The Capstone Experience



MICHIGAN STATE UNIVERSITY

01/24: Team Status Reports

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Dr. Wayne Dyksen Department of Computer Science and Engineering Michigan State University Spring 2011

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Team Auto-Owners

Status Report

(1 of 4)

- Agent Multimedia Advertisement Builder • Project Description
- Revamping 'Media Center' of Auto-Owners website.
- Create a customizable advertisement based upon an individual agency.
- Allow for uploaded materials to be used in a custom ad.
- Create administrator privileges.
- Project Plan Document
 - 50% Completed
 - Functional Specifications Completed
 - Design Specification Not Completed
 - Schedule Created

Team Auto-Owners	
Status Report	

- Agent Multimedia Advertisement Builder
- Server Systems / Software
- DB2 Express-C Installed, need to set up
- Websphere Installed, running properly
- Windows Server 2008 Installed
- Development Systems / Software
- Java Development in Eclipse Hello World created
- SVN Eclipse Plugin Installed, need to set up respository
- Struts 2 Installed Need to learn how to use

Team Auto-Owners		Team Auto-Owners	
Status Report	(3 of 4)	Status Report	(4 of 4)
Agent Multimedia Advertisement Builder • Client Contact • Met in person, constant email contact • Weekly Conference Calls: Wednesday 2pm • Team Meetings • Group Meetings – Monday Wednesday: 4pm • Triage Meetings – Wednesday 2:40pm • Trage Meetings – Wednesday 2:40pm • Team Organization • Joe Korolewicz – Project Manager/Client Contact • Patrick Nelson – System Administrator • Dan Jones – Lead Developer		Agent Multimedia Advertisement Build Risks Manipulating Graphics in Web Environment We need to be able to manipulate the ads shown to the user. We will start working with this immediately when our web en available. Java Development All Java development is new to us. Reading documentation, starting to write small programs. User Authentication/Security Agencies must log into their confidential Auto-Owners ID. Receive and use "dummy" agencies with the same format. Server Set Up Need to find a way to get the server set up. Reading documentation/Trial and error	er vironment is

Team Boeing Status Report

N.S. S.

(1 of 4)

- Boeing Battle Aircraft Position Share • Project Description
- 3D 2 player air combat strategy game
- Played over encrypted network
- Active time (mix of turn based and real time)
- Radar detection of targets, environmental effects
- Project Plan Document
- Rough draft started
- Executive summary completed
- Other sections outlined

Team Boeing Status Report

- **Boeing Battle Aircraft Position Share**
- Server Systems / Software
- Windows XP installed on desktop
- Windows 7 to be installed on desktop
- Arch Linux installed on server
- Development Systems / Software
- Blender, Open Scene Graph installed
- Visual Studio 2005 installed
- Python installed

Team Boeing Status Report	(3 of 4)	Team Boeing Status Report	(4 of 4)
 Boeing Battle Aircraft Position Share Client Contact 2 conference calls, Thursdays 5:10-6:10pm Established milestones, basic project outline Team Meetings 2 times a week, 1-2 hours long, after class Triage meetings Mondays after class Team Organization Paired programming, graphics and logic Trying out Microsoft Project to manage team 		Boeing Battle Aircraft Position Share Risks • DLLs • What to use them for in context of this project? • Discuss with client, read info on dlls online • Open Scene Graph • No one has used it • Online tutorials, reference manual • Blender • Use and exporting of models • Online tutorials, Blender website • Networking • No knowledge of encryption, Windows sockets • MSDN tutorials, knowledge of Linux sockets	

Team Chrysler

Status Report

(1 of 4)

Fleet Auction Distribution and Sale Optimizer
• Project Description

- Deal with returned fleet vehicles for re-distribution
- Distribute the vehicles geographically to various auction sites throughout the nation (15)
- Optimize and decide which auction site should vehicles be distributed to in order to yield the highest ROA
- Project Plan Document
- Created skeleton document
- Shared google document amongst team
- Working through document in parallel

Team Chrysler

Status Report

- Fleet Auction Distribution and Sale Optimizer
- Server Systems / Software
- Linux
- DB2
- Websphere 7.0
- Development Systems / Software
- Java
- JRuby
- Rails

