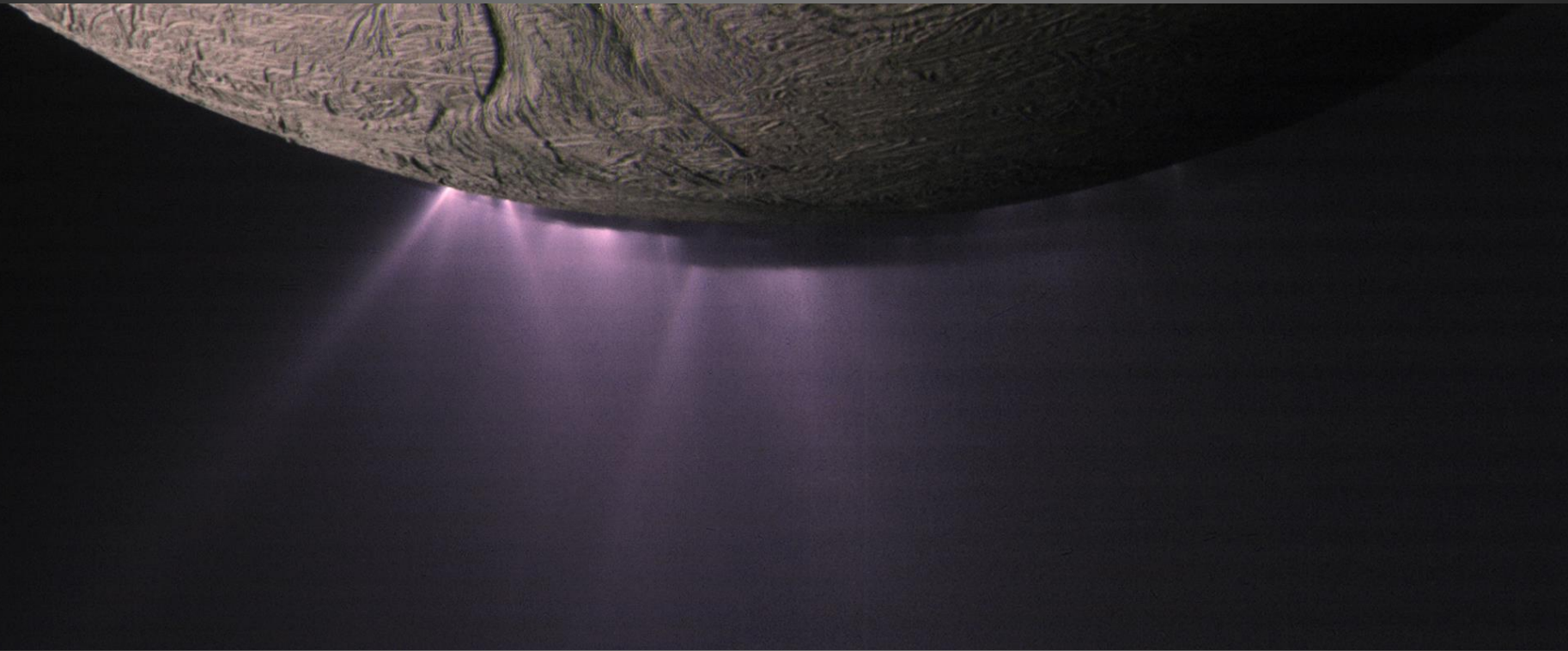


# OPUS:

A tool to obtain Outer Planets Data from  
the Planetary Data System



Mitchell K. Gordon, Lisa Ballard, Mark R. Showalter, Neil Heather  
Virtual Tools Summit, 2015

# OPUS Features

- Large suite of searchable parameters
- Supports planets, satellites, and rings
- Gallery view of search results with tailored previews
- Calibrated images for Cassini and Voyager
- Enhanced geometric metadata (Cassini ISS, UVIS, VIMS)

