

# Registration of Malaysian Names Using the ATLAS Software

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**Abstrak:** Modul Circle di dalam perisian ATLAS merupakan satu modul yang baik tetapi menimbulkan beberapa masalah dalam pendaftaran nama-nama Malaysia. Kekurangan yang dimaksudkan ini berpusat pada kenyataan bahawa modul ini tidak dapat menampung nama-nama Melayu dan India yang tiada nama keluarga dan nama-nama Cina di mana nama-nama keluarga mendahului nama-nama sendiri. Bahagian Sirkulasi, Perpustakaan Universiti Malaya mencadangkan dua pilihan lain untuk menyelesaikan masalah-masalah yang dihadapi di dalam pendaftaran nama-nama Malaysia. Kedua-dua cara penyelesaian ini adalah tidak memuaskan kecuali perisian ini diubah suai untuk penggunaan kami. Adalah menjadi harapan kami bahawa masalah pendaftaran ini ialah satu masalah sementara yang akan dapat diatasi dengan seberapa segera.

**Abstract:** The Circle Module of the ATLAS software is generally good but posed some problems with regards to the registration of Malaysian names. The limitation of the software is centered on the fact that it cannot accommodate Indian and Malay names which have no surnames and Chinese names where the surnames occur before personal names. The Circulation Division of UML proposed 2 alternatives to solve the problem of the registration of Malaysian names. Both solutions are not satisfactory unless some customization is made on the software. It is hoped that this registration problem is a temporary one which should be resolved in the near future.

## INTRODUCTION

The Circulation Division of UML has looked forward to an automated circulation control system since 1974. From the Division's point of view, there are more advantages than disadvantages that could be reaped from library automation. The main advantage is the time saved in the provision of circulation information. Within seconds, a library patron will be able to know the number and titles of books on loan to him, his overdues and outstanding fines, and the status of a book i.e. whether it is available or has been reserved by another user. The perennial problem of human errors at the loans counter will be reduced to a minimum, thus providing a less stressful environment in the Circulation Division.

This dream for an automated system became a reality when the ATLAS (A Total Library Automated System) software was installed in UML in July 1991. The initial efforts were directed to the formulation of the circulation policy. Generally the CIRCLE module of the Atlas software is good. However, since it is not

tailor-made for UML, a number of problems were encountered, a notable one being patron registration.

The Circulation Division would like to put on record its efforts in setting up the patron database and how it has coped with the limitation of the software, particularly for local names and addresses.

## I. LOCAL NAMES

### (a) Honorifics

In screen I of the Borrower Full Registration (Appendix) under the heading NAMES, field 2. (Title): provides a space of 4 characters for an honorific. The space provided is insufficient to accommodate the honorifics of some library patrons such as *Professor Madya*. When an academic staff has more than one title/honorific such as *Professor* and *Datuk*, it was decided that his academic title should take precedence over his other title/honorific. His second honorific is omitted due to the

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limitation of space. The Circulation Division has produced a list of abbreviations for honorifics to standardise input.

### (b) Order of name elements

The ATLAS software originated from the United States of America. This software caters for American or European names where the personal name is the first and middle names, and the last name is the surname.

The bulk (95%) of UML's patrons have Malay, Chinese or Indian names. Generally the Malays and Indians have no surnames. In its simplest form, their first names are their personal names, and their last names their fathers' names. In the more complicated versions of their names, in between their first and last names, there may be other names which include their personal names, their fathers names, an honorific and a term indicating 'son of' (*bin*) or 'daughter of' (*binte*) e.g. Ahmad Rizali *bin* Haji Mohd. Ali. In Chinese names, the first element is the surname and the middle and last elements are personal names. The ATLAS software displays the various elements of Asian names in a format that is not conventionally acceptable to its owners, as illustrated by the following examples:

Screen I of the Borrower Full Registration shows that the names of the Library patrons are split into First, Middle and Last as indicated by fields 3, 4 and 5. If the Circulation Division were to follow closely the ATLAS format of inputting names, Malay/Chinese/Indian names will be input as follows:

a) **Malay names:** Ahmad Rizali bin Haji Mohd. Ibrahim, will be input as:

- 3. **First:** AHMAD RIZALI
- 4. **Middle:** BIN HAJI
- 5. **Last:** MOHD IBRAHIM

b) **Chinese Name:** Lee Ah Moi, will be input as:

- 3. **First;** LEE
- 4. **Middle:** AH
- 5. **Last:** MOI

c) **Indian name:** Sivalingam A/L Supramanium, will be input as:

- 3. **First:** SIVALINGAM
- 4. **Middle:** A/L
- 5. **Last:** SUPRAMANIUM

On the Circulation Borrower Selection Screen, the various elements of names are displayed in the order of Last, First, Middle. Thus Ahmad Rizali bin Haji Mohd. Ibrahim will appear as *Mohd. Ibrahim, Ahmad Rizali bin Haji, Lee Ah Moi as Moi, Lee Ah* and Sivalingam A/L Supramanium as *Supramanium, Sivalingam A/L*. In the Malaysian context these inverted format of names are unacceptable.

