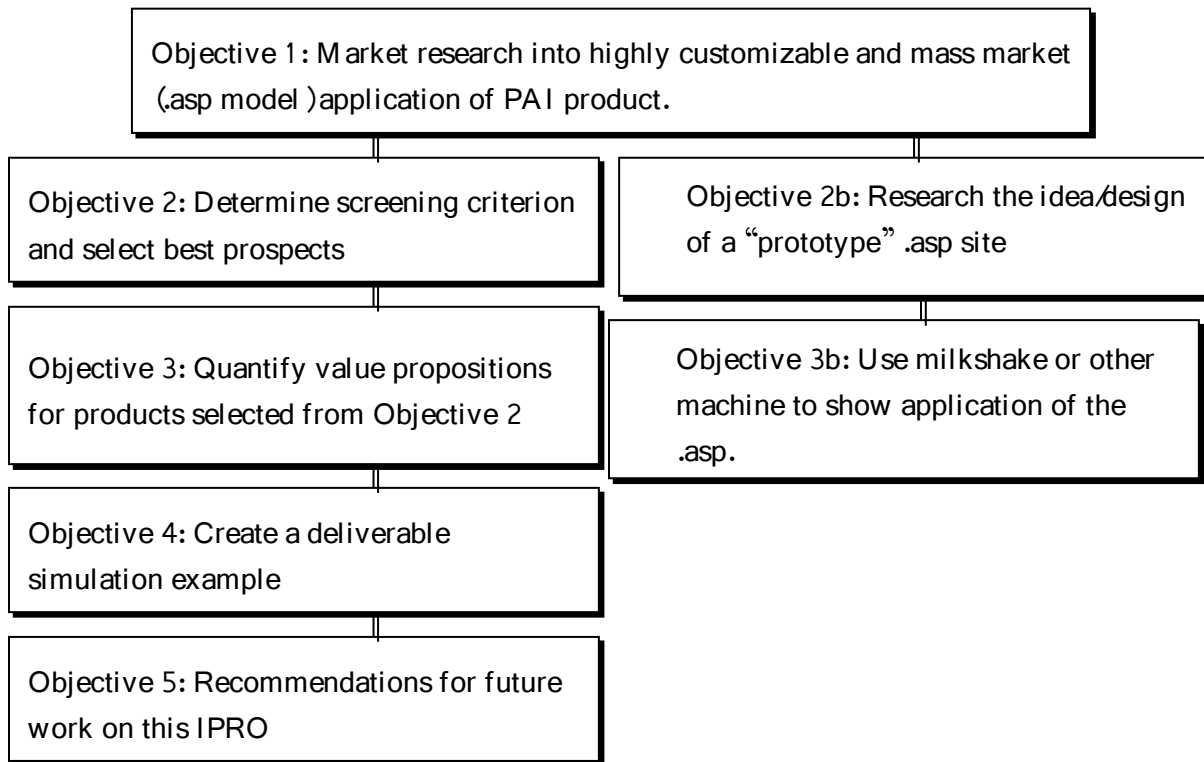# IPRO 316

Midterm Report

New Applications for Virtual

Reality Training

October 17, 2007

1.0. Revised Objectives

A. Our objectives have not changed from our Project Plan.

Objective 1: Market research into highly customizable and mass market (.asp model) application of PAI product.

Objective 2: Determine screening criterion and select best prospects

Objective 2b: Research the idea/design of a "prototype" .asp site

Objective 3: Quantify value propositions for products selected from Objective 2

Objective 3b: Use milkshake or other machine to show application of the .asp.

Objective 4: Create a deliverable simulation example

Objective 5: Recommendations for future work on this IPRO

2.0. Results to Date

ASP subgroup-
- This subteam will produce a prototype of an application-delivering website to prove the concept of an ASP for PAI VR training simulations.
- This subteam has already produced a plan for design, implementation, and testing of a prototype ASP website.
- The prototype produced by this subteam will demonstrate a solution to distribution of the VR training simulations.

John Deere-
- This subteam will research the possible uses of VR training for use with John Deere tractors.