Team Chrysler Status Report	(3 of 4)	Team Chrysler Status Report	(4 of 4)
Fleet Auction Distribution and Sale C • Client Contact • At least once a week. • Scheduled visit on 1/27 in Detroit • 1/14: Clarified project goals and technical resourd • 1/21: Approved use of our technical tools. Clarified details. • Team Meetings • Every Sunday • 2-3 times throughout the week • Team Organization • Web/Design Team • Data Optimization Team	Optimizer ces/tools ed specific project	Fleet Auction Distribution and Sal Risks Algorithm Many factors involved in determining the most p Clearly establish critical factors early. Design Most efficient and user-friendly? Meets professio Lots of prototype presentations to clients. Server Environment Our staging server is different OS than productio Close contact with clients for compatibility appro- Using a trial version of websphere (60 days) Have back-up plan for alternative software.	le Optimizer rofitable auction site. onal expectations? n. aval.
The Capstone Experience Team Status Reports	15	The Capstone Experience Team Status Reports	

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Team Dow

Status Report

(1 of 4)

- **Business Approval System**
- Project Description
- Create a reusable SharePoint approval workflow
- Duplicate the Dow Spending Delegation of Authority process
- Create a solution that works on various devices
- Project Plan Document
- The first draft of the project plan is 35% complete

Team Dow

Status Report

- **Business Approval System**
- Server Systems / Software
- Windows Server 2008 R2 is installed and fully updated
- SharePoint Server 2010 is installed and configured
 Visual Studio 2010 installed and configured for web development
- Development Systems / Software
 Windows 7 64-bit installed
- Visual Studio 2010 installed and configured
- SharePoint Designer installed

Team Dow		Team Dow	
Status Report	(3 of 4)	Status Report	(4 of 4)
Business Approval System Client Contact Two conferences calls resulting in a better un the requirements Systems configured Project Plan Documentation Team Organization Client Contact – Joe Langford System Administrator – Joe Amenta Developer - John Furcean	nderstanding of	Business Approval System Risks • Risk 1 • Lack of understanding of SharePoint • Reading up on SharePoint • Risk 2 • Minimum knowledge of programming • Practice programming with C# and re • Risk 3 • Lack of knowledge of Dow Spending I process • Continued communication of with the	g in C# ad up on it Delegation of Authority
The Capstone Experience Team Status Reports	19	The Capstone Experience Team Status Rep.	nts 2

Team GE Aviation

Status Report

(1 of 4)

- MSU Next Generation Flight Deck
- Project Description
- Complete flight deck simulator
- New graphical displays
- Increase safety on board
- Integrates previous capstone projects
- Project Plan Document
- Wiki set up as "Living" plan and design documentation
- Created an overall project schedule

Team GE Aviation

Status Report

- MSU Next Generation Flight Deck
- Server Systems / Software
- Windows Server 2008
- Microsoft IIS with PHP & MySQL
- VisualSVN Server, MediaWiki, & Mantis Bug Tracker
- Development Systems / Software
- Visual Studio 2008 SP1
- X-Plane and the X-Plane SDK
- OpenGL, Boost, Nui, & Xtools
- Industry knowledge of Avionics

Team GE Aviation Status Report	(3 of 4)	Team GE Aviation Status Report (4 of 4)
MSU Next Generation Flight Deck Client Contact Initial face-to-face meeting Set up twice-weekly conference calls (Tues. & Fri Team Meetings Twice weekly, immediately prior to or after confe Triage meeting every Wednesday at 4:00 pm Team Organization Systems Admin. – Steven; Client Contact – Danie Networker – Bill; Tester - Alex	.) erence calls I;	MSU Next Generation Flight Deck Risks • Risk 1 – Lack of experience • Unfamiliarity with X-Plane and existing projects • Each individual will specialize in one plugin • Risk 2 – Concurrency issues • Making sure that plugins and systems do not interfere with each other • Assigned to Daniel as a primary task • Risk 3 – Bad Behavior • Individual components currently have significant bugs • Assigned to individuals using Mantis Bug Tracker • Risk 4 - Networking • Network implementation may cause unforeseen issues • Assigned to Bill as a primary task

