Introduction to Multimedia Applications
CT801-4-0-OIMA

ASIA PACIFIC UNIVERSITY
OF TECHNOLOGY & INNOVATION

Authoring Tools

Topic & Structure of Lesson

Multimedia Authoring and Tools

Classification of Authoring Tools

Basic Features of Authoring Tools

Multimedia Editing Tools

Learning Outcomes

At the end of this lecture, you will be able to:

Explain the purpose of multimedia authoring and its tools.
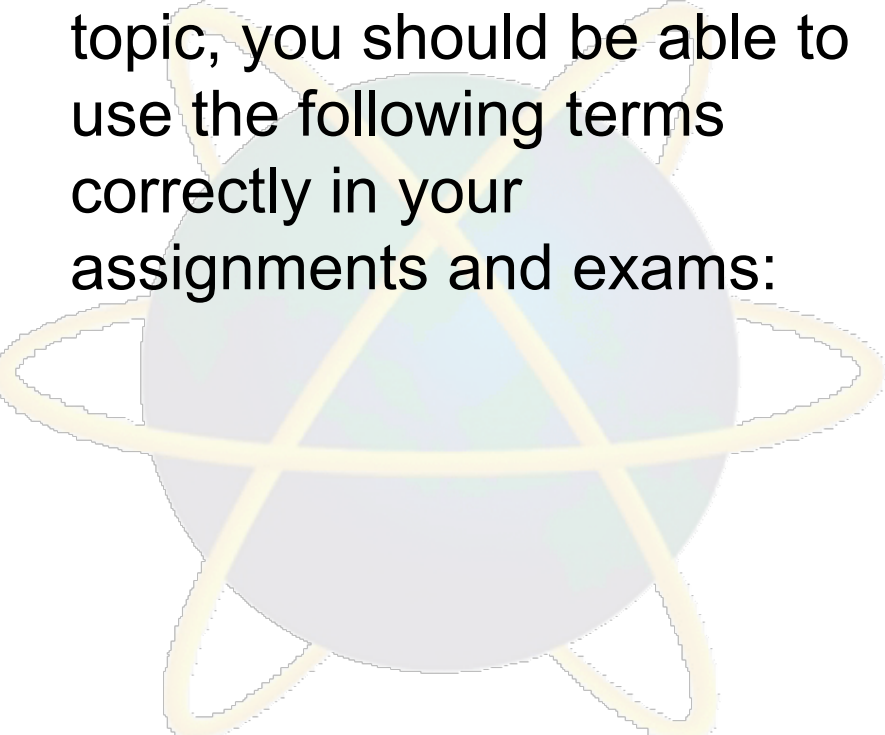
Classify time-, card-, and icon-based authoring tools.

Describe the basic features of an authoring tool.

Select appropriate editing tools for multimedia projects.

Key Terms you must be able to use

If you have mastered this topic, you should be able to use the following terms correctly in your assignments and exams:

Authoring Tools

Time-based, Card-based, Icon-based

Playback

Cross-platform

Internet Playability

Image Editor

Drawing Program

Text Editor

Word Processor

Definition : Multimedia Authoring

A process of creating **multimedia** application by **assembling content** of different elements (graphics, animation, text, audio, video).

Involves organizing and editing the elements, creating user interface and designing interactivity.

Hence, multimedia **authoring tools** are required as it provide an **integrated environment** to join the elements together.

It also provides a **framework** for organizing and editing the elements, as well as creating user interface and designing interactivity.
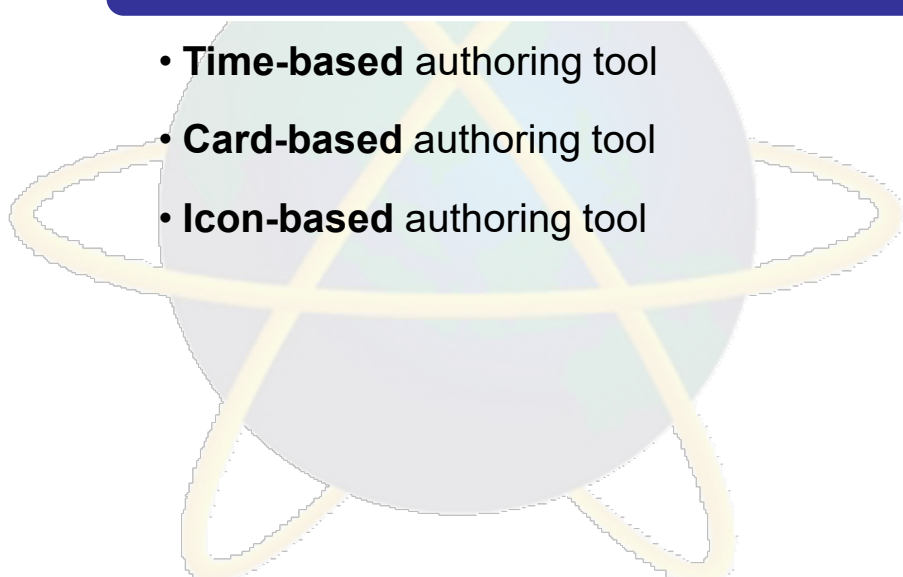
Classification of Authoring Tools

