IEEE@UCR Member_SignIn

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This document is written in order to provide some form of documentation for the IEEE@UCR Member_SignIn system. Although design rationale will be covered, please note that that is not the main purpose of this document, and that further details about implementation and a large amount of jokes can be "bought over" by treating the author to a meal. He may also follow you home, so please be wise.

Please note that this document is written in a "backwards fashion" with the logic that it may be read from the most-used portion to the least used portion.

Please also note that this document is probably going to be under active construction for a long, long time.

1 Operation

This section primarily details how to use the system. If everything is set up correctly, it's pretty simple.

1.1 Primary Authentication

```
IEEE@UCR Card Login System
Please swipe your card or press enter for manual entry.
>
```

Figure 1: Primary authentication mode.

Primary authentication can be completed in one of two ways. An example of the screen that will be seen in this first mode is seen at Figure 1.

1.1.1 Card Swipe

Card swipe authentication is achieved by reading the input from stdin provided by a standard card reader on the student's ID. Be sure your keyboard is set to "`US`," this has become a problem in the past with administrators who have their keyboards set to something other than "`US`."

The specifics can be found in the code if necessary, but it should not be necessary.

1.1.2 Student ID Entry

```
IEEE@UCR Card Login System
Manual SID entry mode activated.
UCR SID:
```

Figure 2: Student ID Entry mode

Student ID entry is activated upon pressing the "enter"  key on an empty input. That is, no characters are entered before pressing the "enter"  key.

The terminal will prompt for the user's student id, and only accepts an id with "`860\d{6}`"[1] or "`861\d{6}`." When the user inputs an incorrect ID, the user will be redirected to the primary authentication screen.

An example of the SID entry screen is in Figure 2.

[1] You can read more about PERL regular expressions (albeit, this C program does not use PERL) from PERL's online documentation. `http://perldoc.perl.org/perlre.html`

1.2 User Information

The Member_SignIn system also likes to ask the user for information. This is necessary to send said user coherent emails.

1.2.1 Last Name

```
IEEE@UCR Card Login System
Manual Last Name entry mode activated.
Last Name:
```

Figure 3: Last Name Entry Mode

Usually, the user's last name is retrieved from a card swipe, however; this is not the case with a direct student ID sign in. A database lookup will also reveal the user's last name.

Upon entering a last name that contains non-alpha characters, the user will be forced to keep entering a last name until it finally makes sense. [2]

An example of this mode can be seen in Figure 3.

1.2.2 First Name

```
IEEE@UCR Card Login System
Manual First Name entry mode activated.
First Name:
```

Figure 4: First Name Entry Mode

Usually, the user's first name is retrieved from a card swipe, however; this is not the case with a direct student ID sign in. A database lookup will also reveal the user's first name.

Upon entering a first name that contains non-alpha characters, the user will be forced to keep entering a first name until it finally makes sense.

An example of this mode can be seen in Figure 4.

1.2.3 Email

A database lookup will usually reveal the user's email, but this is not the case when the user does not have an existing record.

[2] This is probably not the best way to deal with easily frustrated or computer-challenged users.

```
IEEE@UCR Card Login System
Manual email entry mode activated.
UCR email:
```

Figure 5: Email Entry Mode

These emails specifically are limited to ucr.edu emails. The PERL verification string [3] should be "`[:alphanum:]+@[alpha]*\.?ucr\.edu`."

An example of the email entry mode can be seen in Figure 5.

1.2.4 Member Number

A database lookup should reveal the user's member number, but this is not always the case. The user shall be forever bothered with this unless she already has a member number filed with the IEEE. This is also a useful feature for cross-referencing with official IEEE records.

1.3 Verification

During this step, the user is able to change any of his or her information by entering the bolded characters onto the terminal.

2 Configuration

The program has variables. Go change them if something looks off.

3 Installation

By this point, if this is not extraneous information, C is not an interpreted language.

[3] This program has no PERL, but PERL is the text processing language of choice.

3.1 Database Configuration

3.2 Program Configuration

3.3 Dependencies

3.4 Compilation

4 Troubleshooting

For now, your best hope is to contact your local system administrator. Assuming that this software is not widely distributed, just call Brandon over.

In the worst-case scenario, just switch to the old member tracking method.