开发环境:

Win7 x64, maya2014x64, MSVC2010

命令算法说明:

用 RTT(render to texture)的方法把图片渲染到纹理, 同时用 camera 的旋转值控制图片的旋转.
具体函数是:quadricShapeUI::test2_rtt()

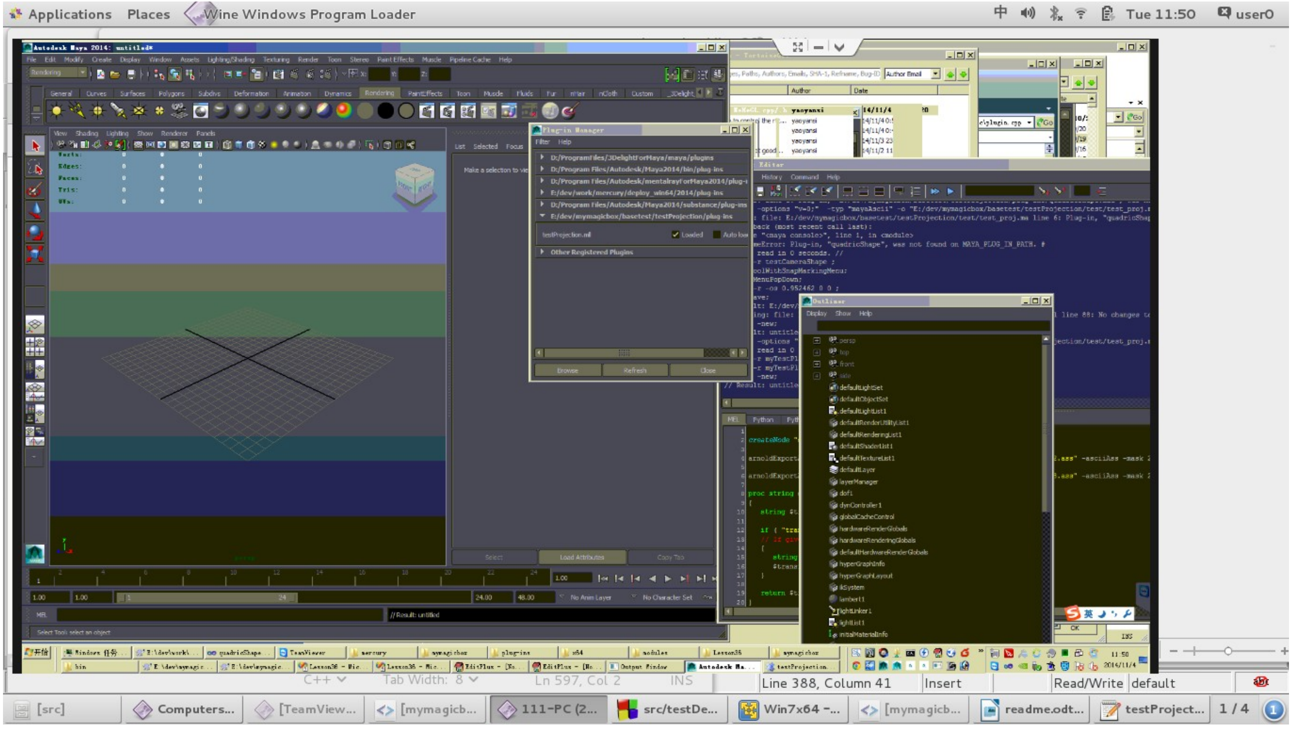
```
void quadricShapeUI::test2_rtt(const quadricGeom *geom)const
{
	glPushAttrib(GL_ALL_ATTRIB_BITS);

	//仅初始化一次 glew
	static bool rtt_inited = false;
	if( !rtt_inited )// initialize RTT buffers if it is not initialized
	{
		if (GLEW_OK != glewInit())
		{
			__debug("Couldn't initialize GLEW");
		}
		initRTTFrameBuffer();
		rtt_inited = true;
	}

	//渲染图片到纹理
	glPushAttrib(GL_ALL_ATTRIB_BITS);
	renderTeapotScene(geom->camRotateX, geom->camRotateY); // Render our teapot scene
into our frame buffer
	glPopAttrib();

	//把纹理贴到面片上
	glBindTexture(GL_TEXTURE_2D, fbo_texture); // Bind our frame buffer texture

	glNormal3f( 0.0f, 0.0f, 1.0f);
	glBegin(GL_QUADS);

	glTexCoord2f(0.0f, 0.0f);
	glVertex3f(-10.0f, -10.0f, -2.0f); // The bottom left corner

	glTexCoord2f(1.0f, 0.0f);
	glVertex3f(10.0f, -10.0f, -2.0f); // The bottom right corner

	glTexCoord2f(1.0f, 1.0f);
	glVertex3f(10.0f, 10.0f, -2.0f); // The top right corner

	glTexCoord2f(0.0f, 1.0f);
	glVertex3f(-10.0f, 10.0f, -2.0f); // The top left corner
	glEnd();

	glBindTexture(GL_TEXTURE_2D, 0); // Unbind any textures
```

```
        glPopAttrib();
}
```

