

Qilin Chinese Learning System 2015

Introduction

This system is a combination of a dictionary and a flashcard learning system. The dictionary is derived from the CEDICT a public domain Chinese-English dictionary. The flashcard system allows a user to load their own customized list of vocabulary using a simple unicode capable text editor. The flashcard implements the 4 stage Leitner spaced repetition method. Multiple stacks of cards called 'flashgroups' can be stored in the system. The system also allows different users and usage to be tracked.

A word search in either pinyin or Chinese characters is also incorporated. The results are presented as a set of cards that has basic details of the character, such as its meaning and ranking in usage. The pronunciation of the character can also be played. A particular unique feature of this software is the ability to present similar looking characters using the Shape-Alike button.

This software requires Java Run Time.

What is the Leitner System?

Wikipedia: In this method flashcards are sorted into groups according to how well you know each one in the Leitner's learning box. This is how it works: you try to recall the solution written on a flashcard. If you succeed, you send the card to the next group. But if you fail, you send it back to the first group. Each succeeding group has a longer period of time before you are required to revisit the cards.

Suppose you have 3 boxes of cards called Box 1, Box 2 and Box 3. The cards in Box 1 are the ones that you often make mistakes with, and Box 3 contains the cards that you know very well. You might choose to study the Box 1 cards once a day, Box 2 every 3 days, and the Box 3 cards every 5 days. If you look at a card in Box 1 and get the correct answer, you "promote" it to Box 2. A correct answer with a card in Box 2 "promotes" that card to Box 3. If you make a mistake with a card in Box 2 or Box 3, it gets "demoted" to the first box, which forces you to study that card more often.

The advantage of this method is that you can focus on the most difficult flashcards, which remain in the first few groups. The result is, ideally, a reduction in the amount of study time needed.

Guide to the GUI

The graphical user interface (GUI) of the software is shown below (Fig. 1). It consists of only a single main window. There are no menus, all functions are via the Management Panel on the top part of the window.

Quick Start

Click on [run.bat](#) to run (for Windows OS).

First Time usage:

1. Type up in a unicode editor a list of words, pinyin and meaning by row: 局势 :ju2 shi4:state of affairs
2. Click FGroup New to create a new Flash Group.
3. Load the file saved above via the Load Button.
4. Click User New to create a new user name.
5. Click Copy to copy the flash cards to the new User
6. Click Start to load the flash cards into the system.
7. Click Levels button to load cards in a level to begin test.

Normal usage:

Follow the steps in Figure 1.

