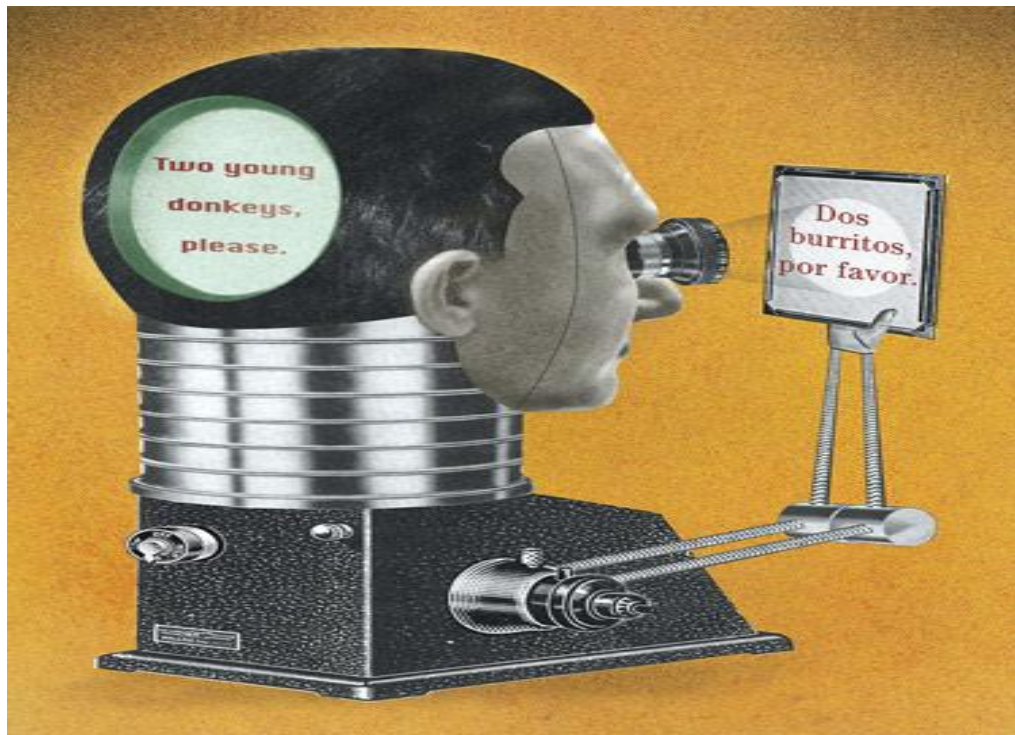




## Occam & C++ Translator



Student Name: Shaoguang Miao

Student ID: C00131017

Supervisor: Joseph Kehoe

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## 1. Project Plan

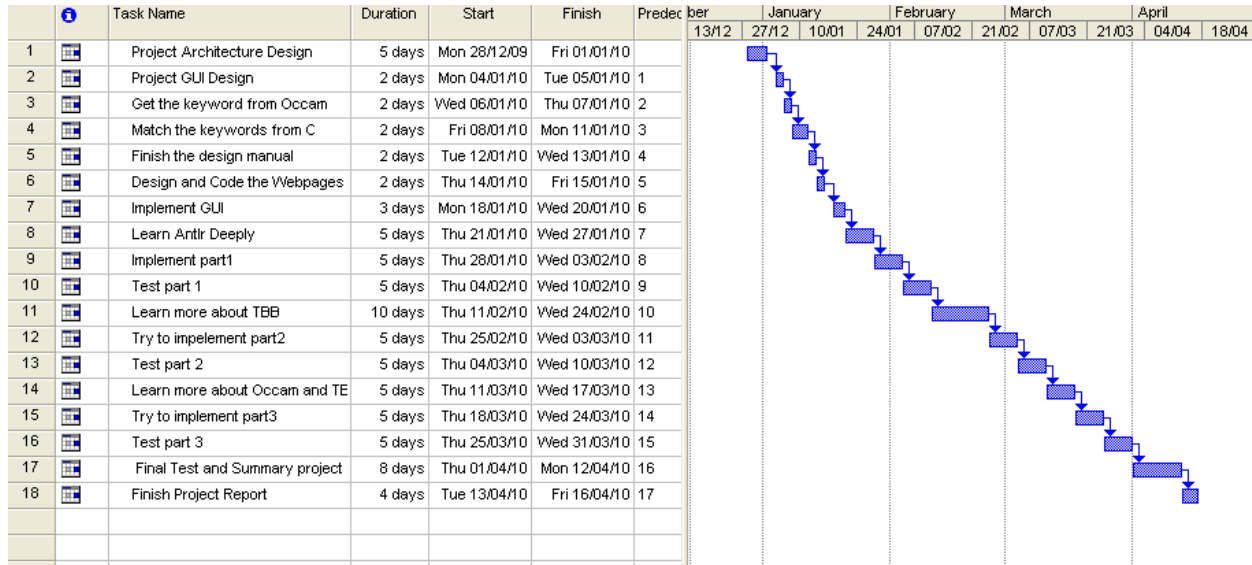
Project has been divided to parts showing follow:

- Project Architecture Design
- Project GUI Design
- Get the keyword from Occam
- Match the keywords from C
- Finish the design manual
- Design and Code the WebPages
- Implement GUI
- Learn Antlr Deeply
- Implement part1
- Test part 1
- Learn more about TBB
- Try to implements part2
- Test part 2
- Learn more about Occam and TBB for prepare part 3
- Try to implement part3
- Test part 3
- Final Test and Summary project
- Finish Project Report

The detail will be given after gantt chart.

## 2. Project Plan Gantt Chart

The diagram below will show the data and last duration of each module.



## 3. Explanation of the Gantt Chart

### 3.1 Project Design:

The whole project architecture will be implemented at this state. It includes:

#### 3.1.1 Project Architecture Design:

- Project Domain Diagram Implementation
- Use Case Diagram Implementation

#### 3.1.2 Project GUI Design:

- Project GUI will be designed in this state.
- Each component will be used and brief explanation here.

#### 3.1.3 Get the keywords from Occam:

- Collect the keywords which should be translated in the project.

#### 3.1.4 Match the keywords from C

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## Project Plan – Occam & C++ Translator

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- Find matched keywords which could do as same as Occam keywords.

