Software Plan: Smart Scheduling

Client: Dr. Robert Yoder

Welcome

Dr. Robert Yoder (client)

Head of the Computer Science Department at Siena College

Dr. Timothy Lederman

Our Professor

Agenda

- **Software Engineering Team**
- Problem and Software Justification
- Constraints and Goals
- Development Tools and Methodologies
- Development Timeline

Empire Unlimited

- **Thomas Mottola** – Team Leader
- **Jason Czajkowski** – Lead Systems Administrator
- **Meghan Servello** – Organizational Information Manager
- **Brian Maxwell** – Lead Software Developer
- **Jonathan Smith** – Information Analysis Manager
- **Collin Lefeber** - Webmaster

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The Problem

- Scheduling classrooms, labs, courses, and professors.
- Currently scheduling is done in a cumbersome fashion.
- Lack of a self-checking system.
- There are constraints set by Siena College.
- Schedules can be difficult to read.

Examples

	B	C	D	E	F	G	H	I	J	K
1	Column	Column2	Colun	Column4	Column5	Columr	Column7	Column		8/3/2010
2	COURSE #	COURSE TITLE	SECT	DAYS	TIMES	ROOM	PROFESSOR	CREDITS	Category	
3	CSIS-010	Intro to Comp Applications		M W	9:20-10:15	RB 302	J. Teresco	2	V	
4	CSIS-010	Intro to Comp Applications		M W	11:30-12:25	RB 340	D. Bryant	2	V	
5	CSIS-010	Intro to Comp Applications		M W	6:00PM-6:55PM	RB 340	G. Cutler	2	A	
6	CSIS-010	Intro to Comp Applications		M W	1:30-2:25	RB 340	D. Bryant	2	V	
7	CSIS-010	Intro to Comp Appls - Lab		M	8:15-10:15	RB 304	P. White	2	V	
8	CSIS-010	Intro to Comp Appls - Lab		R	2:30-4:30	RB 304	L. Putnick	2	T	
9	CSIS-010	Intro to Comp Appls - Lab		W	3:40-5:40	RB 304	J. Teresco	2	V	
10	CSIS-010	Intro to Comp Appls - Lab		F	8:15-10:15	RB 304	M. Arunasalem	2	A	
11	CSIS-010	Intro to Comp Appls - Lab		W	8:15-10:15	RB 304	P. White	2	V	
12	CSIS-010	Intro to Comp Appls - Lab		W	1:30-3:30	RB 304	J. Teresco	2	V	
13	CSIS-010	Intro to Comp Appls - Lab		T	2:30-4:30	RB 304	D. Bryant	2	V	
14	CSIS-010	Intro to Comp Appls - Lab		R	7-9PM	RB 304	D. Adkins	2	A	
15	CSIS-011	Spreadsheet Problem-Sol	Q1	T/R	1:00-2:20	RB 304	T. Lederman	1.5	T	
16	CSIS-011	Spreadsheet Problem-Sol	Q2	T/R	1:00-2:20	RB 304	T. Lederman	1.5	T	
17	CSIS-011	Spreadsheet Problem-Sol	Q1	T/R	4:40-6:00	RB 304	T. Lederman	1.5	T	
18	CSIS-011	Spreadsheet Problem-Sol	Q2	T/R	4:40-6:00	RB 304	T. Lederman	1.5	T	
19	CSIS-019	Internet Collaboration		M	3:40-4:35	RB-304	J. Cotler	1	P	
20	CSIS-110	Intro to Comp Sci - Lab		W	3:40-5:40	RB-306	S. Vandenberg	2	T	
21	CSIS-110	Intro to Comp Sci - Lab		R	4:00-6:00	RB 306	S. Vandenberg	2	T	
22	CSIS-110	Intro to CS:Multimedia Python Prg		M W	2:35-3:30	RB 328	S. Vandenberg	2	T	
23	CSIS-110	Intro to Comp Sci - Lab		F	10:25-12:25	RB 330	J. Horowitz	2	T	
24	CSIS-110	Intro to Comp Sci - Lab		F	1:30-3:30	RB 330	J. Horowitz	2	T	
25	CSIS-110	Intro to CS:3D Prog with Alice		M W	1:30-2:25	RB 328	J. Horowitz	2	T	
26	CSIS-110	Intro to Comp Sci - Lab		T	11:30-1:30	RB 306	S. Small	2	V	
27	CSIS-110	Intro to Comp Sci - Lab		R	10:50-12:50	RB 330	S. Small	2	V	
28	CSIS-110	Intro to CS:Multimedia Python Prg		W F	2:35-3:30	RB 340	S. Small	2	V	
29	CSIS-110	Intro to Comp Sci - Lab		M	10:25-12:25	RB 306	M. A. Egan	2	T	
30	CSIS-110	Intro to Comp Sci - Lab		M	1:30-3:30	RB 306	M. A. Egan	2	T	
31	CSIS-110	Intro to CS:3D Prog with Alice		W F	11:30-12:25	RB 328	M. A. Egan	2	T	
32	CSIS-114	Manage. Info. Sys.		W F	0815am-9:10am	RB 340	D. Bryant	2	V	
33	CSIS-114L	Manage. Info. Sys-Lab		T	8:30-10:30	RB 306	D. Bryant	2	V	
34	CSIS-114L	Manage. Info. Sys-Lab		M	0815am-1015am	RB 306	D. Bryant	2	V	

