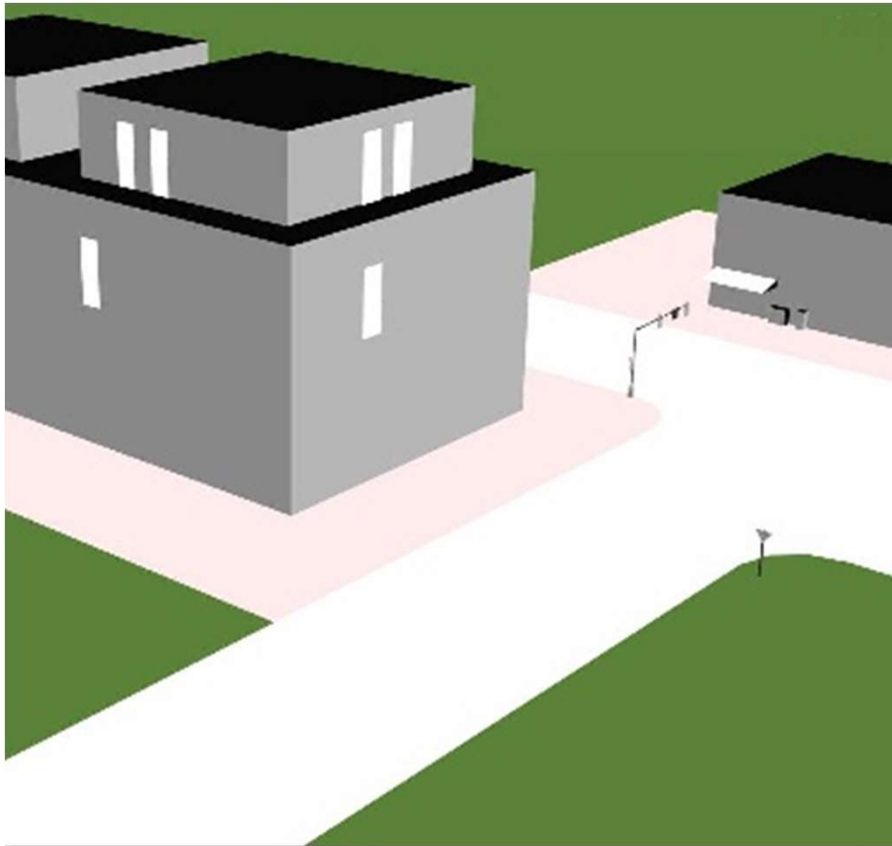# Texturing

# Texturing = Map Image to Surface

# Adding Surface Detail
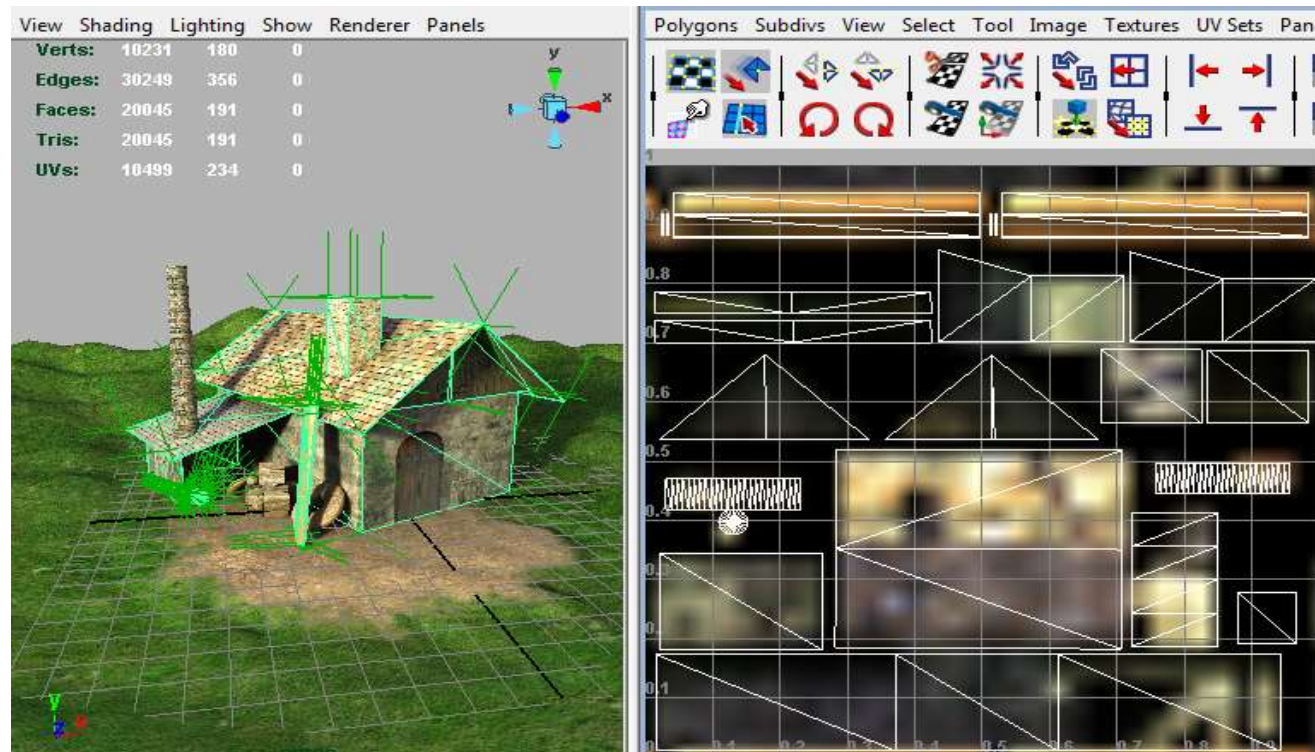
# Mapping – Texture coordinates



(0,1)   (1,1)   $(U_1,V_1)$