# OPUS – Not Just Ring Data

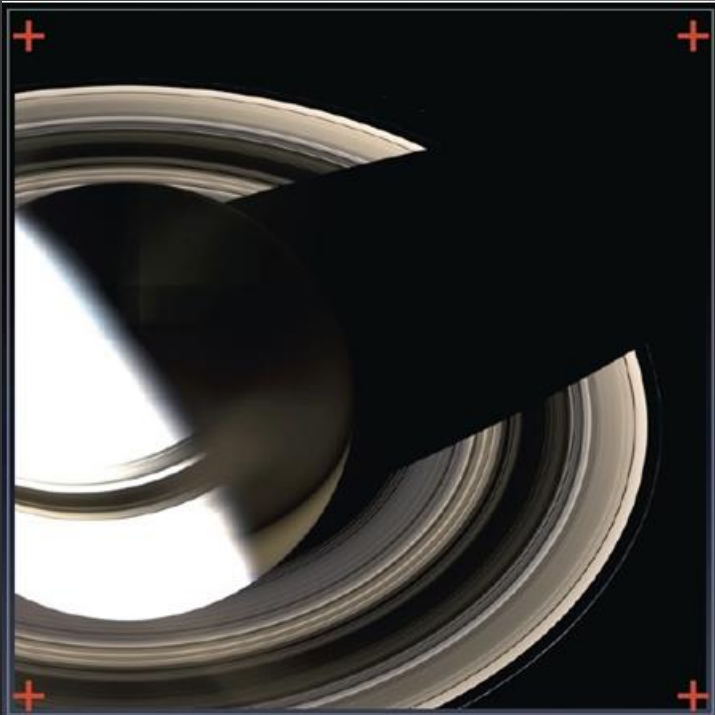
- Data that OPUS Supports
  - Cassini: (CIRS\*, ISS, VIMS, UVIS)
  - Voyager: ISS
  - New Horizons: LORRI (Jupiter)
  - Galileo: SSI\*
  - HST (ACS, WFC3, WFPC2)

# OPUS

- Planned future support for