	A	B	C	D	E	F	G	H	I	J
1	Fall 2010 Schedule: Roger Bacon lab 304									
2	Time	Monday		Tuesday		Wednesday		Thursday		Friday
3	8:15	PW 010L 8:15-10:15		JC 200 8:30-9:50		PW 010L 8:15-10:15		JC 200 8:30-9:50		MA 010L 8:15-10:15
4	8:30									
5	9:10									
6	9:20									
7	9:50									
8	10:00			RY 200 10:00-11:20				RY 200 10:00-11:20		
9	10:15									
10	10:25	RY 115 10:25-11:20				RY 115 10:25-11:20				RY 115 10:25-11:20
11	10:30									
12	10:50									
13	11:20									
14	11:30	PG 115 11:30-12:25		SV 350 11:30-12:50		PG 115 11:30-12:25		SV 350 11:30-12:50		PG 115 11:30-12:25
15	12:00									
16	12:25									
17	12:50									
18	1:00			TL 011 1:00-2:20				TL 011 1:00-2:20		
19	1:30					JT 010L 1:30-3:30				
20	2:00									
21	2:20									
22	2:25									
23	2:30			DB 010L 2:30-4:30				LP 010L 2:30-4:30		
24	2:35									
25	2:50									
26	3:00									
27	3:10									
28	3:30									
29	3:40	JC 019 3:40-4:35				JT 010L 3:40-5:40				
30	3:50									
31	4:00									
32	4:30									
33	4:35									
34	4:40									
35	4:55									
36	5:00			TL 011 4:40-6:00				TL 011 4:40-6:00		
37	5:10									

System Justification

- Designing and editing schedules will be made more intuitive
- Constraint checking system with warnings
- Easier viewing of the schedule

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Constraints

- Large scale scheduling with many resources
- Security
- Cross departmental scheduling

Goals

- Manage and schedule multiple resources
- Avoid room and professor conflicts
- Instant feedback
- Filter by classroom, professor, time
- Generate reports
- Retain history of previous semesters

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Development Tools | Software

- Software Resources:
  - Microsoft Access
  - Adobe Fireworks
  - Microsoft Office Suite
  - Dreamweaver
  - Firefox, Chrome, Internet Explorer
  - WinZip
  - Digital Dropbox

