

COMPUTER GRAPHICS

Lecture 1: Introduction to Computer Graphics

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Content

1.1. Course goals

1.2. The basic components of Computer Graphics System

1.3. Applications

1.4. Computer Graphics Tools

1.1. Course goals

Study hardware and software solutions to simulate real world in the form of visual and audio information.

2D (x,y) -> 3D (x,y,z) -> 4D (x,y,z,t) -> 5D (x,y,z,t,s)

1.2. The basic components of Computer Graphics System

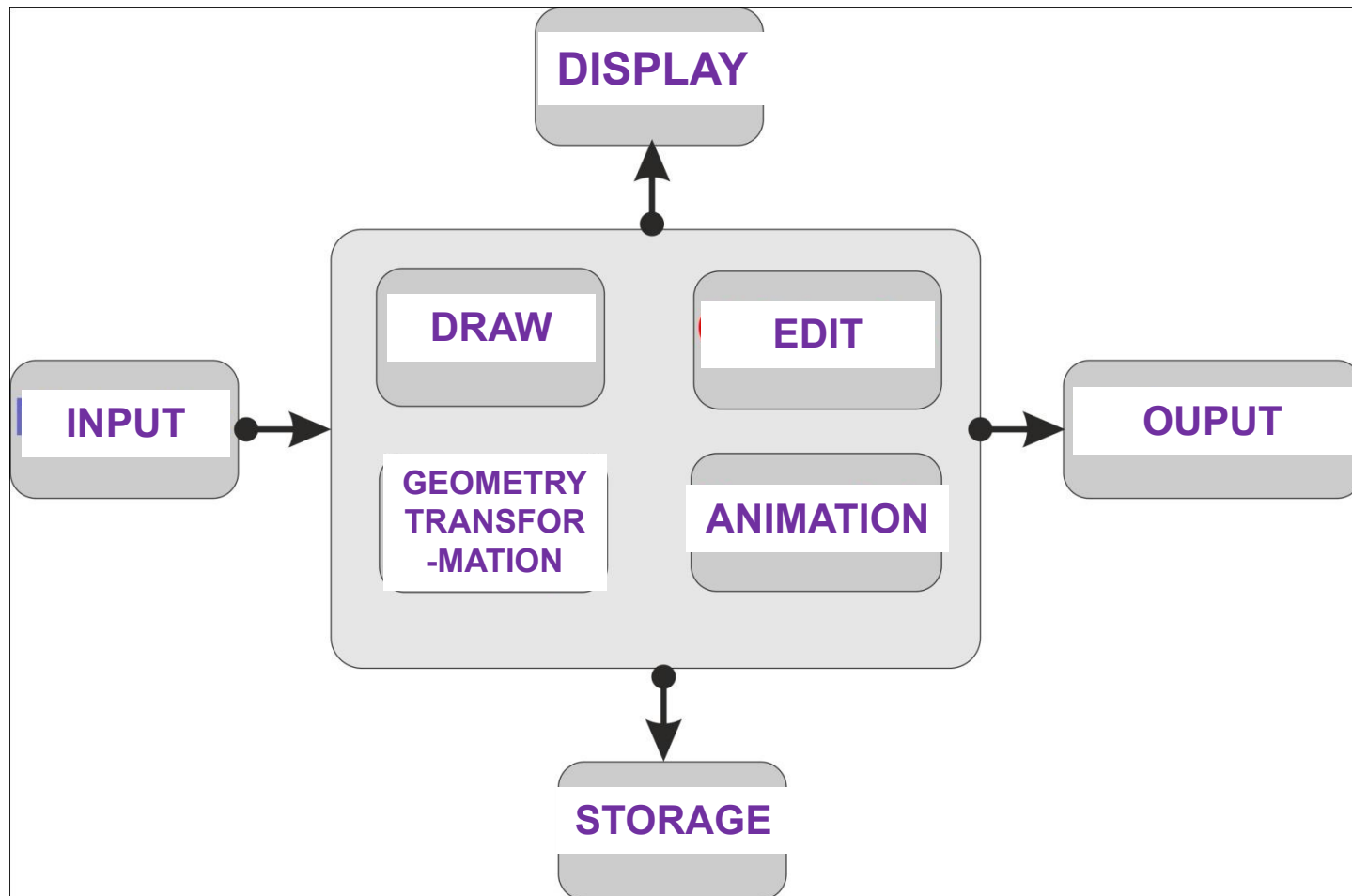


Fig 1.1. The basic components of Computer Graphics System

1.3. Applications

- Office automation.
- Desktop Publishing.
- CAD-CAM.
- Art + Advertising.
- Process Control.
- Entertainment.
- Education

1.4. Computer Graphics Tools

- . **GKS** (Graphical Kernel System), (ISO + ANSI)
(International Standard Organization + American National Standard Institute).
- . **PHIGS** (Programmer's Hierarchical Interactive Graphics Standard), (ISO + ANSI).
- . **Popular industry packages.**
Silicon graphics Graphics Library .
OpenGL, Sharp GL, OpenGL ES, WebGL,
HTML5.0.
Pixar Renderman Interface.
PostScript Interpreter for page description.