

Appendix A

Okapi system description

This Appendix illustrates and describes the systems used in the City University library and for registered network users. All the Figures except A.21 and A.22 illustrate the system used at the terminal in the library. There are minor differences in the wording of messages and prompts between the library and the network systems.

Figure A.1: Welcome screen

```
-----
|                                     |
|      * * * * *                    |
|      *   WELCOME TO OKAPI   *     |
|      * * * * *                    |
|                                     |
|      This is an experimental system that will help you find books      |
|      in this library by subjects and keywords                          |
|                                     |
|      So that OKAPI can learn to adapt to your needs it would be very    |
|      helpful if you would enter the rest of your library card number    |
|                                     |
|      -----                    |
|      | 2 8008                    | |
|      |                            | |
|      | -----                    | |
|                                     |
|      If you don't want to help with our experiment but still want to    |
|      use this system please enter the sequence below                    |
|                                     |
|      2UV7X 2X1W                                                         |
|                                     |
|      If you would like more information press the BLUE key              |
|                                     |
|-----
```

If the user presses the BLUE key the message shown in Figur A.2 is superimposed over the “Welcome Screen”

If users enter a library card number a small window (or *snippet*) appears telling them the last time they used the system. If they enter the “special number” the snippet says “Thank you for your cooperation”. The special

Figure A.2: Information window for welcome screen

```

OKAPI

It is helpful to us if you enter your library card number
as this enables the computer to 'recognise' you when you
use the system again. We are hoping to use this information
to develop a system that will adapt itself to the needs of
individual users.

We cannot and do not want to find out who you are from your
library card number.

The OKAPI project is based in the Information Science Depart-
ment in Room A223. Please call in if you would like to know
more about our work or if you have any suggestions.

Press the Return key to continue

```

Figure A.3: Information offered after user identification

```

-----
|                                OKAPI                                |
|                                                                       |
| In this experiment you will be asked for                            |
| information about the relevance of books                             |
| you find. OKAPI can then try to find                                |
| similar books using the title and subject                            |
| words. This is called automatic query                                |
| expansion.                                                            |
|                                                                       |
| The OKAPI project is based in the Information                       |
| Science Department in Room A223. Please call in                     |
| if you would like to know more about our work,                     |
| or if you have any suggestions.                                     |
|                                                                       |
|                                Type S to start your search           |
|                                                                       |
|-----

```

number is intended to be unmemorable so that users are more likely to use their own library card number. It is randomly generated each time the system returns to the welcome screen.

Users are given three attempts to enter either their own or the special number correctly. If they fail a snippet saying “sorry” appears under the number box, the screen goes blank for a few seconds and the welcome screen reappears. Once a number has been entered correctly users are offered the choice of either starting their search or seeing more information. The information at this stage is shown in Figure A.3.

If users do not press the RETURN key after typing in their search a snippet appears reminding them to do so.

When the search has been entered the “Results” screen of Figure A.6 appears

Figure A.4: Search input screen

```

=====
                        SUBJECT SEARCH                        ** OKAPI

The computer will look for books which include all (or most) of your words
in their titles or subject descriptions

Type a word or a phrase which describes the books you want :

-----
|                                                                    |
-----

-----
|Press BLUE |                                |BLACK key |
| for info  |                                |to quit  |
-----
=====

```

Figure A.5: Information offered from search input screen

```

-----
| The computer will look for books described by as many as possible |
| of the words in your search - you can type as much as will fit.  |
|                                                                    |
| To correct your typing, use the Delete key.                      |
|                                                                    |
| The books which seem to match best will be shown first.          |
-----

```

Figure A.6: Search results screen

```

=====
SUBJECT SEARCH for "insecticides and the environment"

      5 books under "insecticides"
    1081 books under "environment"

One book matches your search well
(5 books found altogether)

Type Display to look at the books found ?
(the most similar books should appear first)

Type New if you want to do a different search
Type Edit to change or add to your search

-----
|BLACK key |
|to quit  |
-----
=====

```

The "BLACK key to quit" snippet appears on every display as it is important that the user logs off at the end of the session.

A spelling mistake or the entering of a word not in the database results in Figure A.7.

