



ILMU On-line Library Catalogue: Keyword Searching

by

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Abstrak: Dalam keluaran Kekal Abadi yang lalu, Pencarian Pilihan 1 (Pencarian Pengarang/Judul/Perkara) bagi Katalog dalam talian Sistem Perpustakaan Universiti Malaya, dibincangkan dengan

terperinci. Artikel ini pula akan membincangkan Pencarian Perkataan Utama yang mempunyai ciri-ciri sendiri. Cara pencarian ini membenarkan seseorang pengguna mencari kata punca atau kombinasi kata punca dari mana-mana bidang dalam rekod bibliografik. Pengguna juga boleh menghadkan pencarian kata punca kepada sesuatu bidang yang tertentu. Dengan memahami bagaimana OPAC melakukan pencarian, seseorang pengguna itu bolehlah memperolehi maklumat yang dikehendaki dengan menggunakan strategi pencarian yang tepat dan sesuai.

Abstract: In the previous issue of this newsletter, the ILMU On-line Library Catalogue, Search Option 1 of the Main Menu was described in detail. This article will focus on the powerful Keyword Searching Option available to OPAC users. Using the Keyword Searching Option allows a user to search for a term or a combination of terms located in any field of a bibliographic record if the user so chooses. The user may also limit the search to a specific field(s). An understanding of how OPAC executes a search statement will enable the user to type an appropriate search statement to retrieve the required record(s).

I. Introduction

In the previous issue of this newsletter, Search Option 1 of the Main Menu was described. A simple formula to bear in mind for the search commands when using Option 1 is akin to remembering a feline creature, i.e. 'cats' (where **c**=call number; **a**=author; **t**=title; **s**=subject).

The Library's publication *OPAC Guide : On-line Public Access Catalogue* (1993), in English and Bahasa Malaysia, provides a comprehensive guide on Keyword Searching. This issue will discuss other pertinent features of Keyword Searching to enable the user to refine his search strategy to retrieve the required information.

Before proceeding with the discussion on the Keyword Searching option, some important features to remember when using Keyword Searching are:

- The prompt is a numbered prompt, example, 1>>
- Type an option/search string and then press the <Return> key
- When typing, OPAC accepts upper or lower case letters. For ease of use, type in lower case letters
- When typing a search command, abbreviations can be used, example, **fi** (for find).

Some significant differences in the features of Search Option 1 and Keyword Searching will be evident in the discussions below.

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Some distinctive features of Keyword Searching will be discussed and elaborated in this article. Amongst the unique features are:

- Numbered prompt, 1>>
- Keyword(s) search where keyword term(s) may be located in any field in a bibliographic record
- Uses search command: **fi**; limit qualifiers: eg. **au**; **ti**; **su**; and Boolean operators: **and**; **or**; **not**
- Various combinations of search terms/qualifier(s)/Boolean operator(s) are available
- No column type Hit List Display
- Variety of display formats.

II. Selecting Keyword Searching

a. Main Opac Menu

Main Opac Screen

Sistem Perpustakaan Bersepadu
Perpustakaan Universiti Malaya

- 1) Katalog On-line
On-line Public Access Catalog
- 2) Pencarian Perkataan Utama
Keyword Searching
- 3) Buletin Perpustakaan
Buletin Board

Taip pilihan anda/enter option (1,2,3) █

At Main OPAC Screen type **2** <Return>.

b. From Author/Title/Subject Search Option (unnumbered prompt >>)

At unnumbered prompt, type at prompt >>**k** <Return>. However, this procedure will suppress the holding information when the search result is displayed. It is therefore recommended that the user exits from the unnumbered prompt by typing at prompt >>**quit** <Return> to exit to Main OPAC Screen and select Keyword Searching at Main OPAC Menu.

c. Opening Help Screen

The Opening Help Screen provides a brief guide to the various search options.

Opening Help Screen

Keyword Searching

ENTER	TO SEARCH	EXAMPLE
fi	KEYWORD	fi games
fi ti	TITLE	fi ti america
fi au	AUTHOR	fi au asimov
fi su	SUBJECT	fi su united states
<div style="display: flex; justify-content: space-between;"> <div>Enter</div> <div>DISPLAY START STOP HELP</div> <div>to display a record to start over to finish for more information</div> </div>		
1>> █ [Type search statement here]		
he - for help fi - to find a term di - to display results sto - to stop		

- **DISPLAY (di)** command shows results of a search
- **START (sta)** command resets the numbered prompt back to 1>>
- **STOP (sto)** command exits Keyword Searching
- **HELP (he)** command invokes the on-line help facility.

