Image Maps

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Image Maps

- An image that contains hyperlinked, clickable regions, sometimes called "hot spots"
- Each hot spot is defined by a set of coordinates (indicating its position on the image) and a URL reference
- Two types of image maps:
  - Client-side (commonly used)
  - Server-side (rarely used)

Image Maps

- If you could see an image with its map, it might look like this:

These areas might link to EAR.HTM

Each area could be a separate link.

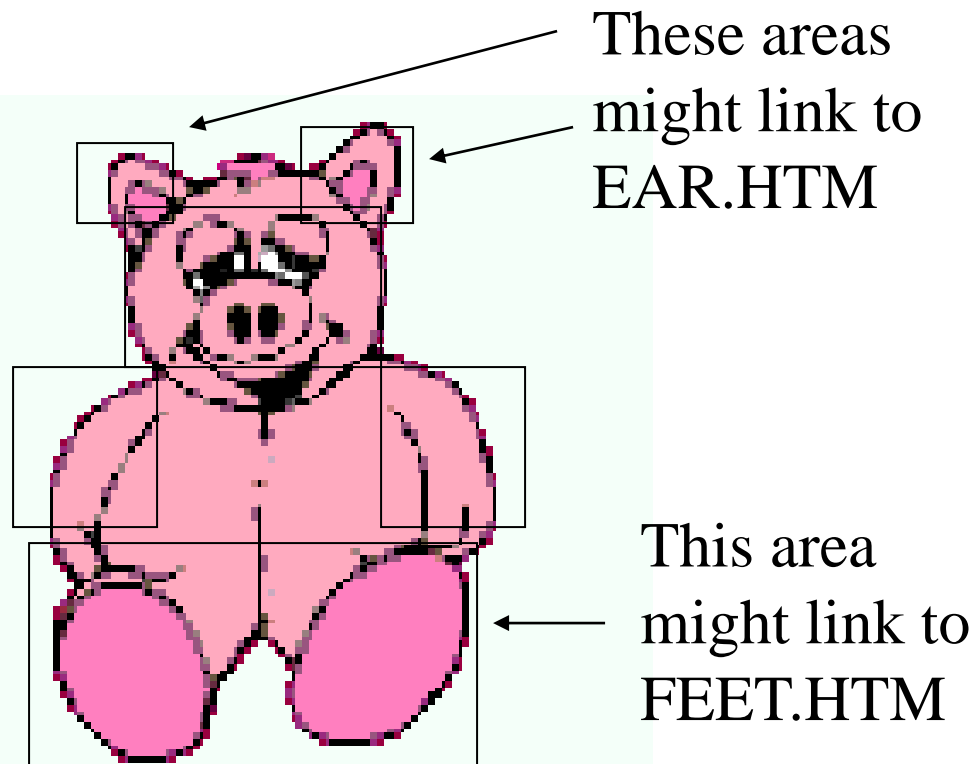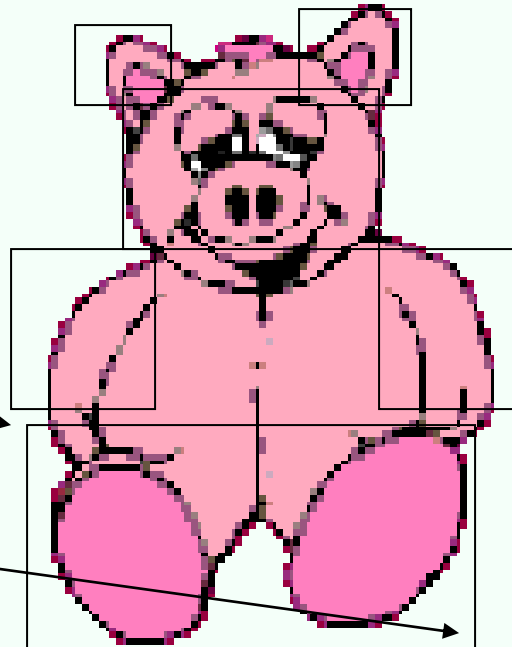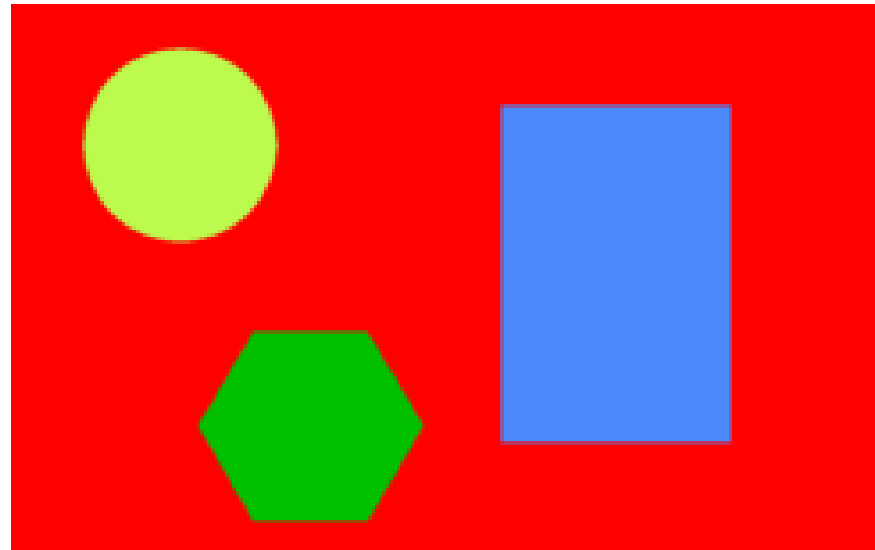This area might link to FEET.HTM