Figure A.7: Replacement of misspelt word

```
=====
SUBJECT SEARCH for "insecticides and the enveronment"

    5 books under "insecticides"
CAN'T FIND "enveronment"

Press the return key if you want to change this word

Press the space bar to continue without this word

or type New if you want to do a new search

                                     -----
                                     |BLACK key |
                                     |to quit  |
                                     -----
=====
```

Figure A.8: Brief record display

```
=====
LIST OF BOOKS                                     Books 1 to 5 of 5
Search: "insecticides and the environment"

-----
No. Title                                     Author                                     Date
-----
1  Organochlorine insecticides : persistent organic.. (MORIARTY F) 1975
THE REST OF THE BOOKS MAY NOT MATCH YOUR SEARCH VERY WELL
2  Chlorinated insecticides.                                     BROOKS G T 1974
3  Safe use of pesticides : twentieth report of the.. World Health Org.. 1973
4  Insecticide and fungicide handbook for crop prote.. British Crop Pro.. 1972
5  Insecticides : action and metabolism.                         O'BRIEN R D 1967
  ** END OF LIST **

-----

Type its number to see if a book is relevant

Type Options to see other things you can do

                                     -----
                                     |BLACK key |
                                     |to quit  |
                                     -----
=====
```

In Figure A.10 the BLUE option informs users that if they choose some books the system will look for similar ones if they type MORE.

Figure A.9: Options from brief display

```

=====
LIST OF BOOKS                                     Books 1 to 5 of 5
Search: "insecticides and the environment"

-----
No. Title                                     |OPTIONS                                     |te
-----|-----|-----|
1  Organochlorine insectici|You can do :                               |75
THE REST OF THE BOOKS MAY NO|                                         |
2  Chlorinated insecticides| New (start a new search)                   |74
3  Safe use of pesticides :| Edit or repeat your last search           |73
4  Insecticide and fungicid|                                         |72
5  Insecticides : action an|Please choose one                           |67
   ** END OF LIST **      |                                         |
                           |(or press the return key                   |
                           |to return to the list of books)           |
-----|-----|-----|
                                         |--
                                         |
-----|-----|-----|
                                         |--
Type its number to see if a |                                         |
                                         |
Type Options to see other th|                                         |
                           |                                         |
                           |BLACK key |
                           |to quit  |
                           |-----|
=====

```

Figure A.10: Full record display

```

=====
FULL DISPLAY                                     Book 1 of 5
Search: "insecticides and the environment"

-----
AUTHOR(S): (Moriarty F)
TITLE(S): Organochlorine insecticides : persistent organic pollutants.
PUBLICATION: Academic Press, 1975.

SUBJECT(S): Environment. Pollution by pesticides: Organic chlorine compounds.
            Pesticides - Environmental aspects. Chlorine organic compounds.

Shelved at : 632.95042 MOR

                                         -----
                                         |Press BLUE |
-----|-----|-----|-----|for info |
Is this the sort of book you are looking for? (y/n) YES
                                         -----
                                         |BLACK key |
                                         |to quit  |
                                         -----
=====

```

When the user chooses the book of Figure A.10 as relevant appropriate fields of the record is "indexed" and the terms extracted from it placed in a list with the original query terms. After this book has been chosen the list will contain "insecticides" and "environment" from the original query, together with "organochlorine" and the other title words, "pollution", "pesticides" etc from the subject headings, and the Dewey number 632.95042. This list of terms, which is added to every time a record is chosen relevant by the user, is the list from which the "best" terms will be used for query expansion.

As only one book, in this example, was a good match to the search and as that has been looked at and chosen as relevant, the user is now given the choice of doing MORE (Figure A.11). If the original query results in at least three good matches MORE is not offered until several of the books have been looked at as the automatic query expansion usually works better with a larger pool of terms.

Figure A.11: Brief record display with "MORE" option

```
=====
LIST OF BOOKS                                     Books 1 to 5 of 5
Search: "insecticides and the environment"

-----
No. Title                                           Author                      Date
-----
1** Organochlorine insecticides : persistent organic.. (MORIARTY F)      1975
THE REST OF THE BOOKS MAY NOT MATCH YOUR SEARCH VERY WELL
2 Chlorinated insecticides.                      BROOKS G T                  1974
3 Safe use of pesticides : twentieth report of the.. World Health Org.. 1973
4 Insecticide and fungicide handbook for crop prot.. British Crop Pro.. 1972
5 Insecticides : action and metabolism.           O'BRIEN R D                 1967
** END OF LIST **

-----

Type its number to see if a book is relevant

Type More to look for books similar to the one you chose MORE
Type Options to see other things you can do          |BLACK key |
                                                    |to quit  |
                                                    -----
=====
```

When MORE is chosen the system takes the original search terms together with those added from the title and subject fields and the classmark of any chosen books and automatically expands the original query. The result of the new search is displayed in a window superimposed on the brief record display (Figure A.12).

