogue, where works about an author are listed next to works by him, requiring the use of individualised entries from early on.

No rules without exception. If there is insufficient information (or interest) one may eschew the work needed for determining the correct author entry; on the other hand, for the purpose of subject headings, one buildt a German authority file, too; with funnily different rules.

*See also:* Collective person

### Publication

The preparation (e.g. typesetting), manufacture and distribution of copies of an item (manifestation). Generally done by a separate commercial entity, the publisher. For items that are not conventionnally printed, this is rapidly becoming a problematic notion. For material that is not somehow manufactured, but, say only made available as a computer file, the notion is fundamentally flawed, it appears.

**Publication Statement** Contains place of publication, publisher, date (i.e., year) of publication. Required for published materials. Also called Imprint.

### Publisher

Someone who manufactures and distributes copies of an item (manifestation). ISBD and MARC allow for a printer in place of or addition to the publisher.

### Regeln für die Alphabetische Katalogisierung [RAK]

The newer German Rules (replacing the Preußischen Instruktionen), developed around 1970 under the marked influence of the ISBD. There are two sets of fundamental rules, RAK-ÖB and RAK-WB, for the public

and academic libraries, resp. together with special rules (sometimes quite inconsistent) developed over the years for non-book materials etc.

### **Reproduction**

A secondary copy of a **manifestation** .

### **Reproduction Note**

A note that contains information about a **reproduction** – pertains to a holding record.

MARC XXXX cf. dicussion there.

### **Topic (class)**

Super class of (at least) Persons and Subject headings.

Topics have (generally multiple) names and are related to each other and to bibliographical records.

*See also:* Bibliographical record; Person(class)

### **Topic map**

An evolving standard (ISO 13250) for the representation of semantic nets. (?).

*See also:* RDF

### **Uniform title**

A **heading** that is used to **collocate** all **manifestations** of a **work** , or as **collective uniform title** , all (subclasses of) collections by an author. Compares to \* **GMD** and German FST. Generalisation: **Classifier** .

*See also:* title

### **Work**

An equivalence class of **manifestations** – an individual intellectual creation, an original work.

This is typically represented by a **uniform title** .

*See also:* Expression

## 2 *Glossary*

---

## Chapter 3. Usecases

This chapter contains expositions of the following usecases:

<b>001</b>	Search Database .....	??
<b>002</b>	Modified Search .....	11
<b>003</b>	Expert Search .....	14
<b>005</b>	Add an note to an item .....	13
<b>003</b>	Output Item .....	14
<b>004</b>	Mark and list Items .....	15
<b>008</b>	Add an action to an item .....	16
<b>009</b>	Navigation in result sets .....	17
<b>007</b>	Browse an index .....	18
<b>006</b>	Select a database .....	19
<b>012</b>	Cite a reference .....	20
<b>013</b>	Manage references .....	21
<b>014</b>	Select display and output formats. ....	22
<b>011</b>	Make a bibliography (reference list) .....	23
<b>016</b>	Operate on result sets .....	24
<b>017</b>	Organise folders and Databases .....	25
<b>020</b>	Create a Record .....	26
<b>021</b>	Modify or delete a record .....	27
<b>023</b>	Preset input .....	28
<b>024</b>	Search and replace records .....	29
<b>025</b>	Import data .....	30
<b>015</b>	User administration .....	31
<b>018</b>	Control external connections .....	32

---

### 3.1 Usecase 001: Search Database

**Title** Search Database

**Summary** A simple search (known item search) is performed. The result set is displayed.

**Result** A list of items (Recordset) or failure indication.

**Actor**

**Context** Frequently

**Precondition** A database, folder or result set is given (usually defaulted). The item requested is correctly entered into the database, or not available.

**Postcondition** The database is unchanged. A result set of selected items is displayed, or an indication of empty result set is given.

**Sequence** Enter the search term, select regexp search and the search field, if appropriate. – Search term could as well be picked from a list, or input completion be provided. Includes so-called expert search (UI difference only).

Start search. Receive results or failure indication (should be explanatory). Continue with ..... browsing the result set or similar activity.

**Note** The database must have been selected beforehand, as it influences the search options.

**Note** No GUI is implied (badly written)

**Note** For general considerations for this known item search, which pertain mostly to the question of database content, as opposed to programming, see in particular Eversberg.