- This subteam has already performed considerable research, including current training methods for using John Deere tractors, market size, and applicability of VR training.
- This subteam has prepared questions to ask dealerships.
- Potentially can lead to a contract between PAI and JD.
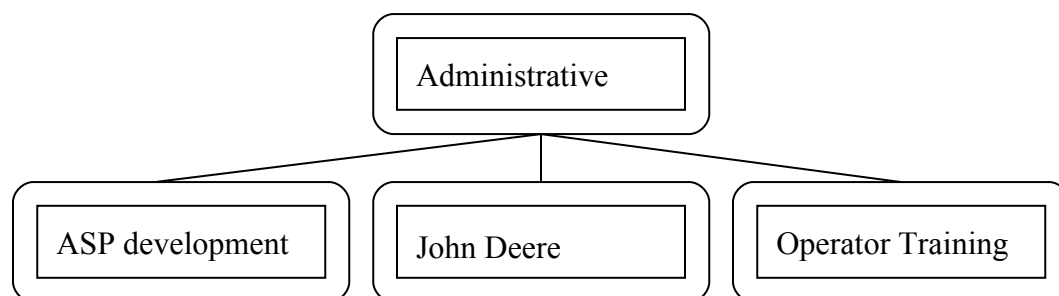
Operator Training-
- This subteam will research the possible uses of VR training for use with training construction equipment operators.
- This subteam has performed market research, including current training methods and costs, particularly those associated with crane operator training.
- This subteam has performed initial research into the feasibility of VR training, including the potential of avoiding safety issues compared to traditional training, and the possibility to increase training class size while decreasing the need for the actual machinery (rephrase).
- Potentially can lead to a new market for PAI.

    A. Describe current data results from research or testing involved in the project.
    B. Define current or potential products or outputs resulting from research and testing.
    C. Discuss the current results in terms of deliverables that will be produced by the project team (i.e. a working prototype).
    D. Discuss whether or not the current results address the problem of the sponsor/customer.
    E. Discuss how the current results will be incorporated into the proposed solution or solution framework.

3.0. Revised Task / Event Schedule (Attached as a Separate Document)

4.0. Changes in Task Assignments and Designation of Roles and Team Organization

A few changes have been made to the group structure. Originally we did not have the need for subgroups. We worked to explore many different options individually and used group time to discuss and brainstorm. After finding several promising areas we split into four subgroups for more focused work. These groups are laid out in the table below and consist of an administrative group that is tasked with collecting subgroup information and producing IPRO deliverables, an ASP group focused on our web based training objectives, and two other groups focused on our main objectives of developing a product from our two most promising research areas.

First Name	Last Name	Subgroup	Leader or Member	Other tasks
Ian	Roe	Administrative	Leader	Agenda
Ah reum	Jeong	Administrative	Member	
Jeffrey	Stanford	Administrative	Member	iGroups
Mark	Malanowski	ASP development	Leader	
Kyle	Knopp	ASP development	Member	Project plan keeper
Erik	Doolittle	John Deere	Leader	Schedule master
Jeong shik	Kim	John Deere	Member	
Nick	Cantoni	Operator Training	Leader	
Shane	Steward	Operator Training	Member	
Erik	Mead	Operator Training	Member	Time keeper, Minutes

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                    ┌─────────────────────┐
                    │   Administrative    │
                    └─────────────────────┘
              ┌──────────────┼──────────────┐
   ┌─────────────────┐ ┌─────────────┐ ┌──────────────────┐
   │ ASP development │ │ John Deere  │ │ Operator Training│
   └─────────────────┘ └─────────────┘ └──────────────────┘
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5.0. Barriers and Obstacles

A main obstacle that we have faced is research. We have hit dead ends, found many companies unresponsive or simply don't know what to look into next. The implementation of subgroups has been helpful in focusing our research. We now have two or three people working on four specific tasks within the group. We have also

sought research help from the Galvin Library and held one of our meetings with a research librarian who answered questions and showed us some new research tools.

   We also hit a small barrier because much of what we proceeded with relied on feedback that we received from our sponsor, PAI. Our meeting with PAI helped give us a clearer idea of what further research and work needs to be done.

6.0. Code of Ethics (Attached as a Separate Document)

7.0. Midterm Presentation Slides (Attached as a Separate Document)