National Aeronautics and Space Administration
Jet Propulsion Laboratory
California Institute of Technology

Asteroid Initiative Idea Synthesis Workshop,
Sept. 30 –Oct. 2, 2013 Next Generation Engagement

Asteroid Observation and Mission Simulation Automated Movie Production (Asteroid-AMP)

Dr. Eric M. De Jong, Solar System Visualization Project

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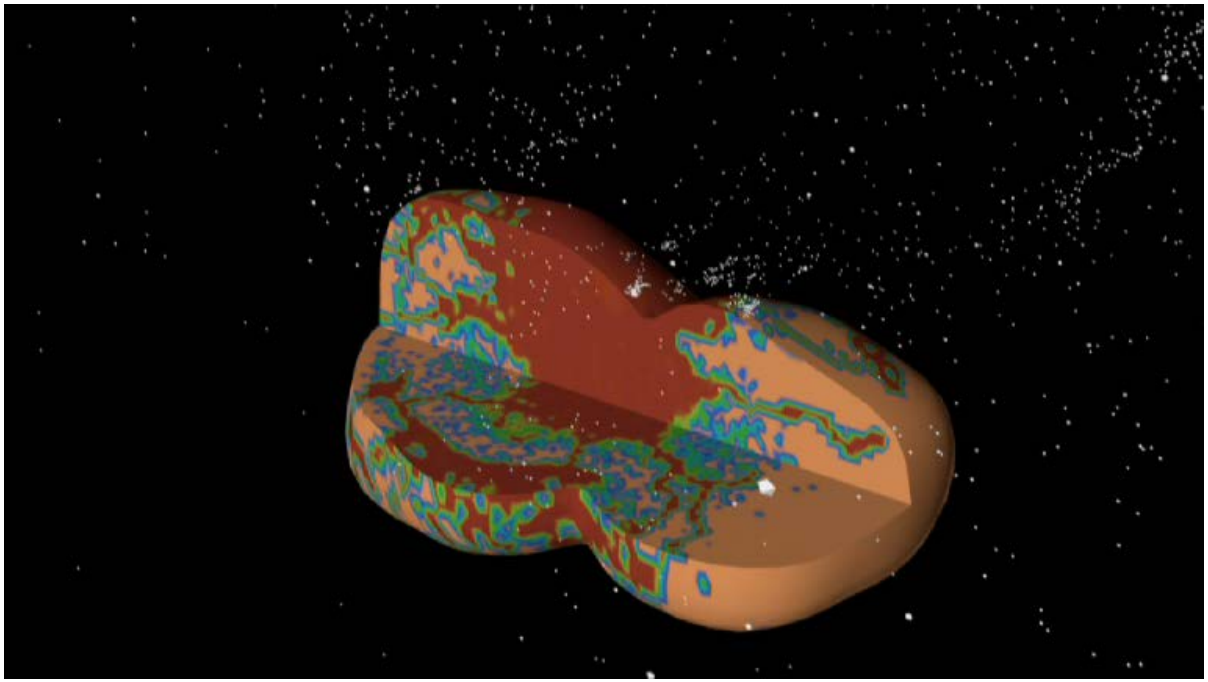


Asteroid -AMP Enables Automated Asteroid Movie Production and Distribution.

Science Visualization Products and Resource Links:

Create movies, images, mosaics, models, libraries and tools to:

1. Visualize Simulated Operations.

2. Visualize Science Observations.

3. Visualize Simulated Observations.

Links to movies, images, mosaics, models, libraries and tools:

http://missionjuno.swri.edu/

http://www.jpl.nasa.gov/msl/

http://photojournal.jpl.nasa.gov/

http://www.nature.com/news/specials/hubble/slideshow.html

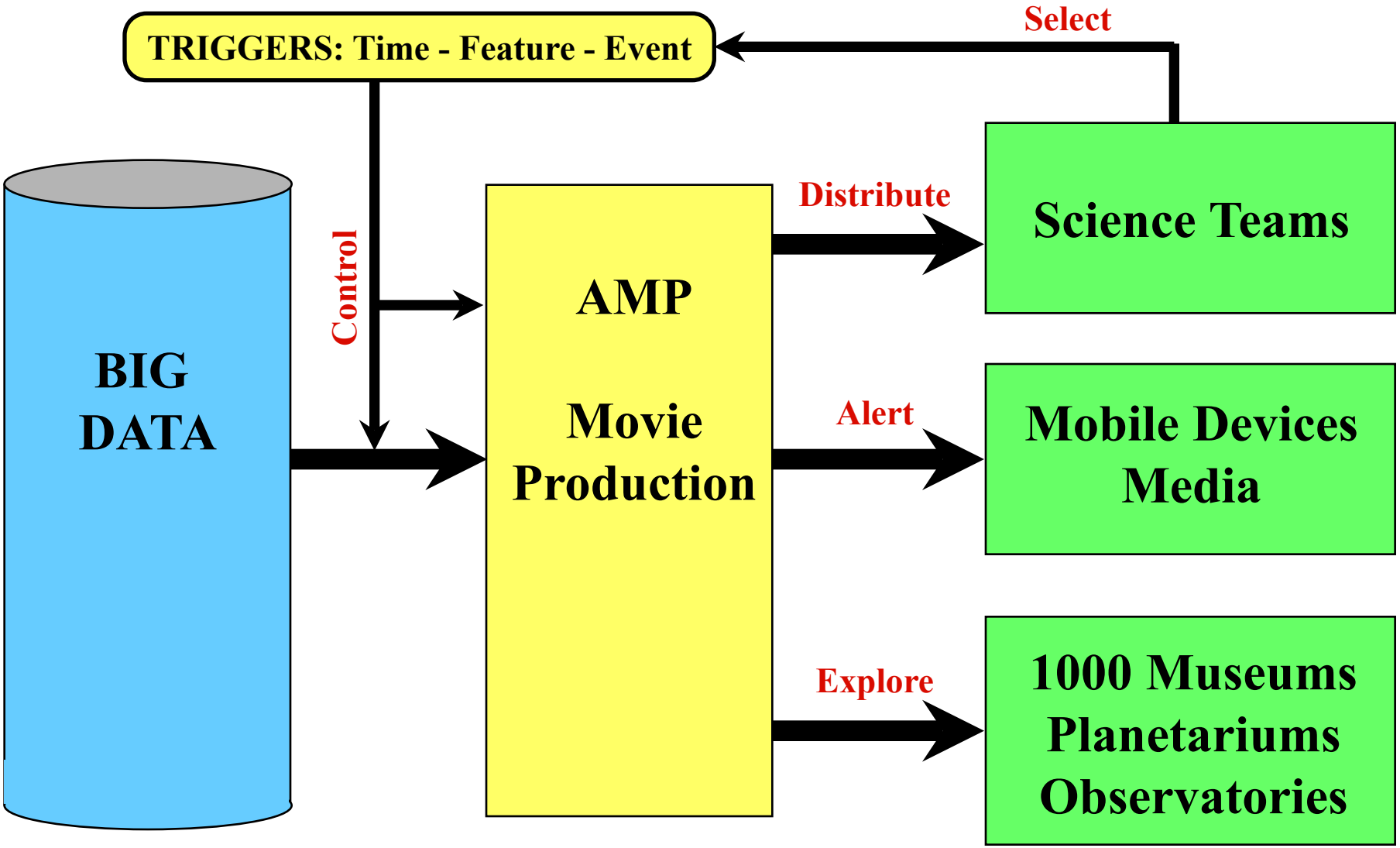
http://marswatch.astro.cornell.edu/pancam_instrument/