Image Maps

- Each area is defined by coordinates in pixels.
- For rectangular areas, it is the upper left and lower right.

This area might be defined as 2,200 (upper left) 205,300 (lower right)

Defining Hot Spots

- Three shapes for hot spots:
  - Rectangle
  - Circle
  - Polygon

Rectangle Hot Spot

- Any two points can define a rectangle
- Each point is represented by a horizontal (x) coordinate and a vertical (y) coordinate
- Rectangles are defined by four coordinate values representing the upper-left and bottom-right corners of the rectangle
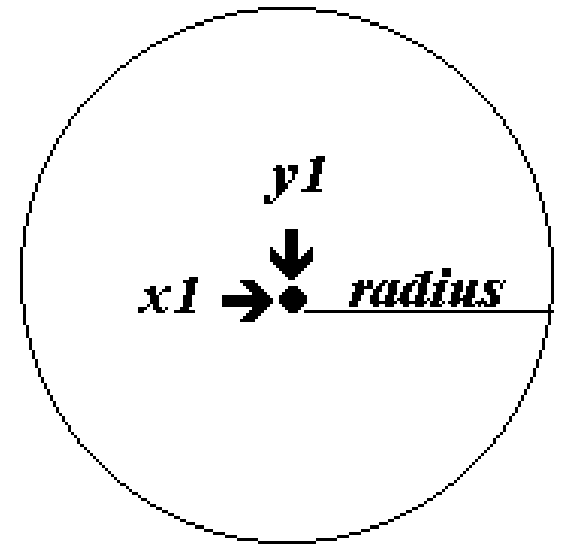 - Code:

<area shape="rect" coords="1,52,33,96" href="hand.htm" />

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Circle Hot Spot

- Circles are defined by two coordinates and a radius

  – Code:

  <area shape="circle" coords="x1,y1,radius" href="url"/>

- The pair of coordinates speci the circle's center
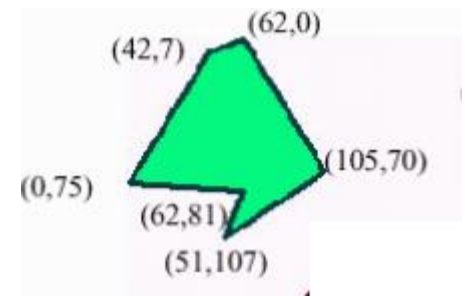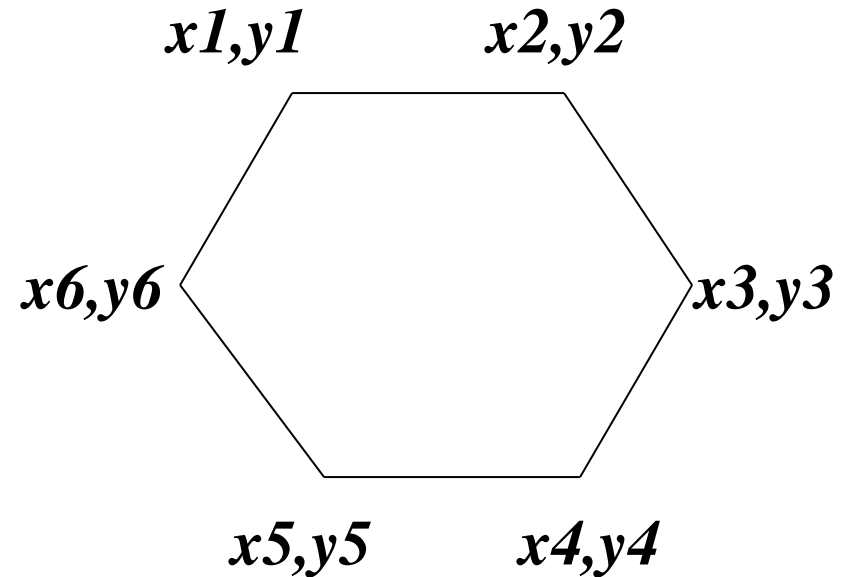
- A third number specifies the desired radius

