

Anticipated Data Products from the Cores to Disks (c2d) Team Updated Oct. 8, 2004 after first delivery

ABSTRACT

The c2d (From Molecular Cores to Planet-forming Disks) legacy program is described in detail in Evans et al. (2003, *PASP*, 115, 965). We will deliver data products to the archive according to the schedule in Table 1. We delivered the first products on schedule Sept. 15, 2004, with accompanying documentation. We will deliver the products listed for 2005 with updated documentation. Here we describe in more detail the products that will be delivered in 2005.

In March 2005, we plan to deliver initial band-merged, cross-identified source lists for the observations of weak-line T Tauri stars and small molecular cores. These source lists will include data from all the bands for which we have the data by Dec. 15, 2004. In addition, we will include information on the sources from other catalogs, such as 2MASS, etc. As of October 2004, about 100 wTTs and 90 cores have been observed or scheduled, but a substantial fraction have only IRAC or only MIPS data. Our initial delivery included only sources that were detected at greater than 15σ in at least one band. We will explore how much we can decrease this criterion without compromising the data quality.

We will also deliver enhanced mosaics for cores and cloud areas, based on enhancements from our processing. For all the clouds except Cham II, only certain cloud areas will be available; other areas are embargoed because of overlaps with the GTO observations. At least partial data will be available for all 5 large clouds, and Cham II will be complete.

The data products for the IRS observations will include spectra from an optimized extraction procedure and a list of spectral features. The spectra will include a best-effort removal of baseline ripples caused by fringing in the instrument. As of October, 2004, about 70 IRS targets have been observed or are scheduled.

In September 2005, we anticipate that we will have all our observations of wTTs and cores complete. If that is correct, we will deliver the final catalogs for both. We will also deliver mosaics of data on cores and Cham II. We do not yet know when the GTO embargoes will end for the other clouds. We also anticipate that all first-look IRS observations will have been obtained. We will deliver all spectra that we have received by June 15, 2005.

With both deliveries, we will update our documentation on methods of data reduction and analysis. The documentation will describe estimates of completeness and reliability as well as warnings about possible artifacts.

Table 1. c2d Data Products and Delivery Dates

| Date | Product | If Received By ^a |
|----------|--|-----------------------------|
| 9/15/04 | Sampler: validation observations, all modes | ... |
| | Ancillary NOAO optical spectroscopy of wTTs | ... |
| | Catalog of IRAC/MIPS results for wTTs | 06/15/04 |
| 3/15/05 | Initial band-merged, cross-id catalog for wTTs | 12/15/04 |
| | Initial band-merged, cross-id catalog for cores | 12/15/04 |
| | Enhanced mosaics for cores, cloud areas | 12/15/04 |
| | Spectra, cataloged features, first-look targets | 12/15/04 |
| 9/15/05 | Final band-merged, cross-id catalog for wTTs | 06/15/05 |
| | Final band-merged, cross-id catalog for cores | 06/15/05 |
| | Mosaics for cores | 06/15/05 |
| | Mosaic for Cham II | 06/15/05 |
| | Defringed spectra, cataloged features, first-look | 06/15/05 |
| 03/15/06 | Mosaics for Clouds | 12/15/05 |
| | Final, band-merged, cross-id catalog for clouds | 12/15/05 ^b |
| | Ancillary submm cloud maps | 12/15/05 ^b |
| | Catalog of small extended sources | 12/15/05 ^b |
| | Catalog of transient sources | 12/15/05 ^b |
| | Defringed spectra, cataloged features, second-look | 12/15/05 |
| 9/15/06 | Mosaics for any delayed clouds | 06/15/06 ^b |
| | Updated catalogs for any delayed clouds | 06/15/06 ^b |
| | Defringed spectra, cataloged features, second-look | 06/15/06 |
| | Complementary data, where possible | ... |

^aProducts will be available if data are received by the c2d team by this date.

^bAll large clouds except Cham II have “cut-outs,” areas observed by GTOs; these areas will not be available to us until 12 months after they are observed. Delivery of our final cloud images and catalogs depends on the observation date of these cut-outs.