Figure A.13 shows the two books found by the first iteration of query expansion in this search.

Figure A.12: Results of query expansion

```

LIST OF BOOKS                                     Books 1 to 5 of 5
Search: "insecticides and the environment"

-----
No. Title                                           Author                               Date
-----
1** Organochlorine insecticides : persistent organic.. (MORIARTY F) 1975
THE REST OF THE BOOKS MAY NOT MATCH YOUR SEARCH VERY WELL
2 Chlorinated insecticides ----- 74
3 Safe use of pesticides :|Looking for more books similar to the |73
4 Insecticide and fungicide|one you chose... |72
5 Insecticides : action an| |67
   ** END OF LIST **      |Found some more books |
                           | |
                           |Type Disp to see the books |
-----| |
                           | |
-----| (or press return if you don't want to see them) |--
Type its number to see if a | |
                           | |
Type More to look for books | |
Type Options to see other th -----|BLACK key |
                                           |to quit |
-----

```

Figure A.13: Brief display from query expansion search

```
=====
```

```
LIST OF BOOKS similar to the one you chose                               Books 1 to 2 of 2
```

```
(Original search: "insecticides and the environment")
```

```
-----
```

No.	Title	Author	Date
1	Environmental pollution by pesticides.	EDWARDS C A	1973
2	Environmental toxicology of pesticides.	(MATSUMURA F)	1972
** END OF LIST **			

```
-----
```

```
Type its number to see if a book is relevant
```

```
-----
```

```
Type Back to return to the books you originally found
```

```
Type Options to see other things you can do                                -----
```

```
|BLACK key |
```

```
|to quit   |
```

```
-----
```

```
=====
```

Figures A.14 and A.15 show that the records from the expanded query contain many of the terms extracted from the originally chosen record (Figure A.10). Although both these books are indexed under “environment” the records do not contain “insecticide” and the searcher would not have found them easily without query expansion.

Figure A.14: Record from query expansion

```
=====
FULL DISPLAY of books similar to the one you chose                Book 1 of 2
(Original search: "insecticides and the environment")
-----
AUTHOR(S): Edwards C A
TITLE(S): Environmental pollution by pesticides.
          Environmental science research.
PUBLICATION: Plenum Press, 1973.

SUBJECT(S): Environment. Pollution by pesticides: Organic chlorine compounds
          Reviews of research. Pesticides - Environmental aspects. Chlorine
          organic compounds.

          Shelved at : 363.7384 EDW

                                     -----
                                     |Press BLUE |
-----| for info  |-
Is this the sort of book you are looking for? (y/n) YES
                                     -----
                                     |BLACK key |
                                     |to quit  |
                                     -----
=====
```

The user chooses both the books shown in Figures A.14 and A.15. A second iteration of query expansion results in the list shown in Figures A.16 and A.17.

The initial “options” window (Figure A.9) just gives the user the choice of doing a new search or editing the existing one. Once a book has been chosen there are more choices as shown in Figure A.18.

The VIEW option displays a list of the titles which the user has selected as relevant. Choosing the PRINT option results in Figure A.19.

The EDIT option displays the original search and allows the user to add or delete terms. The screen of Figure A.20 shows the information snippet for this screen after the BLUE key has been pressed.

The NEW option allows the user to type in a completely new search while allowing the user to see up to their last three searches

Figure A.15:

```

=====
FULL DISPLAY of books similar to the ones you chose          Book 2 of 2
(Original search: "insecticides and the environment")
-----
AUTHOR(S): (Matsumura F); (Boush G M); (Misato T)
TITLE(S): Environmental toxicology of pesticides.
PUBLICATION: Academic Press, 1972.

SUBJECT(S): Environment. Pollution by pesticides. Pesticides and the
             environment. Pollution.

             Shelved at : 632.95042 MAT

-----
|Press BLUE |
-----| for info |-
Is this the sort of book you are looking for? (y/n) YES
-----
|BLACK key |
|to quit   |
-----
=====

