Eye position manipulation

convertPoints:count:fromSpace:

convertPoints:count:toWorld:

Frame number

copyRIBCode:

Setting world attributes worldBegin:

worldEnd:

Setting and getting the delegate setDelegate:

delegate

Setting the hider hider

setHider:

setSurfaceTypeForAll:chooseHider:

Rendering photorealistically renderAsEPS

renderAsTIFF

awake

read:
write:

setGlobal: (N3DLight),  isGlobal (N3DLight)

awake

Invoked after unarchiving to allow the N3DCamera to perform additional initialization.  Returns se

read:,  write:

**delegate**

Returns the receiver's delegate.  An N3DCamera's delegate will be notified by a camera:didRende
frameNumber: message when a frame generated by the renderAsEPS or renderAsTIFF methods ha

renderAsEPS,  renderAsTIFF,
camera:didRenderStream:tag:frameNumber: (delegate method)

renderSelf:

setUsePreTransformMatrix:,
usesPreTransformMatrix

(N3DHider)hider

Returns the receiver's N3DHider.  The returned value represents the technique used to arrange obj
N3DCamera's image.  The 3D Kit defines three hider types (in the header file 3Dkit/next3d.h):

N3D_HiddenRendering
N3D_InOrderRendering
N3D_NoRendering

See ªDetermining  Rendering Orderº in the class description for a discussion of the hider types.

setHider:

numSelectedHosts (N3DRenderPanel)

read:(NXTypedStream *)stream
Reads an instance of N3DCamera from stream.  Returns self.
awake,  write:

setPreTransformMatrix:, frameNumber,
worldBegin:, worldEnd:

### (int)renderAsEPS

Begins photorealistic rendering of the camera's image, and returns a unique integer tag by which th
delegate can identify the rendering job. This method runs the Render panel before rendering begin
contains both PostScript and RenderMan drawing.

A photorealistic image is rendered by a separate process and can take some time to complete. The
PhotoRealistic RenderMan renderer asynchronously, and signals the N3DCamera's delegate when
generated, using the delegate's camera:didRenderStream:tag:frameNumber: method. The argumer
a tag corresponding to that returned by renderAsEPS when the rendering began, the camera that in
a stream containing the EPS image.

renderAsTIFF, camera:didRenderStream:tag:frameNumber: (delegate method)

### (int)renderAsTIFF

Begins photorealistic rendering of the camera's image, and returns a unique integer tag by which th
delegate can identify the rendering job. This method runs the Render panel before rendering begin
contains only RenderMan drawing.

A photorealistic image is rendered by a separate process and can take some time to complete. The
PhotoRealistic RenderMan renderer asynchronously, and signals the N3DCamera's delegate when
been generated, using the delegate's camera:didRenderStream:tag:frameNumber: method. The arg
include a tag corresponding to that returned by renderAsTIFF when the rendering began, the came
rendering, and a stream containing the TIFF image.

renderAsEPS, camera:didRenderStream:tag:frameNumber: (delegate method)

isSelectable (N3DShape class),  setSelectable: (N3DShape class)

setDelegate:theDelegate

Sets the N3DCamera's  delegate.  theDelegate implements the method camera:didRenderStream:ta
method for getting photorealistic images rendered by renderAsEPS and renderAsTIFF methods.  R

delegate

**setHider:(N3DHider)theHider**

Sets the receiver's N3DHider.  theHider represents the technique used to arrange objects in the N3
3D Kit defines three N3DHider types in the header file 3Dkit/next3d.h:

    N3D_HiddenRendering
    N3D_InOrderRendering
    N3D_NoRendering

See ªDetermining  Rendering Orderº in the class description for a discussion of the hider types.

 hider

setSurfaceTypeForAll:(N3DSurfaceType)surface chooseHider:(BOOL)flag

Sets the surface type for all shapes in the world shape's hierarchy.  surface may be one of the N3D
in the header file 3Dkit/next3d.h:

N3D_PointCloud
N3D_WireFrame
N3D_ShadedWireFrame
N3D_FacetedSolids
N3D_SmoothSolids

If flag is YES, this method chooses the hider type most appropriate to surface: N3D_InOrder for N
N3D_WireFrame, and N3D_ShadedWireFrame N3D_HiddenRendering for N3D_FacetedSolids a

setUsePreTransformMatrix:(BOOL)flag

If flag is YES, sets the receiver to apply its pretransform matrix before applying its transform matr
pretransformation is applied to the camera, it is transformed by the pretransform matrix and then b
By default, a camera has no pretransform matrix.  Use the setPreTransformMatrix: method to set th
then use this method to apply that matrix.

getPreTransformMatrix:,  setPreTransformMatrix:,
usesPreTransformMatrix

setSurfaceTypeForAll:chooseHider:,  worldShape

getPreTransformMatrix:, setPreTransformMatrix:,
setUsePreTransformMatrix

Writes the receiving N3DCamera to stream.  Returns self.

        camera:theCamera
                didRenderStream:(NXStream *)imageStream
                tag:(int)theJob
                frameNumber:(int)currentFrame

Invoked by the 3D Kit when PhotoRealistic RenderMan rendering finishes.  Your application initia
rendering by invoking N3DCamera's renderAsEPS or renderAsTIFF method.  Each time one of th
it returns a unique integer.  The delegate can compare this number with the integer tag theJob to id

Your delegate can handle the image returned by imageStream in a number of ways.  It can, for exa
imageStream to a file or use it to initialize an NXImage:

 frameNumber,  renderAsEPS,  renderAsTIFF