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Subject: : AmigaOS4

Topic: : RadeonHD 3.x bug (?): more than ~256mb of used GPU (second chunk) memory cause a heavy lockup/crash.

Re: RadeonHD 3.x bug (?): more than ~256mb of used GPU (second chunk) memory cause a heavy lockup/crash.

Author: : kas1e

Date: : 2019/9/27 19:17:49

URL:

@All

Was able to create test-case with just pure ogles2 , without gl4es and without SDL: and when i cross the line of 256mb our crash/lockup is here.

There is test case anyone can try:

```
#include <stdlib.h>
```

```
#include <stdio.h>
```

```
#include <proto/exec.h>
```

```
#include <proto/intuition.h>
```

```
#include <GLES2/gl2.h>
```

```
#include <proto/ogles2.h>
```

```
struct Library *OGLES2 = NULL;
```

```
struct OGLES2IFace *IOGLES2 = NULL;
```

```
void texturesload_crash(void)
```

```
{
```

```
// 100 : eat 34 mb of GPU
```

```
// 200 : eat 68 mb of GPU
```

```
// 300 : eat 101 mb of GPU
```

```
// 400 : eat 135 mb of GPU
```

```
// 500 : eat 168 mb of GPU
```

```
// 600 : eat 202 mb of GPU
```

```
// 700 : eat 235 mb of GPU
```

```
// 750 : eat 252 mb of GPU
```

```
// 764 : fill 256 mb of GPU , but not overbound to 257 mb at moment
```

```
// 765 : now we cross the line of 256 mb => CRASH
```

```

int num_of_textures = 764;

int width = 256;
int height = 256;
unsigned char *data;
data = malloc(width*height*3);

GLuint TextureID[num_of_textures];

for(int a=0;a<num_of_textures;a++)
{
    glGenTextures( 1, &TextureID[a]);
    glBindTexture( GL_TEXTURE_2D, TextureID[a]);
    glTexImage2D(GL_TEXTURE_2D, 0, GL_RGB, width, height,0, GL_RGB, GL_UNSIGNED_BYTE, data);
}

free(data);
}

/* Main Loop
 * Open window with initial window size, title bar,
 * RGBA display mode, and handle input events.
 */
int main(int argc, char** argv)
{

    OGLES2 = IExec->OpenLibrary("ogles2.library",0);
    IOGLES2 = (struct OGLES2IFace *)IExec->GetInterface(OGLES2, "main", 1, NULL);

    ULONG errCode = 0;
    const char titleStrBase[] = "Hello OpenGLES2";
    struct Window *win=IIntuition->OpenWindowTags(NULL,
        WA_Title,          titleStrBase,
        WA_Activate,       TRUE,
        WA_RMBTrap,        TRUE,
        WA_DragBar,        TRUE,
        WA_DepthGadget,    TRUE,
        WA_SimpleRefresh,   TRUE,
        WA_CloseGadget,    TRUE,
        WA_SizeGadget,     TRUE,
        WA_IDCMP,          IDCMP_REFRESHWINDOW | IDCMP_NEWSIZE |
                          IDCMP_CLOSEWINDOW | IDCMP_RAWKEY,
        WA_InnerWidth,     500,
        WA_InnerHeight,    200,

```



```

        IIntuition->CloseWindow(win);
        exit(0);
        break;
    }

    default:
        break;
}
IExec->ReplyMsg((struct Message *)imsg);
}
}
aglDestroyContext(ogles_context);
IIntuition->CloseWindow(win);
}
return 0;
}

```

Build it just like "gcc -Wall test.c -o test -lauto"

As can be seen in comments, when we will 764 textures of our size we will fully 256 mb , but not cross the line : system operational, all fine. But then, once we add a little bit and cross 256mb line, then BAH !

That on x5000.

If anyone can try it on x1000, will be good to know.. As well as with Sysmon's System tab opened, and auto-refresh mark ticked. The field to watch "Used GPU".