http://www.nasa.gov/multimedia/3d_resources/

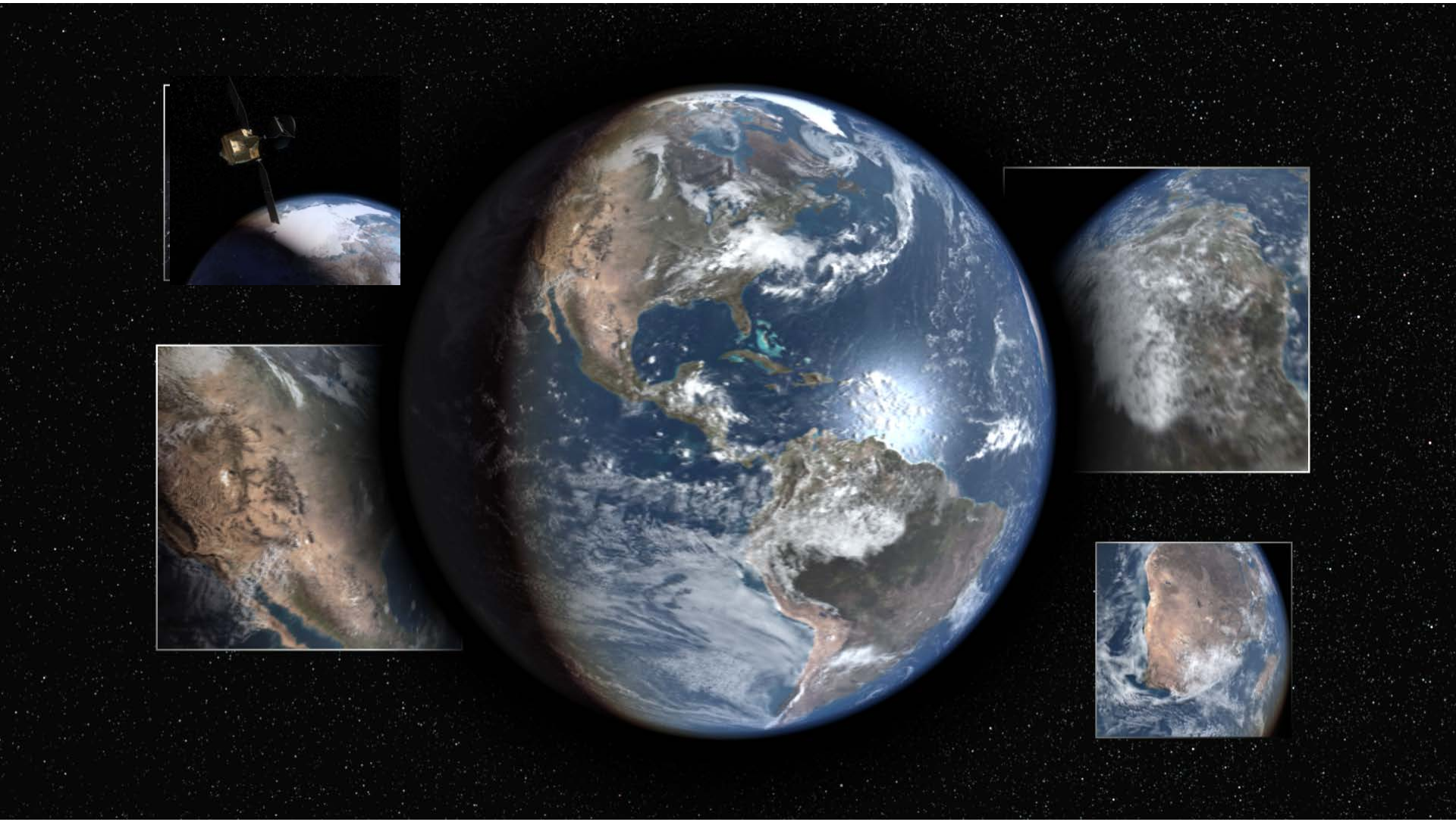
http://www-mipl.