Polygon Hot Spot

<AREA SHAPE="poly"

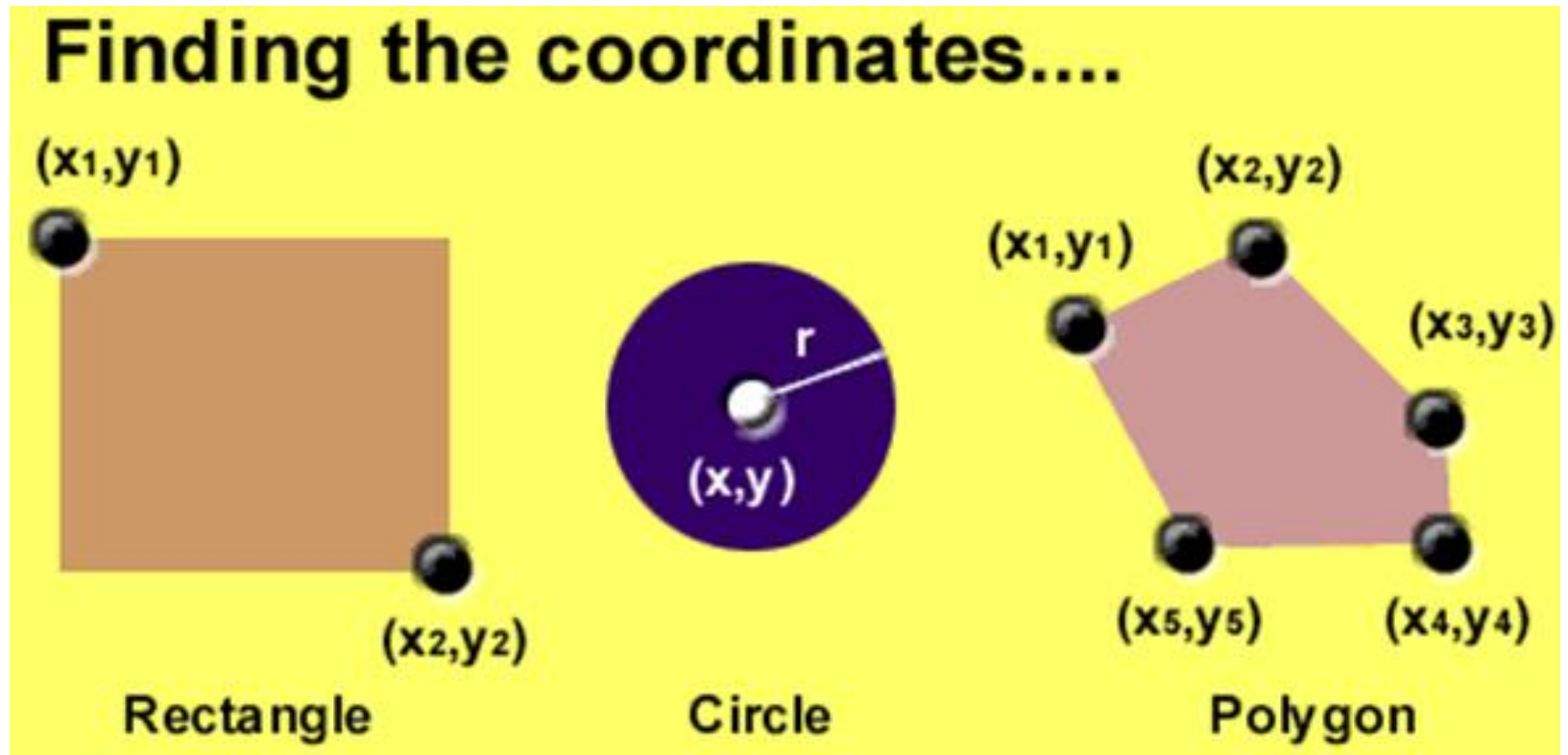 COORDS="*x1,y1,x2,y2,x3, y3,x4,y4,…*"

    HREF="*url*">

- Replace *x1,y1* with two numbers: horizontal and vertical position of a point on the edge of the polygon
- Add more *x,y* pairs until you have traced around the desired shape

x1,y1   **x2,y2**

x6,y6   **x3,y3**

x5,y5   **x4,y4**

(62,0)
(42,7)
(105,70)
(0,75)
(62,81)
(51,107)

3 types of Hot Spot

Finding the coordinates....