```

Figure A.16: Records from second iteration of query expansion

```

=====
LIST OF BOOKS similar to the ones you chose          Books 1 to 9 of 85
(Original search: "insecticides and the environment")
-----
No. Title                                     Author                               Date
-----
1  Organometallic compounds in the environment.  CRAIG P                             1986
2  The use and significance of pesticides in the en.. MCEWEN F L                         1979
3  Lead pollution : causes and control.          HARRISON R M                       1984
4  Lead pollution : causes and control           HARRISON R M                       1981
5  Lead and health : the report of a DHSS Working .. Great Britain. .. 1980
6  Methodological approaches to deriving environmen.. CALABRESE E J                     1978
7  Analytical aspects of mercury and other heavy me.. (FREI R W)                       1975
8  Environmental pollutants : selected analytical .. International Co.. 1975
9  Further review of certain persistent organochlor.. Great Britain. .. 1969
-----
Down (next)
-----
Type its number to see if a book is relevant

Type Back to return to the books you originally found
Type Options to see other things you can do
-----|BLACK key |
-----|to quit   |
-----
=====

```

Figure A.17:

```

=====
LIST OF BOOKS similar to the ones you chose          Books 10 to 18 of 85
(Original search: "insecticides and the environment")

-----
No. Title                                           Author           Date
-----
1 Nitrogenous air pollutants : chemical and biolog.. (GROSJEAN D) 1979
2 Effects of airborne sulphur compounds on forests.. Discussion Group.. 1976
3 The non-agricultural use of pesticides in Great .. Great Britain. .. 1974
4 The Bhopal syndrome.                             WEIR D           1988
5 Pesticides, boon or bane?.                        GREEN M B        1976
6 Pesticides and pollution.                         MELLANBY K       1970
7 The use and significance of pesticides in the en.. MCEWEN F L       1979
8 Chlorofluorocarbons and their effect on stratosp.. Great Britain. .. 1976
9 Chlorine dioxide : chemistry and environmental .. MASSCHELEIN W    1979
-----
Down (next), Up (prev)

-----
Type its number to see if a book is relevant

Type Back to return to the books you originally found
Type Options to see other things you can do          |BLACK key |
                                                    |to quit  |
                                                    -----
=====

```

Figure A.18: Options after query expansion

```

=====
LIST OF BOOKS                                     Books 1 to 5 of 5
Search: "insecticides and the environment"

-----
No. Title                                           |OPTIONS                                     |te
-----|-----|-----|
1** Organochlorine insectici|You can do :                               |75
THE REST OF THE BOOKS MAY NO|
2 Chlorinated insecticides| New (start a new search)                   |74
3 Safe use of pesticides :| Print out your list of chosen books         |73
4 Insecticide and fungicid| View your list of chosen books              |72
5 Insecticides : action an| Edit or repeat your last search             |67
  ** END OF LIST **      | (your selections will be lost)              |
                          |
                          |Please choose one                           |
-----|-----|-----|
                          |(or press the return key                    |
-----|-----|-----|
                          |to return to the list of books)             |72
Type its number to see if a |
                          |
Type More to look for books |
Type Options to see other th|
                          |BLACK key |
                          |to quit  |
                          -----
=====

```

Figure A.19: Choosing the PRINT option

```

=====
SHORT DISPLAY of the book you chose                                Book 1 of 1
(Original search: "insecticides and the environment")

-----| Your list of books will be available in |-----
No. Ti| the Information Science Research Room A223 |te
-----|                                         |--
1** Or| You can collect it between 10.00 and 12.00 |75
    **| or 14.00 and 17.00 Monday-Friday. |
    | We will keep your list for a week from today. |
    |                                         |
    | Type P to print your list |hosen books |
    |                                         |
    | or type 0 to go back to OPTIONS | search |
    |                                         |be lost) |
    -----|                                         |
                                         |Please choose one PRINT |
-----|                                         |--
                                         |(or press the return key |
-----| to return to the list of books) |--
Type 1 to see details of the |
|
Type Back to go back to the |
Type Options to see other th|BLACK key |
                                         |to quit |
                                         -----
=====

