

Creating Multimedia Courseware for an Engineering Graphics Course

Dr. Richard Jerz
St. Ambrose University

<http://web.sau.edu/JerzRichardJ/Professional/Professional.htm>

© R. Jerz

1

4/17/2003

Presentation Outline

- Review Objectives
- Hardware Requirements
- Software Requirements
- Production Process (2 demos)
- Costs
- Future Improvements
- Summary
- Discussion

© R. Jerz

2

4/17/2003

Objectives

- Improve instructional delivery via multimedia
- I wish I could show students how to...
- Web-based course material

© R. Jerz

3

4/17/2003

Inspiration

- Appdev Training (video 1 & 2)
- New hardware & software

© R. Jerz

4

4/17/2003

How do I produce multimedia?

- Have someone else do it.
- Pay for it.
- Do it myself.

- I'm not an expert at this, but I have found a system that seems to work.
- My examples (1 and 2)

© R. Jerz

5

4/17/2003

Hardware

- Computer – Dell Inspiron 8000
 - Modern – more “power” the better
 - Audio hardware
 - USB and other ports
- Microphone
- Video camera
- Scanner - Umax
- CD-RW (optional, to make CD's)

© R. Jerz

6

4/17/2003

Software

- Video player - Camtasia
- Computer image capture - SnagIt
- Computer screen video recorder - Camtasia
- Live video – Sony DV + Premier
- Printed material - Photoshop
- Sound – CoolEdit
- Music - MusicMatch

Methodology

1. Develop script
2. Produce and edit images and video
3. Create and edit sound (demo)
4. Combine, edit, and sequence media - Premier
5. Add special effects
6. Add music
7. Produce final multimedia files

Costs

Product	Purpose	Approximate Cost
Photoshop 1.0	Digitize printed material	Free with scanner
Premier 6.1	Produce Multimedia files	249.00
Camtasia Recorder	Records computer video	107.00
Camtasia Player	Play multimedia files	Free
SnagIt	Record screen images	29.00 (with Camtasia)
CoolEdit 2000	Record and edit sound	29.00
QuickCam Camera	Record live video	80.00
Microsoft Office	Edit scripts.	160.00
MusicMatch	Convert Music CD's to computer files	40.00
RealPlayer	Play multimedia files	Free
Telex Microphone	Record sound	10.00
Umax 2200 Scanner	Digitize printed material	85.00
Windows Media Player	Play multimedia files	Free

Future Developments

- Improve efficiency
- Tie segments together (like AppDev)
 - VB
 - Web
- Experiments
 - Lecture reduction
 - MM vs traditional
- Better products?

Advantages

- Student Advantages
 - Self paced
 - “Slow down – I missed that.”
 - “I can’t make class.”
 - “You didn’t say that.”
 - Asynchronous learning

Advantages (continued)

- Instructor Advantages
 - Let me show you.
 - I already showed you!
 - I am not going to show you again.
 - I can’t make class.
 - I might get off track.
 - I showed that last year.

Conclusions

- You can do it!
- There is a learning curve.
- Does student learning improve?
- Increased flexibility for student and instructor.

Discussion