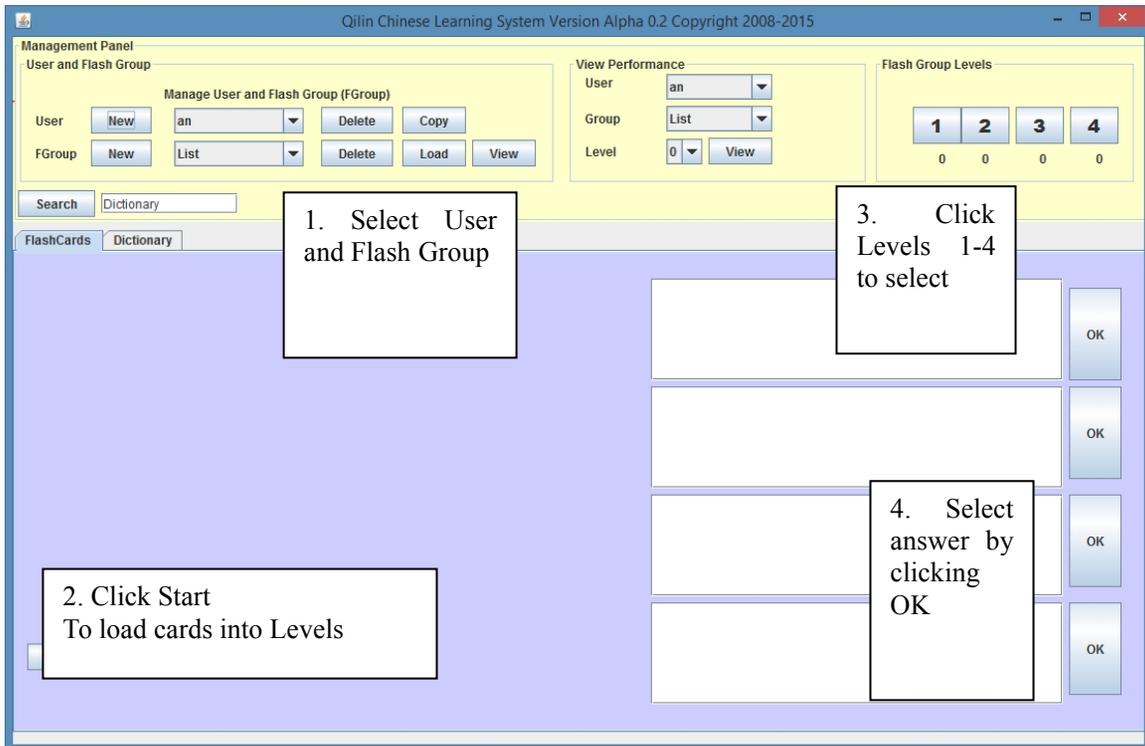


Figure 1. The main window of Qilin Chinese Learning System. Follow steps 1-4 after User and Flash Group and cards have been loaded.

User and Flash Group Panel

The User and Flash Group (FGroup) panel is for management of users and Flash Group (Fig 2). Flash Group refers to each stack of flash cards.

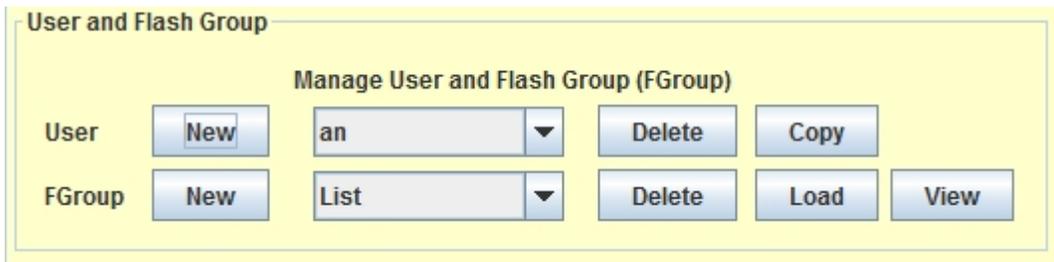


Figure 2. User and Flash Group Panel

User New button creates a new user in the system. When created the user name will be added to the dropdown list.

User Delete button deletes the user name from the system including the user's performance tracking results.

User Copy button copies the deck of flash cards in the Flash Group shown in the dropdown list of the FGroup to shown user in the dropdown list. In the example (Fig. 2), clicking "Copy" would copy the flash cards in *newspaper1* group to user *Test*.

FGroup New button creates a new Flash Group. It would appear in the drop down list after creation. Use it to associate the flash cards loaded from the "Load" button.

FGroup Delete the Flash Group name and its contents. It would not delete the user and performance tracking results.

FGroup Load allows a new collection of flash cards (must be more than 4 items) to be loaded into the system via a text file. The cards would be associated with the Flash Group name shown in the drop down list. To use it, the cards must be copied to a particular user using the “Copy” button.