```

Figure A.20: Editing a search

```

=====
SUBJECT SEARCH                                                    ** OKAPI

-----|-----
| Previous search(es) | Books found |
-----|-----
| 1 "insecticides and the environment" . . . . . 5 |
| | |
| | |
-----|-----

Type a word or a phrase which describes the books you want :

-----|
| insecticides and the environment |
-----|

-----|-----
| Use the Delete key (above the Return key) | |BLACK key |
| to get rid of anything you don't want. | |to quit |
| Type in any new words you want to use. | |
-----|-----
=====

```

Figure A.21: Full record display: INSPEC

```

=====
FULL DISPLAY                                     1 of 568
Search: "machine learning in information retrieval"
-----
      TITLE: Inference technique for distributed query processing in a
              partitioned network.
      SOURCE: (Report) 1990)

      HEADINGS: Incomplete knowledge; knowledge based approach; query processing;
                 network partitioning; entity-relationship model; correlated
                 knowledge; attributes; database content; machine learning
                 techniques; rules; data inference; objects; correctness
                 criterion; toleration; algebraic tools; distributed database
                 system; ship database; model-based knowledge acquisition
                 methodology.

      ABSTRACT: "A new knowledge based approach to query processing during
                 network partitioning has been proposed. The approach is based on the given
                 query and the use of available domain knowledge to infer inaccessible data.
-----
Down to see the next page

                                         -----
                                         |CTRL-Y |
or press Return to continue             |to quit |
                                         -----
=====

```

Figure A.22: Brief record display: INSPEC

```

=====
LIST OF PUBLICATIONS                             1 to 9 of 568
Search: "machine learning in information retrieval"
-----
No. Title                                     Author          Date
-----
1** Inference technique for distributed query processing..      1990
2   Using type inference and induced rules to provide in.. Chu, W W        1990
3   Structured information management using new techniqu.. Gibb, F        1990
4** Proceedings of the 11th BCS IRSG Research Colloquium..      1989
5   Machine readable information systems of learning opp.. Allred, J       1989
6   Semantics of user interface for image retrieval: pos.. Crehange, M    1989
7   Image progressive retrieval from a videodisk: a mach.. Crehange, M    1989
8   Machine learning for 'intelligent' information retri.. Goker, A        1989
9   Automatic thesaurus construction by machine learning.. Guntzer, U      1989
-----
Down (next)
-----
Type its number to see if a publication is relevant

Type More to look for items similar to the ones you chose
Type Options to see other things you can do
                                         -----
                                         |CTRL-Y |
                                         |to quit |
                                         -----
=====

```


Appendix B

Okapi transaction logs

Log text is in Roman, annotations in italic

```
I User special_no Database city.feb91 Date Wed Jun 19 13:12:32 1991
  Program /usr/local/bin/s.city.3.1.3 Description Okapi rf
  Version 3.1.3 Rev date 31 Jan 1991 Pid 12278
```

Identification

T 910619131232

Timestamp. The E lines hereafter are elapsed times in seconds from the previous E or T.

```
U s
C ** start
T 910619131239
S SCR7.1
```

SCR7.1 is the search input screen.

```
U strucu<LEFT>tute<LEFT>al vibta<LEFT><LEFT>ration<RET>
E +16
L structural (744), vibration (232),
E +0
```

User has typed a search with corrections, taking 16 seconds to type it. The system found 744 postings for "structural" and 232 for "vibration[s]".

```
O NMPW = 10 NGW = 10 NAW = 10
```

System has reported "10 books match your search well." User types d for Display and looks at a screen of brief records for 27 seconds.

U d .

S BRIEFS

1	Sound and structural vibration : radiation, tran..	FAHY F J	1985
2	Structural vibration analysis : modelling, analy..	BEARDS C F	1983
3	Structural vibrations due to wind. Wind tunnel ..	(FLINT A R)	1980
4	Stresses, vibrations, structural integration and..	BEITCH L	1979
5	Formulas for natural frequency and mode shape.	BLEVINS R D	1979
6	Flow-induced vibration	BLEVINS R D	1977
7	Vibrations of engineering structures.	(BREBBIA C A)	1976
8	Free vibration analysis of beams and shafts.	GORMAN D J	1975
9	Flow-induced structural vibrations : proceedings..	(NAUDASCHER E)	1974

U 5

E +27

S FULL

AUTHOR(S): Blevins R D

TITLE(S): Formulas for natural frequency and mode shape.

PUBLICATION: Van Nostrand Reinhold, c1979.

SUBJECT(S): Structures. Vibration. Formulae. Structural dynamics.
Vibration.

