Categories of MM Applications
- Advertising
  - Presentations
  - Marketing tools
- Education
  - Courseware
  - Kiosks
  - Simulations
- Edutainment
  - Consumer titles
  - Kids’ books
- Varia
  - Custom productions

Plurality of MM Development Roles
- Management
  - Executive Producer
  - Producer
  - Project Manager
- Design
  - Creative
  - Informative
  - Interactive
- Production
  - Artist
  - Programmer

Development Process
- Proposal
- Contract
- Design
  - Prototype
  - Acceptance
- Production
  - Debugging
  - Testing
  - Evaluation
- Final product
- Maintenance

But it is not the whole story...

Let’s play Design!

0. Who needs design?
1 — One-sentence description

- Identify the **human activity** you will support
- Identify the **user**
- Identify the **usability** (levels of support)
- Identify the **basic levels of solution**

- Design a **cash-operated machine** for **quick, easy purchase of railway tickets** by **train passengers**

2 — Know thy audience

- Describe in a detailed way the “typical user(s)”
  - Why is she interested in your application
  - What is the problem she wants to solve
  - Her educational background
  - Her experience with high-tech
  - Her assumptions, beliefs, preoccupations
  - Her hopes and fears
  - Her background on the subject you work on
  - The context in which the application will be used

- You HAVE TO get this right!
  - If you fail everywhere else, this can save you

3 — To include or not to include?

That’s the decision...

- Realize early that you cannot cover everything
- Decide in advance when to call it “good”
- Enumerate the resources you will need
- Research “what’s out there”
- Estimate the available time
- ... and plan accordingly

McCranken Chapter 3 has a good introduction
4 — Find a good metaphor

- "real world" object, event, thing that your audience is familiar with
- Operating System: office desktop (MacOS)
- Electronic mail: air mail (Eudora)
- Painting: painter’s palette (Fractal Designer)
- Database: organizing cards (HyperCard)
- Writing: typewriter (Word)
- Animation: theatrical stage (Director)

More on metaphors later…

5 — Make it easy to navigate

- If it is difficult to use, it will not be used (simple, huh?)
- User needs to know:
  - where am I?
  - where have I been?
  - who am I?
  - where can I go from here?
  - how can I get there?
  - is there life after death? ;-(
- Care about Usability

More on Navigation later…

6 — Encourage interaction. Early!

- Get them to do something early on, not just sit back and watch—click, type, select…
- Think of the novice user:
  - Give them a short, well laid-out, to the point, introduction
- Think of the advanced user:
  - Give them a way to skip introduction
- Specialized help for every screen
- Follow Chinese wisdom:
  - I hear and forget; I see and remember; I Do and Understand!
- KISS!!

7 — Don’t get it original; get it right!

- Design screen grids
- Be consistent in the screen design
- Minimize administrative debris
- Use icons
- Brief text — reading from screen is difficult
- Scrolling is evil
- Try serifs and non-serifs
- Use meaningful lines
- Be forgiving
- Break the rules, but only when you know how and why you follow them

"Talent imitates, but genius steals" — T.S. Eliot
8 — THINK before implementing
(but DO change to improve)

- Novices always flunk this…
- Don’t be defensive; don’t be romantic
- The good news: The second time is easier
  - ... and the third, a piece of cake!
- Keep documentation!! (or waste your time)
- Keep versions! (or mess it up and lose it)
- When you think you are done, either
  - redo the whole think from scratch (recommended)
  - declare the current version “beta”

9 — Test, evaluate, test, test, test

- Test at several times of production
- Ultimate testers are typical users
- Listen: don’t argue
- Watch testers quietly; their navigating experience says a lot
  - Do they get confused easily?
  - Do they use help often?
  - Do they find the solution quickly?

McCracken Chapter 8 explores testing

10 — The Finishing Touches

- Checked for typos? grammatical errors?
- All text & graphics match?
- All buttons work?
- All scripts work without crashing?
- Do alert & dialog boxes work?
- Provides forgiving/cancel options?
- Do links connect correctly?
- Screen transition consistent?
- Is video/sound/animation timing acceptable?
- Does it work across platform?
- Needs installation on various machines?
- Obtain copyrights? legal notices? logos?
- What is the smallest & best machine configuration?
- Need accompanying extensions? other s/w?
- Need folder placement? aliases placed?
- Checked for VIRUSES?
- registration? installation note?
- “read me first” file?
- Has supporting WWW site?

Case Study

Deconstructing the past
To reconstruct the past, we study visual information in Kinki and strings and photographic photos... From this, we hypothesize how the picture and the name...