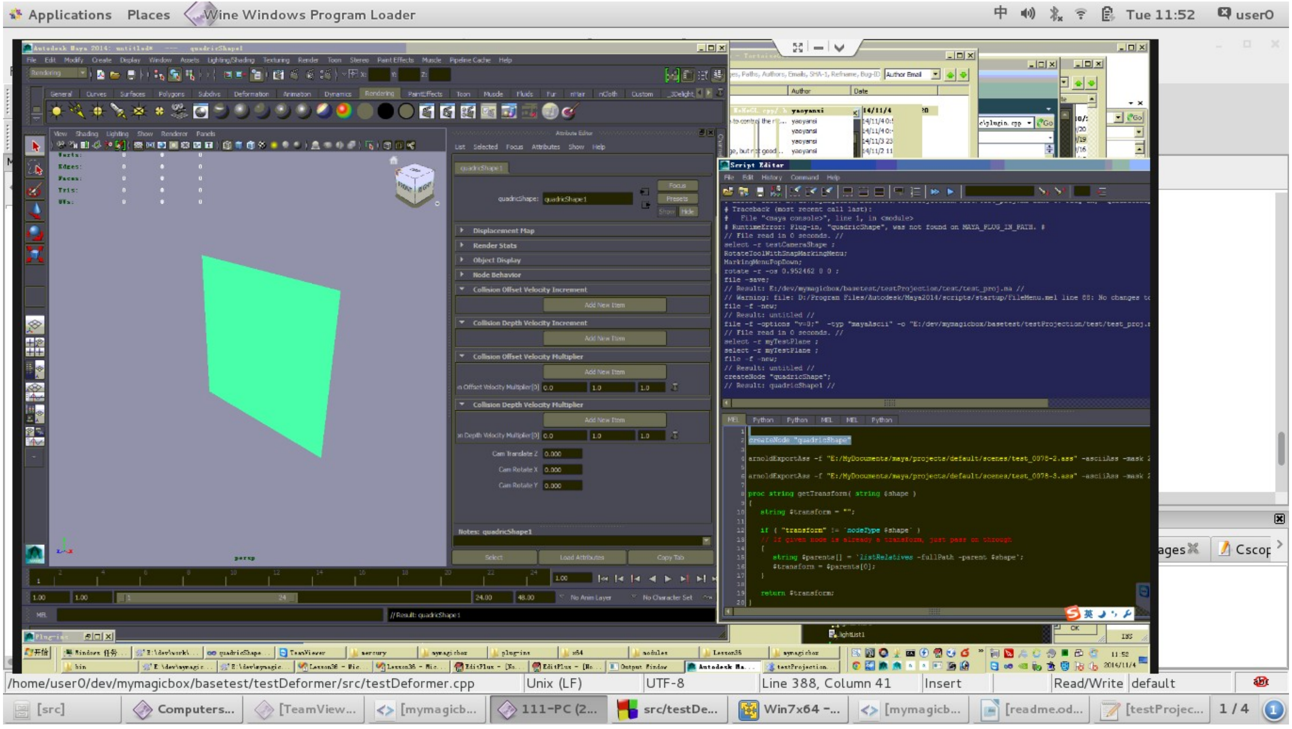
也尝试过修改 uv 去做(见函数 quadricShapeUI::test1_manipulateUV()),但结果不好.