Shelved at : 624.171 BLE

U y

E +33

User has looked at the fifth record in full and answered "y" to the relevance question.

S BRIEFS

U 7

E +6

S FULL

AUTHOR(S): (Brebbia C A)

TITLE(S): Vibrations of engineering structures.

PUBLICATION: Computational Mechanics Ltd, 1976.

SUBJECT(S): Structures. Vibration. Structural dynamics. Vibration.

Shelved at : 624.171 BRE

U y

E +7

S BRIEFS

U d

E +12

S BRIEFS

1	Structure-borne sound; structural vibrations and..	CREMER L	1973
** END OF LIST **			

U o

E +9

S OPTIONS

U v

E +12
 S VIEWING
 S BRIEFS
 1** Formulas for natural frequency and mode shape. BLEVINS R D 1979
 2** Vibrations of engineering structures. (BREBBIA C A) 1976
 ** END OF LIST **

Reviewing chosen records

U o
 E +4
 S OPTIONS
 U e
 E +14

User chooses to edit the search, adding the term "aircraft".

S SCR7.2 (edit)
 U structural vibration aircraft<RET>
 E +22
 L 00023 (430), structur (2433), vibration (232),
 E +0
 O NMPW = 0 NGW = 1 NAW = 50
 U d
 S BRIEFS
 1 Introduction to the study of aircraft vibration .. SCANLAN R H 1951
 THE REST OF THE BOOKS MAY NOT MATCH YOUR SEARCH VERY WELL
 2 Mechanics of flow-induced sound and vibration. BLAKE W K 1986
 3 Mathematics of random phenomena : random vibrati.. KREE P 1986
 4 Blast vibration monitoring and control. DOWDING C H 1985
 5 Sound and structural vibration : radiation, tran.. FAHY F J 1985
 6 Dynamics and vibration of structures. FERTIS D G 1984
 7 Structural vibration analysis : modelling, analy.. BEARDS C F 1983
 8 Vibrational spectra and structure : a series of .. (MARTIN A E) 1980
 9 Formulas for natural frequency and mode shape. BLEVINS R D 1979

U 1
 E +37
 S FULL
 AUTHOR(S): Scanlan R H; (Rosenbaum R)
 TITLE(S): Introduction to the study of aircraft vibration and flutter.
 PUBLICATION: Macmillan, 1951.

Shelved at : 629.132362 SCA

U y
 E +7
 S BRIEFS
 U 6
 E +6
 S FULL
 AUTHOR(S): Fertis D G
 TITLE(S): Dynamics and vibration of structures.
 PUBLICATION: Krieger, 1984.

Shelved at : 624.171 FER

U ^I
U y
E +9

User requests information, which at this point informs user that the system can look for more records similar to the ones which have been chosen.

S BRIEFS

U 7

E +7

S FULL

AUTHOR(S): Beards C F

TITLE(S): Structural vibration analysis : modelling, analysis and
damping of vibrating structures.

Ellis Horwood series in engineering science.

PUBLICATION: Ellis Horwood, 1983.

SUBJECT(S): Structures. Vibration. Structural dynamics.

Shelved at : 624.171 BEA

U y

E +4

S BRIEFS

U m

E +1

S MORE

E +1

O NMPW = 0 NGW = 58 NAW = 58

User has chosen three records and now requests query expansion ("MORE"). System reports that some records have been found. It doesn't say how many unless there are less than a screenful.

U d

S BRIEFS

- | | | | |
|---|--|-------------------|------|
| 1 | Formulas for natural frequency and mode shape. | BLEVINS R D | 1979 |
| 2 | Vibrations of engineering structures. | (BREBBIA C A) | 1976 |
| 3 | Flutter suppression and structural load alleviat.. | (Agard. Structu.. | |
| 4 | Stochastic methods in structural dynamics. | (SCHUELLER G I) | 1987 |
| 5 | Schaum's outline of theory and problems of dynam.. | TUMA J J | 1983 |
| 6 | Analysis of structures by the force-displacement.. | SMOLIRA M | 1980 |
| 7 | Sound and structural vibration : radiation, tran.. | FAHY F J | 1985 |
| 8 | Flow-induced vibration | BLEVINS R D | 1977 |
| 9 | Several techniques for flight flutter testing : .. | (Agard. Structur. | 1960 |

U 9

E +21

S FULL

AUTHOR(S): (Agard. Structures and Materials Panel); (Agard)

TITLE(S): Several techniques for flight flutter testing : papers
presented at a special symposium during the eleventh
meeting of the AGARD Structures and Materials Panel held
in Athens, Greece... 1960.
Agard AG56.
PUBLICATION: Agard, 1960.

