

The 2MASS Point Source Processing Pipeline: Design and Prototype Results

Roc M. Cutri, Infrared Processing & Analysis Center/Calfich/JPL

The 2MASS Production Processing System (2MAPPS), being designed and implemented at IPAC, will process ~15GB of data per observing night during the survey. This paper describes the design of the automated system that will identify, photometer and determine highly accurate positions for the expected 3.0×10^8 point sources. Preliminary results from the prototype processing pipeline will be presented that demonstrate that 2MAPPS will produce data that meet or exceed the 2MASS Science Requirements: 10 sigma sensitivity for $J < 15.8$, $H < 15.1$ and $K_s < 14.5$, completeness and reliability of all point sources down to this brightness of >99%, and astrometric precision of $< 0.5''$.