



X3D Geospatial Working Group of Web3D Consortium

Mike McCann – mccann@mbari.org, @MBARIMike

X3D

- Declarative 3D Graphics
 - Simplifies 3D for content creators
 - Integrated with the HTML5 DOM (X3DOM)
 - Extensible
 - Open

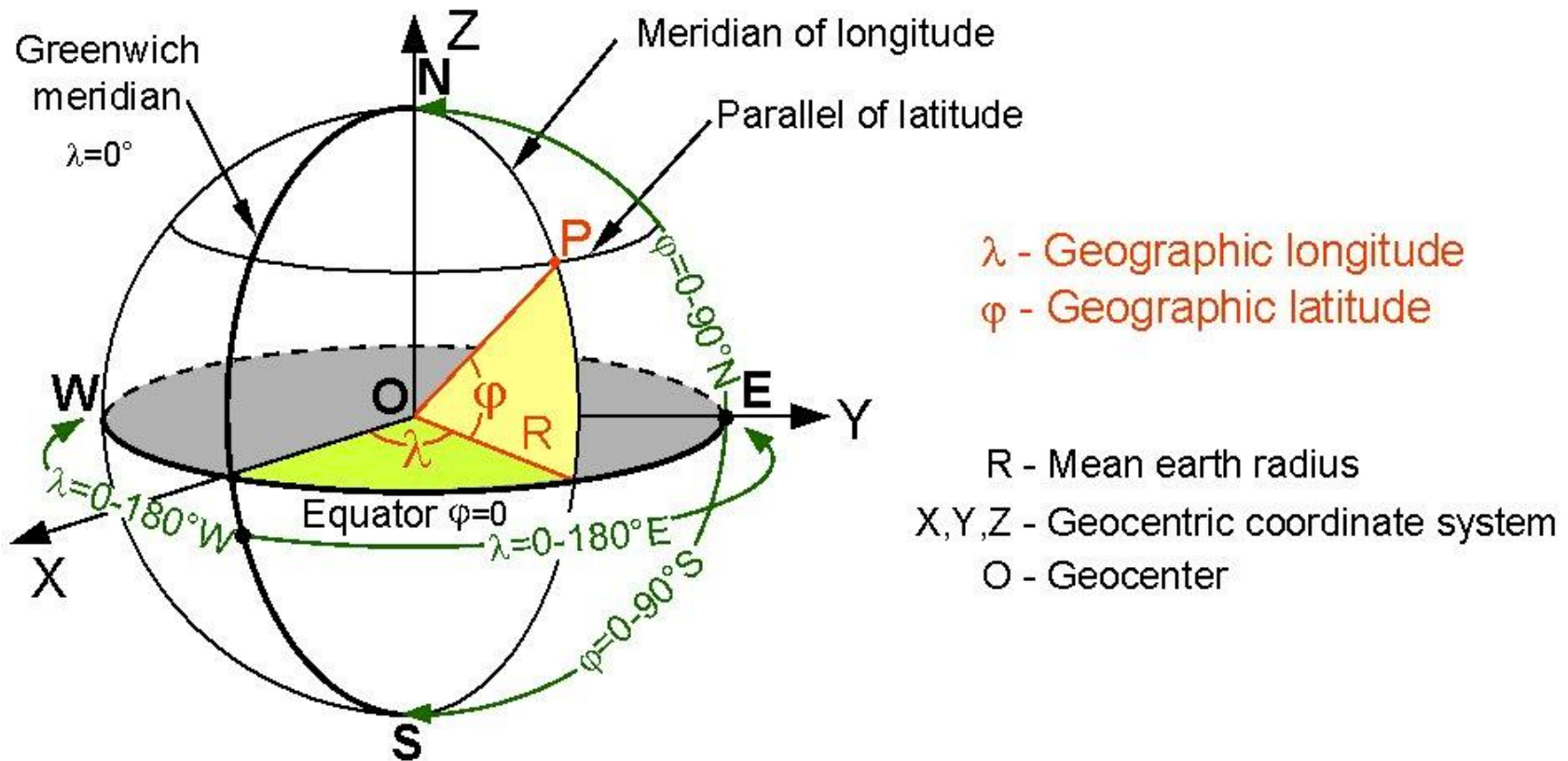
Geospatial Component

Must deal with many coordinate systems

- Geographic (latitude, longitude, elevation)*
- Geocentric – Cartesian, “ECEF”, “GCC”
- Local X3D – may be offset, may be rotated

* X3D supports other other spatial reference systems via the geoSystem attribute, e.g. “UTM”

Geospatial Component



Geospatial Component

Makes it easy to use Geo in X3D

- Geo content provided in lat, lon, elev
- Computer graphics works in X, Y, Z
- Numerical precision issues
- Navigation, e.g. “fly” expects +Y to be “up”

X3D Geospatial Component

Handles all the transformations and precision calculations needed to work with geographic data

Join Our Community!

- Visit the Web3D Consortium at booth #755
 - x3d-public mailing list
 - geospatial mailing list*
 - Strong liaison with Open Geospatial Consortium
- Contribute to open source projects
 - X3DOM
 - STOQS
 - ...