

Xenon Core 2 Framework

Assets Structure

2012-01-16

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Sound

- **XML tree**

```
<Asset Type="Sound">  
  <Param Name="path" Value="path/to/file.ogg" />  
</Asset>
```

- **Parameters description**

path path to sound file (formats supported by Audiere).

Music

- **XML tree**

```
<Asset Type="Music">  
  <Param Name="path" Value="path/to/file.ogg" />  
</Asset>
```

- **Parameters description**

path path to music file (formats supported by Audiere).

Texture

- **XML tree**

```
<Asset Type="Texture">  
  <Param Name="type" Value="image" />  
  <Param Name="path" Value="path/to/file.png" />  
  <Param Name="filteringLevel" Value="1" />  
  <Param Name="repeating" Value="true" />  
</Asset>
```

- **Parameters description**

type

"image": path must point to image format supported by WinGDI+ (PNG, BMP);
"appicon": path must point to application that store icon;
"" (empty): path to XET texture;

path

path to image file (XET and formats supported by WinGDI+).

filteringLevel

0: without;
1: linear;

repeating

"true": repeating mode turned on;
"false": repeating mode turned off;

Material

- XML tree

```
<Asset Type="Material">
  <Param Name="texture0Asset" Value="texture0.xml" />
  <Param Name="texture1Asset" Value="texture1.xml" />
  [...]
  <Param Name="texture7Asset" Value="texture7.xml" />
  <Param Name="effectAsset" Value="effect.xml" />
  <Param Name="alphaTestBorder" Value="0.5" />
  <Group Name="properties">
    <Group Name="uniformFloat" Type="float">
      <Param Name="x" Value="0.0" />
    </Group>
    <Group Name="uniformVec2" Type="vec2">
      <Param Name="x" Value="0.0" />
      <Param Name="y" Value="1.0" />
    </Group>
    <Group Name="uniformVec3" Type="vec3">
      <Param Name="x" Value="0.0" />
      <Param Name="y" Value="1.0" />
      <Param Name="z" Value="2.0" />
    </Group>
    <Group Name="uniformVec4" Type="vec4">
      <Param Name="x" Value="0.0" />
      <Param Name="y" Value="1.0" />
      <Param Name="z" Value="2.0" />
      <Param Name="w" Value="3.0" />
    </Group>
    <Group Name="uniformInt" Type="int">
      <Param Name="x" Value="0" />
    </Group>
    <Group Name="uniformInt2" Type="int2">
      <Param Name="x" Value="0" />
      <Param Name="y" Value="1" />
    </Group>
    <Group Name="uniformInt3" Type="int3">
      <Param Name="x" Value="0" />
      <Param Name="y" Value="1" />
      <Param Name="z" Value="2" />
    </Group>
    <Group Name="uniformInt4" Type="int4">
      <Param Name="x" Value="0" />
      <Param Name="y" Value="1" />
      <Param Name="z" Value="2" />
      <Param Name="w" Value="3" />
    </Group>
    <Group Name="uniformSampler2D" Type="sampler2D">
      <Param Name="unit" Value="0" />
    </Group>
    <Group Name="uniformSampler3D" Type="sampler3D">
      <Param Name="unit" Value="1" />
    </Group>
    <Group Name="uniformMat4" Type="mat4">
      <Param Name="0" Value="0.0" />
      <Param Name="1" Value="0.0" />
      [...]
      <Param Name="15" Value="0.0" />
    </Group>
    <Group Name="uniformFloatArray" Type="float[]">
      <Param Name="0" Value="0.0" />
    </Group>
  </Group>
</Asset>
```

```

        <Param Name="1" Value="0.0" />
        [...]
    </Group>
    <Group Name="uniformIntArray" Type="int[]">
        <Param Name="0" Value="0" />
        <Param Name="1" Value="0" />
        [...]
    </Group>
</Group>
</Asset>

```

○ Parameters description

textureXAsset

texture asset name for unit X.

effectAsset

alphaTestBorder

properties

float, vec2, vec3, vec4

floating point vector (subparameters x, y, z, w for each channel);

int, int2, int3, int4

integer vector (subparameters x, y, z, w for each channel);

sampler2D, sampler3D

texture unit index

mat4

16 floating point cells values

float[], int[]

floating point or integer values array

Font

- **XML tree**

```
<Asset Type="Font">  
  <Param Name="path" Value="path/to/file.fnt" />  
</Asset>
```

- **Parameters description**

path

path to font characters description file (format supported by BMfont Generator (AngelCode.com)).

Effect

- **XML tree**

```
<Asset Type="Effect">  
  <Param Name="vertPath" Value="path/to/file.vert" />  
  <Param Name="fragPath" Value="path/to/file.frag" />  
</Asset>
```

- **Parameters description**

version

GLSL shaders version (default: "120").

vertPath

path to GLSL vertex shader file.

fragPath

path to GLSL fragment shader file.

