The Palomar Transient Factory Pipeline and Archive  
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The Palomar Transient Factory will conduct wide-field, high-cadence optical surveys to detect variable objects and transient candidates. As a member of the PTF collaboration, IPAC is developing an image archive, a high-quality photometry pipeline, and a searchable database of detected sources. The system will be capable of processing and storing 300 Gbytes of data per night over the course of a 4-year survey. With an expected total of ~20-40 billion rows, the sources table will be among the largest databases ever created. The survey will discover transient sources from asteroids to supernovae, and will provide valuable lessons for the preparation of future large synoptic sky surveys like LSST.