jpl.nasa.gov/mipex.html

http://naif.jpl.nasa.gov/naif/toolkit.html

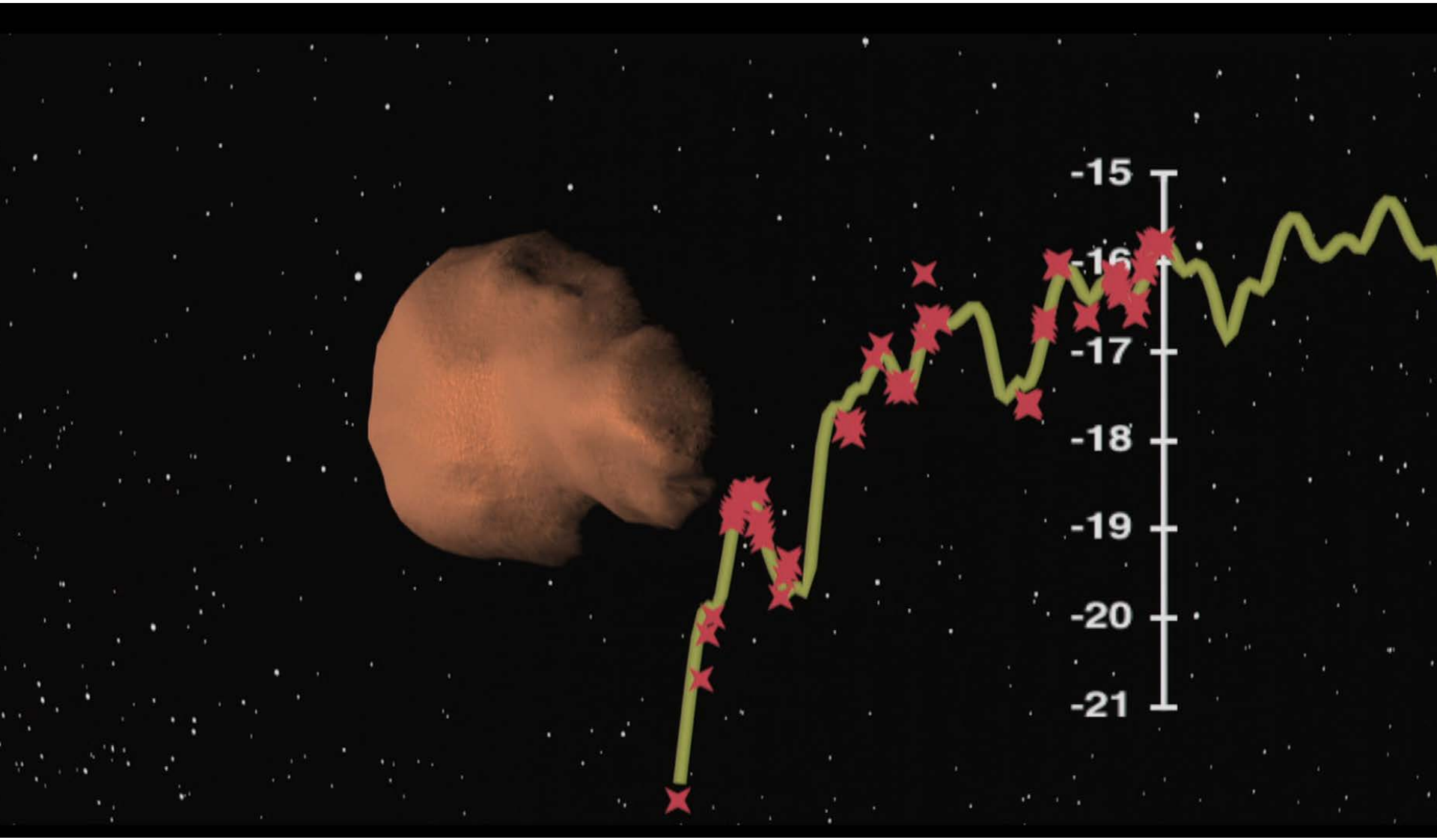
