

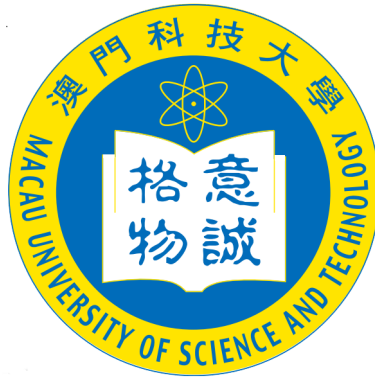
Requirement Analysis

software engineering

CS103

Liu Chang,1609853W-I011-0040
ZhiZheng Wu,1609853A-I011-0052

November 1, 2019





Contents

1	Introduce	2
1.1	Purpose	2
1.2	Project Standard	2
1.3	Range	2
1.4	Stuff	2
1.5	Flowchart	2
2	Description	4
2.1	Production state	4
2.2	Production Function	4
2.3	Operating Environment	4
2.4	GUI	4
2.4.1	Text	4
2.4.2	Comic	5
2.4.3	Status	5
3	Function Requirement	6
3.1	Option	6
3.2	Interface	6
4	Analysis Model	6

1 Introduce

With the advancement of technology, the carrier of human characters has slowly transitioned from paper to electronic devices. In 2007, Amazon was designed a new device, kindle, new text file view tool. Now although kindle is not be mainstream reading method, still have large user base. Kindle have its own text type and before kindle load the file need to use conversion software convert the type to .mobi or .azw3. Existing conversion software is too complex and user-oriented for professionals who edit electronic text. The purpose of this software is provide a simpler and more convenient conversion service.

1.1 Purpose

This software is designed for converting file type to kindle acceptable type as novel, magazine, comic. According to different file that contain image and characters(pdf) can adjust order by name of file. If need, also can adjust by user requirement manually.

1.2 Project Standard

- After converted document all in Times New Roman, size is 15.
- output file sentence intervals keep 2mm.
- Keep original special symbols.

1.3 Range

A group of users based on novels and comic without relevant editing skills.

1.4 Stuff

- Production Manager: Liu Chang
- Coder: Wu ZhiZheng
- Client: Sun TianZe

1.5 Flowchart

This Flowchart carefully describing the steps of this converter and express the error warning when illegal file be read. The software has simple self-correction and mention the user the correct type of input document.

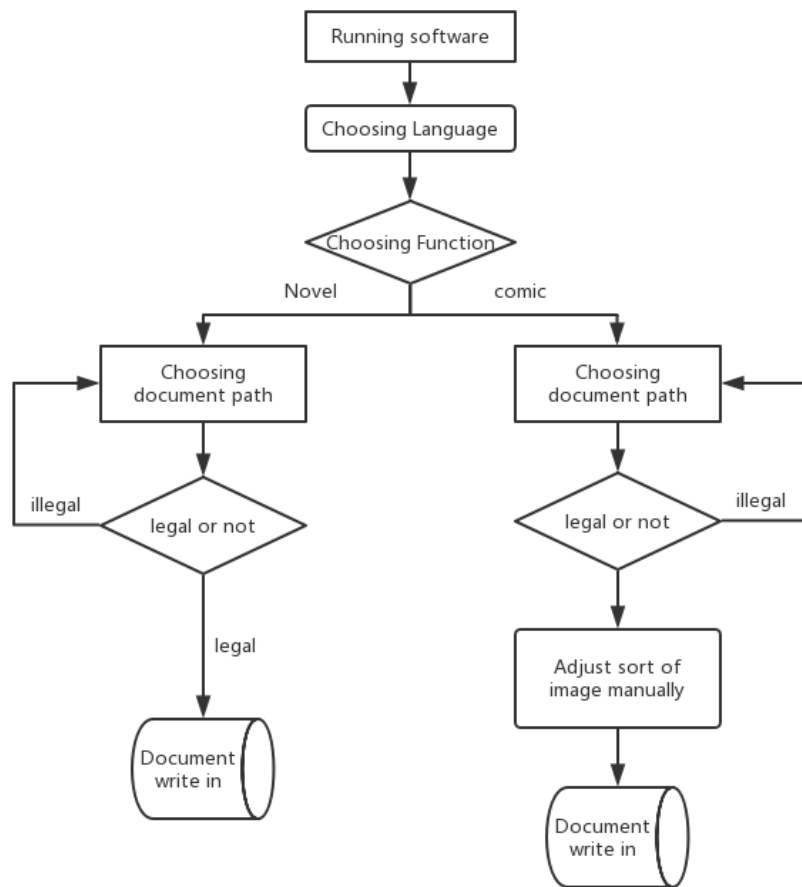


Figure 1: Flowchart of Converter

2 Description

The user is mainly targeted at the general user who uses Kindle, and dose not have professional text editing knowledge.The main text format accepted by kindle is .mobi, .awm3.Comic conversion can accept multiple image formats as .jpg, .pdf.Supporting 3 different languages(EN,CN,JP).