$(U_2,V_2)$

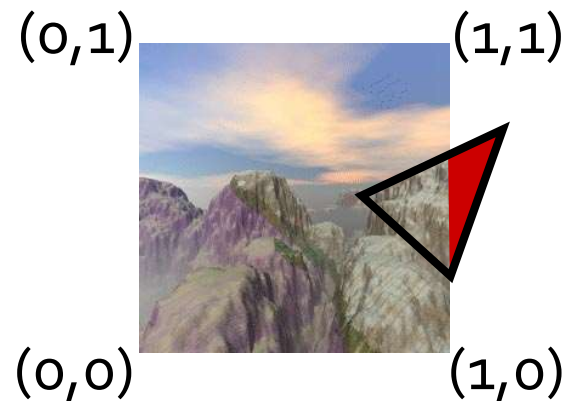(0,0)   (1,0)   $(U_0,V_0)$

(u,v) in [0,1]
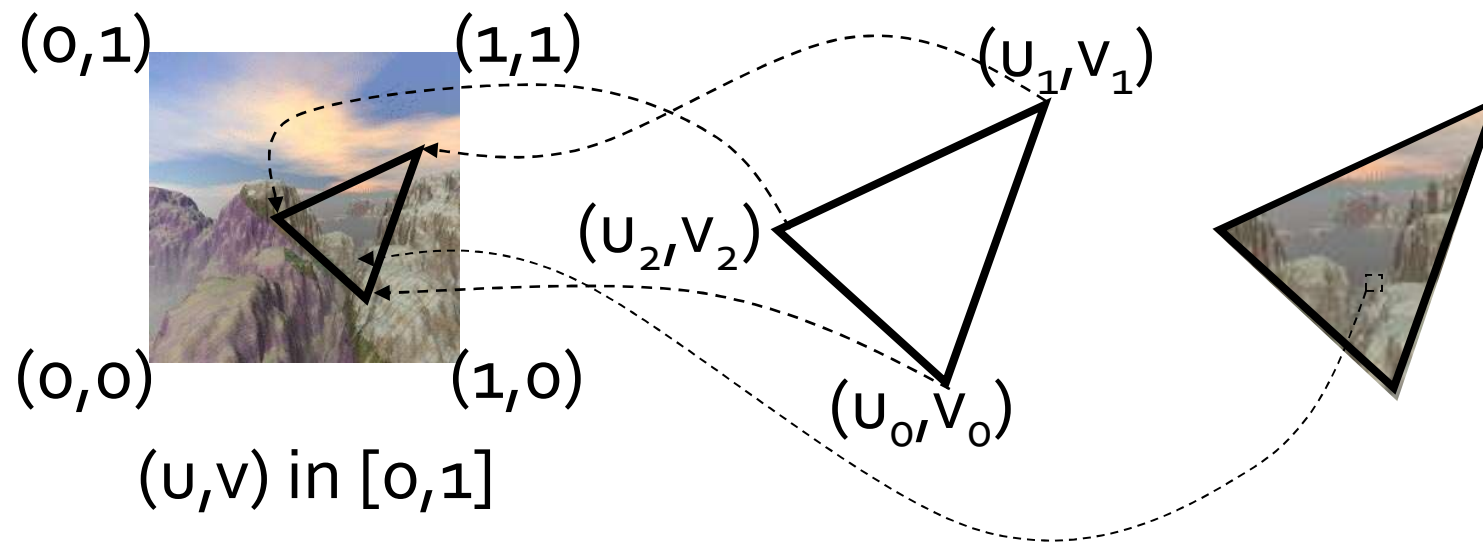
# Texture coordinates

- Where do texture coordinates come from?
  - **Offline**: manual UV coordinates by DCC program
  - Note: **a modeling Problem!**
- Specify yourself

# Texture functions

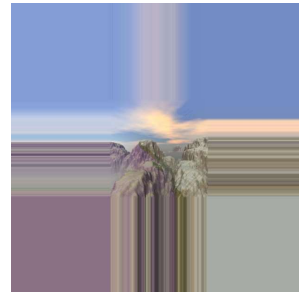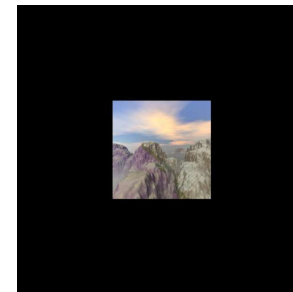- How to extend texture beyond border?