Rectangle — (x_1, y_1), (x_2, y_2)

Circle — (x, y), r

Polygon — (x_1, y_1), (x_2, y_2), (x_3, y_3), (x_4, y_4), (x_5, y_5)

Four Steps to Create a Client-Side Image Map

1. Select image to use

2. Define areas of image map

   – Three shapes: circle, rectangle, polygon

   – X and Y coordinates in pixels

   – Get coordinates from a graphics program such as Paint Shop Pro or Photoshop

   – <AREA> tags identify shapes in map

     – SHAPE attribute – circle, rect, poly

     – HREF attribute – URL to load

     – COORDS – x and y coordinates of shape

Four Steps to Create a Client-Side Image Map

3. Include map information in HTML document:
   - <MAP></MAP> - NAME attribute names the map
   - <MAP NAME="books">

4. Connect image with map information
   - USEMAP attribute in <IMG> tag
   - USEMAP value is map name with a # symbol before it
   - <img src="image.gif" usemap="#books">

Creating Client-Side Image Maps

- Can use target=window_name for frames

  <map name="books">

  <area **shape**="poly" **coords**="70,0, 0,37, 0,183, 27,192, 27,48, 103, 9" **href**="file.html" **alt**="Books" **title**="Books">

  </map>

  <img src="image.gif" usemap="#books">

  alt: Specifies an alternate text.

  title: hover: display the text on hover

  onClick=fun(): Include Script function

Example 1

Example 1

<img src="tmahal.jpeg" usemap = #imgmap
border=0>
<map name=imgmap>
<area shape=Rect Coords=30,30,59,59
Href="taj.jpg" Target="_blank">
<area shape=Rect Coords=100,60,129,80
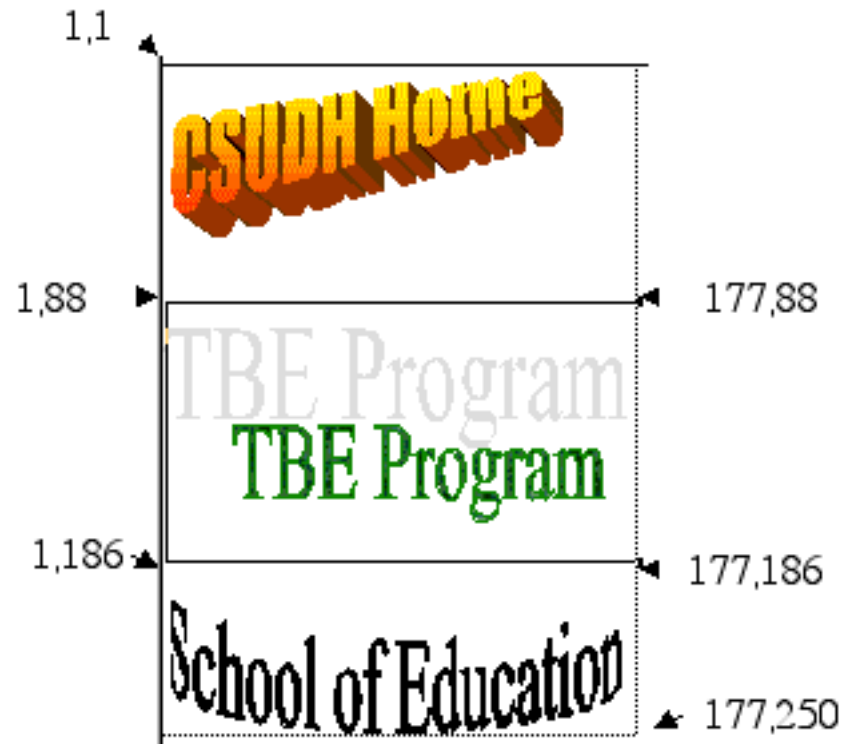Href="elephant.gif" Target="_blank" >
</map>

Find Coordinates

- use a graphics program, if it shows the position of the cursor with "pixels".

- Move the cursor over the picture and write down the appropriate coordinates.

- https://imagemap.org/

- https://www.image-map.net/

Example 2

- Here is a simpler graphic with coordinates:

Example 2

- The accompanying HTML code for the image map: