

VLBA OPERATIONS MEMO NO. 17

The Information System
- 19920319 -----

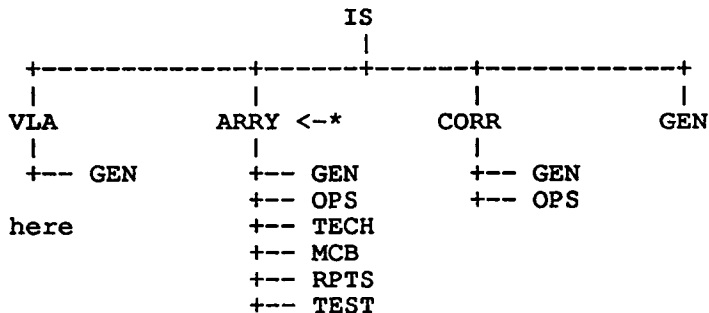
This document, along with other related information and further reading is available in the VLBA section of the Information System as item ARRY,OPS,CH1.

The Information System (or "IS") is a centralized location where information pertaining to all aspects of VLBA array operations is maintained and made available to everyone. Since all information in IS is kept on-line it usually contains the most up-to-date procedures, and data. Some of the data can be updated as much as several times a day. These changes are instantly accessible to everyone.

The "information system" concept was originally developed to keep "on-line" operating documentation for VLA Operators. In December of 1989 the Information System was turned loose on VLBACC as a method of conveying observing schedule information to VLBA Site Technicians in addition to containing all of the operating documentation for the VLBA. It has remained in use since that time.

The Information System is composed of a program called InfoSys and "information files" or "IF" files. The program accepts input from the user at the IS prompt and either acts on the command or displays information.

The VLBA Array (ARRY) section of IS is only one part of "a bigger picture".



* You might be here

The "IS" section is the top-most level. This section is accessed by starting IS on ZIA or entering the "is" file command when on VLBACC. When IS is started on VLBACC you will normally start out in the ARRY section. The ARRY section contains VLBA-only information. The VLA section is for the VLA, and the CORR section will be for the VLBA correlator. GEN contains general information (mostly for the VLA).

The Information System expects to be run on a VT100 compatible terminal. Most items in IS are 80 columns, but some require a 132 column capability. IS may be started from any account on VLBACC or ZIA (see below).

There are two types of commands: File and Program

"File Commands" are commands issued by entering item names from the menus that appear on the display. When the user enters one of these the InfoSys program basically uses the input to construct the name of a file saved on disk. That file is opened and the contents are sent to the display. These files are usually referred to as "items".

"Program Commands" are built into the InfoSys program. These commands allow the user to do things such as conduct searches, and revisit items that were previously viewed. Some of these will be covered later.

This is the lead-in display that you see when you first enter the ARRY section.

```
-----  
| Welcome to the NRAO/Socorro Information System  
| ARRY Section Directory  
  
|         GEN - for the General Information Section  
|         OPS - for the Operational Information Section  
| TECH - for the Technical Information Section  
|         MCB - for the Monitor & Control Bus Section  
| RPTS - for the Reports Section  
| TEST - for the Test Results Section  
  
| CMDS - for Other Popular Commands  
  
| ARRY - to return to this screen  
| CORR - for the Correlator Information Section  
|     IS - for the IS Section  
  
| nraoisARRY> _  
-----
```

The items to the left ("GEN", "OPS", "TECH"...) are the file commands that are entered to get the system to display the desired information files, or in this case to get to the sub-section the user wants to be in. In this case entering "GEN" (or "gen", or "Gen"...) will take the user...

```
-----  
| NRAO/Socorro Information System  
| ARRYGEN Section Directory  
  
|         CEX - Current Events Index  
|         OEX - Old Events Index  
|         SHX - Shipping Instructions Index  
|         MIX - Miscellaneous Information Index  
|         VMX - VLBA Memos Index  
|         EIX - Emergency Information Index  
|         CIX - Communications Information Index  
|         UPX - Up Sources Index  
|         GENX - GEN Section Master Index  
  
|         GEN - to return to this screen  
|         IS - for the IS Section  
|         ARRY - for the ARRY Section  
  
| nraoisARRYGEN> _  
-----
```

...to the GEN sub-section. From here the user may enter any of the file commands, or "items" on the left ("CEX", "EIX"...) to view those items. The commands are all shown in all uppercase, but they may be entered in any combination of upper and lowercase.

Switching between sub-sections can be done without going "back up" through the ARRY section. If from the GEN sub-section you want to go to the OPS sub-section, just enter "OPS".

This would be a good time to point out that while GEN and OPS are technically "sub-sections" of the ARRY section, they are often referred to as just "sections".

Note that in the two examples above the prompt always appears in the lower left hand corner of the display. It also changes to reflect which section of IS the

program is currently directed to look for items in.

In all sections where applicable, there is a "master index" for the whole section. In the GEN section it is item GENX, in OPS it is OPSX, and so on. This is a collection of all of the individual index items in a particular section. This item is useful for searches when the user knows that there is something, for example on 'station locations' in this section but it's not known if it's an "MI- item", or a "CE- item".

A list of the InfoSys "program commands" is always available...

```

+-----+
| InfoSys Program Help Information
| - 19920222 -----
| Program commands:
| .           - Reissues the last command entered (REPEAT command).
| B           - Reissues up to the last 10 commands entered one at a time (BACK
|             command).
| FILES       - "FILES <which>" will display a directory listing of the
|             specified <which> items.
| FIND        - "FIND <where> <what>" displays a screenfull of the information
|             file <where> beginning with the first line containing the
|             string <what>. "FIND <where>" searches using the default
|             <what> (see SHOW FIND). <return> at the <MORE> prompt will
|             display the rest of <where> a screenfull at a time. "FIND" at a
|             subsequent <MORE> prompt will continue the search. "FIND
|             <what>" at a <MORE> prompt will start finding <what> from the
|
| MORE-nraoisARRYGEN> _
+-----+

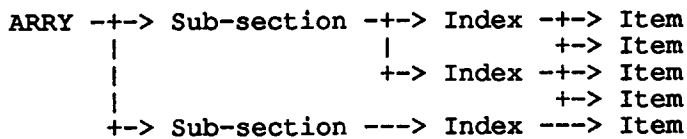
```

Just enter "HELP", "HEL", "HE" or "H" at any prompt.

When a "MORE" prompt appears any command that can be entered at a "regular" prompt may also be entered here. To see the next screenfull press the space bar. To see just the next line press the return or enter key. You cannot currently scroll backwards.

Organization?

The Information System contains a lot of stuff! To aid in finding everything the ARRY section has been organized into several sub-sections (GEN, OPS, TECH, etc.). Within each sub-section there are indexes which further organize the items.



While the information is organized in a tree-like manner, the only "rigid branches" are the sub-section boundaries. If for example you are in the GEN sub-section you can look at any item in that sub-section if you know what the item is called...you don't have to go through the indexes.

In various items you will see things like " See ARRY,OPS,CH25". This notation is used throughout IS to reference other items in the Information System. This particular example refers to item CH25, in the OPS sub-section of the ARRY section of IS.

Each section in ARRY contains information of a similar type:
The GEN Section:

The GEN or General Information section contains items of a general interest nature. These include:

- Observing Schedules
- Current array status
- Current maintenance form information
- Access to observing files
- Antenna locations
- Popular phone numbers and addresses
- Emergency information
- and on and on...

In general, the information in this section has nothing to do with actually moving the antennas, but some of it could be useful in accomplishing the same.

The OPS Section:

The OPS or the Operational Information section (NOT Operation's section!) holds the bulk of the documentation for the operation of the VLBA. While there are many different sections within OPS, item ARRY,OPS,CH2 explains the rough layout of the documentation.

In addition to documentation this section contains various items that have to do directly with moving, operating and getting useful data from the antennas. Remember this! You won't, for instance, find something like someone's phone number in the OPS section. Likewise, you won't find an item explaining how to calculate the system temperature in the GEN section.