Further complication arises because field 5.(Last) is a searchable field. A borrower's record can be called up by searching the name input in this field. If a library staff or patron is unaware of how the borrower's name is input into this searchable field, then it is impossible to call up the borrower's record by name. For any computerised system, the inability to locate a patron by name is unacceptable. The only advantage of this registration format is that the names appearing on the printed notices to be sent to patrons will appear in the order, of First, Middle, Last such as, *Ahmad Rizali bin Haji Mohd Ibrahim, Lee Ah Moi and Sivalingam A/L Supramanium*. This implies that wherever the Circulation Division sends paper mail to its 13,000 patrons, there is no necessity to retype the patron names.

### Solutions

#### (a) Option 1

The Circulation Division is of the opinion that when a library patron comes to view his loan records on the terminal it is important that his name should appear in a format conventionally used by him. The Western name format is unacceptable, so an alternative method of registering names has to be considered. Since field 5.(Last) is a searchable field containing the surname or the name that can uniquely identify a person, it was decided to input the first name of a Malay or Indian name in that field. The remainder of the names are to be input in a sequential manner into the 3.(First) and 4.(Middle) name fields as follows:

e.g. a) Malay name: Ahmad Rizali bin Haji Mohd Ibrahim, will be input as:

- 3. **First:** bin Haji
- 4. **Middle:** Mohd Ibrahim
- 5. **Last:** Ahmad Rizali

- b) Indian name: Sivalingam A/L Supramanium, will be input as:

3. **First:** A/L  
4. **Middle:** Supramanium  
5. **Last:** Sivalingam

In the case of the Chinese name, the surname goes into field 5. (**Last**) and the rest in field 3. (**First**) as Chinese names are usually short. If a Chinese has a Christian name then the Christian name goes into field 4. (**Middle**) e.g. Philip Tan Hock Meng will be input as:

3. **First:** Hock Meng  
4. **Middle:** Philip  
5. **Last:** Tan

If a library patron were to view his name under the Circulation Borrower Selection screen his name which will appear in the order of Last, First, Middle, will be acceptable to him. Thus the three examples of names given will appear as:

- a. Ahmad Rizali bin Haji Mohd Ibrahim
- b. Sivalingam a/l Supramanium
- c. Tan Hock Meng Philip

The Circulation Division is now able to search for a Library patron's record under the name which he is commonly identified with or under his surname.

The disadvantage of this format of entry is realised when the names are printed for notices and reminders. The names on notices are arranged in the order of First, Middle, Last. Thus the 3 examples of names given will be printed as:

- a. Bin Haji Mohd Ibrahim Ahmad Rizali
- b. A/L Supramanium Sivalingam
- c. Hock Meng Philip Tan

For names with surnames such as Chinese names, this arrangement of names is still acceptable but for Malay and Indian names this arrangement is unacceptable. The names on the paper mail will have to be retyped. As a conservative estimate, if 10% of the library patrons receive reminders of overdue and fines daily, 1,300 names have to be retyped daily.

### (b) Option 2

The other alternative is to key in the full name of the patron in the field 5. (**Last**). A dummy asterisk

symbol '\*' is input in field 3. (**First**) as this is a mandatory field. In this particular case, whether the name printed is arranged in the order of First, Middle, Last, or Last, First, Middle does not affect the order of the names printed out.

e.g. **Malay name:** Ali bin Ahmad, is input as:

3. **First:** \*  
4. **Middle:**  
5. **Last:** ALI BIN AHMAD

It will be printed as Ali Bin Ahmad

e.g. **Indian Name:** Indira a/p Menon, is input as:

3. **First:** \*  
4. **Middle:**  
5. **Last:** INDHIRA A/P MENON

It will be printed as INDHIRA A/P MENON

e.g. **Chinese Name:** Lee Ah Meng, is input as:

3. **First:** \*  
4. **Middle:**  
5. **Last:** LEE AH MENG

It will be printed as Lee Ah Meng.

