Reminders

Homework 2
Blog Post → Week 2
Project 1

Today’s Lecture

Alternative Notes
Better than PowerPoint?
Discuss on Monday
Microsoft Journal
Tablet PC
Later → Ink Canvas
Example Code → Word Find

Topics
→ Project 1
→ Wii Note Lib
→ User Interface Basics
Other Notes

Grab Visual Studio Professional 3.3 GB Service Pack 1 Surface SDK → Monday

Sanity Check
→ Homework 2
→ How are we doing?

UI of the Day
VR Goggles → BMW Mechanic Any other apps → Small Group

Project 1
Working with Wii Mate
Find them in lab
Do NOT remove them!
Set of 3 plus one on reserve
**Project Task**

**Start Monday, Sep 7th, 1-2 Students**

**Instrument** the WiiMote

WiiMote Lib → open Src → C#

Must use C# → this step

Link → Project Topic

**Goal** Periodically Poll → WiiMote

Look at example code

→ Way to Start

→ Way to Stop

→ Choose a file format → human readable

  comma Sep → csv

  tab Sep

Test/Verify

  baseball

  bowling

  ND Trace

→ Stamps are good
Plot/annotate data → At least 3 runs

Excel → GIMP → Relevant Data

Grass

Windup → Thaw

Time

Discuss/Comment → Report

Were you consistent?

Time Magnitude

Was the data noisy?

/ vs. \n
Over sampling, under sampling?

Other tips

Always check - connected

Use Web

Use Test App
### Basics

**HCI → Human Computer Interface**

- Input
- Output

### Why bother?

Access screen → 4.8 M views/year

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### When to fix?

Pressman 92

$1$ design → $10$ dev → $100$ release
Timeline

1970's Graphics

1963 Sutherland Sketchpad
   Lines, circles, points → light pen

Xerox PARC → Apple → Microsoft

1970 → Mouse
1974 → Today's Mouse
   Upside down Trackball

Amiga
   X Windows
   IBM Presentation Manager

Next Step 80's
   Open Look
   Motif

Network
   ARPA → Sputnik
   ARPA Net
   Licklider → 1962 → Net computers
   1969 → Arpanet
First link

USC ➔ SRI

Boo

10 ➔ crash

1989 ➔ Tim Berners-Lee

Hypertext ➔ HTML

1993 ➔ Mosaic

Mozilla/

IE ➔ Netscape ➔ Firefox

Remember

Prodigy

CompuServe

AltaVista

AOL

Lycos

.com?
Screens/Displays

3270 -> IBM Cathode Ray Tube

Text

Text/Terminal

GUI -> Input

Keyboard, Mouse, Motion

Styles

Command-Line

Menu Selection

Press 1 ....

Form Fill-In

Direct Manipulation -> Click

Anthropomorphic -> Gesture/Motion

Voice, Eye
Examples → Small Group

Command

Menu

Forms

Direct Manipulation
Direct Manipulation

System → Real World

Objects/Actions Are Visible

Syntax vs. Icons
Cursor Actions
WYSIWYG

Actions → Rapid, Incremental
Visible Results
Visual vs Tactile

Incremental Actions Are Reversible

Ponder → GUIs do this?
Graphics

Symbols vs. text
Faster learning
Faster use/problem solving
Easier recall
Natural
Exploit visual/spatial cues
Concrete thinking
Context
Anxiety ↓
Can still add text
Predictable response
iPhone Nano?
Design Complexity

Learning complexity

Experimentally, design guidelines exist?

Inconsistencies

Uncanny valley?

WYSIWYG

What you see is all you get

Human limitations

Window manipulation

Expert users

Futz / fiddle → * Gamers*

Hardwore
Characteristics

Sophisticated visual presentation

Pick & click

Elements/filtering

Restricted set of interfaces

Surface

Visualization of data

Object orientation

Data

Containers

Collection

Constraint

Composite → Emergent behavior

Type Persistent
Properties / Attributes
Actions / Events / Trigger
Views
Recognition
Memory
Concurrency