Shelved at : 629.132362 AGA

U y
E +23
S BRIEFS
U d
E +11
S BRIEFS

1	Stresses, vibrations, structural integration and..	BEITCH L	1979
2	Structural dynamics for the practising engineer.	IRVINE H M	1986
3	Dynamics of structures and machinery : problems ..	SZULADZINSKI G	1982
4	Advanced structural dynamics.	(DONEA J)	1980
5	Structural dynamics : theory and computation.	PAZ M	1980
6	The component element method in dynamics : with ..	LEVY S	1976
7	The dynamical behaviour of structures.	WARBURTON G B	1976
8	Dynamics of structures.	CLOUGH R W	1975
9	Dynamics in engineering structures.	KOLOUSEK V	1973

U 8
E +20
S FULL

AUTHOR(S): Clough R W; (Penzien J)
TITLE(S): Dynamics of structures.
PUBLICATION: McGraw-Hill, [1975].

SUBJECT(S): Structural dynamics

Shelved at : 624.171 CLO

U y
E +4
S BRIEFS
U o
E +5
S OPTIONS
U v
E +3
S VIEWING
S BRIEFS

1**	Introduction to the study of aircraft vibration ..	SCANLAN R H	1951
2**	Dynamics and vibration of structures.	FERTIS D G	1984
3**	Structural vibration analysis : modelling, analy..	BEARDS C F	1983
4**	Several techniques for flight flutter testing : ..	(Agard. Structu..	1960
5**	Dynamics of structures.	CLOUGH R W	1975

** END OF LIST **

Now reviewing the three records originally chosen and the two chosen from query expansion.

U 4
E +10
S FULL

AUTHOR(S): (Agard. Structures and Materials Panel); (Agard)

TITLE(S): Several techniques for flight flutter testing : papers
presented at a special symposium during the eleventh
meeting of the AGARD Structures and Materials Panel held
in Athens, Greece... 1960.
Agard AG56.

PUBLICATION: Agard, 1960.

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U <RET>
E +11
S BRIEFS
U ^Y

Quit, finished.

E +3
C ** Record display summary - this search
Total unique briefs: 25
Fulls 5, chosen 5, rejected 0

Appendix C

Questionnaires

C.1 Questionnaires for library users

C.1.1 Exhaustiveness of search

To determine the level of exhaustiveness of search intended by the user. Not introduced until quite late in the experimental period.

Are you looking for:

1. One or two books on a subject
2. A reasonable selection of books
3. As many books as possible
4. Just one particular title
5. None of the above—please say what you do want

C.1.2 Previous experience

To determine what, if any, previous experience users had of computerised catalogue systems.

1. Have you ever used the other computer catalogue in this library? (i.e. CLSI)
2. Have you ever used any other computer catalogues? If so, which ones?
3. Have you ever used this one before?

C.1.3 Post-search questionnaire

For users who declined to have a structured interview, a short questionnaire to determine level of satisfaction with the system.

1. Did you find the system easy to use?
(on a scale of 1–5, with 5 being very easy)
2. Do you think the system is easier/less easy to use than the other library system?
(this was only asked where the users had indicated use of the other system)
3. Did you need help anywhere where it was not provided?
4. Were you pleased with the results of your search?
(on a scale of 1–5, with 5 being very pleased)
5. Did you have to look at a lot of books in order to find the useful ones?
6. Did you use the “MORE” option?
7. Did you find it useful?

C.1.4 Structured interview

If user had used the “MORE” option then the following questionnaire was used to structure the interview. Questions were asked in conjunction with the printed log of the user’s search. A sheet was completed for each search in the session.

If the user had not used the “MORE” option the search was replayed from the log with the user, and query expansion was carried out. The questionnaire used was the same as the one below as far as question 5. Users were asked why they had not used “MORE”. They then looked at the results of the query expansion and were asked for relevance judgments on additional items found. Questions 8, 9 and 10 were the same as the questionnaire below.