使用说明:

1. 打开场景(例如 testProjection/test/test_proj.ma),加载插件 testProjection.mll



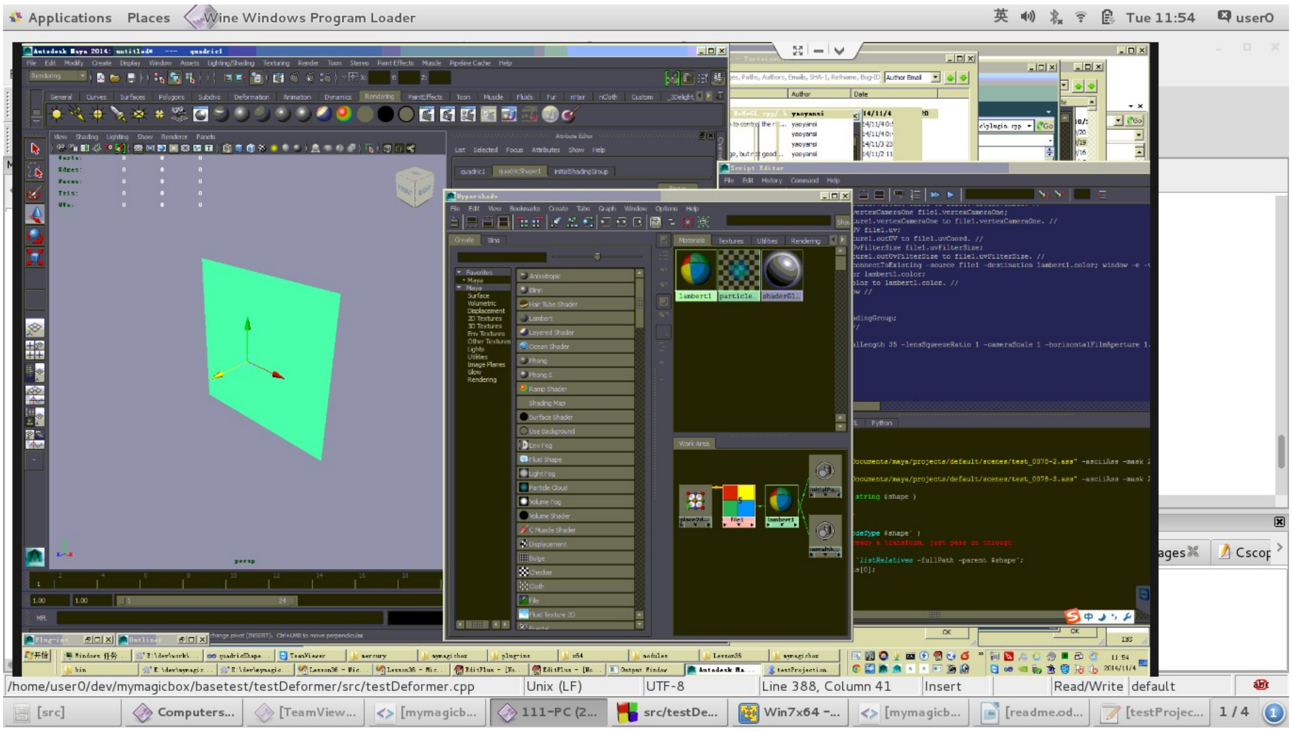
2. 运行命令, createNode "quadricShape", 创建一个物体 myTestPlane



```
# Traceback (most recent call last):
#   File "<maya console>", line 1, in <module>
# RuntimeError: Plug-in, "quadricShape", was not found on MAYA_PLUG_IN_PATH. #
// File read in 0 seconds. //
select -r testCameraShape ;
RotateToolWithSnapMarkingMenu;
MarkingMenuPopDown;
rotate -r -os 0.952462 0 0 ;
file -save;
// Result: E:/dev/mymagicbox/basetest/testProjection/test/test_proj.ma //
// Warning: file: D:/Program Files/Autodesk/Maya2014/scripts/startup/FileMenu.mel line 88: No changes to
file -f -new;
// Result: untitled //
file -f -options "v=0;"  -typ "mayaAscii" -o "E:/dev/mymagicbox/basetest/testProjection/test/test_proj.
// File read in 0 seconds. //
select -r myTestPlane ;
select -r myTestPlane ;
file -f -new;
// Result: untitled //
createNode "quadricShape";
// Result: quadricShape1 //
```