Note: • Keyword Searching Screen has a distinctive title header and a help guide at the bottom of the screen.

- Abbreviations can be used to type the search commands.

d. On-line Help Facility

The On-line Help Facility provides information, instructions and examples of the various commands applicable to Keyword Searching. To enter the HELP facility, type at prompt:

1>>**he** <Return>

The Help Screen lists the topics or options available in HELP. Help information on a specific command can be obtained quickly

by typing HELP and the related command. Shown below is a brief screen of information on the FIND command:

1>>he fi

```

FIND      [Information]      Abbreviation: FI
The FIND command is used to begin any search..
      .
      .      [Search example]
1> FIND OZONE      3> FI TI IN SEARCH ..
      .
Additional information available:      [Subtopic]
Adjacency      AND NOT OR      N      W
Qualifiers      Examples

FIND Subtopic?and — [Type subtopic here]
      .
  
```

To leave the HELP facility press the <Return> key until you get to a numbered prompt.

III. Search Commands

The search command is FIND. This can be abbreviated to **fi**. The FIND command is used to search for records. Normal spacing rules apply when typing a search string:

1>>fi khoo

1>>fi au khoo and history

A variety of commands and search patterns are available in Keyword Searching. Abbreviations can be used when typing the commands and symbols for the Boolean operators. The examples below list the commonly used commands, the qualifiers and Boolean operators.

Reminder Type the FIND command only **once** even if the search string uses a combination of search commands:

1>>fi au khoo and history and kuala lumpur

a. Types of searches

As mentioned above, the *OPAC Guide : On-line Public Access Catalogue* (1993) lists the different types of searches available for

Keyword Searching. A summary of the searches available will be illustrated in the example below.

Below is a full bibliographic record of a work by the author **Jomo K. S.** and a list of several ways to search for the citation using the keyword term, search limit qualifiers (eg. fi au, fi ti, fi su, fi pu, fi cn, fi nt, fi se) and Boolean operators (and, or, not).

Record #1

Main entry: Jomo K. S. (Jomo Kwame Sundaram).
 Title: Beyond the new economic policy? : Malaysia in the nineties/ Jomo Kwame Sundaram.
 Imprint: Cairns, Qld. : Malaysia Society, Asian Studies Association of Australia, 1990.
 Collation: 34 p. : ill. ; 22 cm.
 Series: James C. Jackson memorial lecture; 6th, 1990.
 Notes: mkk.
 The Sixth James C. Jackson Memorial Lecture presented at Griffith University, Brisbane on 2nd July 1990 to the Malaysia Society of the Asian Studies Association of Australia.
 Subject: Malaysia Economic conditions
 Malaysia Economic policy
 Other entry: Asian Studies Association of Australia.
 Local call nr: HC445.5 Jom

Search for	Type as	OPAC searches
Keyword	fi economic	all fields for term
Author	fi au jomo	only Author-indexed fields
Title	fi ti economic policy	only Title fields
Subject	fi su economic	only Subject fields
Publication info.	fi pu asian studies fi pu 1990	only Imprint field
Call number	fi cn hc445.5	only Call number fields
Notes	fi nt memorial lecture	only Notes fields
Series	fi sr jackson memorial	only Series fields

Using Boolean operators

and	fi jomo and economic (jomo and economic in all fields) fi jomo and ti economic policy (jomo in all fields and economic policy in title fields) fi au jomo and malaysia (jomo in author fields and malaysia in all fields)
or	fi au jomo or sr jackson (jomo in author fields or series jackson in series fields)

When using the Boolean operators **and** or **or**, any combinations using the same command and term may be used:

1>>fi au jomo and ti economic policy

1>>fi ti economic policy and au jomo
(search term in author fields and in
title fields and vice versa).

Both the above search strings will generate the same result. However if different commands or more than one Boolean operator are used, the results may differ:

1>>fi au jomo and ti economic policy

2>>fi ti economic policy and jomo and
malaysia

(limit search to qualifier and with
two Boolean operators)

3>>fi ti economic policy and jomo
(search term in title field and any
field).