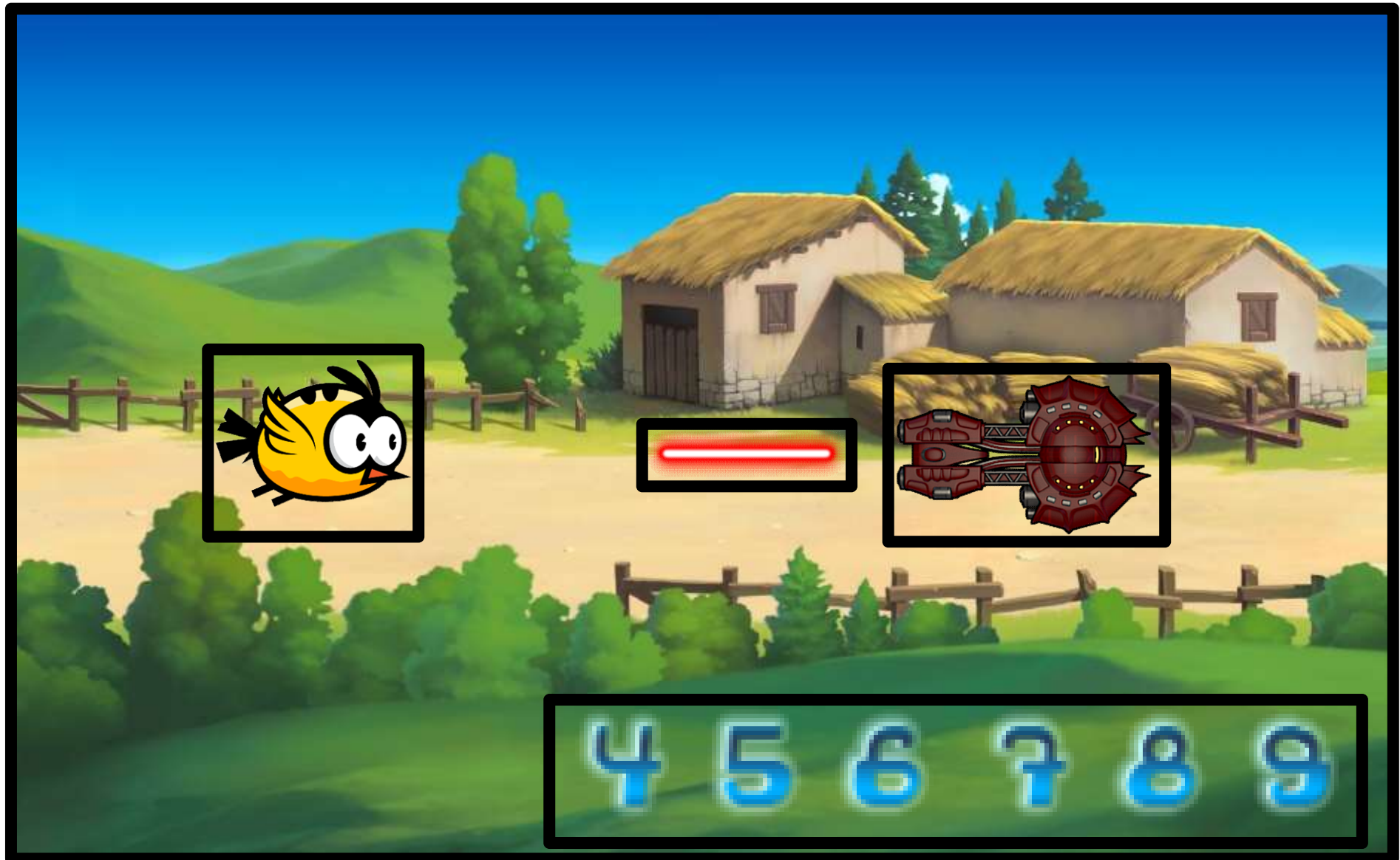- Border and repeat/clamp modes



repeat     mirrored     clamp     border

# 2D Game Scene

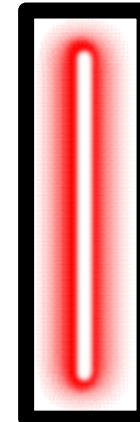