INST 706: A & D Software Implementation Project (Group 2)

1. Introduction

When A&D High Tech's growth and market share stagnated, management decided to explore new ways to increase the company's growth using online sales. In early 2002 CEO Ted Walter and Vice President of Sales Jeff White gave the green light to this project to create an online store. CIO Matt Webb faced an initial dilemma of either building a custom application or integrating a commercial application. After considering the pros and cons of each option, A&D decided to build a custom application that integrated with existing sales and inventory systems. The project started May 27, 2014 and has an expected completion date of September 28,2015. The project is expected to have a total cost of $3,721,442.40 in staff resources, plus the cost of physical components.

2. Objective

In order to expand A&D's customer network, CEO Ted Walter wanted the online store to be set up as soon as possible. His ideal scenario was to get the website up and running before the holiday shopping season. Similar to any other online e-commerce website, the scope and business requirements of this project were as follows:

- Displaying and updating unit pricing;
- Estimating delivery date;
- Real-time payment processing;
- User profile creation and data collection; and
- Integration with the existing ERP for order management.

In order to achieve the objective, a process flow was developed for the internet application. The technical architecture of this application needed a functional integration of several layers, including the web server, application server, middleware, back end layer and databases. New workstations and servers have been purchased. The attached Gantt chart and resource usage table show the project Work Breakdown Structure (WBS) and the resources that have been allocated to accomplish the project.

3. Analysis of the project & WBS

The WBS is based on a fourfold approach defined under requirements gathering & definition, high level design, testing and deployment. An essential feature of this WBS is the even distribution of time required to complete each phase with the exception of testing, which has been given an inordinately large amount of time. The task predecessors accurately reflect the flow of activities between tasks to ensure availability of required knowledge to be passed on between teams while maintaining minimum downtime on the work carried out.

Given the CEO's desired completion date before the holiday shopping season, this project plan will need substantial modification as to timeframe. Potential solutions for accelerating project execution include:

- Modifying tasks in the requirements gathering phase to run in parallel.
- Adding resources to system and validation testing. The WBS and resource allocation table show an acute dearth of resources, resulting in a severely unbalanced workload. A closed loop small team helps reduce dependencies by having each individual work on multiple tasks across the project. However, given the compressed timespan and quantity

of work warranted in this project, it would be advisable to introduce more resources and ensure meaningful communication between teams to overcome any risks.

The project plan as it stands right now is successful in covering the scope of the project. What it lacks is optimization of task execution and efficiency.

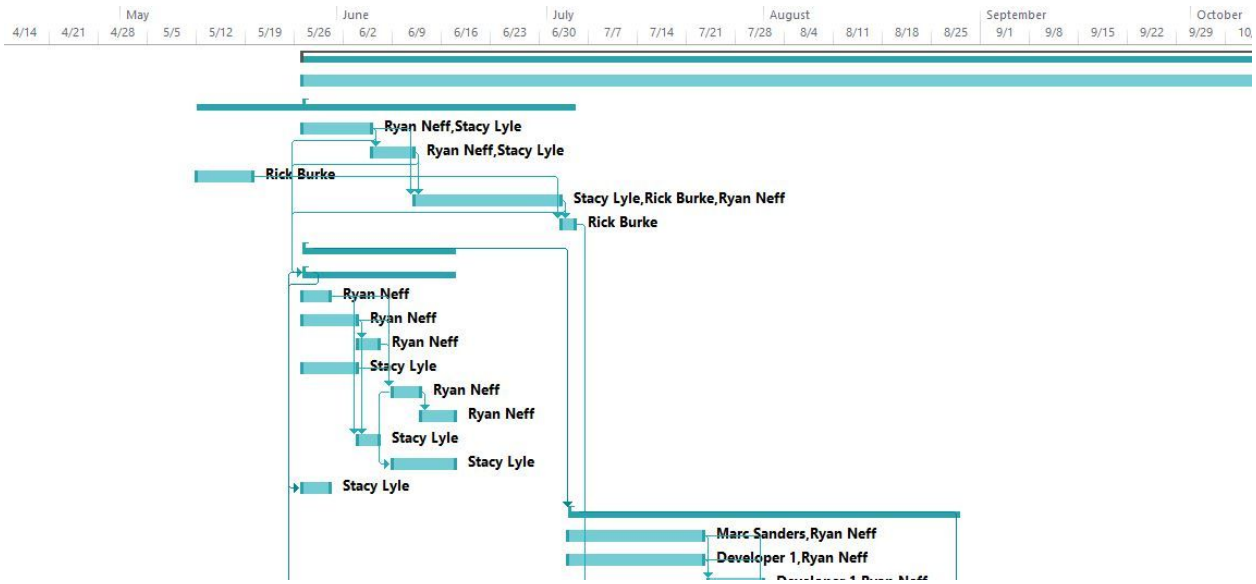
4. Scope

The scope of this project includes developing an online order handling software that can process new orders, add-on orders, order amends, order status, and lead capture. This software must integrate seamlessly with the existing ERP system. The project does not require purchase of software licenses for the fact that the application is developed in house.

5. Conclusion

A&D High Tech is aiming to build the entire multi-tiered application before the holiday retail season. In order to achieve their target in the CEO's compressed time frame, either resources or scope will need to be addressed. We believe that the amount of time dedicated to testing and system validation is very high and the number of resources allocated is not proportional to the amount of work required. While optimization of task scheduling in the WBS will help meet the target release, it is only a partial answer. A&D management will need to prioritize budget increases for staff resources in order to achieve the desired end date.

Gantt Chart



Resource Sheet

Resource Name	Work
Chris Johnson	1,016 hrs
Manage Project	*1,016 hrs*
Ryan Neff	**4,514.63 hrs**
Stacy Lyle	**4,443.43 hrs**
Rick Burke	**1,016 hrs**
Marc Sanders	**3,966.63 hrs**
Developer 1	**3,966.57 hrs**
Sanjay Vohra	304.8 hrs
Kara Siposki	**3,794.63 hrs**
Todd Eliason	**3,795.37 hrs**
Developer 2	**3,850.57 hrs**
Developer 3	**3,850.57 hrs**
Todd Fredson	0.4 hrs
Jeff White	0.4 hrs
Chuck Gagler	0.4 hrs
Trainer	**72 hrs**
Create Training Schedule	*8 hrs*
Train retail customer support	*32 hrs*
Train Sales Department Staff	*32 hrs*