There are three (3) types of authoring tools.

Classified based on style in which the multimedia presentation is created.

They are:

- **Time-based** authoring tool
- **Card-based** authoring tool
- **Icon-based** authoring tool

Time-Based Authoring Tools

It allows the developer to organize elements and events along a **well defined time line**.

Use **movie metaphor** – it starts to play until some actions causing it to pause or stop.

Allows **branching** to different part of the application, and amount of **interactivity** may be built in.

Advantages:

- Great for creating animation.

- Branching, user control, interactivity facilities.

Disadvantages

- Expensive

- Large file size

- Steep learning curve to understand various features.

Example: Macromedia Director, Macromedia Flash

Card or Page -Based Authoring Tools

It allows the developer to organize elements and events as pages of a book or **a stack of cards**.

Use **card stack metaphor** – each card may contain many different elements, and they are put in a stack.

Allows jumping from card to card in the stack as all cards are interrelated.

Example: Hypercard (Mac), Tool book (Windows), PowerPoint (Windows), Supercard (Mac)

Advantages

- Easy to understand.
- One screen is equal to 1card or 1page.
- Easy to use as these tools provide template.
- Short development time.

Disadvantages

- Some run only on one platform.
- Tools not as powerful as equivalentstand-alone.

Icon-Based Authoring Tools

It allows the developer to organize elements and events as an **icon/symbols** in a flowchart.

Use **flow-control metaphor** – each icon or symbol represents a particular event, and does a specific task.

For example, in the video, the *Wait icon* stops the process until the user responds to mouse or keyboard.

Icons are lined together to form a complete application.

Example:, Authorware Professional (Mac/Windows), Icon Author (Windows)

Advantages

- Clear Structure.
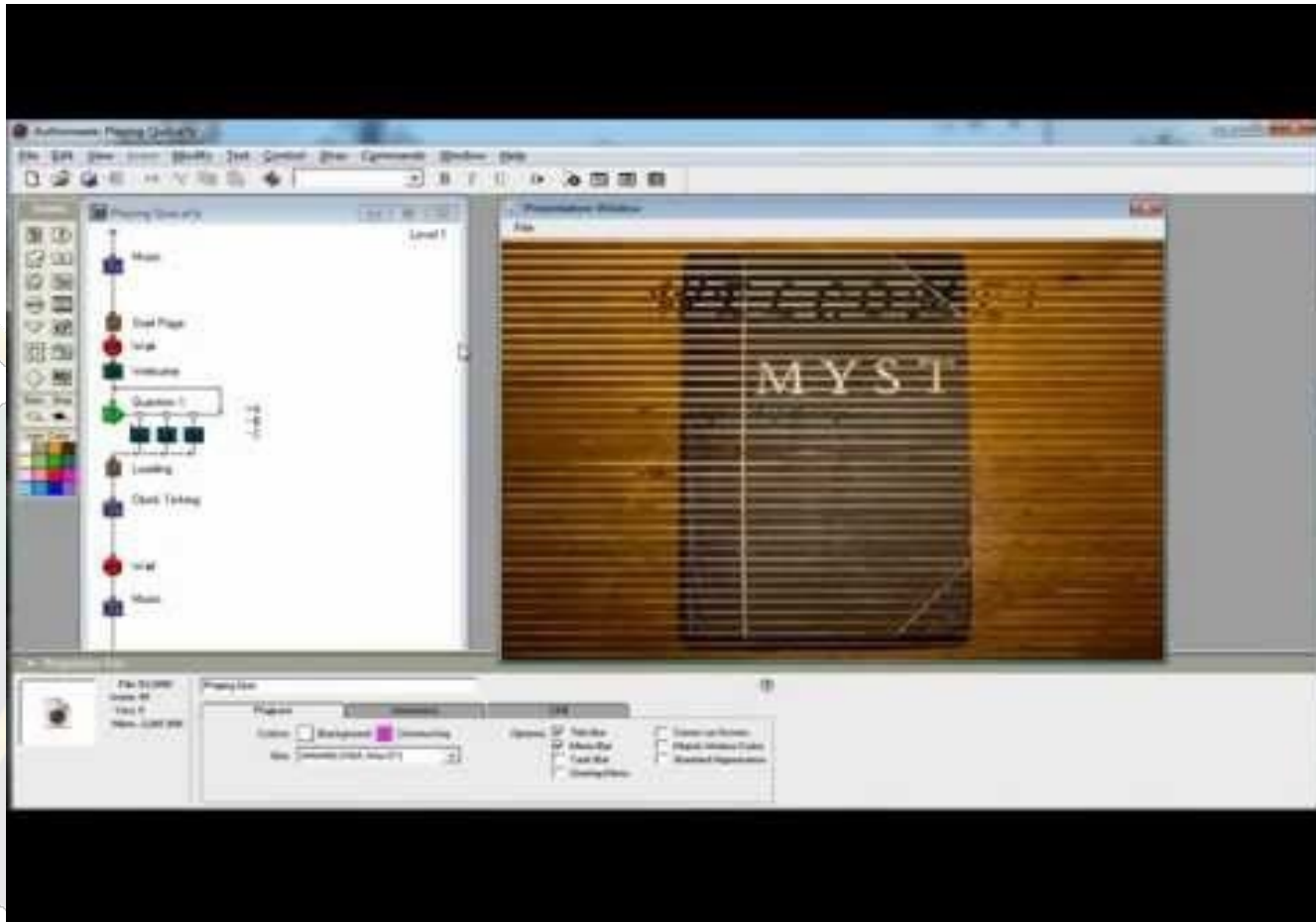- Easy editing and updating

