

NATIONAL RADIO ASTRONOMY OBSERVATORY  
Very Large Array

May 18, 1984

To: Distribution  
From: D.S. Retallack *DSR*  
Subject: Pipeline

Beginning Monday, May 20, the default data path for VLA observations will be into the Pipeline processing system. This will hopefully ease some of the disk space and computing squeeze on the DEC-10 and will provide additional features for, in particular, spectral line observers.

The following outlines some details of operational procedures to make the transition smoother for everyone.

#### A. Data Paths.

The default path for visibility data will be into the Pipeline; however, since many observations are not suitable for Pipeline reduction, this default may be overridden by an observer provided he communicates his decision to the Array Operations group before his observation begins (use the new Operator's Questionnaire). The normal procedure for filling data into the DEC-10 and the Pipeline will be as follows:

##### 1. Pipeline source visibilities:

Real-time FILLER will be run on the DEC-10 to fill, in real time, visibility data for calibrators only. After the observation is completed and the archive tape is available, perhaps several hours after the end of the observation, the array operator will fill source visibility data into the Pipeline. This means that observers will have almost instant access to calibrator data and can proceed with their calibration; access to visibility data for sources will be delayed.

##### 2. DEC-10 source visibilities:

If all data (for sources as well as calibrators) is to be filled into the DEC-10, as is customary now, the data will be filled into the DEC-10 by the array operator as soon as the archive tape is available; i.e. exactly as filling is done now. Real-time FILLER will not be run. Users with a special need to fill part of their database in real-time should request permission to do so from C.Bignell or R.Ekers.

#### B. Use of the Pipeline.

##### 1. Documentation:

There is now a second volume to the VLA Observers' Reference Manual. It can't be mistaken - it's in a bright yellow binder! It describes available Pipeline programs in detail but also includes, near the front, a brief user's

guide (cookbook style; the user's guide will also be put into the VLA cookbook). Also included, is the latest version of the document describing the Pipeline (what it is, what it isn't). Copies of Pipeline documents can be obtained from Ina Cole.

## READ THE DOCUMENTATION !!!

### 2. How to get help:

There are several people at the VLA who are quite familiar with use of the Pipeline. Read the Users Guide (in the Pipeline Manual or from Ina Cole) for advice on how to get started, when to use the Pipeline and what software is available. Help in using the Pipeline and optimum strategies to follow can be given by Ed Fomalont and Miller Goss. Jacqueline van Gorkom, Don Retallack, Bob Payne and Bob Duquet can also help with various problems.

Since heavy use of the Pipeline for a multitude of different jobs will likely uncover some bugs, please ask for help if you get into trouble rather than trying to fix things yourself; the network of computers, operating systems and files are much more fragile than, say, the DEC-10 reduction system and you can get into real trouble if you don't know how to correct problems. In the first instance, read the documentation well. The array operators, in general, do not know very much about the reduction software but they DO know who to call if there are problems. Use the software bug sheets and hardware trouble reports; usually fixes can be made quickly.

### 3. Use of the SORTER tape drive:

Since filling of databases and writing of UVFITS tapes both need the single tape drive on SORTER, some conflicts will occur. The array operators will have priority for the use of this drive to fill users databases. It is important that users remove their tape from this drive as soon as possible after finishing their job. Please also leave a message on the drive giving others your name and where you may be reached.

### 4. Hardware and Software Maintenance:

The Pipeline systems will not be available to users on scheduled hardware maintenance days - see the posted maintenance schedules and calendars or type HELP SCHED on any asynchronous computer. If users try to run jobs on the Pipeline during maintenance days, their jobs will be unceremoniously aborted.

In addition, the period between 9am and 11am every weekday may be allocated to programming staff to help in fixing bugs quickly; these times will be treated as are the gray areas on the VAX sign-up sheets - users are free to use them but could be pre-empted by software staff for testing. Hopefully, this will be a temporary necessity.

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