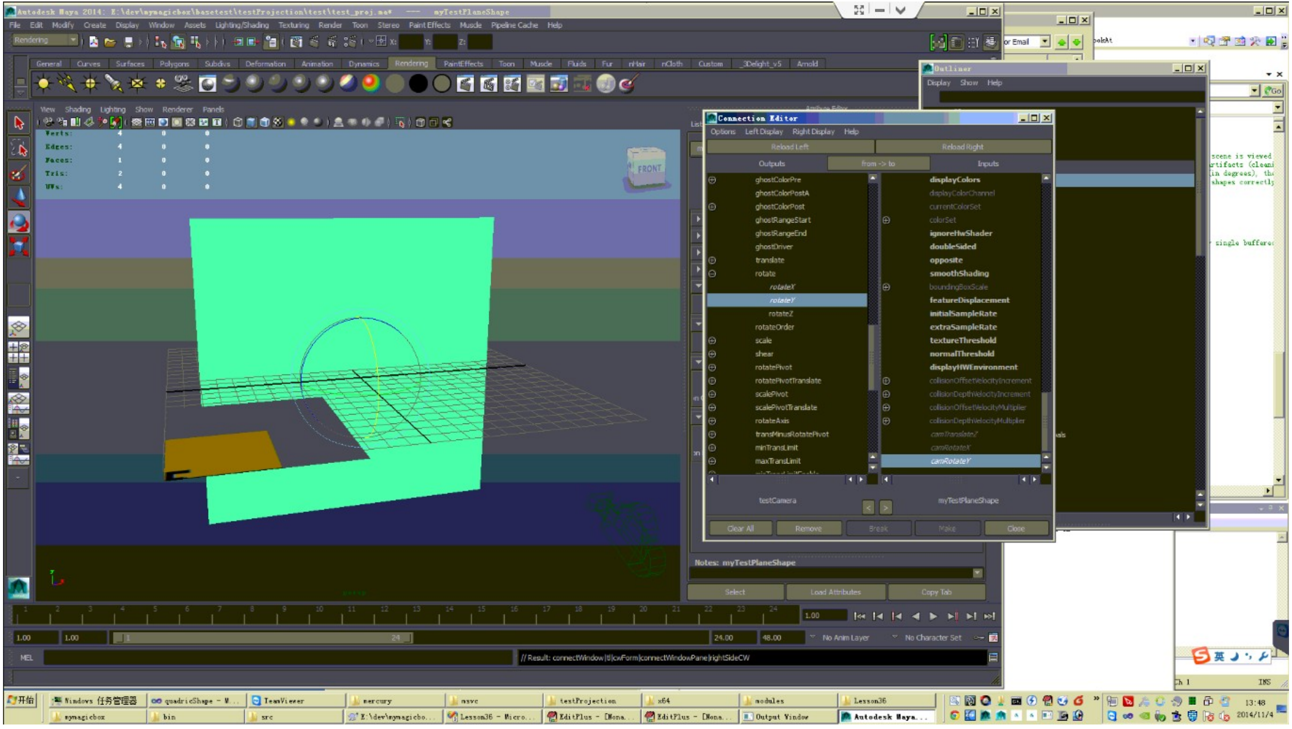
```

createNode "quadricShape"

arnoldExportAss -f "E:/MyDocuments/maya/projects/default/scenes/test_0078-2.ass" -asciiAss -mask 2

arnoldExportAss -f "E:/MyDocuments/maya/projects/default/scenes/test_0078-3.ass" -asciiAss -mask 2

proc string getTransform( string $shape )
{
  string $transform = "";

  if ( "transform" != `nodeType $shape` )
  // If given node is already a transform, just pass on through
  {
    string $parents[] = `listRelatives -fullPath -parent $shape`;
    $transform = $parents[0];
  }

  return $transform;
}
```