Canvas

- **XML tree**

```
<Asset Type="Canvas">
  <Param Name="width" Value="512" />
  <Param Name="height" Value="512" />
  <Param Name="type" Value="" />
  <Param Name="depthMode" Value="true" />
  <Param Name="clearOnActivate" Value="true" />
  <Param Name="textureColorFilteringLevel" Value="1" />
  <Param Name="textureColorRepeating" Value="true" />
  <Param Name="textureDepthFilteringLevel" Value="1" />
  <Param Name="textureDepthRepeating" Value="true" />
</Asset>
```

- **Parameters description**

width

height

type

"data": float, not normalized values buffer
"" (empty): color values buffer

depthMode

"true": depth texture enabled
"false": depth texture disabled

clearOnActivate

"true": clear canvas textures on canvas activation
"false": do nothing

textureColorFilteringLevel

filtering level of color texture (see: texture asset -> filteringLevel parameter)

textureColorRepeating

repeating mode of color texture (see: texture asset -> repeating parameter)

textureDepthFilteringLevel

filtering level of depth texture (see: texture asset -> filteringLevel parameter)

textureDepthRepeating

repeating mode of depth texture (see: texture asset -> repeating parameter)

SpriteBatch

- **XML tree**

```
<Asset Type="SpriteBatch">
  <Param Name="capacity" Value="path/to/file.vert" />
  <Param Name="canvasAsset" Value="canvas.xml" />
  <Group Name="camera">
    <Param Name="x" Value="0.0" />
    <Param Name="y" Value="0.0" />
    <Param Name="width" Value="512.0" />
    <Param Name="height" Value="512.0" />
    <Param Name="angle" Value="0.0" />
  </Group>
</Asset>
```

- **Parameters description**

capacity

max count of sprites that can be attached.

canvasAsset

canvas asset name.

camera

x

x position on scene.

y

y position on scene.

width

view width.

height

view height.

angle

view angle.

ParticlesStream

- **XML tree**

```
<Asset Type="ParticlesStream">
  <Param Name="capacity" Value="path/to/file.vert" />
  <Param Name="canvasAsset" Value="canvas.xml" />
  <Param Name="materialAsset" Value="material.xml" />
  <Group Name="camera">
    <Param Name="x" Value="0.0" />
    <Param Name="y" Value="0.0" />
    <Param Name="width" Value="512.0" />
    <Param Name="height" Value="512.0" />
    <Param Name="angle" Value="0.0" />
  </Group>
</Asset>
```

- **Parameters description**

capacity

max count of particles that can exists.

canvasAsset

canvas asset name.

camera

x

x position on scene.

y

y position on scene.

width

view width.

height

view height.

angle

view angle.

RenderTechnique

- XML tree

```
<Asset Type="RenderTechnique">
  <Group Type="pass" Name="final">
    <Param Name="textures" Value="1" />
    <Param Name="effectAsset" Value="effect.xml" />
    <Param Name="width" Value="512" />
    <Param Name="height" Value="512" />
    <Param Name="flipVertical" Value="false" />
    <Param Name="flipHorizontal" Value="false" />
    <Param Name="renderToCanvas" Value="false" />
    <Param Name="isDome" Value="false" />
    <Param Name="canvasColorFilteringLevel" Value="1" />
    <Param Name="canvasColorRepeating" Value="true" />
    <Param Name="canvasDepthFilteringLevel" Value="1" />
    <Param Name="canvasDepthRepeating" Value="true" />
    <Group Name="textureBinds">
      <Param Name="unit 0 from textureAsset" Value="texture.xml">
        [...]
      </Param>
    </Group>
    <Group Name="properties">
      [...]
    </Group>
  </Group>
  [...]
</Asset>
```

- Parameters description

pass

render pass description

textures

pass texture units count.

effectAsset

effect asset name.

width

height

flipVertical, flipHorizontal

flipping image in given axis

renderToCanvas

"true": render output to pass canvas;

"false": render output to screen;

isDome

"true": render 3D box instead of 2D fullscreen quad;
"false": render 2D fullscreen quad;

canvasColorFilteringLevel

see: texture -> filteringLevel

canvasColorRepeating

see: texture -> repeating

canvasDepthFilteringLevel

see: texture -> filteringLevel

canvasDepthRepeating

see: texture -> repeating

textureBinds

"unit X from Y": bind texture from Y to texture unit X.

Y (from) values:

"canvasAssetColorTexture": canvas asset name;

"canvasAssetDepthTexture": canvas asset name;

"passCanvasColorTexture": pass name;

"passCanvasDepthTexture": pass name;

"textureAsset": texture asset name;

properties

see: material -> properties group.