The text should be written as character, pinyin and meaning separated by colon per row. Please use a unicode capable editor. For Windows you can save using Wordpad if you select “Unicode Text Document .txt”. Example :

```
局势:ju2 shi4:state of affairs
缓和:huan3 he2:to alleviate
遥:yao2:distant
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The “View ” button will show all the characters in the Flash Group of the user in a separate window.

View Performance Panel

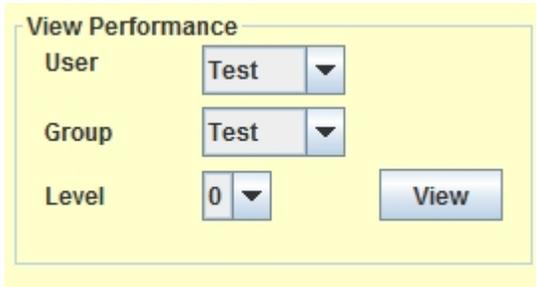


Figure 3. View Performance Panel.

This panel allows the selection of the user and group level graphs to be displayed when the “View” button is clicked. Example of the graph is shown in Fig.4. Selecting Level 0 would include all levels. The Levels refer to the Flash Group Level or the Leitner card boxes.

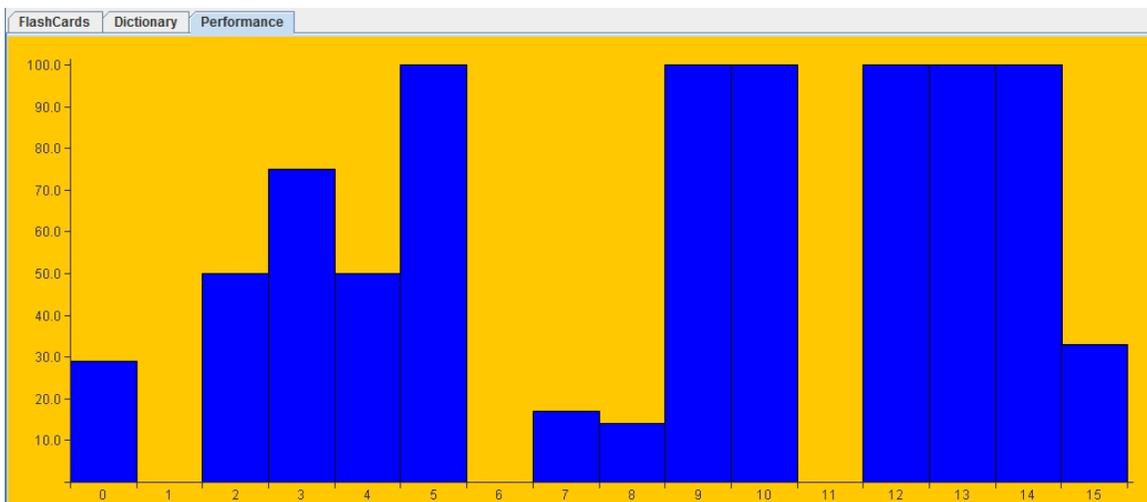


Figure 4. Performance graph of a sample user. Y-axis shows the percentage of correct for that session. X-axis represents the attempts.

The horizontal axis of graph shows the sequential attempts disregarding the actual dates and times. An attempt without the result bar would signify that the attempt was 0% correct, i.e. all the flash cards was incorrectly identified.

Flash Group Levels

The Flash Group Levels correspond to the Leitner card boxes. In the diagram Fig. 5, there are four boxes or levels which are fixed and can't be varied. The smaller numbers below each level 1-4 refers to the number of cards in each level, e.g. There are 8 cards in Box 1.



Figure 5. Flash Group and its Levels

When you start off all the cards will be placed at level 1. Those card that you can recognize will move to level 2, and those that you have difficulty will be remain.

Dictionary Word Search

A dictionary search can be performed on the search box (Fig 6). Case insensitive pinyin with tone marks, e.g. Wo3 can be entered. Alternatively actual Chinese characters could be entered. The results would be presented as Fig 7.

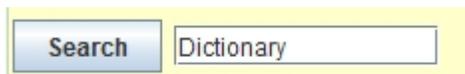


Figure 6. Dictionary search box.

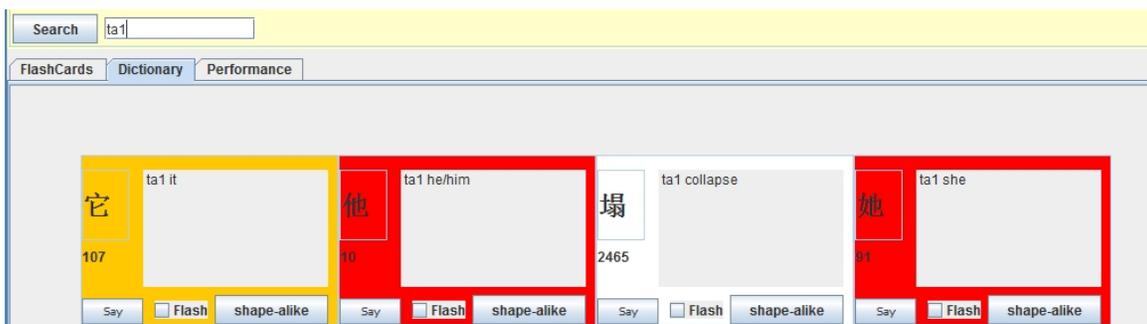


Figure 7 Example of a search results.