3. 给物体上贴一个带纹理的材质

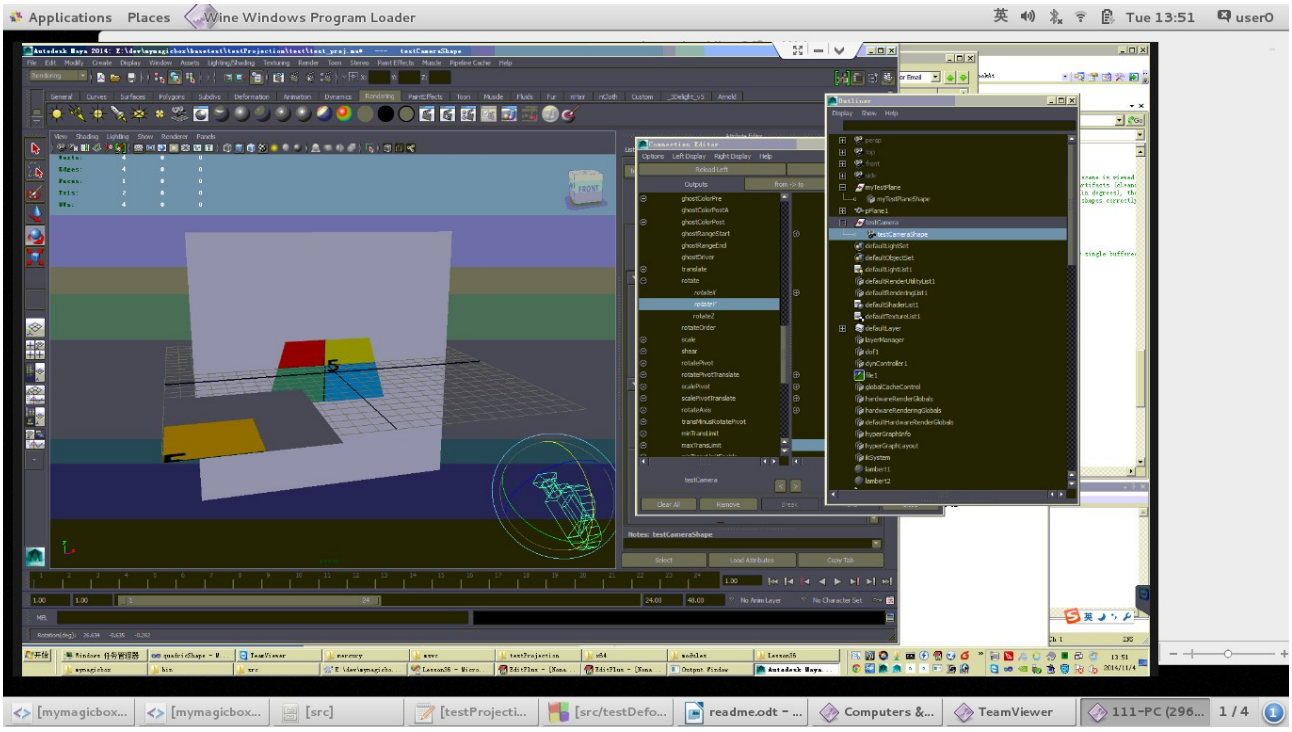


/home/user0/dev/mymagicbox/basetest/testDeformer/src/testDeformer.cpp Unix (LF) UTF-8 Line 388, Column 41 Insert Read/Write default