Disadvantages

- Difficult to learn.
- Expensive.

Icon-Based Authoring Tools

Basic Features of Authoring Tools

Editing and Organizing Features

Programming Features

Interactivity Features

Playback Features

Cross-Platform Features

Internet Playability Features

Basic Features of Authoring Tools

Editing and Organizing Features

- Create and edit elements
- Visual flowcharting

Programming Features

- Visual programming
- Programming with scripting language

Interactivity Features

- Provides controls for end users
- Simple branching & Conditional branching (If-Then)

Basic Features of Authoring Tools

Playback Features

- Allow instant testing with playback

Cross-Platform Features

- important to use tools that make transfer across platforms (Particularly Mac and Windows) easy

Internet Playability Features

- Web becomes significant delivery medium – Provides a mean to convert output that can be delivered within the context of HTML

Multimedia Editing Tools

Graphics Editing Tools

Animation Editing Tools

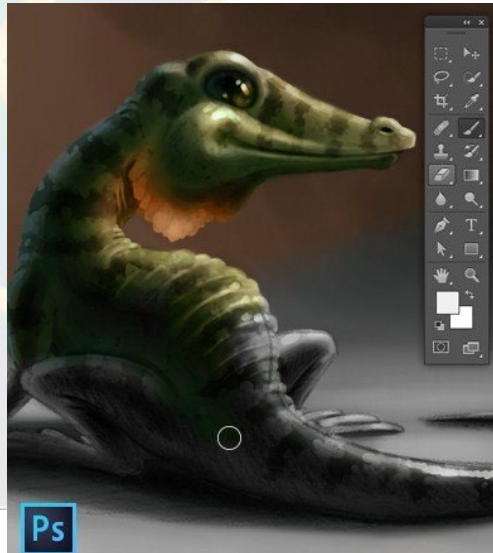Text Editing Tools

Audio Editing Tools

Video Editing Tools

Graphics Editing Tools

Used to create and edit **bitmap/raster** graphics

- E.g. Adobe Photoshop

Used to create and edit **vector** graphics

- E.g. Adobe Illustrator

Animation Editing Tools

Animation software allows for creation of motion on a frame-by-frame basis.

Rendering may take longer on ordinary computer for advanced animation.

Examples of animation software:

- Adobe Flash
- Macromedia Flash*

Text Editing Tools

Used to work with **plain text,** without being able to include formatting.