The third search above will retrieve more records than the other two.

From the above examples, the types of searches available for Keyword Searching are searches by:

- Single term or phrase
- Using search limit qualifiers
- Combination using Boolean operators.

b. Search Pattern

Keyword Searching begins searches from left to right following this order of sequence:

- Individual **terms**
- Proximity operators **N**(ear) or **W**(ithin)
- Terms nested within parentheses ()
- Boolean operators
 - o **AND**
 - o **NOT**
 - o **OR**

c. Search using Keyword Term(s) only

Tips * If using a single term, type a unique term rather than a general term. Prefer proper name as single term:

1>>fi khoo

* Type a phrase rather than a single term:

1>>fi new economic policy

* If a search phrase has a Boolean operator term, enclose the term in double quotation marks:

1>>fi war "and" peace

* Combine single term/phrase with search limit qualifier/Boolean operator(s).

Trap - Typing a single and general term generally retrieves many irrelevant records.

d. Combining Keyword Term(s) with Search Limit Qualifiers

Tips * Select the appropriate qualifier and type the appropriate and unique term or phrase to narrow search hits:

1>>fi au jomo

(limit search by author fields)

1>>fi ti new economic policy

(limit search by title fields)

* When typing a phrase be sure it is in the correct order as it would appear in the bibliographic record:

1>>fi ti economic new policy

(incorrect order as actual phrase
in record is **new economic policy**,
therefore no records will be re-
trieved)

* If same qualifiers are used, use **nest** commands with Boolean operators:

1>>fi ti (economic and policy)

* If full details of author/title/subject are available, and combination search is not used, prefer Search Option 1 ('c=a;t=s;') rather than use the limit search qualifiers (cn;au;ti;su).

e. Combining Keyword(s) with Boolean Operators

Boolean operators are used to search two or more terms. Terms can be combined with or without search limit qualifiers. The Boolean operators are:

- i. **and**
Search **both** or **more** terms located somewhere in a specific field or all fields:
1>>fi khoo and su history
1>>fi khoo and history and malaysia
- ii. **not**
Search records having a certain term or phrase are **excluded**:
1>>fi education not primary
- iii. **or**
Search records which have **either** or **both** terms or phrases in them:
1>>fi linguistics or language

Tips * Use a unique term rather than a general term:

1>>fi khoo and history

- * If author's name has variant forms of spelling, eg. Mohammad, combine other parts of the name with **and** Boolean operator:

1>>fi taib and osman
(author's name is mohd. taib osman)

- * If terms used may appear in many records, select related and/or associated term to retrieve required records:

1>>fi war and peace and tolstoy
(to retrieve specific works of Tolstoy)

1>>fi education and malaya and
nt (tesis or disertasi)
(to retrieve postgraduate works on education by University of Malaya)

- * Include related/associated terms to retrieve relevant records using the **or** operator:

1>>fi finance or banking
1>>fi language or linguistics
1>>fi theses or tesis and education
1>>fi rice or padi

- * Avoid long/complicated search strings:

1>>fi jomo and economics and malaysia
and policy or nt (lecture and memorial)

f. Reserved Punctuations and Terms

Some punctuations are reserved and used in place of some search commands and Boolean operators, and cannot be used as part of the phrase. A list of reserved punctuations is given below:

Reserved Punctuations

Punctuation	Function
+ (plus)	Boolean operator and
(vertical bar)	Boolean operator or
& (ampersand)	Boolean operator and
~ (tilde)	Boolean operator not
? (question mark)	Term truncation
# (pound sign)	Character truncation
" (quotation mark)	Treat a Boolean operator as a term

Some examples of using the punctuations are:

1>>fi jomo + economics
1>>fi linguistics | language
1>>fi education ~ primary

If +, | and & punctuations form part of the search term/phrase, enclose them in quotation marks:

1>>fi ti report "&" conservation programme
(title of work is *Report & Conservation Programme*)

If ?, # and " punctuations form part of the search term/phrase, exclude them in the search string:

1>>fi ti whither state welfare
(title of work is *Whither state welfare?*)

Tips * Ignore punctuations when searching:

