WORLDWIDE TELESCOPE HISTORY

JONATHAN FAY / PETER WILLIAMS

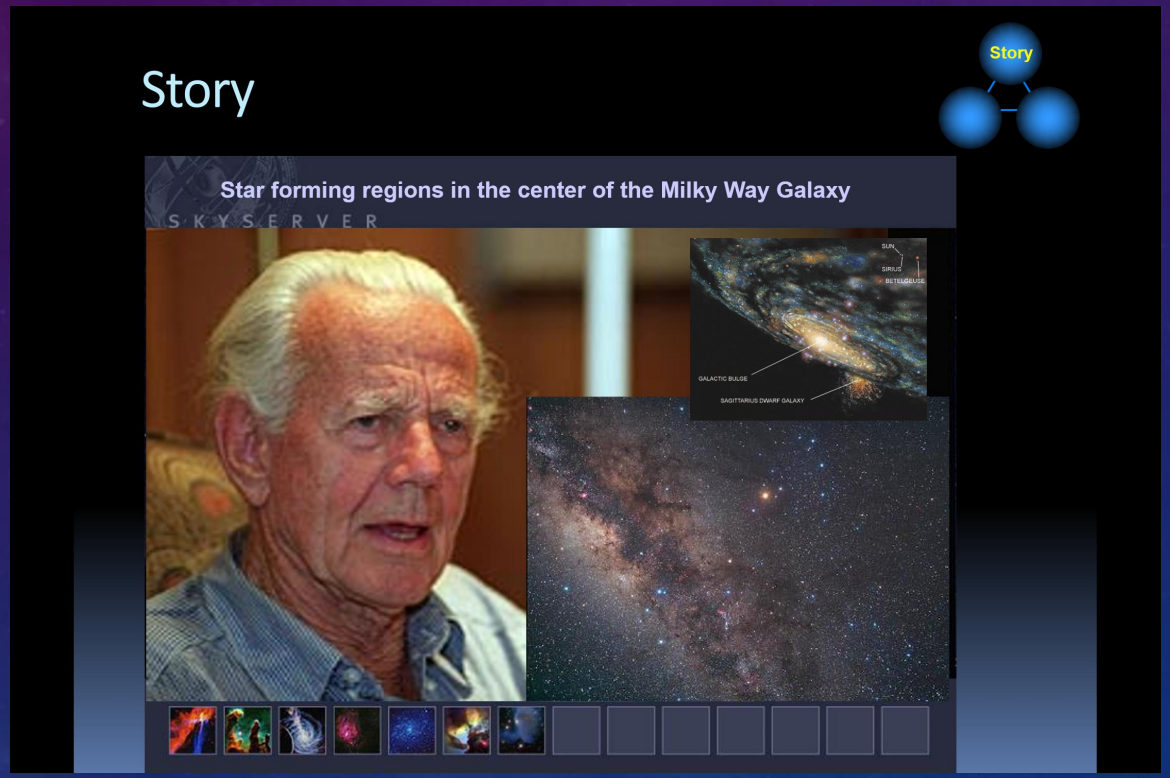
JAN 20, 2022

CONVERGENCE OF IDEAS WHOSE TIME HAD COME

- The Internet as a Telescope (Jim Gray and Alex Szalay)
- A tool for interactive narrative story telling (Curtis Wong)
- A multi-spectral infinite zoomable browser (Jonathan Fay)
- Taggable astronomy data and distribution of tagged images (AVM – VAMP)
- Many visualization tools and techniques shared thru the AstroViz confererence

JIM AND ALEX WORKING ON SDSS DATABASE

CURTIS WORKING ON STORY TELLING TOOL



JONATHAN WORKING ON TILED DISPLAY ENGINE

- 3D Visualization for Earth for TerraServer in 1999
- Moon and Mars explorer shortly after
- Wanted to map 360 sky map… just took about 10 years longer than hoped

BUILDING TEAM TO MAKE IT HAPPEN

- Many folks from AstroViz conference but resources together
- Help from universities, researchers, planetariums and many more
- Pulled in data and visualization ideas from many interested parties

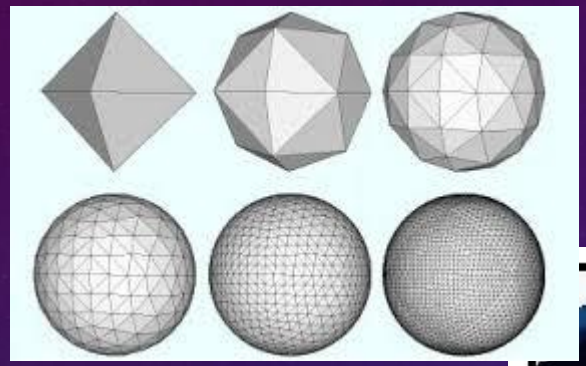
JIM GRAY AND HIS LEGACY

- The desire to see Jim’s dream led Microsoft to invest in the project and rename it WorldWide Telescope in his honor. The funding lasted for more than a decade.