- E.g. Notepad, Notepad++

Used to compose, edit, **format,** and print text and other media.
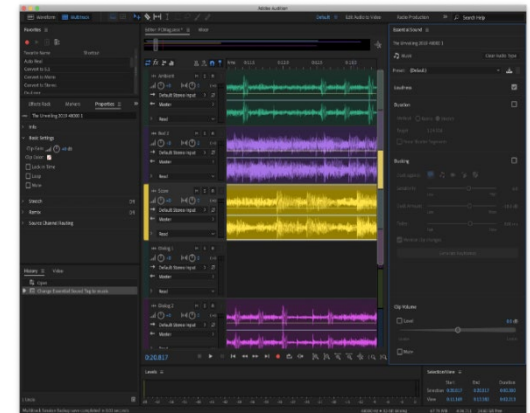
- E.g. WordPad, MS Word

Notepad vs. WordPad

Audio Editing Tools

Audio editor allows the user to execute the following:

- Record audio and store as digital audio
- Mix multiple sound sources/tracks
- Apply simple or advanced effects or filters
- Conversion between audio file formats

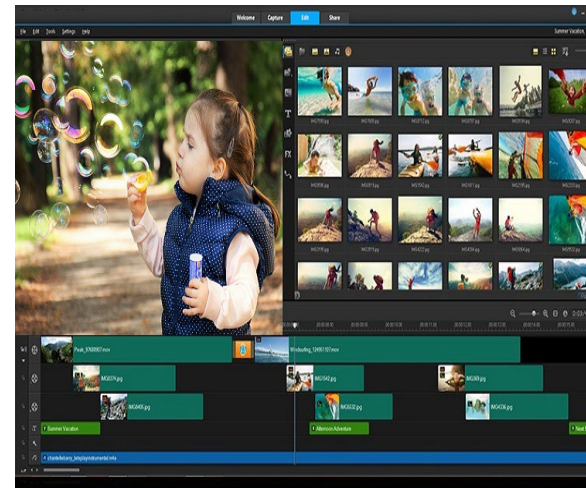## Examples of audio editor:

- Adobe Audition
- Audacity*

Video Editing Tools

Video editor is used to edit and assemble recorded raw materials (footage, sound, and graphics) into a finished product to tell a story.

Examples of audio editor:

- Adobe Premiere
- Windows Movie Maker

Quick Review Question

01

Explain the purpose of multimedia authoring tools

02

List the 3 classification of the multimedia authoring tool.

03

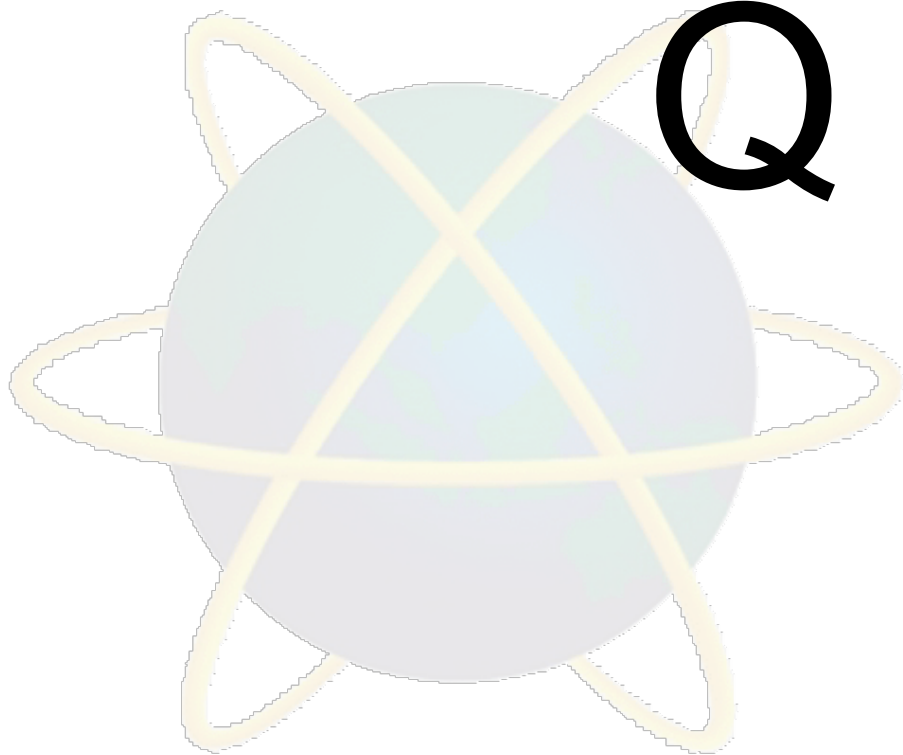List the advantages of the card-based authoring tool.

04

List the advantages of the icon-based authoring tool.

05

List the advantages of the time-based authoring tool.

Question and Answer Session

Q & A

What we will cover next

Revision