1>>fi unesco
(name is u.n.e.s.c.o)

- * Ampersand & in a search phrase can be substituted with **and**. Enclose the term in double quotation marks:

1>>fi ti report "and" conservation programme
(title of work is *Report & Conservation Programme*)

IV. Advanced Searching

a. Search Hit Display and SET Commands

When searches are performed, OPAC will assign a line number for each search together with the hit result information. The line number (i.e. numbered prompt) is called a **search set** and is incremented each time a new search is performed:

```
[search set]           [hit result information]
1>>fi khoo
%BOOLEAN-I-SUMMARY2  1>KHOO occurs 473
times
2>>fi history        [search summary note*]
2>HISTORY occurs 40811 times
3>>fi au khoo
3>AU KHOO occurs 229 times
```

*For convenience, the search summary note will not be included in examples hereafter.

Note: A search set number remains unchanged when set commands or display commands are typed. Only when a new search is performed is the number incremented.

When a search is done for **only** one keyword term or phrase, OPAC displays only the number of times the term **occurs** in the database and not in how many bibliographic records:

```
1>>fi khoo
1>KHOO occurs 473 times
```

Information on the number of bibliographic records can be displayed by:

- i. Combining search terms using Boolean operators:

```
2>>fi khoo and history
2>(KHOO) and (HISTORY) occurs in 65 records
```

- ii. Using SET commands.

b. Using SET Commands

Various SET commands are available when performing Keyword Searching. A list of the default SET commands is given in **Appendix 1**. To activate/deactivate the SET commands, type the required SET commands before the search/display command. The **START (sta)** command deletes a search session

and all previous SET commands and returns to the default settings:

```
5>>sta [delete previous set commands/session]
1>> [search set number reset to 1]
```

The functions of the SET commands are described below:

i. SET QUICK Commands

Default is ON. Setting to OFF shows the number of occurrences and the number of bibliographic records matching the search:

```
1>>set quick off [or se qu off]
1>>fi khoo
1>KHOO occurs 473 times in 252 records
```

Trap - Would slow the search process if set to ON.

ii. SET INTERMEDIATE Commands

Default is OFF. Setting to ON will display each portion (a search set) of the search performed:

```
1>>set intermediate on [or se in on]
1>>fi new economic policy
2>NEW occurs 86953 times. [Individual search
3>ECONOMIC occurs 34275 times. set]
4>NEW ECONOMIC occurs 81 times.
5>POLICY occurs 15897 times.
6>NEW ECONOMIC POLICY occurs 45 times
7>>
```

In the above example, the individual search sets listed can be used for search set combinations (see IV. b. iii. below for **Combining Search Sets**)

- Tips
- * Used with **set quick on**, the number of bibliographic records are displayed.
 - * Press **Ctrl** and **C** keys (**Ctrl+C**) to interrupt/cancel a long search process/individual search set listing.

Trap - Would slow the search process if set to ON.

iii. Combining Search Sets

Previous search sets can be combined with another search set, term or command. To use a search set, type an 's' followed by the number of the set. The number of search sets allowed for a search session is ex-

plained below(see IV.b.iv.). As long as a search session is not deleted, the previous search sets can be used. Various combinations using search sets are shown below:

```
1>>fi khoo
  1>KHOO occurs 473 times
2>>fi s1 and history
  2>(KHOO) and (HISTORY) occurs in 65 records
3>>fi malaya
  3>MALAYA occurs 30035 times
4>>fi s2 and s3
  4>((KHOO) and (HISTORY)) AND (MALAYA)
occurs in 14 records
```

iv. Search Sets and REVIEW Command

OPAC allows a user to recall the list of previous searches using the REVIEW (rev) command. The review list displays a search profile of search terms/commands used and their search results. From the list, various search sets can be combined with other search commands.

The queue of a search session is limited to 128>> and search set 129>> will delete the earliest set in the queue to accommodate the newest search set. The maximum search sets per search session is 1999>>. After this limit, OPAC prompts the user to restart the search session. Use the START (sta) command to delete a search session and its search sets. Example:

```
5>>>rev

                        Number  Number
                        Occurrences Records
Set Keyword Search

1 KHOO                      473      252
2 (KHOO) AND (HISTORY)      65
3 MALAYA                    30035    13875
4 ((KHOO) AND (HISTORY))
  AND (MALAYA)              14

6>>>fi s2 and south-east asia
  6>(KHOO) and (SOUTH EAST ASIA) occurs in
2 records
7>>>sta      [Delete search sets/session]
  All sets deleted
  Database is UNIMAL
1>>>      [Search set number reset to 1]
```

Tips * Use search sets to combine searches to reduce typing error and keystrokes.