  - Cassini CIRS
  - Cassini ring occultation profiles
  - HST STIS
  - Enhanced geometric metadata for Voyager ISS

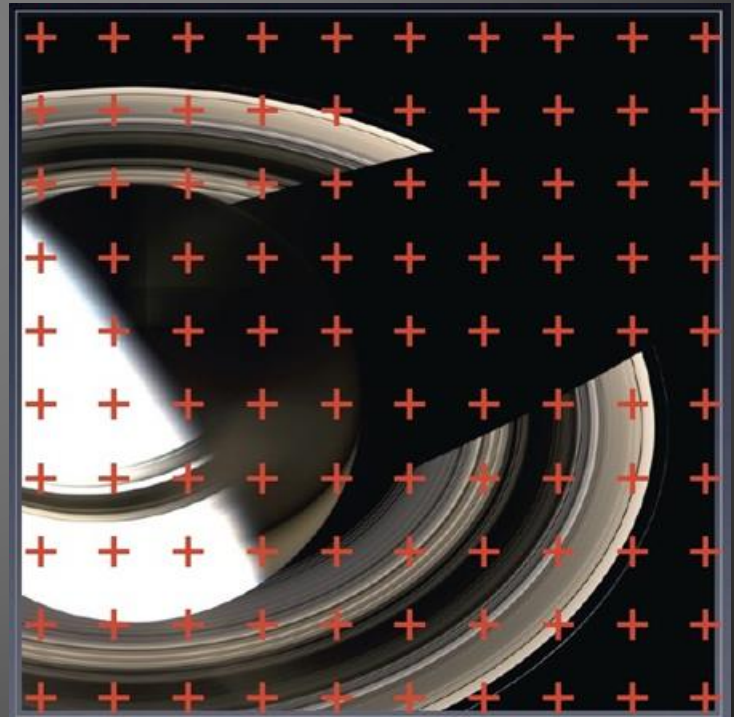
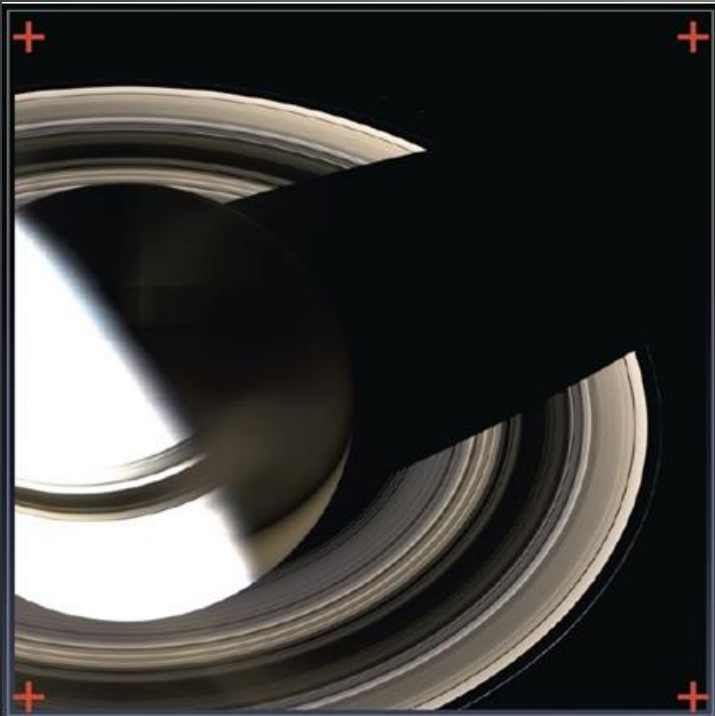
# Meta-Data, Meta-Data, Meta-Data