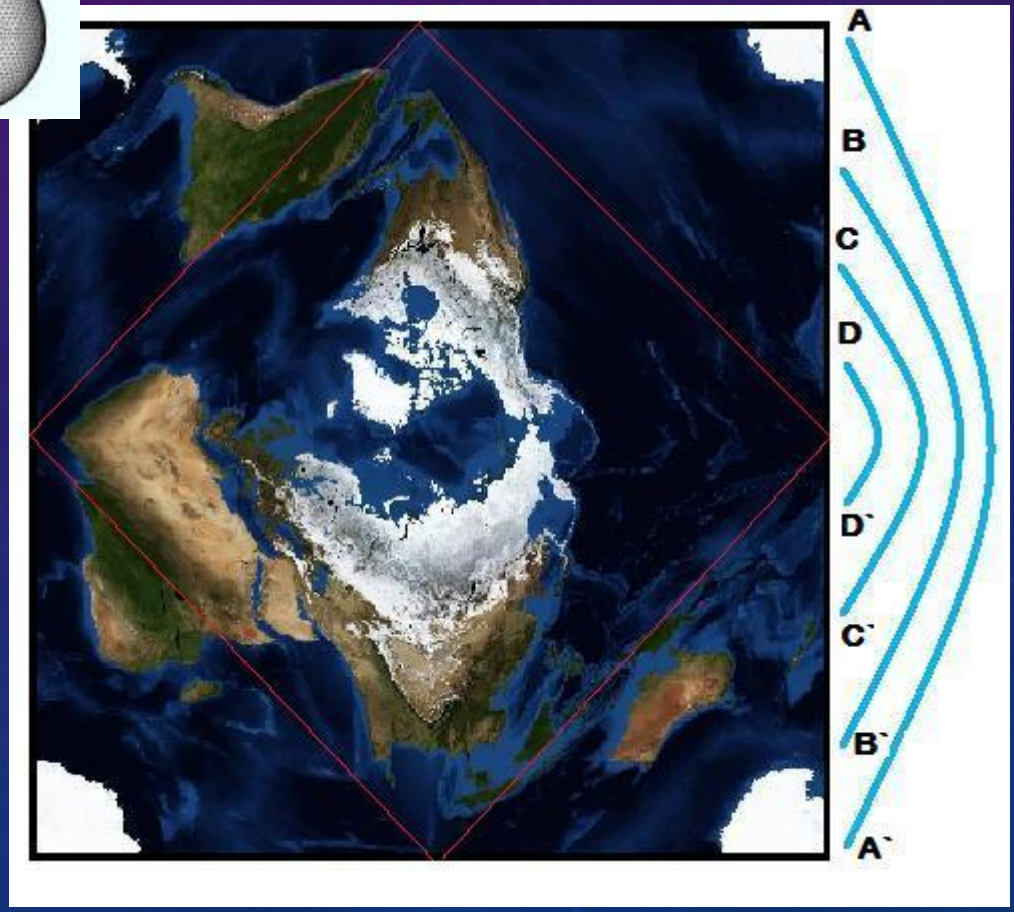
PROBLEMS TO SOLVE

- Needed a new intermediate projection to show all sky and all planet views without singularity.
- Needed a high-resolution all-sky panorama in visible light as well as usable panoramas for all other bands.
- Needed an authoring and playback environment for story telling.
- Needed standard ways of exchanging data.
- Needed solution for WCS Encoding data and tagging press-quality images.

TOAST



- Allows square flat tile set to be projected as spherical image in 3d
- Similar to SDSS indexing coverage tiles



LAUNCH AT TED IN 2008. GREW FROM THERE

- First shown to the public, then released as a free tool for everyone.
- Several feature and data releases happened regularly for 8 years

MILESTONES IN REACH

- Added support for VO protocols and interoperability. SAMP, VO Table, etc.
- Added support for full dome planetarium display
- Added support for KIOSK displays and other automation
- Created Web version to enable broad access to data from any device

TRANSITION TO AAS AND .NET FOUNDATION

- After organization shifts at Microsoft Research it was decided to move WWT to open source and find a new development owner
- The .NET foundation was chosen for open source owner for the project code
- AAS was given the project management and development role in continuing to develop and promote WWT.