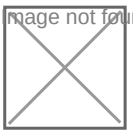
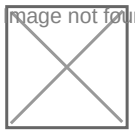
PACE IandT

- OCI Data Flow at PACE I&T from XINA's Perspective
- OCI Science VM at PACE I&T
- tmmerge
- XINA Support

OCI Data Flow at PACE I&T from XINA's Perspective



OCI Science VM at PACE I&T



tmmerge

`tmmerge` is an application that merges multiple archives into a single file, sorted by time.

Context:

OCI Science data (i.e. CCSDS packets) at PACE I&T will **not** be transmitted in real-time. Instead, it will be stored on-board in science file archives (see PACE-SYS-ICD-0038 for file format) and trasnmitted to the "ground" at some later time. The science file archive will contain ALL APIDs and not just the OCI science packets. OCI HK and GSE packets will still be recieved in real-time. In order to view OCI data at PACE I&T in the same manner it was used during OCI I&T, we need to come up with a solution to handle the delayed data.

Goal:

Allow the Data Viewer to be used in the same (or very similar) manner that it was used during OCI I&T

Key Notes:

- The science file archives will contain both OCI Science and HK packets
- The science file archives will NOT contain any GSE packets
- The science file archives will contain the PACE FSW File Header

XINA Support

PACE Support

Considerations:

- Number of mnemonics: can we handle all of the additional PACE mnemonics?
- DB Storage concerns
  - Potentially re-mine OCI Flight model to avoid importing mnemonics that aren't used
  - Re-mine timing concerns?
    - Look into speeding up re-mining
  - No partitions currently exist:
    - If re-mine, create partitions
    - start with the most recent / most important data first (e.g. TVAC)
  - Delete ETU full database
- If we combine PACE & OCI, keep using OCI instance, but create PACE I&T model
  - If we can't handle PACE & OCI combined, possibly split into 2 separate models?
- Possibility of spacecraft operations simulation, which means the spacecraft time will be in the future or past
  - Exports with spacecraft/packet time won't work. Won't attempt to handle on XINA side. Users will have to use ground receipt time.
  - Use marker metadata field to map simulated spacecraft time to ground time; nothing to do on the XINA side