

## Project Plan

### I. Org Chart

Name	Dave	Jon	Peter
Primary Function	- Team Leader - Coder (for UI)	-Coder (for logic/gameplay)	-Documentation (user manual, programmer's manual, etc)
Additional Functions	- Overseeing documentation - System Architect -Tester (Devise test plan)	- Submit weekly status reports to Dr. West on behalf of team - Assist with documentation;	- Coder - Tester (implementation)

### II. Process Model

We will use an incremental development model for ConnectFive! with the development increments as follows:

- Development Version 1.0 – User Interface completed. Usable but no functionality tied into User Interface controls.
- Development Version 2.0 – Player vs Player logic implemented in code, Integrated with User Interface, functional gameplay.
- **\*\*\*Version 2.0 = Release ver. 1 \*\*\***
- Development Version 3.0 – Player vs Computer implemented in code, Integrated with User Interface, functional gameplay.
- **\*\*\*Version 3.0 = Release ver. 2 \*\*\***
- Development Version 4.0 – Implement code for determining a draw prior to all pieces being played.
- **\*\*\*Version 4.0 = Release ver. 3\*\*\***

#### Time Permitting

- Development Version 5.0 – Player vs Player over a network connection, integrated with User Interface, functional gameplay.
- **\*\*\*Version 5.0 = Release ver. 4 \*\*\***

## III. Tools and Standards

### 1. Standards

#### 1.1 Languages

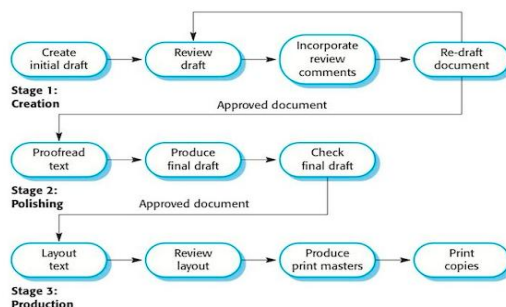
The primary language to be used for the project is **Java**, using the 7<sup>th</sup> release of the Java Development Kit.

#### 1.2 Process Model

The process model being followed is the **Incremental Process Model**. This model was chosen because the core product with the most important functionality will be built first, after which more features will be added over time as necessary. This model was chosen because further extensions and changes are easier to implement compared to other models.

#### 1.3 Documentation

The Programmer's Manual with all pertinent documentation (i.e. the requirements, design, source code documentation, etc.) will be synchronously updated with each incremental version of code developed. Due to the three members of the team having different backgrounds and experiences; updating the documentation with each release of the software was most appropriate. The **Documentation Process Standard** (as diagrammed below) will be followed for creating documentation throughout the project.



The 1<sup>st</sup> stage will have the initial draft composed, reviewed, and re-drafted as necessary. Stage 2 will follow where proofreading and making final polishing checks will be completed. The last stage, 3, will produce the final piece with the appropriate layout. Following this procedure for all documentation will lead to

an all-encompassing model where drafting, re-drafting, editing, and verifying one or two versions before the final highest-quality documentation report is accepted.

#### 1.4 Code Commenting

Coding standards will adhere to the **SCCCR 5-Pillar Framework**, summarized as follows:

- Simplicity (building simple classes and methods)
- Clarity (ensuring each class, interface, variable, and object has a clear purpose)
- Completeness (document all necessary features and functionality)
- Consistency (coding should look and behave similarly)
- Robustness (document any behaviors related to errors and exceptions)

## 2. Tools

### 2.1 IDEs

#### a. UI Development

The **JavaFX Scene Developer** will be used to design the user interface for the project. The image editing software **GIMP** will be used to create necessary graphics for the UI.

#### b. Code Development

Code will be written and compiled using the **Eclipse** development environment.

### 2.2 Documentation

Final documentation will be created and edited using **Microsoft Office** tools. Additionally, incremental versions will be created and edited with **Google Documents**. Document version control will be managed with the versioning tools of **Google Drive**.

### 2.3 Architectural Diagramming

Architectural diagrams will be created and edited using **Microsoft Visio**, as well as the free, online diagramming tool **Draw.IO**.

## 2.4 UI Interface Diagramming

UI diagramming will be completed with **JavaFX Scene Developer** and **Draw.IO**.

## 2.5 Testing

Testing will be completed using the following guidelines:

1. **Test Plan** – this document will describe the scope and approach to testing for *ConnectFive!*
2. **Test Cases** – this document will specify the different cases we intend to test for. Test cases will consist of inputs intended to produce acceptable and unacceptable player moves, moves that trigger a victory, etc.

The **Test Summary** document will summarize the test cases, scenarios, and the corresponding results. A new test summary will be written for each developmental version of the software, including integration testing. Release and end user testing will also have a related testing summary document.

# IV. Configuration Management Plan

## Version Management

*ConnectFive!* development will utilize Google Drive's built in version control functionality for version management. All development versions will be nested under the folder "Dev" and further nested by the corresponding version number. There will be no appended text to filenames to serve as version identifiers, as Drive will manage the version history.

## Release History

*ConnectFive!* release history will utilize the same system as version management, only the parent folder will be entitled "Release," with each release version having its own folder nested under "Release."

## V. Gantt Chart