The snag here is that field 5. (**Last**) can accommodate only 17 characters. In the examples shown, Ahmad Rizali bin Haji Mohd Ibrahim requires 34 characters and Sivalingam a/l Supramanium requires 26 characters. One has therefore to abbreviate certain common names such as Abdul to A., Mohd and all its variant forms to M. and words such as **bin** (son of) and **binte** (daughter of) are omitted unless there is sufficient space. There are instances of long Malay names which have to be extensively abbreviated so that the patron can still identify his own name. e.g. Faridah Zaraina bte Haji Mohd Yusof (35 characters) is input as Faridah Z Yusof (15 characters).

For long Indian names, the personal names are retained and the father's name is abbreviated to just the first initial.

e.g. Sivalingam a/l Supramanium will be input as Sivalingam S (12 characters).

Chinese names are normally short. If a Chinese name exceeds 17 characters, the personal name is abbreviated to just the initials.

e.g. Aw-Yong Cheong Loong will be input as Aw-Yong C.L.

Thus at the Circulation Borrower Selection screen, a library patron is able to view his name in an accepted conventional format, though for some Malay and Indian names, they may be truncated.

If some customization could be introduced such that field 5.(Last) is expanded to 40 characters, the problem of name truncation would not occur.

## II. LOCAL ADDRESSES

### Problem

In the Borrower Full Registration Screen I (Appendix) under the heading ACADEMIC YEAR ADDRESS the fields 12.(State) (2 characters), 13.(Country) (2 characters) and 14.(Zip) (4 characters), are problematic as the abbreviations for state and countries as well as zip codes used in the U.S. differ from those used in Malaysia. As these fields are mandatory fields, they have to be filled in.

### Solution

To overcome this problem, dummy characters are inserted into fields 12.(State) and 13.(Country) by default while the symbol 'xxx' is inserted into field 14.(Zip).

The Circulation Division is now left with fields 9, 10 and 11 to provide a complete patron address to be arranged in a format that requires no retyping when a paper notice is printed. To obtain the desired format, the addresses at the input stage are keyed in exactly as how they should appear on the envelopes. An example is shown below.

Address at input stage	Address on print-out
9.Street: 13 JLN SS 22/8	13 JLN SS 22/8
10. DAMANSARA UTAMA	DAMANSARA UTAMA
11.City: 46300 PETALING JAYA	46300PETALING JAYA

As is obvious in the example, some abbreviations are necessary in the address fields to enable the addresses to be arranged in the required format. A list of abbreviations has been established by the Circulation Division to standardize input.

The addresses of the employers of UML's external members will be input under the heading EMPLOYER while the undergraduates'/post-graduates' home addresses will be entered under the heading SECONDARY ADDRESS (see screen II, Appendix). In these two sections, only 2 fields (Street and City) can be used to accommodate the addresses. The space provided is insufficient to input the full addresses of many undergraduates whose home addresses can be very long. At the input stage, the addresses cannot be arranged in the required format as is seen in the example below.

### Address at input stage

16. Street: 8 LRG 1, JLN SURAU, KG STUL

17. City: ANG BARU, 81100 JOHOR BAHRU

It may be mandatory to retype these addresses when they are used in the print-out as the format differs from that used on the envelope.

## III. OTHER REGISTRATION DATA

For other fields in Screen I of the Borrower Full Registration, some of them are not used to store information as specified. Field 21.(SSAN) is meant for the Social Security Number of Americans. It is not used by UML as it cannot accept alphanumeric characters. Malaysians have identity card (IC) numbers which are best fitted into field 23.(Drivers licence) as it can accept alphanumeric characters. The campus card numbers of UML's patrons are input into field 22.(Student ID). It is necessary to know what information is input into which field as all the fields mentioned are searchable fields. A patron's record can be called up on the terminal screen by using Addresses, Names, Driver License, Social Security Number and Student ID. If it is unknown that a patron's IC number is input in the field for Driver License, then it becomes difficult to call up a patron's record for viewing on the terminal screen. Guidelines for input into the Borrower Full Registration screens have been established by the Circulation Division.

#### IV. CUSTOMIZATION OF SOFTWARE

UML wrote to Data Research Association (DRA), the software developer, to request for customization to be made in the Borrower Full Registration.

DRA was asked if more space (40 characters) in name field 5.(Last) could be provided so that UML could adopt option 2 for registering Malaysian names so that long Malay and Indian names need not be truncated. Alternatively, if the order of the name elements in notices is modified in the order of Last, First, Middle, then option 1 could be adopted as names on the print-outs need not be retyped.