**Related** Interfaces: *if\_query1Classes : Database*

---

## 3.2 Usecase 002: Modified Search

**Title** Modified Search

**Summary** A search that was not fully satisfying is done again with slight variations or on the result set to further reduce it.

**Actor** Standard user

**Context** During a search, frequency unknown.

**Precondition** Database is selected, a search as been performed, but was not fully satisfying.

**Postcondition** Results set or error indication

**Error**

**Sequence** Examine result set (or error indication) Correct search term (go to index, if needed) Narrow or widen search Select another database restrict search to a result set.

**Note** The particularity here is that the result of the prior search is effectively ignored, except when we are narrowing our search. So we must distinguish this situation from the other one, that I search for a list of authors etc., one after the other, and with the intent to combine the results.

**Related**

---

### 3.3 Usecase 003: Expert Search

**Title** Expert Search

**Summary** A so called expert search is prepared and executed (perhaps it is stored or reused).

**Actor**

**Context**

**Precondition** None

**Postcondition** A result set is presented; or an error indication.

**Error**

**Sequence** A database is selected The possible search criteria are presented  
A choice is made of suitable criteria, and the search accordingly formulated Alternatively it may be formulated in text form, depending on the database It is sent, and the result or an error indication is received.

**Note**

**Related**



---

### 3.4 Usecase 005: Add an note to an item

**Title** Add an note to an item

**Summary** A note is added to an item.

**Situation** Possible situations vary wildly. A note may be put down just for the moment or to remind one of a special condition or as a permanent annotation that should form part of the item's record.

**Precondition**

**Postcondition** The (typed) note is added to the entry.

**Error**

**Sequence**

**Note** – that should be possible even for the output stage on a per user basis.

**Related**

---

### 3.5 Usecase 003: Output Item

**Title** Output Item

**Summary** An item is selected from a result set, formatted (according to preset choices) and presented via drag and drop or other means to the user for inclusion in other documents etc.

**Actor** A

**Situation** Very frequently after a search one wishes to print the result or use it by inclusion in an external document.

**Precondition** Item(s) selected (list view)

**Postcondition** Side effects (pipe, clipboard etc.)

**Error**

**Sequence** Make a selection If necessary, choose a format (e.g., catalogue like or MARC format) If necessary, choose output method, e.g., DND Proceed with output.

**Note**

**Related**

---

### 3.6 Usecase 004: Mark and list Items

**Title** Mark and list Items

**Summary** Make a list of items for further processing (e.g., mark the items and retrieve them together)

**Situation** User is looking for certain records. Either he needs to process them together (say to make a bibliography), or he wants to postpone individual attention, as, e.g., reading them.

**Precondition**

**Postcondition** The ‘marked’ list or a named list are modified.

**Error**

**Sequence** Toggle marked state of entry. Perhaps, look at (all) marked entries Perhaps, create or modify named list

**Note**

**Related**

---

### 3.7 Usecase 008: Add an action to an item

**Title** Add an action to an item

**Summary** An item (or a set of them) is selected for further processing, an indicative action is added to them.

**Situation** This use case places itself in a similar situation as the mark and list use case. However, the action is already specified in this case. An example is selecting items for inter library loan. Even if it is not always possible to place the order directly with the library's OPAC, it is still a good idea to help in filling the forms by program.  
XXXXXXXXXXXXXXXXXXXXXXX ????

**Precondition**

**Postcondition**

**Error**

**Sequence**

**Note**

**Related**

---

### 3.8 Usecase 009: Navigation in result sets

**Title** Navigation in result sets

**Summary** Most activities produce result sets. It is important to be able to look back at them, combine them, etc. (This is a difficult job – I know of no good example to follow!)

**Actor**

**Situation**

**Precondition**

**Postcondition**

**Error**

**Sequence**

**Note**

**Related**

---

### 3.9 Usecase 007: Browse an index

**Title** Browse an index

**Summary** An index, or equally valid, any result set, is browsed.

**Purpose** The purpose of an index is at least threefold: (i) to scan sequentially, (ii) to remind one of items which one might have forgotten, (iii) to help one find entries the exact name or wording is either unknown or in error.

**Result** Possible changes on individual items, change of selection status and affiliation, new or modified folder/result set status.