- Mission Provided
  - Uneven instrument to instrument
  - Based on Predict

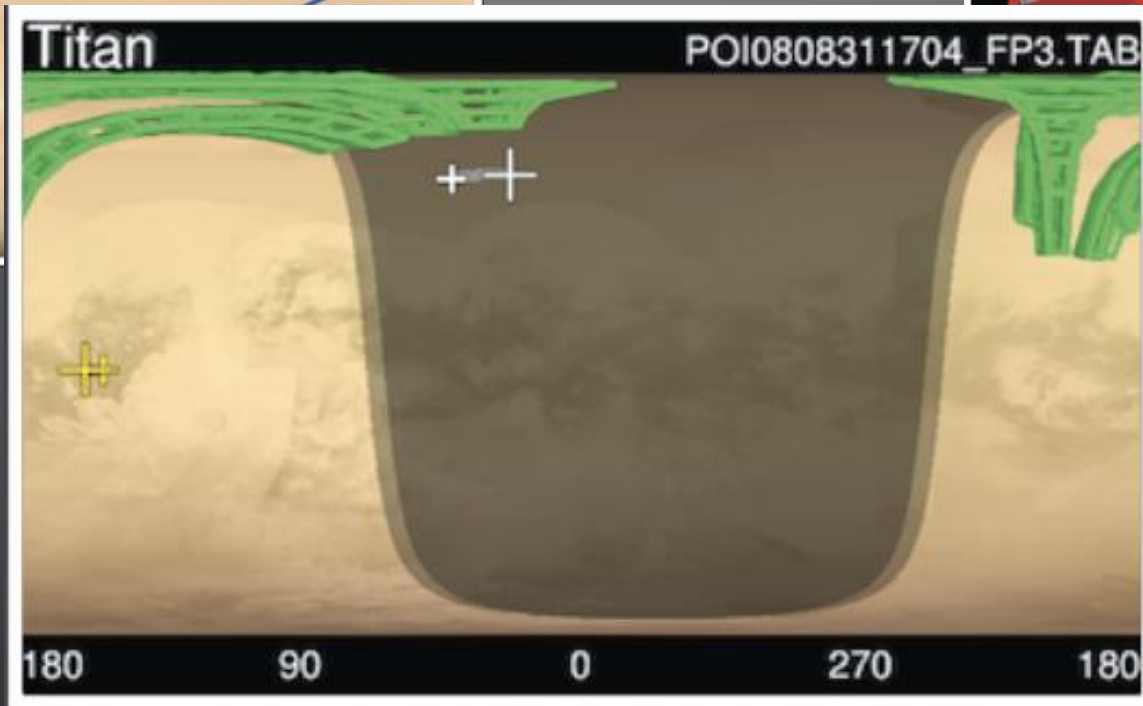
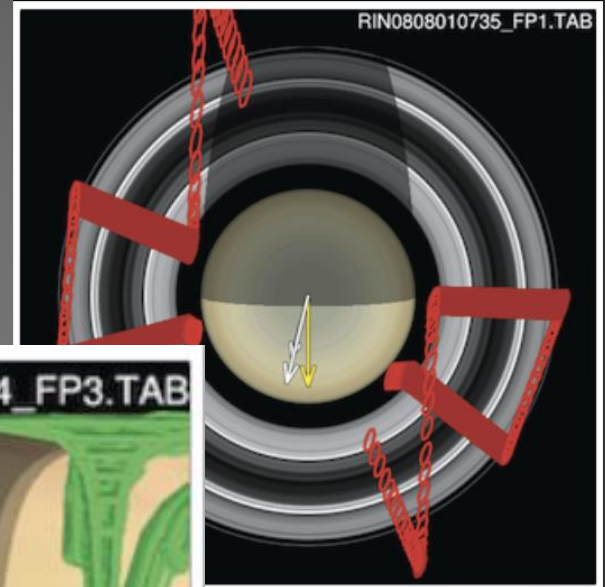
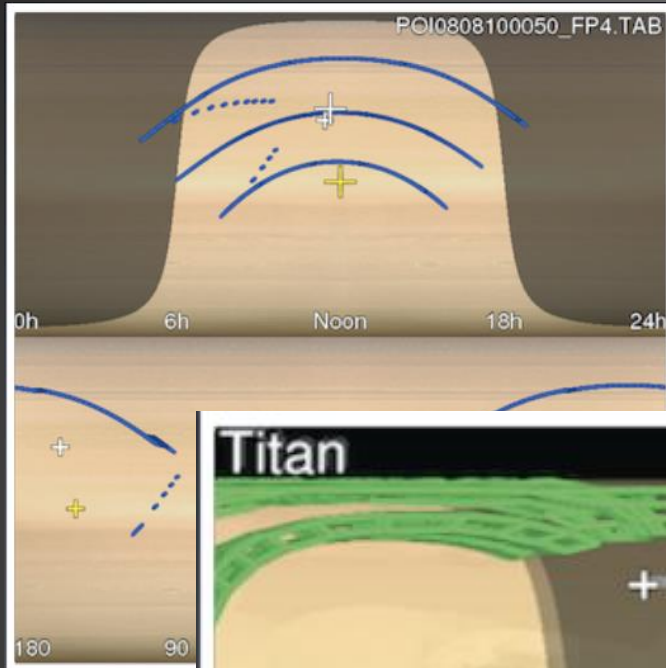