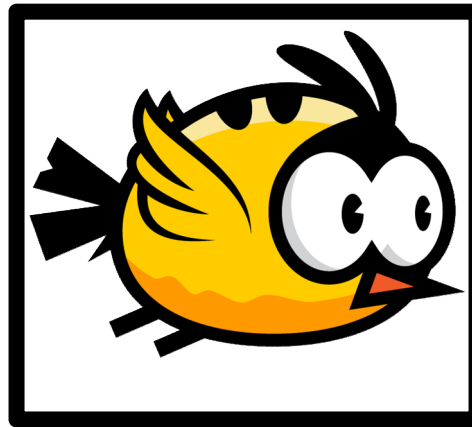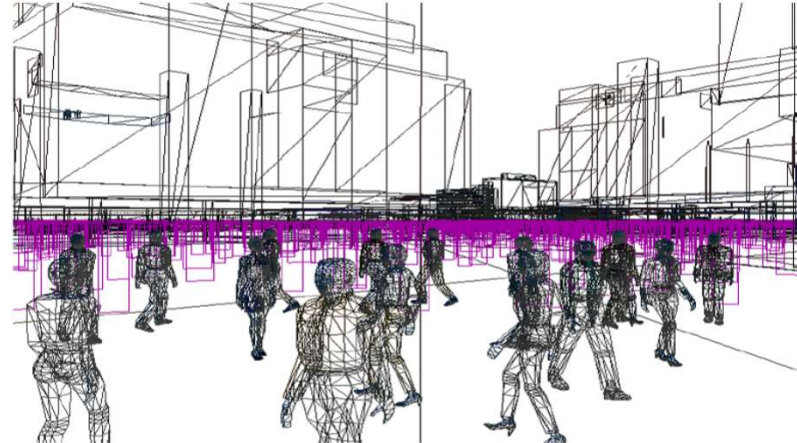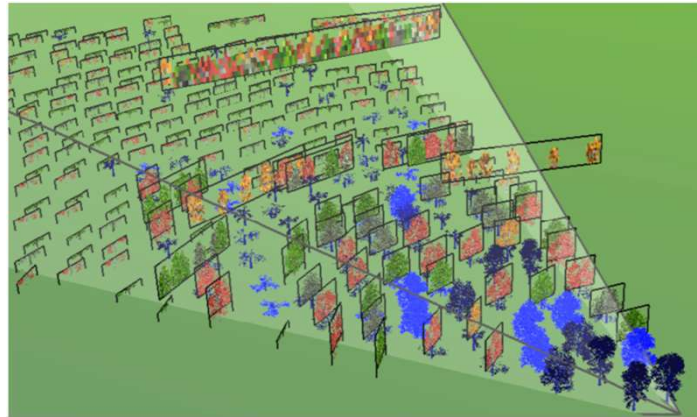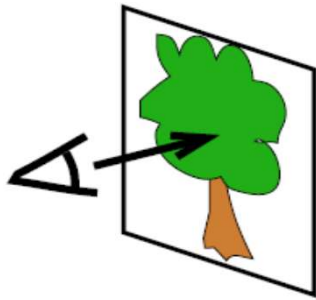# Scene composed of Sprites

