Review of Tuesday

• Interaction
  • Allows user to change parameters of graphical representation
  • Defined through **User Interface**
  • APIs define **logical devices** for input
  • **Graphical User Interfaces** present options to the user
  • **Input mode** governs how and when input is processed

• **Typical tasks** in computer-graphics
  • Navigation (virtual sphere, …)
  • Picking (color-based picking, …)
  • Changing scalar/vector attributes
Review of Tuesday

- Virtual sphere
  - Challenge: Mapping 2D input to 3D motion
Summary of Logical Devices

- What are types of logical devices we can expect?

- **String Device**: Provides ASCII strings.
- **Locator Device**: Provides a location.
- **Pick Device**: Provides identifier. Similar to locator, but with additional software interface.
- **Choice Device**: Provides selection of (multiple) choices.
- **Valuator Device**: Provides analog input.
- **Stroke Device**: Provides a sequence of locations.
Special Mention

- **Motion Capture**
  - Movement of an actor is mapped to a (kinematic) skeleton
  - Different input technologies
  - Used in movies, games for natural animations
Summary of Chapter 6

- Hierarchical representations (trees) are important for
  - Compound/Mechanical objects
  - Scene composition using a scene graph
  - Spatial partitioning/Spatial subdivision

- Complex scenes can be explored through **interaction**
  - (G)UI APIs provide abstraction from hardware
  - Our task is to map input to actions