### 3.1.5 Finish the design manual

- Summary whole design part in this document.

### 3.1.6 Design and Code the WebPages

- Design demonstration WebPages and implement it.

## 3.2 Implementation and Modular Testing

### 3.2.1 Implement GUI

- Implement GUI using Microsoft Visual 2008.

### 3.2.2 Learn Antlr Deeply

In research duration, I just research what the Anltr could do, what's the advantage of the Antlr, but not how to use it to finish everything what I want. I will lean how to use it to solve the problem what I will meet and I have got.

### 3.2.3 Implement part1

Part 1 means translate some basic grammars of Occam, include:

- Basic data type
- Conditional syntax
- Loop
- Etc

### 3.2.4 Test part 1

### 3.2.5 Learn more about TBB

TBB (Threading Building Block is most difficult part of this project, how to use this library to implement parallel programming is point of this project.

### 3.2.6 Try to implements part2

Part 2 means translate some advance programmer of Occam, include:

- PAR
- ATL

### 3.2.7 Test part 2

### 3.2.8 Learn more about Occam and TBB for prepare part 3

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Part 3 means translate channels and channel protocols of Occam. How to implement communication between channels is also a difficult part of the project. Before we start to translate it, we have to know what it is and how it works.

3.2.9 Try to implement part3

Try to use TBB to implement communication between channels.

3.2.10 Test part 3

### **3.3 Final Testing and finish the project report**

3.3.1 Final Test and Summary project

3.3.2 Finish Project Report