Team Medtronic

Status Report

(1 of 4

(3 of 4)

Cloud-Based Hospital Digital Command Center Project Description

- Create portal application to aggregate medical repositories
- Utilize Windows Azure Cloud Platform to ensure extensibility
- Support multiple forms of digital communication
- Build a system allowing role-specific views of data

Project Plan Document

Made basic outline of required sections o Executive Summary, Project Overview, Statement of Requirements, **Design & Implementation**

Will complete details after client site visit

	Team Medtronic	
.)	Status Report	(2 of 4)
	Cloud-Based Hospital Digital Command Ce • Server Systems / Software • Windows Azure Cloud Platform • Microsoft Office 365 Cloud Services • Microsoft HealthVault • Development Systems / Software • Visual Studio 2010 Ultimate	nter
	 ASP.NET/C# Windows 7 Professional 64-bit 	

Team Medtronic

Status Report

Cloud-Based Hospital Digital Command Center

- Client Contact
- Weekly teleconference on Tuesdays, 2:15-3:15 pm
- Client site visit scheduled for February 1st-2nd
- Team Meetings
- Weekly triage meetings on Mondays, 2:40-3:00pm
- Weekly team meetings on Wednesdays, 4:00-? pm/am
- Team Organization
- Client contact Evan Francis
- Artifacts/deliverables manager Caitlin Russ
- Everyone holds each other accountable; weekly goals assigned

Status Report	(4 of 4)
Status Report	(1011)
Cloud-Based Hospital Digital Command	Center
Risks	
 Interfacing with Windows Azure Platform 	
 Learn the APIs and libraries 	
 Solution: Research, documentation, and tutorials 	
Integrating MS Office 365	
 Identify and understand which components to use 	
 Solution: Speak with client 	
Utilizing MS HealthVault	
 Determine system infrastructure and communication prof 	tocol
 Solution: Research and developer tutorials 	
 Security and integrity of systems 	
 Design a system with varying levels of security in mind 	
 Solution: Integrate Windows Azure AppFabric Access Con- 	trol

Team Meijer Status Report

2212

(1 of 4)

Consumer Payroll Check Cashing System
• Project Description

- Meijer has a Payroll Check Cashing System
- Possibilities of fraudlent checks
- Create a web service to track and analyze data
- Send out alerts based upon trend data
- Project Plan Document
 - About 80% complete
 - Had Meijer contact review and accept the plan
 - Need to review for grammatical mistakes and overall team acceptance

Team Meijer

Status Report

- Consumer Payroll Check Cashing System
- Server Systems / Software
- SQL Server Deployed
- Visual SVN Server Deployed and setup
- Cruise Control.NET Deployed
- Meijer Test Database Setup and running
- Development Systems / Software
- Visual Studio 2010 Installed and running
- Pivotal Tracker Setup

Team Meijer **Team Meijer** Status Report Status Report (3 of 4) (4 of 4) **Consumer Payroll Check Cashing System Consumer Payroll Check Cashing System** Client Contact Risks Risk 1 Had Phone Conference with client and setting up second one Implement Meijer.ent Approved initial project plan Work with contact to understand how it works Team Meetings Risk 2 Consumer may not accept parts of the project Have met up to discuss project after phone conference Send a test build to the contact every 2 weeks for approval Plan to have a scheduled meeting once a week Risk 3 Team Organization Database Change/New Database Server Build project in layers to minimize code changes The project is split into layers for each team member to Risk 4 complete An outside library that we choose to use may not work Keep in constant contact through phone/email Have a wide variety of outside libraries to choose from

Team Motorola Mobility

Status Report

(1 of 4)

- **Companion Authoring Services** Project Description
- Admin Panel to Manage Secondary Content Lifecycle Display secondary metadata on the portable device in
- selectable layers and allow interaction based on the consumer's preference.
- Format Content Delivery Model after current Cable Service Ads
- Project Plan Document
- Formatted Template
- Executive Summary Complete
- Architecture and Design Rough Draft