**Actor** User, searching and adding entries

**Context** Part of search, maybe imbedded into editing or importing work.

**Note** ?

**Related** ??

---

### 3.10 Usecase 006: Select a database

**Title** Select a database

**Summary** All processing is against a database (?). A choice is given, even if a default database is defined.

**Actor**

**Situation**

**Precondition**

**Postcondition**

**Error**

**Sequence**

**Note**

**Related**

---

### 3.11      **Usecase 012: Cite a reference**

**Title** Cite a reference

**Summary** Place a marker in a document to indicate a cited reference.

This function needs the collaboration of the document processor/editor.

**Actor**

**Situation**

**Precondition**

**Postcondition**

**Error**

**Sequence**

**Note**

**Related**



---

### 3.12 Usecase 013: Manage references

**Title** Manage references

**Summary** The references that form part of a certain reference list (i.e. that are cited by a certain document) are collected.

Sometimes database services already produce such lists, there are also projects to extract these data from documents (OpCit).

**Actor**

**Situation**

**Precondition**

**Postcondition**

**Error**

**Sequence**

**Note**

**Related**

---

### 3.13      **Usecase 014: Select display and output formats.**

**Title** Select display and output formats.

**Summary** For various display purposes as well as for output to diverse targets the user can select and modify the applicable formatting.

**Actor**

**Situation**

**Precondition**

**Postcondition**

**Error**

**Sequence**

**Note**

**Related**

---

### 3.14 Usecase 011: Make a bibliography (reference list)

**Title** Make a bibliography (reference list)

**Summary** This is the equivalent of running bibtex.

**Actor**

**Situation**

**Precondition**

**Postcondition**

**Error**

**Sequence**

**Note**

**Related**

---

### 3.15      **Usecase 016: Operate on result sets**

**Title** Operate on result sets

**Summary** Result sets are a fundamental UI element, in addition one can use them for set algebra.

**Actor**

**Situation**

**Precondition**

**Postcondition**

**Error**

**Sequence**

**Note**

**Related**

---

### 3.16 Usecase 017: Organise folders and Databases

**Title** Organise folders and Databases

**Summary** The Pybliographer database is logically organised as a folder hierarchy; external databases are listed separately. Those lists and the associated entries may need user attention.

**Actor**

**Situation**

**Precondition**

**Postcondition**

**Error**

**Sequence**

**Note**

**Related**

---

### 3.17      **Usecase 020: Create a Record**

**Title** Create a Record

**Summary** A record is created. This can be a Topic record or a Bibliographical record.

**Actor**

**Situation**

**Precondition**

**Postcondition**

**Error**

**Sequence**

**Note**

**Related**

---

### 3.18 Usecase 021: Modify or delete a record

**Title** Modify or delete a record

**Summary**

**Actor**

**Situation**

**Precondition**

**Postcondition**

**Error**

**Sequence**

**Note**

**Related**

---

### 3.19 Usecase 023: Preset input

**Title** Preset input

**Summary** This usecase groups various ways to simplify data entry.

**Actor**

**Situation**

**Precondition**

**Postcondition**

**Error**

**Sequence**

**Note**

**Related**



---

## 3.20 Usecase 024: Search and replace records

**Title** Search and replace records

**Summary** Perform a (regexp) search-and-replace action on a result set.

It is important that the replacing can be suitably limited.

**Actor**

**Situation**

**Precondition**

**Postcondition**

**Error**

**Sequence**

**Note**

**Related**

---

### 3.21      **Usecase 025: Import data**

**Title** Import data

**Summary** Obtain and store data from external sources.

**Actor**

**Situation**

**Precondition**

**Postcondition**

**Error**

**Sequence**

**Note**

**Related**

---

## 3.22 Usecase 015: User administration

**Title** User administration

**Summary** Modify preferences and possibly access rights on a per user basis. [pro memoria: must not assume that there will be only one user]

**Actor**

**Situation**

**Precondition**

**Postcondition**

**Error**

**Sequence**

**Note**

**Related**

---

### 3.23      **Usecase 018: Control external connections**

**Title** Control external connections

**Summary** Control parameters for cooperation with word processors or the like.

**Actor**

**Situation**

**Precondition**

**Postcondition**

**Error**

**Sequence**

**Note**

**Related**