Dictionary Cards

Each of the dictionary card (Fig.8) represent one Chinese character and its associated meaning. It also has number that signifies its ranking in usage. The smaller the number the more it is frequently used. Its ranking in usage is also color coded.

If the character is ranked within 100, the card would be red in color, between 101-500 orange, 501-1000 yellow, 1001-2000 pink and otherwise white.



Figure 8. Individual dictionary card

Clicking on the “Say” button would enable the pronunciation of the character be played.

Selecting the “Flash” would enable the character to be inserted into the current Flash Group of the selected user. The current Flash Group is the group which has its name in the FGroup drop down list.

The “Shape-Alike” button allow other characters similar in shape to the current character to be displayed. For example clicking “Shape-Alike” for the character in Fig.8 would result in characters that has it as a component, or characters with similar strokes (Fig. 9). However this function is not exhaustive, there could be no results at certain occasions.



Figure 9. Results from Shape-Alike to character Wu1 (in Fig. 8).

Starting the Flashcards

Before starting check that the correct Flash Group is selected in the drop down list of the User and Flash panel (Fig. 10).



Figure 10. Flash Group selected is “newspaper1”

To load the cards into the system click on the “START” button at the bottom left (Fig. 12). To check that the cards are loaded, make sure count of card in each levels are displayed (as in Fig 11). Click on one of the four boxes that does not have zero below in the Flash Group Levels panel (Fig 11). Remember that the numbers represent the number of cards at that level.



Figure 11. Flash Group Levels

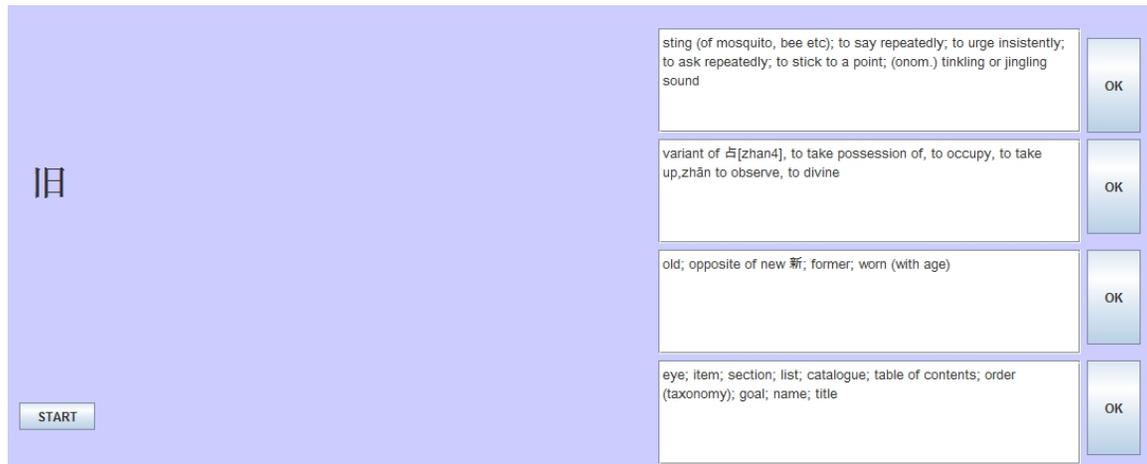


Figure 12. The Flashcard interface.

The query will be on the left, and answer choices will be in the white boxes on the right, click on “OK” to select your answer.(Fig 12).

Future improvements.

1. The selection of cards should be automatic, user should not have to select which levels.