Software Engieneering Laboratory
section 2
Project: Logic circuits

Development Methodology

1. Task

Our task is to modernize an obsolete program so that it compiles on Visual Studio 2015 introducing minimal changes to the code.

2. Work plan

The work is divided into two stages:

Code analysis which consists of all members analysing code to find all errors of compilation and planning what modifications to code should be introduced to fix those errors.

and

Code implementation which consists of implementing planned changes to code. In parallel QA testing of modified code will take place and any issues found during QA testing will also be resolved.

These stages are further described on Trello.

3. Division of labour

At all times the project is lead by section leader who simultenously fulfills the role of documentation master. He's also the administrator of Trello and GitHub.

During code analysis stage team leader assigns each member a piece of code to analyse. Team member analyses code for errors of compilation. Everyone assumes the role of code analyser.

During code development and QA testing stage team members assume roles of code developers and QA testers. During code analysis we found two major threads of development:

migration to Windows API and removal of obsolete cursor handling. So the section was divided into three teams:

1. Team responsible for migration to Windows API
   - 1.1. Aleksandra Kotula – team leader
   - 1.2. Zbigniew Pamuła
   - 1.3. Mikołaj Stankiewicz – section leader, documentation master
2. Team responsible for removing obsolete cursor handling
   - 2.1. Michał Krypczyk – team leader
   - 2.2. Robert Pietrzyński
   - 2.3. Hasan Gündüz
3. QA testers
   - 3.1. Michał Męcik – head tester
   - 3.2. Burak Özkan
   - 3.3. Mateusz Korusiewicz

Team leaders assigns task to specific team members at Trello. Code developers modify code according to tasks assigned by team leaders which are based on code analysis performed in earlier stage. In parallel QA testing is perfomed by QA testers on modified pieces of code and any major issues are returned to code developers to be solved.

Task assignments are given on Trello and also mentioned on Facebook so no-one misses their task assignments.

4. Communication

Communication between team members will be taking place mostly via the internet, although there will be regular meetings taking place to discuss work progress face-to-face.
Online communication will be faciliated mostly via Facebook with the addition of weekly Skype conference calls.
Task distribution will be performed on Trello and supplemented by Facebook.
Github will be utilized for holding code repository and other files and Google Docs for holding and sharing documents.

Github: https://github.com/gilotyna815/SE-section-2---Logic-circuits
Trello: https://trello.com/b/rEfyeORV/se-section-2-logic-circuits
Google drive: https://drive.google.com/open?id=0B0-M5MWUj6rVd0JyTTZreDdLWFU

5. Bug tracking and testing methodology

Minor bugs within the code will be resolved by people encountering them. Major issues found by QA testers during QA testing phase will be returned to code developers to be solved.

6. Version control

Version control for the files will be mostly handled with GitHub and documenting changes made via commit descriptions. Additionally regular backups of the program with current documentation will be done by team leader to ensure checkpoints to fall back on in case of data loss or irreversible bad changes.

Document version control will be achieved by Google Docs native change tracker and manual notation of versions with timestamps at the bottom of the documents:

Version 1.0 – 29.10.2017
Version 2.0 – 12.11.2017
Version 3.0 – 04.12.2017
Version 3.1 – 04.12.2017
Version 3.2 – 22.12.2017