AMP Pipeline



Visualize Asteroid Observations and Mission Operations



View Observatories, Operations, Tests and Launches.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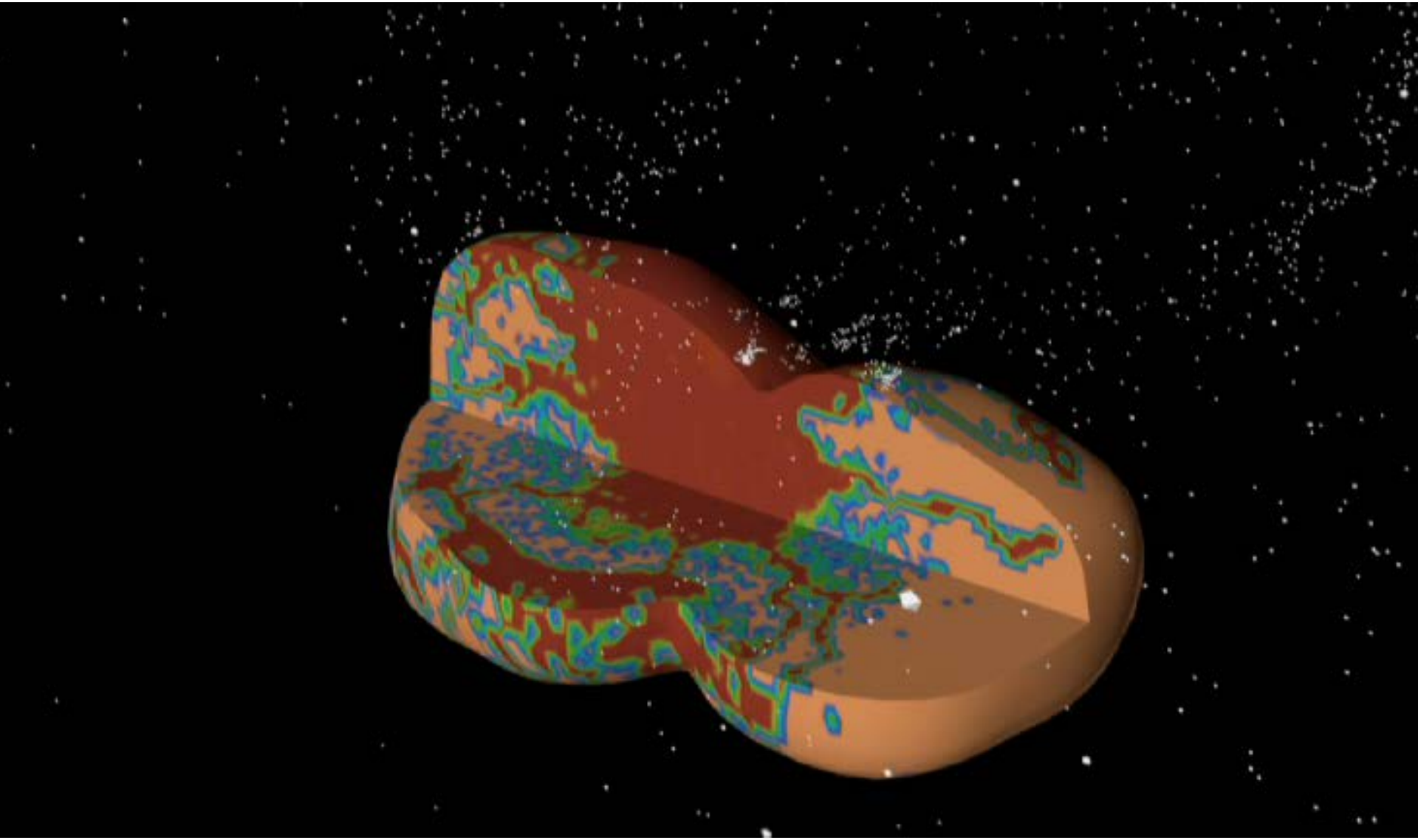
