The scenes are defined in text scene files with the following format. Every line in the file defines a single object in the scene, and starts with a 3 letter code that identifies the object type. After the 3 letter code a list of numeric parameters is given. The parameters can be delimited by any number of white space characters, and are parsed according to **the specific order in which they appear**. Empty lines are discarded, and so are lines which begin with the character "#" which are used for remarks.

The possible objects with their code and list of required parameters are given below.

```
"cam" = camera settings (there will be only one per scene file)
      params[0,1,2] = position (x, y, z) of the camera
      params[3,4,5] = look-at position (x, y, z) of the camera
      params[6,7,8] = up vector (x, y, z) of the camera
      params[9] = screen distance from camera
      params[10] = screen width from camera
      params[11] = use fisheye flag - "true" to use fisheye, "false" for
                   pinhole. Default if "false"
      param[12] = k value for the fisheye transformation, Default is "0.5"

"set" = general settings for the scene (once per scene file)
      params[0,1,2] = background color (r, g, b)
      params[3] = root number of shadow rays (N^2 rays will be shot)
      params[4] = maximum number of recursions

"mtl" = defines a new material
      params[0,1,2] = diffuse color (r, g, b)
      params[3,4,5] = specular color (r, g, b)
      params[6,7,8] = reflection color (r, g, b)
      params[9] = phong specularity coefficient (shininess)
      params[10] = transparency value between 0 and 1

"sph" = defines a new sphere
      params[0,1,2] = position of the sphere center (x, y, z)
      params[3] = radius
      params[4] = material index (integer). each defined material gets an
                  automatic material index starting from 1, 2 and so on

"pln" = defines a new plane
      params[0,1,2] = normal (x, y, z)
      params[3] = offset
      params[4] = material index

"box" = defines a new box
      params[0,1,2] = position of the box center (x, y, z)
      params[3] = scale of the box, length of each edge
      params[4] = material index

"lgt" = defines a new light
      params[0,1,2] = position of the light (x, y, z)
      params[3,4,5] = light color (r, g, b)
      params[6] = specular intensity
      params[7] = shadow intensity
      params[8] = light width / radius (used for soft shadows)
```