

# **Multimedia Presentation & Authoring**

**UNIT 8: Multimedia Application Development**

# Introduction

- A multimedia presentation differs from a normal presentation in that it contains some form of animation or special media. It includes video, graphics, audio, music etc. along with text for the presentation.
- Multimedia Authoring Tool is a development environment where one can merge a number of media into a single application.

# Multimedia presentation

A multimedia presentation differs from a normal presentation in that it contains some form of animation or special media. Typically a multimedia presentation contains at least one of the following elements:

- Video or movie clip
- Animation
- Sound (this could be a voice-over, background music or sound clips)
- Navigation structure

# Choice of multimedia presentation technology

The first – and hardest – part is to choose the technology for your presentation. The choice comes down to two main contenders,

- **Adobe Flash**
- **Microsoft PowerPoint.**

# Adobe Flash

- Flash allows you to create presentations where you can build in powerful animation. It also has very good video compression technology.
- Perhaps the **best part** of Flash is that it also allows you to put presentations directly onto your web site.
- The **biggest problem** though is that Flash is a difficult system to get to use.

# Microsoft PowerPoint

- The easiest way to create a multimedia presentation is in Microsoft PowerPoint. You can add in video, a soundtrack and also a reasonable degree of animation.
- By far the the biggest advantage of making multimedia presentations in PowerPoint is that it is easy for anyone to be able to edit the presentation.

# Other S/w tools for Presentation

- Swish
- DirectorMX
- Prezi

# Multimedia Authoring Tools

- Also known as authorware, a program that helps you write hypertext or multimedia applications.
- Authoring tools usually enable you to create a final application merely by linking together objects, such as a paragraph of text, an illustration, or a song. By defining the objects' relationships to each other, and by sequencing them in an appropriate order.
- Most authoring systems also support a scripting language for more sophisticated applications.
- The distinction between authoring tools and programming tools is not clear-cut. Typically, though, authoring tools require less technical knowledge to master and are used exclusively for applications that present a mixture of textual, graphical, and audio data.



# Design issues for multimedia Authoring

1. Display Resolution
2. Data Formats for captured data
3. Compression Algorithms
4. Network Interfaces
5. Storage Formats

# Design Approaches to Authoring

1. Hypermedia application design
2. User Interface Design
3. Multimedia Database design
4. Multimedia Presentation design

# Types of Multimedia Authoring System

- Dedicated Authoring System
  - Microsoft Power Point
- Timeline based Authoring System
  - e.g. Adobe Flash
- Programmable Authoring System
  - Javascript

# Types of Authoring Tools

- Card or Page based Tools
- Icon or Object based Event driven Tools
- Time Based Tools

# Card or Page based Tools

- The elements are organized as pages of a book or a stack of cards.
- Card-or page-based authoring systems are best used when the bulk of your content consists of elements that can be viewed individually
- Link these pages or cards into organized sequences.
- Jump, on command, to any page
- Play sound elements and launch animations and digital video.
- **HyperCard, SuperCard, Media Object, Tool Box, Visual Basic, PowerPoint, Astound** are some of the Card based tools.

# Card or Page based Tools

Microsoft PowerPoint - [Chapter 8]

File Edit View Insert Format Tools Slide Show FlashPaper Window Help

100%

Common Tasks

4 5 6

**Authoring Metaphors**

b) Slide show metaphor

- A linear presentation

**Authoring Metaphors**

c) Linked Screens

- A group of scene linked together

**New Slide**

Choose an AutoLayout:

OK Cancel

Bulleted List

☐ Don't show this dialog box again

8 10 11

**Integration Development**

- Most Authoring tool have the following in their development interface:
  1. A list of media events
  2. Iconic flowchart / timeline
  3. Card stack
  4. A series of figures

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**Integration Development: Flash**

3. Card stack (tabs)

- Easy viewing if there is too many item on screen.

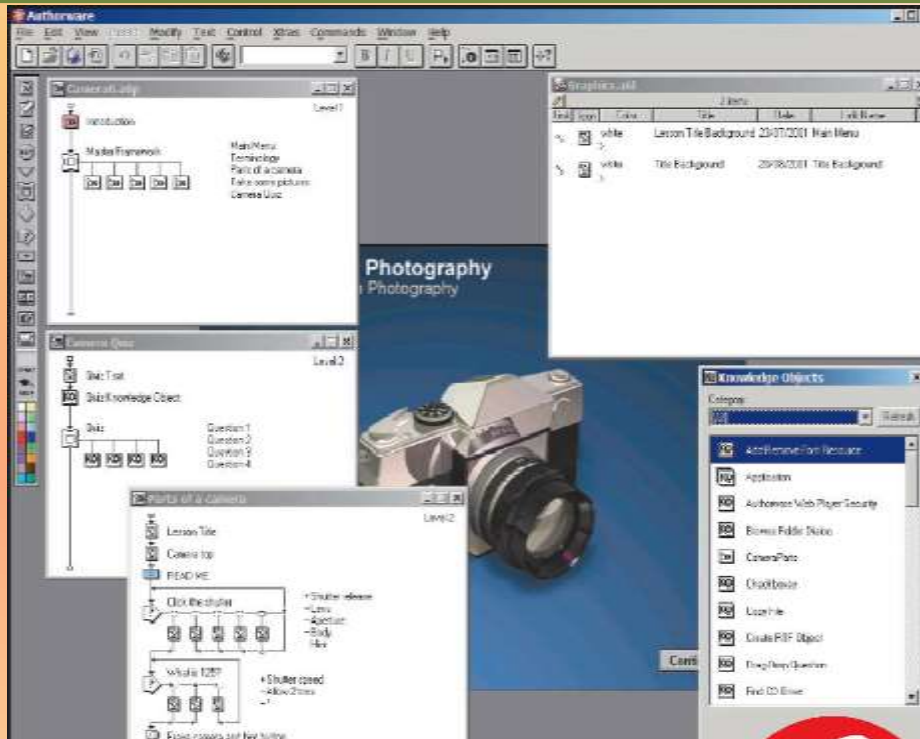
Card stack

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# Icon or Object based Event driven Tools

- Multimedia elements and interaction cues (events) are organized as objects in a structural framework or process.
- Simplify the organization of your project
- Display flow diagrams of activities along branching paths.
- In complicated navigational structures, this charting is particularly useful during development
- **Author Ware Professional, Icon Author, Quest** are some of the Icon based tools

# Icon or Object based Event driven Tools

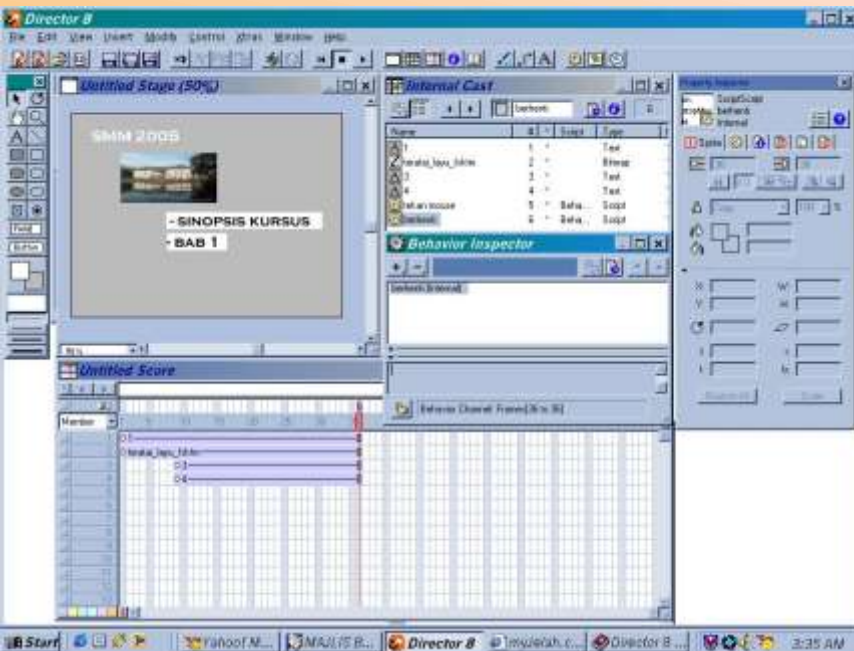




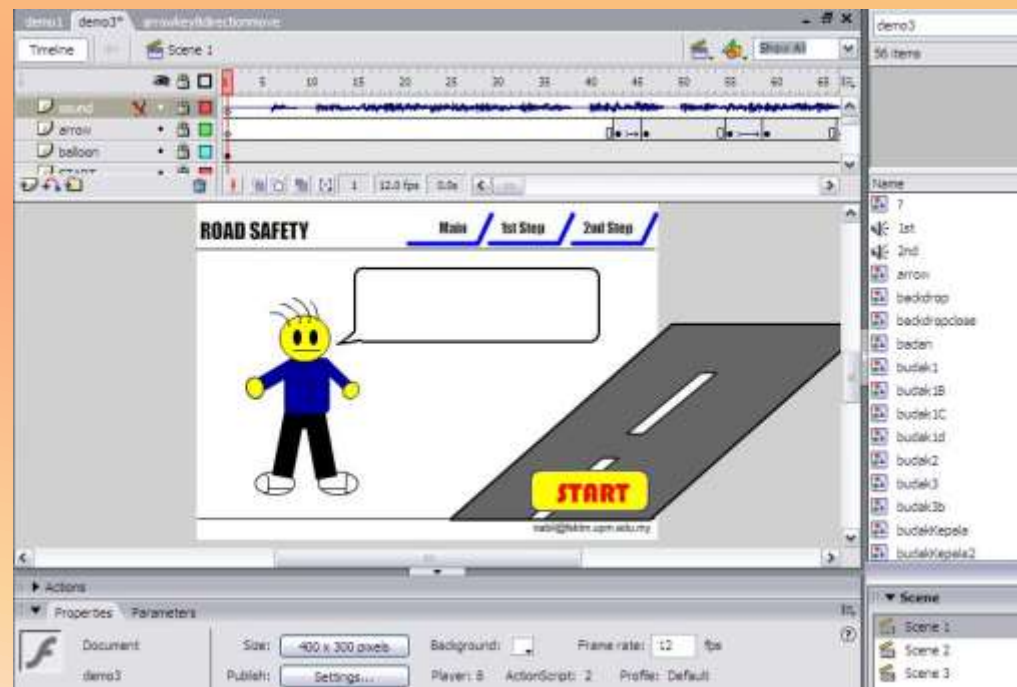
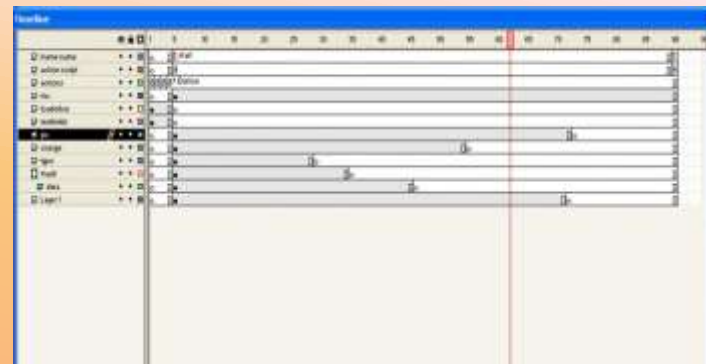
# Time-based tools

- Elements and events are organized along a timeline with resolutions as high as or higher than 1/30 second.
- Time-based tools
- Best to use when you have a message with a beginning and an end.
- Played back at a speed that you can set
- Other elements (such as audio events) are triggered at a given time or location in the sequence of events.
- Jumps to any location in a sequence
- Navigation and interactive control.
- **Adobe Flash and Macromedia Director** are Time based tools

# Time-based tools



Macromedia Director



Macromedia Flash

# Object Based Tools

- Support *environment* based on object.
- Every object is modified using 'properties' & 'modifiers'
- The environment is based on 'Hierarchy' (section and sub-section).
- Examples of the tools :
  - mTropolis (Mac/Windows)
  - AppleMedia Tool (Mac/Windows)
  - MediaForge (Windows)

# Object Based Tools



# Features of Authoring Tools

- Editing and organizing features.
- Programming features.
- Interactivity features.
- Performance tuning and playback features.
- Delivery, cross-platform, and Internet playability features.

# Editing and organizing features

- Editing tools
  - To create, edit, and convert multimedia elements such as animation and video clips.
- The organization, design, and production process for multimedia involves storyboarding and flowcharting.
  - Visual flowcharting or overview facility illustrates project structure at a macro level.

# Programming features

- Visual programming with icons or objects
  - The simplest and easiest authoring process.
  - Authorware and IconAuthor
  - Suitable for slide shows and presentations.
- Authoring tools offer ‘very high level language’ (VHLL) or interpreted scripting environment.



# Interactivity features

- **Interactivity**

- The end user control over the content and flow of information
- Simple branching
  - go to
- Conditional branching
  - IF-THEN decisions or events.

- **Structured language**

- complex programming logic, subroutines, event tracking, and message passing among objects and elements.



# Performance Tuning and Playback Features

- Synchronization is difficult
- Authoring system should facilitate precise timing of events.
- It should enable developers to build a part of a project and then test it immediately.

# **Delivery, Cross-Platform, and Internet Playability Features**

- Delivering the project may require building a run-time version of the project, using the multimedia authoring software.
- Run-time version or standalone
- Allows a project to play back without the complete authoring software and all its tools and editors.
- Across platforms
- Authoring systems provide a means for converting their output to be delivered within the context of HTML or DHTML.

# Applications

- Business Presentations
- Marketing/ Advertising
- Tutorials/ e-learning
- Web Designing
- User Interface Designing
- Icon/ Button Designing
- Background/ Wallpaper Designing

# Scope of Research

- Indexing music by mood: design and integration of an automatic content-based annotator
- Concept Modeling
- Use of soft biometrics for person's identification
- Multimedia Libraries

**Thankyou**