Tips * Search sets can be combined in any order, example:

```
5>>>fi literature and s4 and s3
10>>>fi s3 and economics or s9
```

*** A single search set or a group of search sets can be deleted by using the DELETE (del) command:**

```
5>>>del s3
10>>>del s7-s9
```

*** SET INTERMEDIATE ON command will also generate search sets results**

*** Search for a common topic for each search session. Start with general terms, use REVIEW command and then use search sets for detailed searches**

*** When performing a new search session, delete previous session search sets.**

c. Proximity Search

When using proximity operators, OPAC searches for the second search term within a number of words (n places) to the first search term. The proximity term must be located within a field and not in different fields.

i. N(ear)

In an N proximity search, the word order whether it comes before or after a term is not important. The example below shows a title search:

```
1>>>set quick off
2>>>fi ti history n3 malaya
2>>>(TI HISTORY) N3 (TI MALAYA) occurs 35 times
in 35 records
3>>>di ci 1-2 [Display in citation format records 1-2]
```

1. Winstedt, Richard Olaf, Sir, 1878-. Malaya and its history. 6th. ed. London : Hutchinson University Library, 1962.
2. De Silva, Gregory W. Popular history of Malaya and the Netherlands Indies. Kuala Lumpur: Kyle, Palmer, [1939].

OPAC searches for the second term 'malaya' which must be located within three physical location, **before** or **after** from the first term 'history'.

ii. W(ith)

In a W proximity search, the word order is important. In the example below:

```
1>>set quick off
2>>fi ti history w3 malaya
2>>(TI HISTORY) W3 (TI MALAYA) occurs 20 times in
20 records.
3>>di ci 1-2
```

1. De Silva, Gregory W. Popular history of Malaya and the Netherlands Indies. Kuala Lumpur: Kyle, Palmer, [1939].
2. Jessy, Joginder Singh. History of Malaya (1400-1959). Penang : United Publishers, 1961.

OPAC searches for the second term 'malaya' which must be located up to three words **after** (i.e. to the right) of the first term 'history'.

Tip * Prefer using a Boolean operator with a search qualifier than using proximity operators:

```
1>>fi ti history and ti malaya
```

d. Nesting

Nesting allows a combination of search commands and can override the search sequence. (See III b. above). Nested commands determine which search operations will be performed **first**. Terms/search commands enclosed in parenthesis () are **nested**. Below are two examples showing one search without nesting and one with nesting operations. SET INTERMEDIATE ON (se in on) permits us to see the results of each search command of the string search:

i. Without nesting:

```
1>>se in on
1>>fi rice or padi and malaysia
1>RICE occurs 2846 times in 1225 records.
2>PADI occurs 278 times in 229 records.
3>MALAYSIA occurs 54647 times in 22644 records.
4>(PADI) AND (MALAYSIA) occurs in 98 records.
5>(RICE) OR ((PADI) AND (MALAYSIA)) occurs in
1245 records.
```

The regular search operations follow this sequence:

Sequence	Search for term	Operator
1>>	rice	
2>>	padi	
3>>	malaysia	
4>>	padi and malaysia	AND
5>>	rice or (padi and malaysia)	OR

From the above search sequence, the final result does not yield the intended result, i.e. for **rice or padi** to be combined with **malaysia**. The best search would combine **padi and malaysia** but unsatisfactory as the term **rice** is excluded.

To combine the terms **rice or padi** together, we nest them by enclosing them in parentheses (). The results using nesting will differ as shown in the example below:

ii. With nesting:

```
1>>se in on
1>>fi (rice or padi) and malaysia
1>RICE occurs 2846 times in 1225 records.
2>PADI occurs 278 times in 229 records.
3>>(RICE) OR (PADI) occurs in 1313 records.
4>MALAYSIA occurs 54647 times in 22644 records.
5>((RICE) OR (PADI)) AND (MALAYSIA) occurs in
284 records.
```

The nested search operations follow this sequence:

Sequence	Search for term	Operator
1>>	rice	
2>>	padi	
3>>	padi or rice	OR
4>>	malaysia	
5>>	(rice or padi) and malaysia	AND

The nested command causes the programme to search the combination within parentheses even if the **or** Boolean operator is used. The final search results seem more relevant than the non-nested search option.