# Metadata, Metadata, Metadata

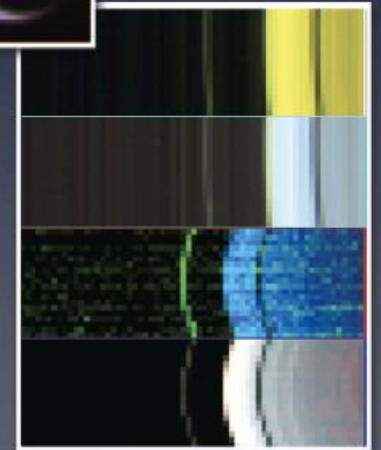
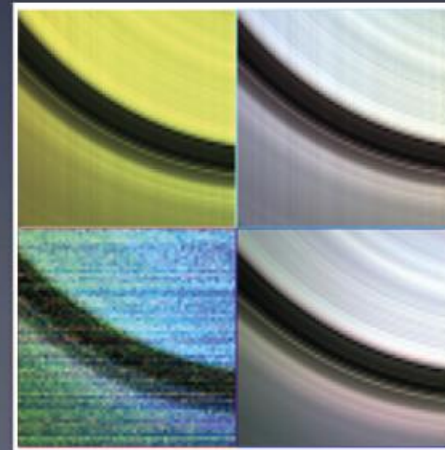
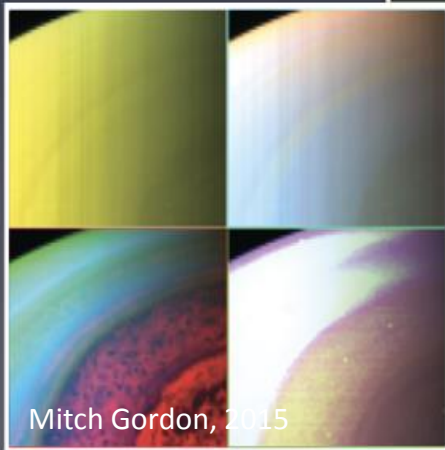
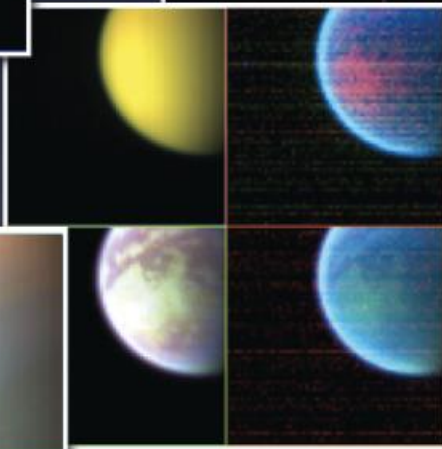
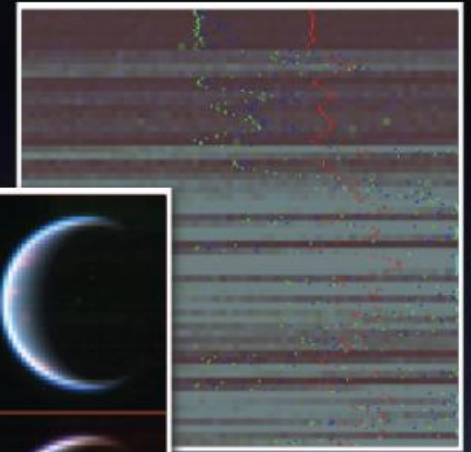
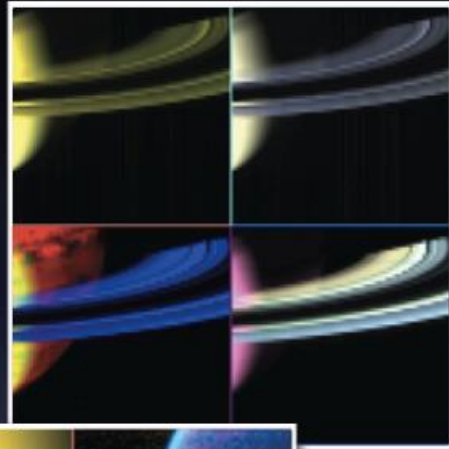
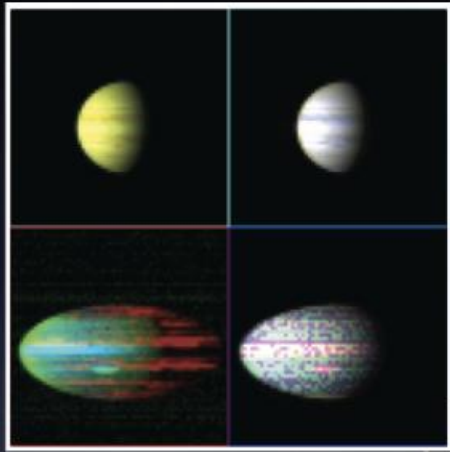
- Mission Provided
  - Uneven instrument to instrument
  - Based on Predict
- Regenerated
  - More parameters
  - Current SPICE
  - Fine grid



# Cassini CIRS Previews



# Cassini VIMS Previews





# Cassini UVIS Previews

