Project Overview

Project Discussion

• Domain: Onboard automotive systems
• Key areas:
  – Active Park Assist (APA) -- Ford
  – Lane Management System (LMS) – GM/Amazon
  – Algorithm for Pedestrian Collision Avoidance (PCAS) – Dataspeed
  – Traffic Jam Assist (TJA) – Ford/WMilam Consulting
• Embedded systems
• Assurance: safety, reliability, security
• Standards:
  – Automotive
  – Modeling
Initial Objectives

- Everyone must gain understanding of domain
  - Articles mentioned in class and on Handouts page
  - Research via web and other available resources
- Each person on each team (HW#6 due Oct. 28):
  - Compile a list of requirements
  - Identify at least 3 global invariant requirements
  - Identify at least 3 questions for the customer.
- Project manager collate into one list of requirements and a list of questions (GroupHW#1: due Nov. 1, 3 pm)
  - Remove redundancy
  - Send out to team for review and additional questions
- Team develops/submits more complete set of questions:
  - review/proofread
  - submit GroupHW#2: Nov 3, 3 pm

Website requirements

- Skeletal website for each team by beginning of class, GroupHW#3: Tuesday, Nov. 1
- Top-level page:
  - Brief project Background
  - Brief project Description
  - Team composition, with role names, photos, links to individual web pages
  - Link to instructor and cse435 course page.
- Publicly Accessible Links:
  - Original Project description (PDF)
  - SRS (SW Requirements Spec)
  - Prototype
  - Bibliography of resources used for domain research
- Local Information (only for team and instructors)
  - Accessible by team members, instructor, and TA
  - Agendas and Minutes of all meetings
  - Milestones with internal and required deadlines
  - Access to intermediate drafts of deliverables
  - Discussion forum between team members.
  - Questions/Answers with customers and other resources
Project Requirements

• Requirements Doc
  – Identify preliminary set of requirements (HW6, Oct. 28)
  – Compile list of questions/clarifications for customer (GroupHW#2: Nov. 3)
  – Software Requirements Specification (SRS):
    • preliminary: Due TBD
    • Final: Due TBD
    • Web-based prototypes: TBD
  – interface elements
  – executable features

• Constraints: must be compatible with companion systems

• Oral Presentation/Demonstration (last week of classes)
  – Additional meeting period needed due to class size: Friday, Dec.

Team Composition

• Project Manager
  – Assign tasks
  – Responsible for deliverable submission

• Project Facilitator
  – Setup and run meetings (agendas/minutes cc to Instructor/TA)
  – Post minutes on website

• Artifacts Manager
  – Configuration management
  – Web master

• Domain Expert/Customer Liaison
  – Specialized domain knowledge
  – Safety concerns
  – Interface with customer

• Security/Accurance Manager:
  – Identify vulnerabilities
  – Specify prevention, detection, and mitigation
  – Security policy for system
  – Identification of security threats and mitigation strategy
Meeting Requirements

• Agenda
• Leader
• Action list
  – With assignments so we know who is doing what.
  – Timelines so we know when it’s to get done.
• Summary
  – Something happened or there would not have been a meeting. Record it briefly.

Project Issue List

• Every issue goes on the list
  – Date and brief description
• Make assignment to get it resolved
• Put resolution on list.
  – “Close” issue.
• 1st version usually generated on 1st read of problem statement.
  – And then, back to the customer...
Interviewing

• Have a list of things you want to know.
• Listen.
• Listen.
• Ask open-ended questions.
• Don’t express (show, say) opinions on answers. Just record, and think.
• Listen.
• Ask questions more than one way.

Requirements Elicitation Meeting

• Address each customer with “Mr./Ms. Lastname”
• Introduce each team and members (Name, role)
• Take turns amongst the 3 teams to ask questions (Team1, Team2, Team3, repeat)
  – Project Managers will ask questions
  – Facilitators will serve as scribe to record responses
  – At least one other team member should also take notes
  – Other remaining team members will be responsible for recording questions from other teams and corresponding responses.
  – Any team member may ask a clarification question as needed
• Facilitator will collate all feedback from team members to compile list of questions/responses and submit within 48 hours of meeting.
Meeting Agendas/Summaries

• Post meeting agendas and corresponding meeting minutes (i.e., summary) on project website in the “local only” area.
  – Agendas should be provided at least 24 hours prior to meeting
  – Meeting summaries should be posted no more than 24 hours AFTER meeting.
  – Be sure that instructor and TAs have permission to access local only area artifacts.
• This info, including timestamps will be checked regularly by the instruction team.
• See template that can be used for agenda and meeting summary.