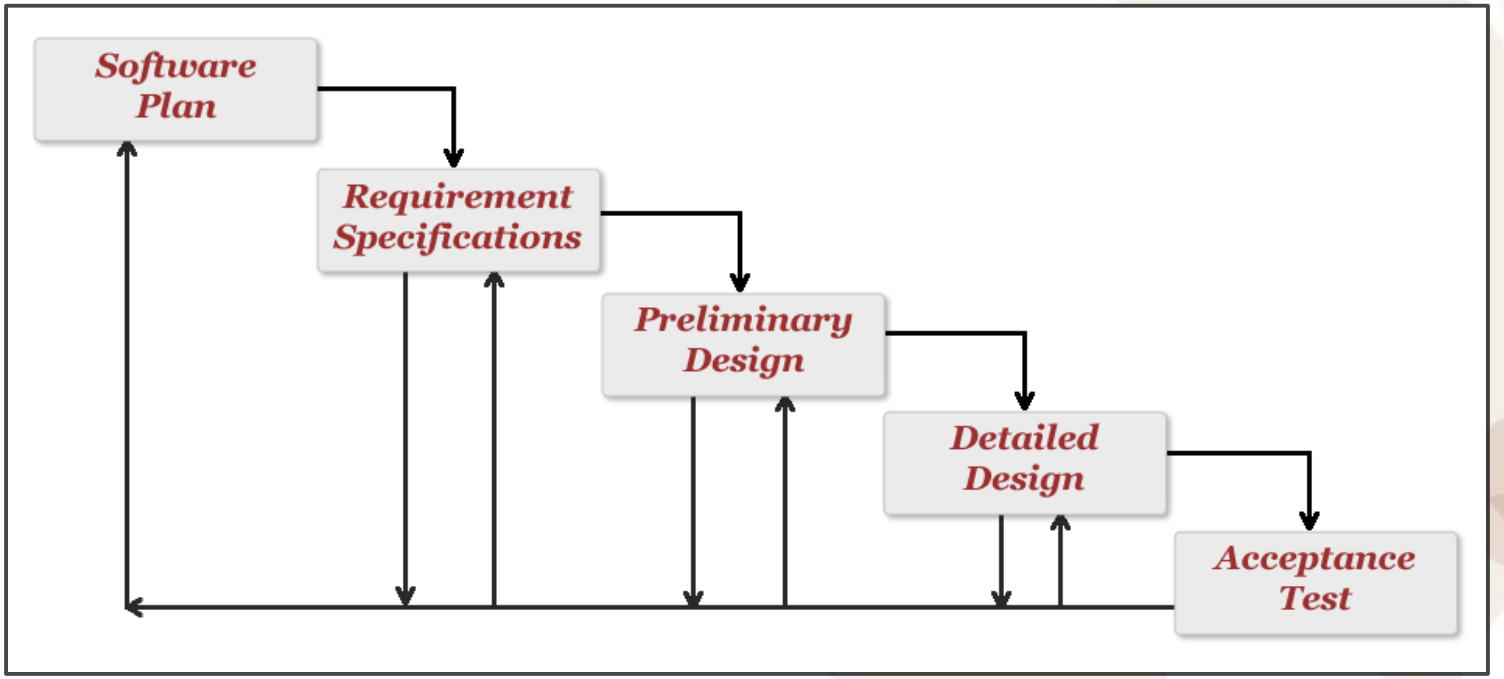
Development Tools | Languages

- Programming/Query Language Resources:
  - HTML
  - XHTML
  - PHP
  - CSS
  - JavaScript
  - MySQL

Development Tools | Other

- Hardware/Human Resources:
  - Computers in Software Engineering Lab
    - Macintosh Computers
    - Windows Computers
  - Team Members
  - Dr. Lederman
  - Dr. Yoder

Development Model



Empire Unlimited's project development model is based off of a mixture of the Waterfall and Spiral models.

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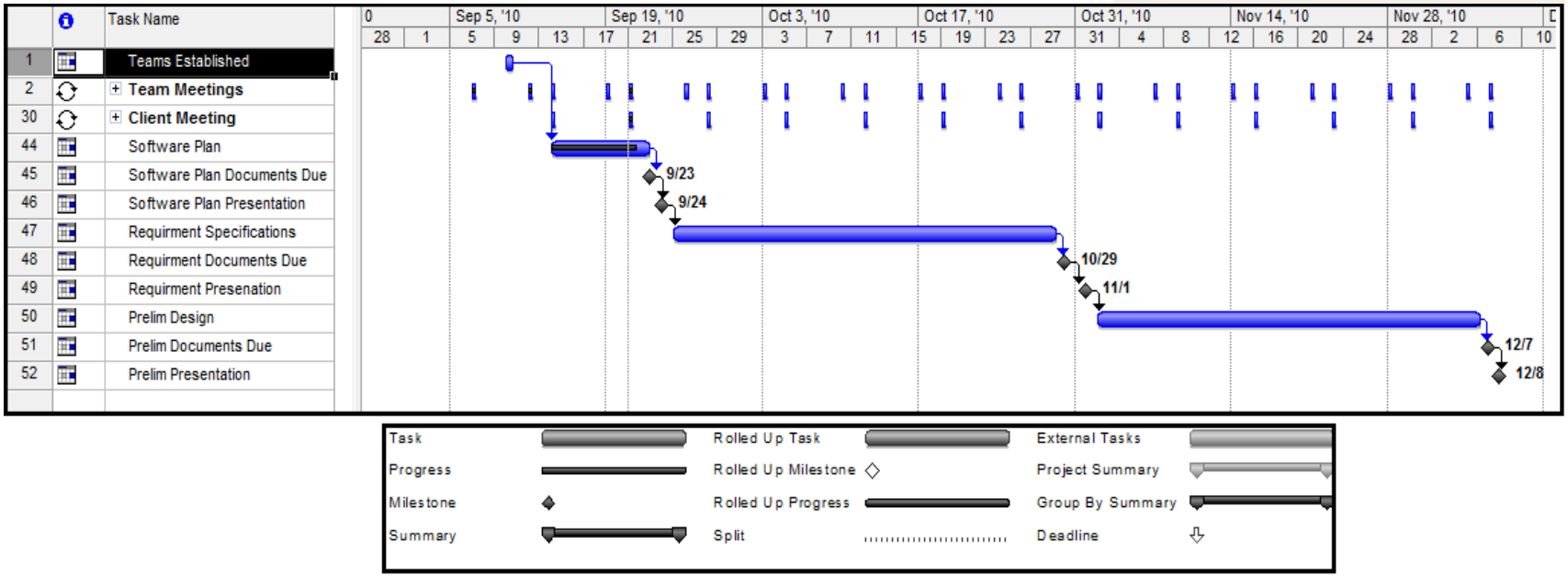
Timeline (Gantt Chart)



More to Come...

- Software Requirement Specifications by October 28, 2010
- Preliminary Design by December 8, 2010
- Detailed Design by February 2011
- Acceptance Test by April 2011

The End

Thank you.

Questions or Comments?