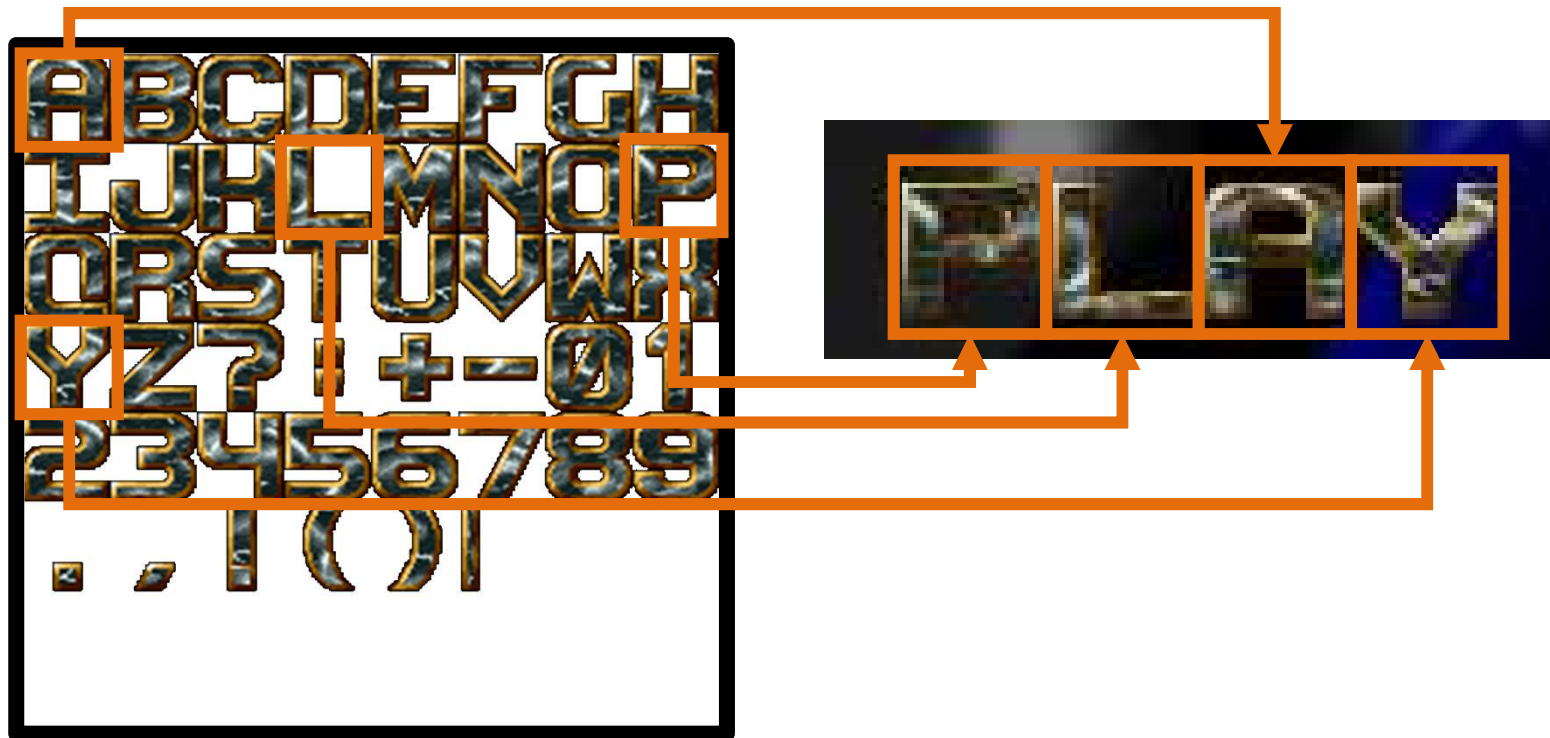# Sprite – Image of object
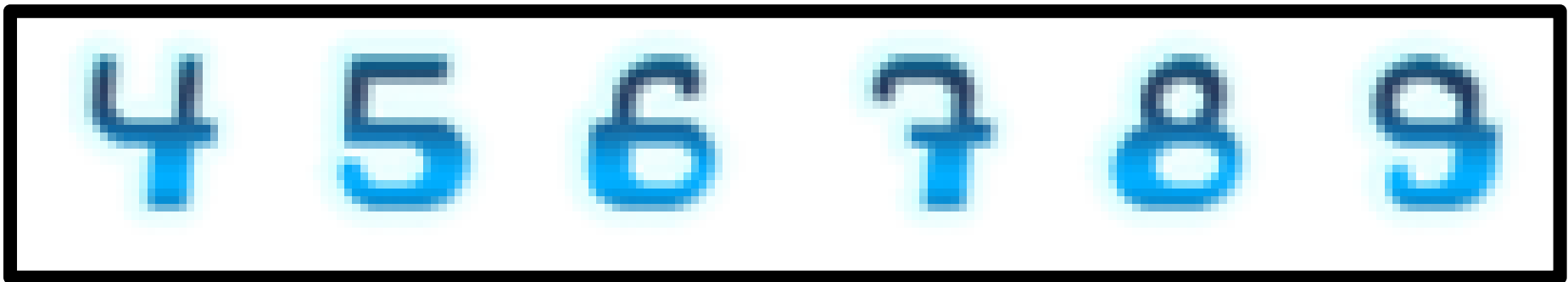
# Sprite = Impostor 3D

# Bitmap Texture Font

- Want to show changing text

# Bitmap Texture Font

- Idea
  - Characters are from a predefined set
  - Each character has a certain set of texture coordinates
  - Render textured quads one for each character

# Texture Animations

- Each animation frame is stored inside a texture
- Then different frames are accessed over time