The reply UML received from DRA dated 20th November 1991 was "cost for revising software to accept one large patron name is (US)\$40,764.15 cts. One half of the cost must be paid up front. Software maintenance would be increased (US)\$405 per month". This means that besides paying M\$105,997.10 for customization UML has to pay an additional M\$1,053 monthly for software maintenance. The price was just too high. Under these circumstances UML has decided to adopt option 2 for the registration of its patrons as this method requires minimum retyping of patron names on the computer print-outs. For names that require modification/truncation, the full name will be keyed-in in screen 2 of the Borrower Full Registration under the heading PARENT/GUARDIAN.

An interesting point to note is that the National Technological University of Singapore, a user of the ATLAS software, does not face the same problem as UML. The bulk of its patron have Chinese names which are short. Truncation/modification of names rarely occur, and if it does, the full name is keyed in under the heading PARENT/GUARDIAN. Overdue reminders and pickup request are sent through electronic mail (E-mail) to its staff and students. The method of input of names is Option 1. The inversion of names on the addresses of the E-Mail is overcome by the use of an additional software called "All in One".

UML and a few libraries in Singapore who are users of the ATLAS Software have decided to form a regional user group which will communicate their problems to DRA.

It is hoped that with the combined voices of users in Malaysia and Singapore, our problems and suggestions for improvements will be included in future enhancements. The problem faced by UML in the registration of local names may then be solved in future upgrades of the ATLAS Software.

UML is also surveying the possibility of purchasing the 'All in One' software at a discounted price from Digital Equipment Malaysia Sdn. by joining its education scheme. UML hopes that the modification/truncation of patrons' names is a temporary setback which should be solved in the near future.

#### V. CONCLUSION

The automation of the circulation control system has more plus than minus points. One has to realise no matter how good a computer system is, there will never exist an ideal situation in which 100% of a library's requirements are met. Some customization of software is necessary to meet the special needs of libraries, especially those with regional requirements different from that of the software developer.

In the case of the ATLAS software, the Circulation Division is happy with its Circle Module except for the shortcoming regarding the registration of local names. This problem can easily be solved by DRA if there is flexibility and willingness to customize.

#### REFERENCE

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SCREEN I

Borrower Full Registration

- |                             |                    |                             |
|-----------------------------|--------------------|-----------------------------|
| 1. ID #: .....              | Prev IDs:          |                             |
| ***NAME***                  |                    | ***ACADEMIC YEAR ADDRESS*** |
| 2. Title:                   | 9. Street:         |                             |
| 3. First:                   | 10.     :          |                             |
| 4. Middle:                  | 11. City:          |                             |
| 5. Last:                    | 12. State:         |                             |
| 6. Suffix:                  | 13. County:        | 14. Zip:                    |
| 7. C/O:                     | 15. Valid from     | to                          |
| 8. Institution name:        |                    |                             |
| 16. Previous address:       |                    | 17. Phone:                  |
| 18. Birthday:               | 24. Verified:      | 30. Primary lbr:            |
| 19. Expiration date:        | 25. Item Limit:    | 31. Reg library:            |
| Registration date:          | 26. Manual delinq: | 32. Qualifier:              |
| 20. Stat Cat. 1:         2: | 27. Fine exempt:   | 33. Class:                  |
| 21. SSAN:                   | 28. Notice Exempt: |                             |
| 22. Student ID:             | 29. Lbr System:    | 34. Language:               |
| 23. Drivers license:        |                    |                             |

SCREEN II

Borrower Full Registration

- |                               |                       |
|-------------------------------|-----------------------|
| ***EMPLOYER***                | ***PARENT/GUARDIAN*** |
| 1. Name:                      | 8. First:             |
| 2. Street:                    | 9. Last:              |
| 3. City:                      | 10. Street:           |
| 4. State:                     | 11. City:             |
| 5. Zip:                       | 12. State:            |
| 6. Phone:                     | 13. Zip:              |
| 7. Extension:                 | 14. Phone:            |
| ***SECONDARY ADDRESS***       | 15. Valid from        |
| 16. Street:                   |                       |
| 17. City:                     | 22. Gender:           |
| 18. State:                    | 23. School:           |
| 19. Zip:                      | 24. Major:            |
| 20. Phone:                    | 25. Department:       |
| 21. Valid from             to | 26. Academic status:  |
|                               | 27. PIN:              |
| 28. Notes:                    |                       |
| 29. Electronic mail address:  |                       |
| 30. Valid from             to |                       |
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