Team Motorola Mobility	
Status Report	(2 of 4)
Companion Authoring Services	
Server Systems / Software	
2 iMacs – Mac OS X and Windows XP	
Server 2008 with Glassfish	
Windows 7 Machine	
iPad mobile device	
Development Systems / Software	
Eclipse Java EE	
RESTlet , Xstream, and iBatis	
Google Web Toolkit and Vaadin Framework	
Xcode	

Team Motorola Mobility Status Report	(3 of 4)	Team Motorola Mobility Status Report (4 of 4)
Companion Authoring Services Client Contact Conference Calls Monday and Wednesday afternoons Google Talk/email conversations when available Team Meetings Triage Meeting Tuesdays 4:00-4:20 PM Group Meeting Tuesdays 4:30 PM Team Organization Client Contact – Rory Hool System Administrator – Haohan Lin UI Developer – Chris Goad Backend Developer – Alex Boyd/Rory Hool	5	Companion Authoring Services Risks • Set Top Box Communication • Mobile apps must synchronize with STB • Met with previous semester's group, read information provided by Motorola • Controllers - RESTlet • Using RESTlet to make RESTful web services • Read book chapters, made sample programs • Views – Java, GWT, Vaadin, iPad • Writing Content Authoring Tool, creating mobile apps • Went over examples online, made sample programs • Models – XStream, iBatis, PostgreSQL • Serialize Java Objects using XStream, iBatis Persistance layer for PostgreSQL. • Implemented iBatis persistence layer with serialization using XStream

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9

Team Raytheon

Status Report

(1 of 4)

- Dynamic RF Spectrum Control Software
- What: Scan RF's, Analyze/make recomendations, Split Signal
- Why: Lots of wi-fi, finite bandwidth. Maintain service
- Who: Armed Services (possibly Emergency Services)
- Where: Android, SDR (SW-defined Radio), Laptop
- How: IP, Spectrum graph, C Algorithm, EZ-Connect
- Project Plan Document
 - Develop Android Mockup
- Android App/C Algorithm
- EZ-Connect API, RF sampling hardware
- Laptop implementation

Team Raytheon

Status Report

- Dynamic RF Spectrum Control Software
- Server Systems / Software
 Ubuntu Server (Working)
 - SVN (Set up)
 - SVN (Set up
- SSH (Set up)
- Development Systems / Software
- OS: Win7, Ubuntu, Android SDK (Ready to go)
- IDE: Eclipse (Ready to go)
- Client API: EZ-Connect, Access Policies/sample data (One-Three weeks)

Team Raytheon **Team Raytheon** Status Report Status Report (4 of 4) (3 of 4) Dynamic RF Spectrum Control Software Dynamic RF Spectrum Control Software Risks Client Contact EZ-Connect API Weekly Calls (Tuesday at 6) Description: Foreign API, splits frequencies, they don't have it! Mitigation: Stub interface from Raytheon within 3 weeks Email primary contact (Jeremy) at leisure Radio Frequency Sampling Device Team Meetings Description: Source of our data to run application, no UI Mitigation: Planning visits to play with hardware, SDR speaks C, uses TCP/IP After class periods and Friday 3 PM (~5-6hrs) C Algorithm Triage meeting Mondays 4-4:20, unstructured time (10+ hrs) Description: User defined params, Provide feedback/recommendations Mitigation: Variant of Bin-Packing problem, Android NDK Team Organization Laptop support Front-end team: Matt, Will Description: PC hosted, OS agnostic Mitigation: Reuse graphics/Layout, Develop with QT Back-end team: Jimmy, Srinivasa

Team Sparrow

Status Report

(1 of 4)

- iSupport
- Project Description
 - Comprehensive web-based tool incorporating document and communication tools
- Automatic notification feature
- On-call rotation schedule (system outage, other issues)
- Support data feeds from management tool, Altiris
- Project Plan Document
 - Plan reviewed
- To be written

Team Sparrow

Status Report

- Server Systems / Software
- Windows Server 2008 R2
- SharePoint Server 2010
- Microsoft SQL Server 2008
- Development Systems / Software
- Windows 7
- SharePoint Designer 2010
- Microsoft SQL Management Studio 2008