Tips * If same qualifiers are used, place them outside and nest the terms:

```
>>fi su(economic and Malaysia) and pu  
(1992 or 1993)
```

* Nest or Boolean operator for more accurate hits:

```
>>fi nt(thesis or tesis) and education
```

* Nest related terms together and limit to about two nested commands in a search string:

```
1>>fi (education and malaysia) and pu  
(1992 or 1993)
```

* Use a combination of search commands if necessary:

```
1>>fi su(economics and malaysia) and  
(conference or seminar)
```

Trap - Complex nesting may delay search time or not yield any result:

```
1>>fi (cement or concrete) and (fly ash  
or lime) and (reinforced or prestressed)
```

e. Truncation Searching

Truncation or **wildcard searching** allows all the different forms of the search term to be searched by typing a single short term and adding the truncation symbol.

i. ? Truncation Searching

The ? symbol at the end of a term broadens a search. Any characters from the ? symbol to the end of the term will be counted. Used with SET INTERMEDIATE ON command, a list of all the words that match the search term will be displayed. Below is shown a partial list of a search term beginning with **physic**:

```
1>>se in on
```

```
1>>fi physic?
```

```
KEYWORD PHYSIC occurs 9 times
```

```
KEYWORD PHYSICA occurs 38 times
```

```
KEYWORD PHYSICAL occurs 4985 times
```

•

```
KEYWORD PHYSICS occurs 8292 times
```

```
1>PHYSIC? occurs 15090 times in 8769 records.
```

Tips * Use ? symbol for general searching rather than specific searching.

* Use SET INTERMEDIATE OFF to get list of search results quickly.

Trap * Used with SET INTERMEDIATE ON will delay search result.

* Misspelled or irrelevant terms are often picked up.

ii. # Truncation Searching

The # acts as a **wildcard** character and represents a **single** character substitute. It is used for terms which have singular or plural or two spellings (British or American versions):

```
1>>fi wom#n
```

(term woman or women)

```
2>>fi computeri#ation and organi#ation
```

(term computerisation or computerization)

V. Displaying Search Results

a. DISPLAY / SET DISPLAY Commands

The DISPLAY command or **di** allows search results to be viewed in three formats. The display format options and the commands are as follows:

i. Short bibliographic record with holdings information. This is the **default** display option:

```
1>>di sh
```

ii. Full or long bibliographic record with holdings information:

```
1>>di lo
```

iii. Brief bibliographic record or citation format without holdings information and call number:

```
1>>di ci
```

Some examples of typing different display formats are:

```
1>>fi khoo and history
```

```
1>(KHOO) and (HISTORY) occurs in 65 records.  
(search string)
```

```
2>>di
```

(begin display of search result from the beginning)

```
2>>di 3
```

(displays only record 3)

```
2>>di 3-10
```

(displays record range from record 3 to record 10)

2>>di sh 3

(displays only record 3 in short format)

2>>di s2 ci 10-50

(displays search results of search set 2, as citation format from record 10 to record 50)

The display format can be placed either before or after the record number. The display commands below are permissible:

2>>di sh 3

2>>di 3 sh

3>>di s2 10-50 ci

Records can be displayed based on the search results. Search records with 0 hits will not display, example:

1>>fi au xyz

1>AU XYZ occurs in 0 records.

If a range of records is selected for display the record number range must be a progressive number range. Regressive numbering is not allowed:

1>>di 3-5

(this is permissible)

1>>di 5-3

(this is not permissible)

Display commands will not display records for search sets deleted using the START command.

b. SET DISPLAY Commands

The SET DISPLAY command or **se di** allows a user to set a default display format. To set a default display, set it before typing the display command. To set the following format:

To set display	Type as
long	se di lo
short	se di sh
brief	se di ci

Even if display has been set to a particular format, the user can still override the current display setting whenever required by typing the appropriate display command. If a search session is deleted using the START (**Sta**) command, the default display (i.e. short format) is returned.