The TECH Section:

The TECH or Technical Information section (NOT Technician's section!) is where the following types of items may be found:

- Communications routing illustrations
- Equipment connection diagrams
- Preventive maintenance schedules

The MCB Section:

All of "VLBA Technical Report No. 5 - List of Current Monitor and Control Points" is kept in this section. All of the points are in there and are kept up to date by Operations.

The Other Sections:

Other sections include those that contain "Startup" test results, monthly reports, and other information.

More About Program Commands

=====

The following describes some of the more useful commands that are built in to the InfoSys program.

Printing

Any information item in IS can be sent to one of the laser printers in the AOC computer room. First get to a position in the system where you would be able to enter that item name and look at the item. That is to say that you can't print something from the GEN section if it is in the TECH section. At the IS prompt just enter PPRINT or LPRINT and the item name, as in

```
pprint cel
```

This will send item CE1 to the printer using the portrait mode. LPRINT uses the landscape mode.

Sending

The Information System is capable of sending IS items to PC's and other

computers using the Kermit transfer protocol. To start the process just get into the correct section (see "Printing") and enter SEND and the item name, as in

```
send cel
```

This will start up Kermit on the host computer (VLBACC or ZIA). The host computer's Kermit will try to send the IS item. At this point put the Kermit on the receiving machine into the "receive" mode. The item will be sent. When the transfer is finished, quit Kermit on the local machine and you should be returned to the IS prompt. Only one item at a time may be sent.

Mailing

Any item in the Information System that the user would like to have a copy of may be e-mailed to them. Get in to the correct section (see "Printing") and enter MAIL, the item name, and the address the item is to be sent to. For example

```
mail cel bgreschk@nrao.edu
```

Looking

Under certain circumstances a statement like "LOOK at ug2crd.kp for the observing file" may be encountered. This means that the observing file itself (an item not "officially" or "regularly" part of the Information System) may be viewed through IS by using the LOOK command. Because the Information System is running on UNIX machines, the name of the item to be LOOK'ed at must be entered exactly as shown. Entering UG2CRD.KP won't do it. So to LOOK at this item the user would enter

```
look ug2crd.kp
```

This file would be opened and displayed just like any other IS item.

There are several types of searching methods.

Listing

The LIST command searches through an information item for a requested string and prints each line containing that string to the display. If the command

```
list cel the lazy dog
```

is entered, item CE1 will be searched for any occurrence of "the lazy dog". One point to remember is that if "the lazy" is on one line, and "dog" is on the next line, no "matches" will be found.

Searching

The SEARCH command is used to search through all of the information files in a section for a requested string. The item names of all items found to contain the string will be displayed. As with the LIST command if the string being searched for is broken up the search will fail.

Finding

The FIND command will search an item for a requested string. The first line found to contain the string will be placed at the top of the display with the rest of the information file below it (up to a screenfull). At this point the user may continue viewing the item normally.

R and B

InfoSys remembers the last 10 items the user has looked at. These items may be redisplayed in reverse order by using the B command. The R command is similar

except that when the items are revisited InfoSys also returns to the same place in each item. For instance if the user was halfway into the CE1 item when another item was requested, the R command will return return the user to halfway into CE1. Whereas the B command will simply return the user to the beginning of CE1.

Operation

To start the Information System from an account on VLBACC just enter

is

From an account on ZIA enter

vlais

Popular Items

ARRY,GEN,CE1 - The list of scheduled observing for the whole array
ARRY,GEN,CE1G - A graphical "picture" of CE1. Requires 132 columns.
ARRY,GEN,CE5 - The current VLBA maintenance forms (updated daily). Needs 132
columns.
ARRY,GEN,CE6 - Notes about the current status of the antennas.
ARRY,GEN,OE3 - Program summaries for past observing.
ARRY,OPS,IN2 - Current focus/rotation index positions.
ARRY,OPS,IN3 - Current collimation offsets.

If you have any questions please contact any of the Array Operations personnel.