OSGEarth之坐标转换

```
// 屏幕坐标转世界坐标
osg::Vec3d ScreenToWorld(const osg::Vec3d screen)
{
 osg::Camera* camera = _global->Viewer->getCamera();
 osg::Matrix VPW = camera->getViewMatrix() * camera->getProjectionMatrix() * camera->getViewport()->computeWindowMatrix();
 osg::Matrix inverseVPW = osg::Matrix::inverse(VPW);
 osg::Vec3d world = screen * inverseVPW;
 return world;
}

// 世界坐标转屏幕坐标
osg::Vec3d WorldToScreen(const osg::Vec3d world)
{
 osg::Camera* camera = _global->Viewer->getCamera();
 osg::Matrix VPW = camera->getViewMatrix() * camera->getProjectionMatrix() * camera->getViewport()->computeWindowMatrix();
 osg::Vec3d screen = world * VPW;
 return screen;
}
// 世界坐标转经纬度
osg::Vec3d WorldToLonLatAlt(const osg::Vec3d world)
{
 osg::EllipsoidModel* em = new osg::EllipsoidModel();
 osg::Vec3d lonLatAlt;
 em->convertXYZToLatLongHeight(world.x(), world.y(), world.z(), lonLatAlt.y(), lonLatAlt.x(), lonLatAlt.z());
 lonLatAlt.x() = osg::RadiansToDegrees(lonLatAlt.x());
 lonLatAlt.y() = osg::RadiansToDegrees(lonLatAlt.y());
 return lonLatAlt;
}
// 经纬度转世界坐标
osg::Vec3d LonLatAltToWorld(const osg::Vec3d lonLatAlt)
{
 osg::Vec3d world;
 osg::EllipsoidModel* em = new osg::EllipsoidModel();
 em->convertLatLongHeightToXYZ(osg::DegreesToRadians(lonLatAlt.y()), osg::DegreesToRadians(lonLatAlt.x()), lonLatAlt.z(), world.x(), world.y(), world.z
());
 return world;
}
// 屏幕坐标转经纬度
osg::Vec3d ScreenToLonLatAlt(const osg::Vec3d screen)
{
 return WorldToLonLatAlt(ScreenToWorld(screen));
}
// 经纬度转屏幕坐标
osg::Vec3d LonLatAltToScreen(const osg::Vec3d lonLatAlt)
{
 return WorldToScreen(LonLatAltToWorld(lonLatAlt));
}
```