In all the three formats the sequence of the display is **not in alphabetical order** but in the order of the newest title added to the database, i.e. the first record displayed is the latest record added to the database (not necessarily the latest edition of the work) and the last record displayed is the oldest record (i.e. first entered) into the database.

If a bibliographic record has a barcode inventoried or tagged onto it, holdings information is attached to that bibliographic record. For long or short display formats, bibliographic records which have inventoried items will display holdings information. Brief display format does not display the holdings information or call number.

Note: To obtain the holdings information in the display, be sure to access Keyword Searching **from the Main OPAC Menu (Option 2)**.

If Keyword Searching is accessed by typing at the unnumbered prompt >>k <Return>, the holdings information will **not be displayed**.

c. SET SCROLL Command

The display also works with the SET SCROLL option. The default is set to **ON** (**se sc on**) which causes the screen to pause after a defined number of lines have been displayed. Pressing the <Return> key continues display of the rest of the record(s). Typing q(uit) stops the display and returns to the numbered prompt.

SET SCROLL OFF(**se sc off**), allows continuous scrolling. To stop and continue the scrolling, press the F1 key (or **HOLD** key) located at the upper far left corner of the keyboard. (When **Hold** is activated the **HOLD** indicator light on the keyboard is lighted and vice versa).

To abandon continuous scrolling, press the **Ctrl** and **C** keys together (**Ctrl+C**). This cancels the scrolling and returns to a numbered prompt.

Tips * Set the display and scroll option before beginning a search:

1>>se di lo

2>>se sc on

* Ending a search session (START command) returns current scroll settings to default settings.

* Be sure to q(uit) from display before typing another search/command.

Trap - The citation display does not include the call number.

d. Display Formats Examples

See **Appendix 1** (Display Format: Examples) for a search example showing a sample of various display formats described in **Section V** above.

VI. Printing Search Results

The PRINT (pr) command allows search results to be copied into a print file. The print format follows the same format as the DISPLAY format. The default print setting is in LONG format. Print commands for different formats are:

2>>pr sh [print short display format]

2>>pr ci [print citation display format]

2>>pr lo [print long display format]

The various command options used in the DISPLAY command is the same for the PRINT command. Some examples are given below:

2>>se pr sh [set to print short display format]

3>>pr s2 lo [print record 3, long format]

4>>pr s2 10-50 ci [print search set 2 results from records 10-30, citation format]

When the PRINT command is issued, the search results are copied into a captive account. OPAC users **do not** have access to this account or privilege to send a print job. The Library will provide such services upon request from the user. Please consult a librarian if you need to obtain a printout of your search. A **fee is charged** for printouts. The schedule of rates is listed below:

Rates for Bibliographic Search In UML (UMLIB/INDXDB)		
Users	Service Charge	Printing
1. UML members	Search is free	RM0.10 per page
a. students	RM5.00 for search	
b. staff	done by Professional staff	
c. External members	Search is free	RM0.20 per page
	RM5.00 for search	
	done by Professional staff	
2. Visitors	Search is free	RM0.20 per page
	RM5.00 for search	
	done by Professional staff	

Conclusion

OPAC users unfamiliar with the features/options offered by OPAC often spend fruitless time searching and depend on the serendipity approach to get the required information. A little forethought into getting familiar with the features/options is an invaluable investment. The Library offers the necessary assistance and OPAC guides to users upon request. ■

Notes

1. For the first part of this article, see: Lee, Andrew, "ILMU On-line Library Catalogue: Author/Title/Subject Search Option". *Kekal Abadi* 12(1) Mac 1993: 1-9.
2. For the latest OPAC guide, See: *OPAC Guide : On-line Public Access Catalogue = Panduan: Katalog Awam Talian Terus*. University of Malaya Library, 1993. 30 p. (Bilingual in Bahasa Malaysia and English)
3. For the lists of codes and their interpretations, see: *Ibid*, Folded section. (Printed copies of this section is available in the Reader Services Division, Main Library).
4. *Public Access Catalog : Keyword & Boolean*. Data Research Associates (DRA), 1990. 1 ring binder. (DRA's technical and operations manual on Keyword Searching. All search commands, with examples, are available).