1. Did you find the system easy to use?
2. Do you think this system is easier/less easy to use than the other library system?
3. Were you pleased with the results of your search?
4. Why were some of the books in your not looked at in full?
5. How did you decide the ones you chose were relevant?
6. Why did you decide to do “MORE” here?

7. Did it work as you hoped it would?
(here the interviewer looked at the results of query expansion on the printed log with the user)
8. (A general question about the use/non-use of the Options)
9. If this is not the first search how is it related to the previous one?
(*The categories, allocated by the interviewer, were Not related, Broader, Synonymous, Narrower, Other relationship*)
10. If a further search was carried out was it related to this one?
(*The categories were the same as for the previous question—again allocated by the interviewer*)

C.2 Questionnaire for network users

1. Context
 - (a) What is your field of work, and what is the aim of your work?
 - (b) What stage are you at?
 - (c) Do you belong to a particular research group?
2. Okapi—general
 - (a) Did you find the system easy to use? Why?/why not?
 - (b) Did you try all the databases?
 - (c) Which did you find most useful?
 - (d) Did you find that you had to adapt or change you search behaviour or expectations over time?
3. Search—details
 - (a) How did you decide which brief records to look at in full?
 - (b) How did you decide whether the full records were relevant?
 - (c) Did you notice any indication in the list of brief records when they became less relevant?
 - (d) Did you have to look at a lot of references to find the useful ones?
 - (e) Did you use the “MORE” option? Why?/Why not?
 - (f) Did you find it useful?
4. Conclusion
 - (a) Have you ever performed similar searches manually or other on-line or CD-ROM sources?
 - (b) Are there any features about the system you particularly liked or disliked?

Appendix D

Notes on a frequent user

The following is a slightly edited transcription of the experimenter's notes on one of the frequent Okapi users discussed in Chapter 4.

Frequent User: NET-D

Last Log: 12/10/90, Day Printed: 27/11/90, Logs: 1–25, Total Bytes: 293 K, Total Online Time: 1 hr 38 mins 38 secs

SUBJECTS:

- Hi-fis, sound.
- Bartok, Bach, St. Matthew passion, celesta, concerto, post horn sere-nade
- Unix, OS.
- Robot vision.
- Environmental geology, chemistry.

GENERAL COMMENTS:

- Searches INSPEC and City Databases.
- Used “MORE” in early sessions.
- Views after choosing references and then Prints.
- Quite a few short sessions with resulting short reference list from query. Possibly screen dumps or makes notes of references.

- Seems to read most of the references on the screen when looking at brief records.
- Has few sessions with quite several “new” searches which are contextually new as well.
- Repeats some searches.

SPECIFICS:

- When typed in “sound” spent 1–6 secs looking at the brief record screens called by Up and/or Down (there was no “THE REST OF ...” point). Chose audio related references on whole and then did “MORE”. From the list generated after the query expansion the user then chose “hi-fi” and “speaker” related topics. Perhaps some savings could have been made if a link was formed with previous usage of hi-fi.
- Log 2 and 9: Again seemingly looking through a lot of screens (Downs) to find the “THE REST OF...” point. In log 9, however, the user chose a few of the records to be relevant and did “MORE” twice for the same query. Most of the ones that the user looked at in full were generally chosen to be relevant (query: “robot vision” and subsequently “robot vision control motion”).
- Log 13: Would have been possible to detect the most likely context of the query “speaker” from previous searches i.e. “loud speakers” as opposed to “Mr. Speaker” and so on. The references could have been presented in the appropriate order of the context identified, for example.
- Logs 14, 15, 16 and 17 can be disregarded. “CTRL-S” seems to be repeated not just in start of session but in mid of a session as well (log 16).¹
- Log 18: As per log 13 could have reordered the brief reference list for the query “transmission speaker” for the same search.
- Searches on “loud speaker” repeated in form of short sessions.
- Log 21: One very good match of a reference title to a query. Again, perhaps putting such a reference at top of list might be an improvement.
- Log 25: An author search (“Bartok”) on the City database. However, as the system does not enable an author search on the City database the user was presented with a list of biographies of Bartok. Hence, the user then typed in the query “celesta” as this is part of the title of Bartok’s books.

¹Presumably communication problems. CTRL-S is a flow control “X-OFF” code, not a command in the Okapi system.

- With another search of “Bach St. Matthew passion”, in this session, the user did not seem to be able to find what he/she was looking for.

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