Team Sparrow Status Report	(3 of 4)	Team Sparrow Status Report	4 of 4)
iSupport • Client Contact • Reviewed project requirements/scope • Viewed current system, contacted DBA • Team Meetings • Installed required softwares • Configured SharePoint 2010 • Team Organization • Maurice Wong (Project Manager) • Brett McMillen (System Administrator) • Ryan Hewitt (Project Developer) • Dianna Kay (Project Tester)		iSupport Risks • Risk 1 - SharePoint • SharePoint 2010 • Learn/Understand concepts • Risk 2 – Web How-Tos • Research Google Maps mash ups • Research contacting pagers from the web • Risk 3 – Understanding Their System • Database/Table schemas • Research Altiris	

Team TechSmith

Status Report

(1 of 4)

WhiteCaps

- Project Description
- Upload whiteboard pictures and metadata to cloud
- iPhone app, Android app, and web site front-ends
- User groups and permission management on all three
- Project Plan Document
- 10% Completed
- Tasks assigned to group members
- Deadline for full completion is next Thursday
- Plan on contacting TechSmith for their input on the document next week

Team TechSmith

Status Report WhiteCaps

- Server Systems / Software
- Server Rack has Windows Server 2008
- visualSVN is fully configured
- Windows Azure credentials acquired from TechSmith
- Development Systems / Software
- Development system loaded with Windows 7
- Development Macbook loaded with OS X 10.6
- Eclipse, Visual Studio, and Xcode installed and configured
- Android and iPhone SDK's fully operational

Team TechSmith Status Report	(3 of 4)	Team TechSmith Status Report	(4 of 4)
WhiteCaps • Client Contact • Planned weekly status reports and bi-weekly on • Received development phones from client • Team Meetings • Meet as a group Tuesdays and Thursdays • Plan to make significant decisions and progress of during these meetings • Team Organization • Cassi Miller – Customer Liaison • Rob Allie – Project Manager • Dillon Walls – Webmaster • Matt Dobson – System Administrator • All Members - Developers	site visits on the project	WhiteCaps Risks • Risk 1 • We don't know the Windows Azure API • Matt and Dillon will use documentation to create a demo app • Risk 2 • None of us know java, the language used to create an android app • Cassi will learn and make a demo android app • Risk 3 • Interacting with the smartphone cameras • Rob will figure it out and make a demo • Risk 4 • Developing an application that uses QR codes • Matt and Dillon will find a library and determine where this part of the process fits best.	the
The Canstone Experience Team Status Reports	47	The Canstone Experience Team Status Reports	48

Team Urban Science Status Report (1 of 4) Bringing LeadTV to the Web • Interactive Map Displaying "Leads" • Leads == Potential Customers • Add Interactivity to Existing LeadTV Project • Helps Manufacturers Engage Prospective Buyers

- Bring to Web
- Project Plan Document
- Outline
- Functional Specifications



Team Urban Science	
Status Report	(2 of 4)
Bringing LeadTV to the Web • Server Systems / Software • Installed Server (Windows) • SDKs	
 Development Systems / Software Eclipse (Java) Visual Studio 	

Team Urban Science Status Report	(3 of 4)	Team Urban Science Status Report (4 of 4)
Bringing LeadTV to the Web • Client Contact • Email and Conference Call • Driving to Detroit Office Wednesday 26th • Team Meetings • Triage Meetings Monday before class • Weekly Lunch Meetings • Team Organization • Client Contact/Sys Admin, Program Manager • Developer, Assistant Developer/QA		Bringing LeadTV to the Web Risks • Where is the data coming from? • Leads come in from unknown sources in XML format • Seeing them/have mockup data • How are we getting it to the client? • How can we display it on multiple platforms (windows, ipad, etc) • Start with Java, try for thin-client app. • How do we interface with current LeadTV? • How do we make what they have now interactive? • Meeting with LeadTV developers 1/26 • How do we store data? • Once we have the Leads, what do we do with them? • Storing them into a SQL database
The Capstone Experience Team Status Reports	51	The Capstone Experience Team Status Reports 52

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