Keyword Searching: Default SET Commands

Screen : Default SET Commands

KEYWORD SEARCHING

1>>show all [SHOW command]

Show intermediate result: OFF

Performance reporting: OFF

Quick searches: ON

Debug: OFF

Scroll mode: OFF

The time is: Mon Jun 12 12:00:55 1993

The current print format is LONG

The print file name is BOOLEAN_USER_PRINT

The current database is UNIMAL

The current display format is SHORT

2>>

he - for help fl - to find a term dl - to display results sto - to stop

DISPLAY FORMATS : Examples

i. Default (Short) Display Format

1>>fl au jomo and ti economic [search statement]

1>(AU JOMO) AND (TI ECONOMIC) occurs in 6 records. [search result]

2>>dl [display using the default SHORT format]

Display Screen:
Short format

KEYWORD SEARCHING

AC995 M4Jom.W [Call number]

Jomo K. S. (Jomo Kwame Sundaram).

Whither Malaysia's New Economic Policy ? / K.S. Jomo.

1991

pp. 469-499; 29 cm.

New Economic Policy (Malaysia).

Malays Economic conditions.

Malaysia Economic policy 1971-1990.

[Actual screen
display][Bibliographic
Information]

[Subject headings]

[Holdings
Information]Call Number
AC995 M4Jom.W

Volume

Holding *
Location
BKKStatus
NonReq/LcRq

Record #2

HC445.5 Jom

Jomo K. S. (Jomo Kwame Sundaram).

Beyond the new economic policy? : Malaysia in the nineties /
Jomo Kwame Sundaram.

Cairns, Qld. : Malaysia Society, Asian Studies Association

Press RETURN to continue, or type Q to quit

he - for help fl - to find a term dl - to display results sto - to stop

* For a list of codes and their interpretations, see Notes 3.

ii. Long (Full) Display Format

2>>di lo 2 [Display record 2 in long format]

[Field label]

[Bibliographic information]

Record #2
Main entry: Jomo K. S. (Jomo Kwame Sundaram).
Title: Beyond the new economic policy? : Malaysia in the nineties /
Jomo Kwame Sundaram.
Imprint: Cairns, Qld. : Malaysia Society, Asian Studies Association
of Australia, 1990.
Collation: 34 p. : ill. ; 22 cm.
Series: James C. Jackson memorial lecture ; 6th, 1990
Notes: mkk.
The Sixth James C. Jackson Memorial Lecture presented at
Griffith University, Brisbane on 2nd July 1990 to the
Malaysia Society of the Asian Studies Association of
Australia.
Subject: Malaysia Economic Conditions.
Malaysia Economic policy.
Other entry: Asian Studies Association of Australia.
Local call nr: HC445.5 Jom
HC445.5 Jom
HC445.5 Jom

[Call number of various libraries.
Prefer Call Number from Holdings
Information]

[Summary of
Holdings Information]

Call Number	Volume	Holding Location	Status
HC444.5 Jom		P.UTAMA	Available
HC444.5 Jom		P.UTAMA	Available
[STAKBUKA] HC444.5 Jom		IPT	Available
[STAKBUKA] HC444.5 Jom		P.KEJURU	Available/LcRq
HC444.5 Jom P.		BKK	NonReq/LcR

[Location/collection prefix
used by some libraries]

iii. Brief (Citation) Display Format

2>>di ci 1-2 [Display citation records 1 to 2]

1. Jomo K. S. (Jomo Kwame Sundaram). Whither Malaysia's New Economic Policy?. 1991.
2. Jomo K. S. (Jomo Kwame Sundaram). Beyond the new economic policy? : Malaysia in the nineties. James Jackson memorial lecture; 6th, 1990. Cairns, Qld. : Malaysia Society, Asian Studies Association of Australia, 1990.

2>> [as long as the search set number remains unchanged display of search set 1 results is possible]

2>>fi au jomo and su economics [new search, therefore search set number will be incremented]

2>(AU JOMO) AND (SU ECONOMICS) occurs in 6 records.

3>>di s1 lo [New search set number but can still display results of search set 1, in long format]

4>>Sta [Command to delete previous search service and its search sets]

1>>di sh 1-2 [A new search set, therefore an invalid display command as previous search sets have been deleted]