2.1 Production state

This product is mainly for the synthesis of a number of related conversion software on the market, and has the function of converting text and images, and at the same time eliminates the too professional function in the original software, making the manipulation more simple.

2.2 Production Function

The target of this product is novels and comics.The novel part can read a variety of texy formats and finally convert it in to a readable format of Kindle.A comic can be a one-sided picture or a collection of chapters and multiple images.Can be sorted automatically, the preview stage can manually adjust the order of the pictures.

2.3 Operating Environment

- System: Windows 7/8/10.
- Language: python 3.7.
- Library: TKinter, OS, Pillow.
- Device: Kindle fire or higher vision.

2.4 GUI

Whatever the text file function or Comic file function, software all provide basic interface function as stretch, minimize, shut down.



Figure 2: Basic Function

2.4.1 Text

In the initial interface, you will have three option to choose which function you want to do.Text function major in text file conversion.There is a import dialog box for users to choose they file path.You also can import by drop and drag.



Figure 3: Text import dialog box

2.4.2 Comic

Comic conversion function is behind the text. The different part of comic with text is that user choose a folder of images. In this function, software will provide user adjust sort of images manually. Software provide preview function of comic picture, and a list of all images you import. If you make some operational error, software have forward and back button to fix it.

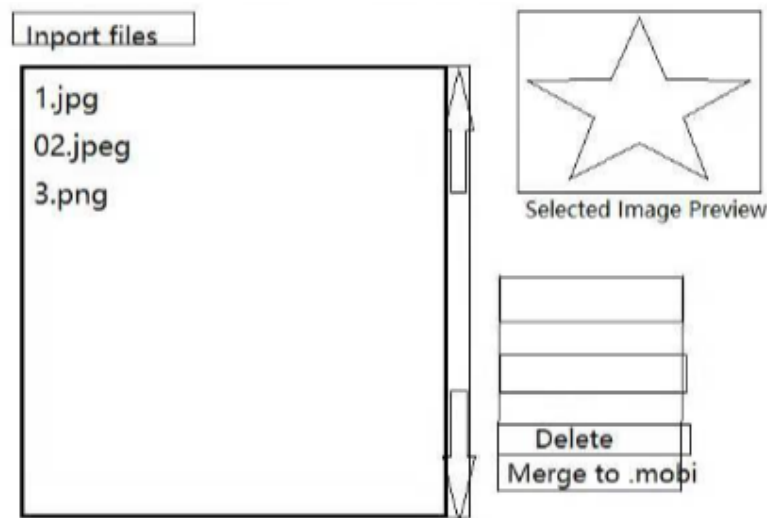


Figure 4: Comic list and adjust interface

2.4.3 Status

Under the software, there have a group of signal state light. User can judge the conversion is successful or not by this.

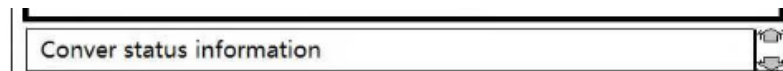


Figure 5: Status Lights

3 Function Requirement

First of all, user have to make a option to decide text conversion or Comic conversion. As a format conversion software, this production support input/output operation, automatically sort comic, and converting to right file type.If user input error file type like some audio file as .mp4 .avi, software will send error message to user and return input interface require input again. Sorting will be prime excuted by file name after inputing comic file, then will have a new interface prepare for user adjust sequence manually, when user point targeted image, there will have preview picture apperace right box of software.

3.1 Option

- Language option: EN CN JP.
- Novel and Comic option.
- file path choose option.

3.2 Interface

- Start software, will have a loading picture.
- Language choose interface.
- Function choose interface decide which file you want to convert.
- Input path choose interface.
- Output path choose interface.

4 Analysis Model

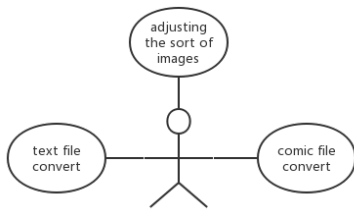


Figure 6: User Case

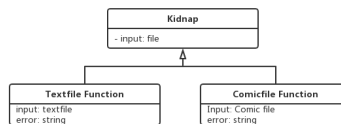


Figure 7: Class

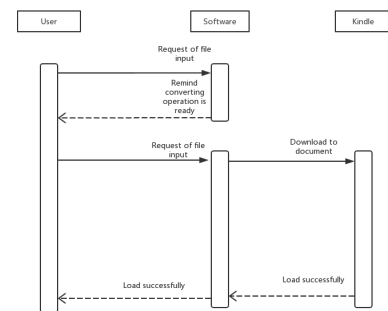


Figure 8: Sequence