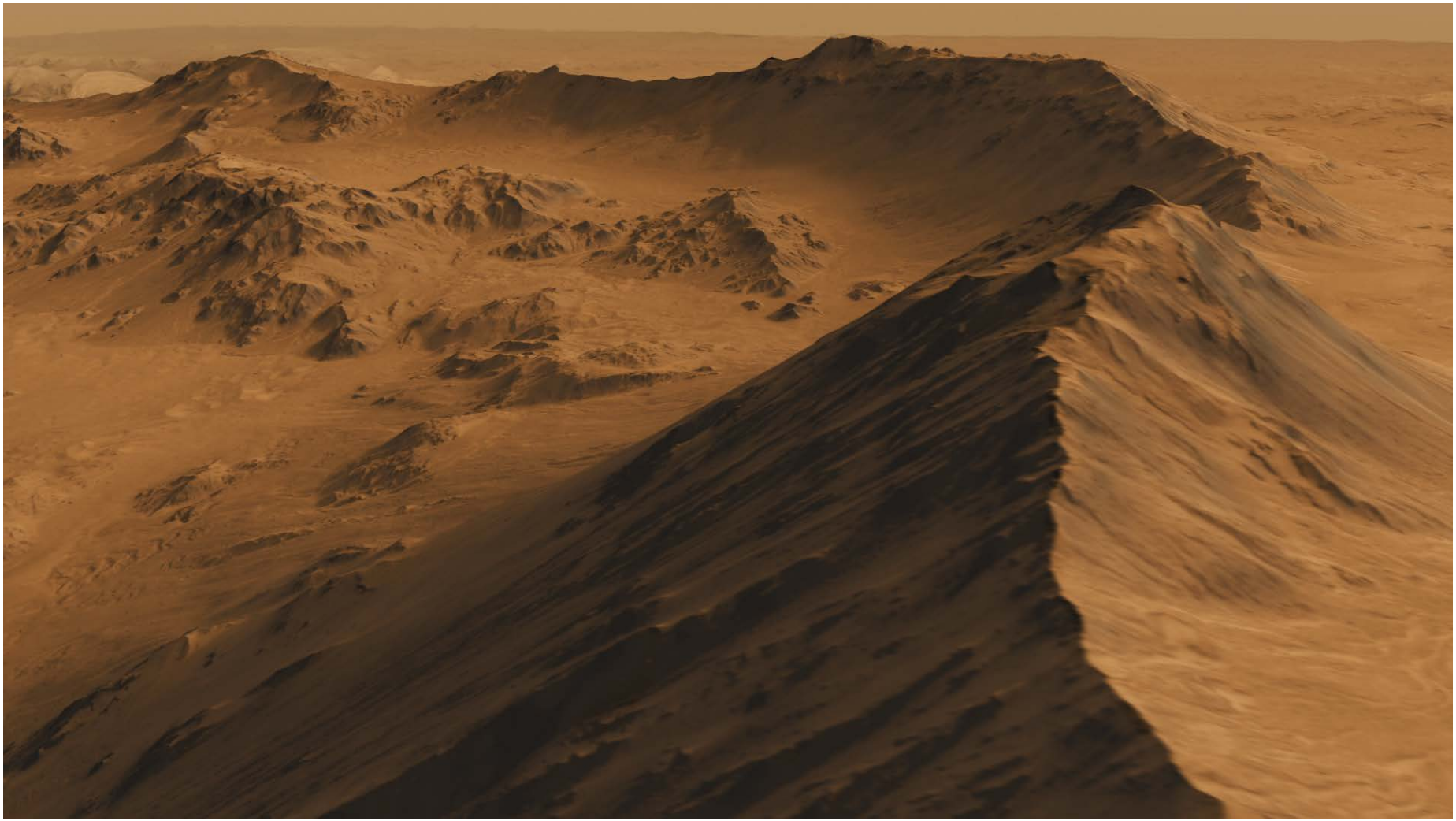
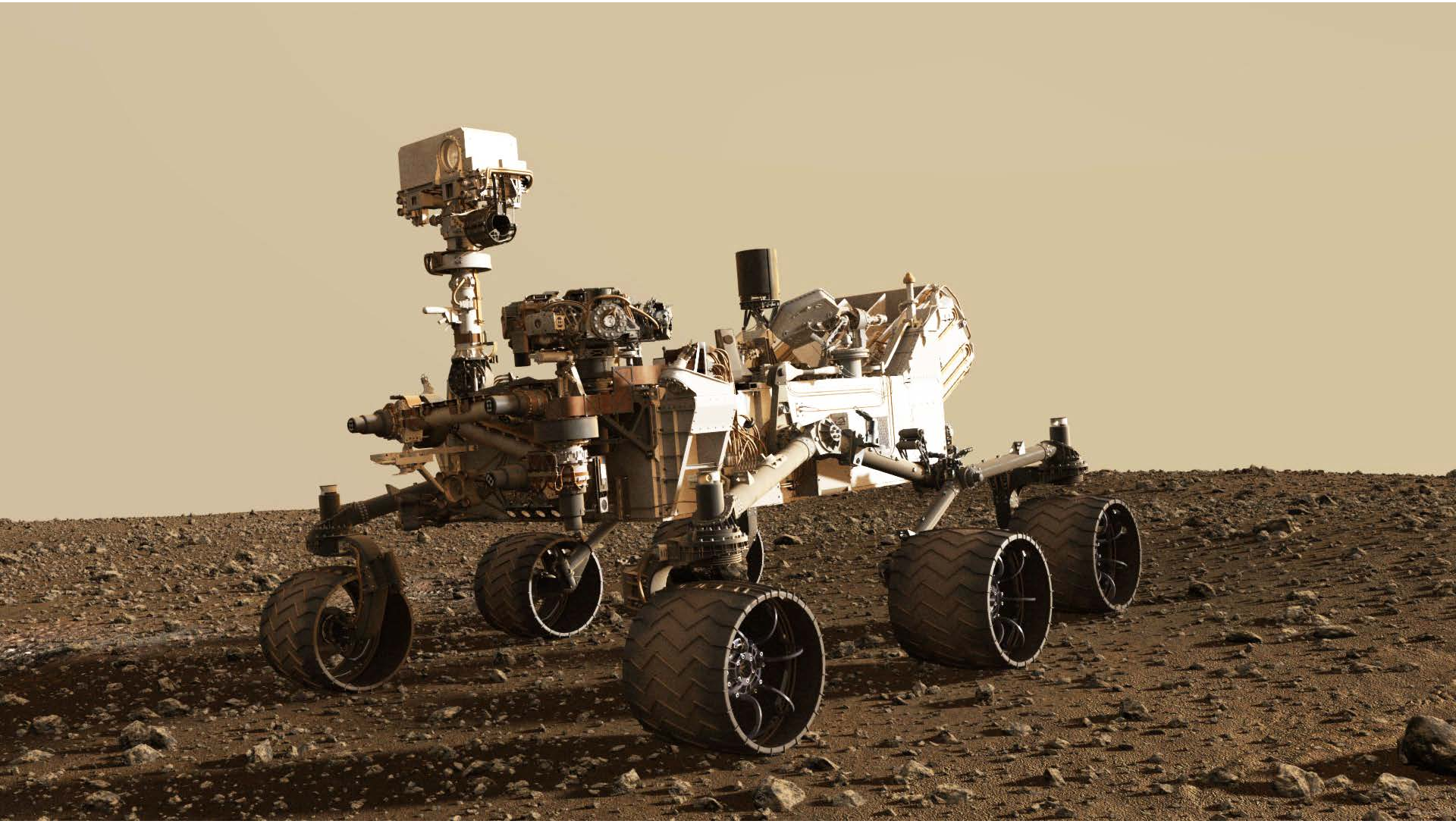


