

MICHIGAN STATE

U N I V E R S I T Y

10/28:

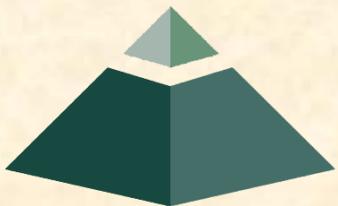
Design Day and the Project Video

The Capstone Experience

Dr. Wayne Dyksen

Department of Computer Science and Engineering
Michigan State University

Fall 2019



*From Students...
...to Professionals*

Design Day Overview

- Engineering Building
- Friday, December 6, 6:00 a.m. – 2:30 p.m.
- Exhibits of Design Projects
 - From Entire College of Engineering
 - Open to the Public
 - Visitors Include
 - Faculty
 - Family and Friends
 - Corporate Sponsors
 - Middle and High School Students
- Dress is Business



Design Day Activities

- 6:00 a.m. Setup and Breakfast
- 6:30 a.m. All-Hands Photo
- 7:15 a.m. - 12:01 p.m. Team Exhibits
- 12:00 p.m. Free Lunch
- 12:30 p.m. Tear Down
- 1:15 p.m. Awards Ceremony
- 2:30 p.m. Capstone Gathering
 - All-Hands
 - Families and Friends
 - Judges
 - Corporate Visitors





MICHIGAN STATE
UNIVERSITY

The Capstone Experience, Spring 2019
COMPUTER SCIENCE & ENGINEERING

Team Exhibit

- Table
- iMac(s)
 - For Software
 - For Project Video
- Other Device(s)
 - MacBook Pro
 - Tablets
 - Phones
- Poster
 - DD Booklet Page
 - Provided by Dr. D.





Michigan State University ITS Group Project Organization and Scheduling

Michigan State University is a public research university founded in 1855. The goal of its Information Technology Services unit is to deliver cost-effective technology resources for students, faculty and staff.

All students regularly take part in group projects. This is increasing because finding the best way to communicate, writing up meeting notes, and managing resources for the project is very difficult.

Our Group Project Organization and Scheduling app reduces the stress of these tasks in a quick and simple way by allowing users to create a group, notify all members and connect with any services they find useful for their project.

The user simply clicks to create the group, invite members, set one, and the tasks selected are automatically assigned. A group profile is created, including a scheduled meeting, linked tasks, and suggested tasks the group may find useful.

The main feature of our app is the ability to schedule meetings based on a user's linked calendar, whether it is Google Calendar or Outlook Calendar.

The scheduling algorithm finds available times from the individual calendars and proposes times which work for all or most members. After approval by a group member, meeting times are added to a list of scheduled meetings.

Our next step is to build the front-end user interface and add additional features such as PDF document creation or PDF document upload for group and meeting documents.



- Michigan State University ITS
Project Sponsors
- J.J. Doherty
Vice President, Michigan
 - Mark McCarty
Vice President, Michigan
 - Jonathan Ottaviano
Vice President, Michigan
 - Mike Summers
Vice President, Michigan

Families



Middle and High School Students



Corporate Clients



CoE Dean and MSU Board of Trustees Member

Design Day Awards

- Awards
 - Auto-Owners Exposition Award
 - MSUFCU Praxis Award
 - TechSmith Screencast Award
 - Urban Science Sigma Award
- 20+ Judges
- Based On
 - Project Plan
 - Project Video
 - Design Day





Team MSU ITS Wins Urban Science Sigma Award

Project Video

- Tells Project Story
 - Your Client
 - The “Problem”
 - Your “Solution”
 - Use Case(s)
 - Avoid “Boring” Stuff
 - ❖ Account Creation
 - ❖ Login Screen
 - ❖ “Boring” Administration Details
 - ❖ Every Last Feature and Option
 - ❖ Zzz...
 - Technical Details
 - Acknowledgements
- ~10 Minutes in Length
- Professional
- Lots of Work



**Don't forget.
Like Design Day Booklet.**



Project Video How To

[1 of 3]

- Story Board
 - Plan Video and Audio
 - Very Specific
- Capture Audio (Voice-Over)
 - Write Script
 - Record Using Capstone Microphones
- Capture Video
 - Screen Video or Shots
 - Photographs
 - Digital Video
 - (While Listening to Audio?)



Project Video How To

[2 of 3]

- Edit
 - Video
 - Audio
 - Use
 - Camtasia
 - Other Software of Your Choice
- Produce .mp4



Project Video How To

[3 of 3]

To Do...

- **Collect Assets**
 - **Audio**
 - Record Voice-Over
 - Background Music (If Any)
 - **Video**
 - Camtasia
 - Digital Video (with Capstone Camera)
 - Digital Photographs
- **Import, Assemble and Edit Assets with Camtasia**
 - Put All Assets in One Project Folder
 - Use (At Least) Three Tracks
 - Video
 - Audio for Voiceover
 - Audio for Music
- **Produce**
 - Test Parts and Pieces in Advance
 - For Look and Feel
 - For Readability
 - Produce Entire Video
 - In Advance
 - Preview Entire Video Before Submitting



Project Video Hints

[1 of 2]

- Look at Previous Videos
 - [See Archives > Websites By Semester](#)
 - See Design Day > Awards
 - TechSmith Screencast Award
 - Urban Science Sigma Award
- Voiceover
 - TAs have a few microphones you can borrow.
 - Record Mary Had a Little Lamb
 - Import into Camtasia
 - Audio Can Be Split and Moved
 - Record with Gaps of Silence
 - If Mistake, Start Over at Previous Gap
- Background Music
 - Make Sure Voice-Over Much Louder
 - Test in Room Settings (Like 1279 AN)
 - Always Err on Side of Too Soft Music
 - (Always a Problem with One Video)



Project Video Hints

[2 of 2]

- Reading App Text
 - Often a Problem
 - Use Very High Resolution and Pan/Zoom Feature of Camtasia
 - Test In Advance
 - In Room Setting (Like 1279 AN)
- Rendering
 - Try Samples
 - In Advance
 - Takes a Long Time
 - Do NOT Press Render Button One Hour Before Due
- Due
 - By 12 p.m. (noon) on Monday, December 2
 - Via USB3 Device to Dr. D. in Office
- Posted Immediately for Judges



Project Videos

- See [Archives > Websites By Semester](#)
- See Design Day > Awards
 - TechSmith Screencast Award
 - Urban Science Sigma Award
- Examples
 - Ford
[SYNC Calendar](#)
 - Michigan State University
[SEA: Spartan Experience App](#)
 - Quicken Loans
[Fundamenta: Trust in New Home Construction](#)



What's ahead?

[1 of 2]

All-Hands Meetings

- W10, 10/29: DD Booklet Edits Due by 11:59pm
- W10, 10/30: Camtasia Demo
DD Booklet Printed Edits
- W11, 11/04: Intellectual Property
- W11, 11/06: Ethics and Professionalism
- W12, 11/11: Team Status Reports
- W12, 11/12: Team Status Reports



What's ahead?

[2 of 2]

- All-Hands Meetings
- W13, 11/18: Team Beta Presentations
- W13, 11/20: Team Beta Presentations
- W14, 11/25: Team Beta Presentations
- W14, 11/27: Team Status Reports
- W14, 11/28: Thanksgiving
- W15, 12/02: Project Videos
- W15, 12/04: Project Videos and All Deliverables
- W15, 12/05: Design Day Setup
- W15, 12/06: Design Day
- W16, 12/09: Project Videos



What's ahead?

[1 of 2]

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- W11, 11/06: Ethics and Professionalism
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[2 of 2]

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