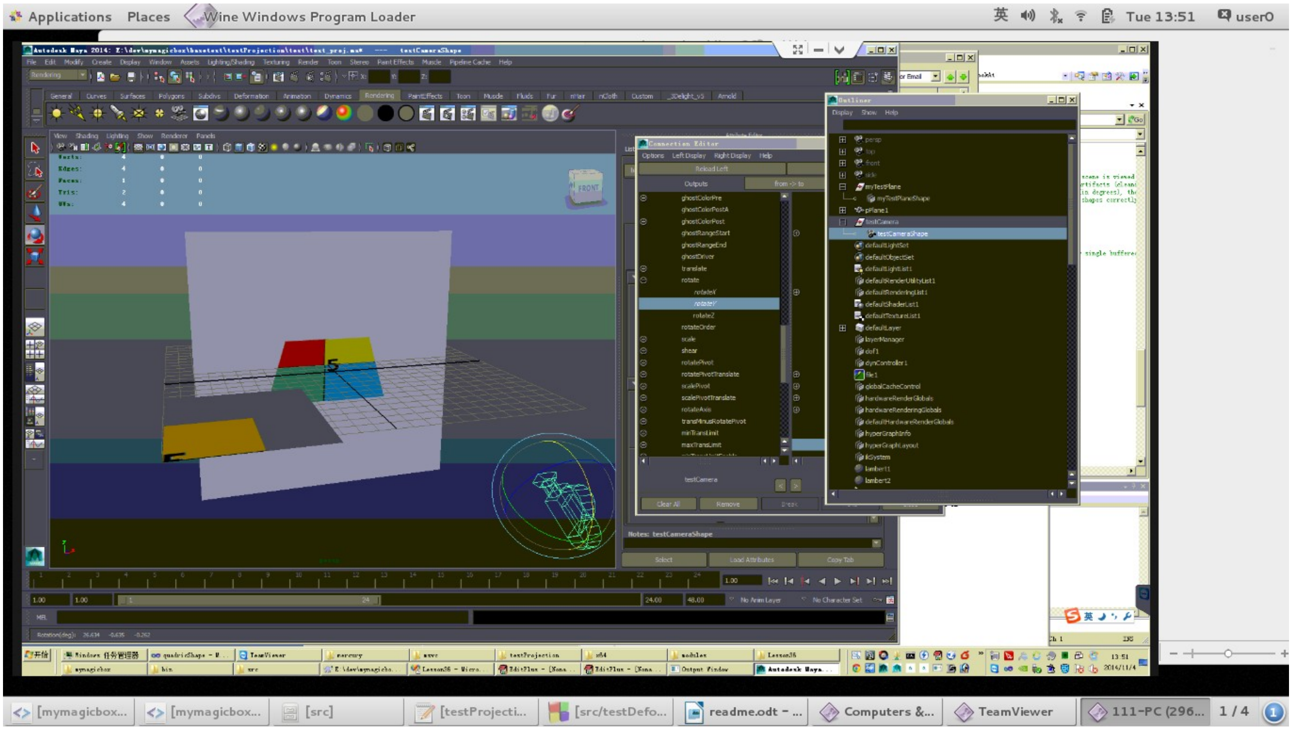
4. 创建一个相机 testCamera.
把 testCamera.rotateX 连到 myTestPlaneShape.camRotateX;
把 testCamera.rotateY 连到 myTestPlaneShape.camRotateY



// Result: connectWindow|tl|cwForm|connectWindowPane|rightSideCW



5. 选择 testCamera 并旋转, 就可以看到效果


Applications
Places
Wine Windows Program Loader
Tue 13:51
user0
Connection Editor
Outliner
persp
top
front
side
myTestPlane
myTestPlaneShape
pPlane1
testCamera
testCameraShape
defaultLightSet
defaultObjectSet
rotateX
rotateY
rotateZ
Notes: testCameraShape
[mymagicbox...
[src]
[testProjecti...
[src/testDefo...
readme.odt - ...
Computers &...
TeamViewer
111-PC (296...
1 / 4