Visualize Simulated Observations. Develop 3D Surface Models.

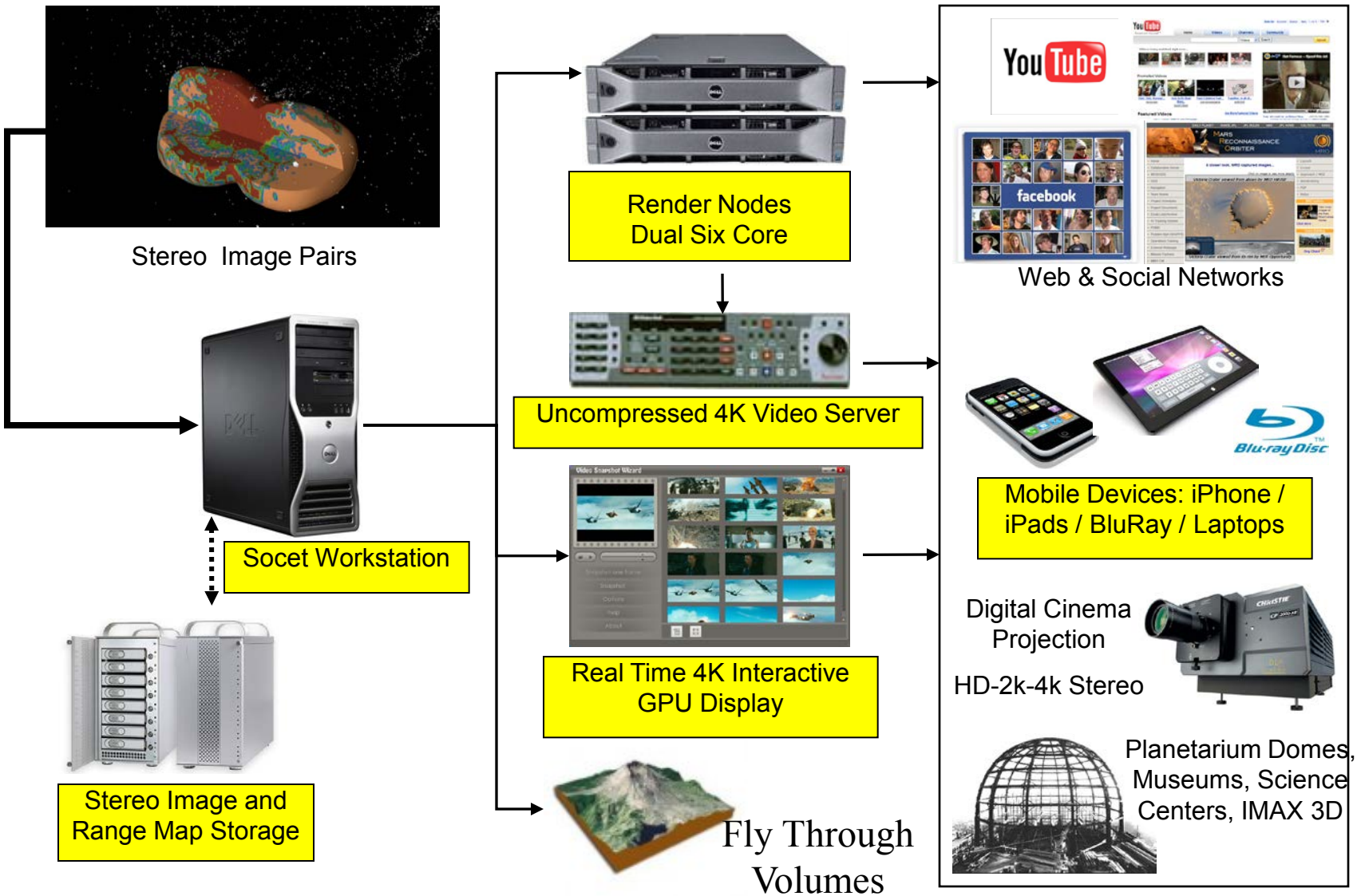


Three Dimensional (3D) Model of Mojave Crater created from a HiRISE stereo pair. Image resolution 25 centimeters/pixel. HiRISE orbits 300 kilometers above the surface of Mars.

Visualize Simulated Operations. Develop 3D Spacecraft Models.



Rover model created from photographs and computer aided design data. Computer graphic images composited onto terrain derived from rover and orbiter observations.


Observe
Visualize
Explore
Stereo Image Pairs
Socet Workstation
Stereo Image and Range Map Storage
Render Nodes Dual Six Core
Uncompressed 4K Video Server
Real Time 4K Interactive GPU Display
Fly Through Volumes
Web & Social Networks
Mobile Devices: iPhone / iPads / BluRay / Laptops
Digital Cinema Projection
HD-2k-4k Stereo
Planetarium Domes, Museums, Science Centers, IMAX 3D

October 9th, 2013 - Near Earth Object (NEO): 560 km. from Earth.

Join us as we launch NASA's Asteroid Initiative together.