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To: SRT Group

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Subject: Catalog and command file keywords

A] Catalog keywords

Keywords are case sensitive. A "*" or "#"at the start of a line makes the line into a comment. The keywords except when parameters need, to be the first non-white character on a line

Parameters in [ ] are optional.

Keyword	Parameters	Notes	Function/comments
STATION	Lat (deg N), lon (deg W), name, [hgt(m)]	1	Lat=99 forces gps values
AZLIMITS	Azlim1 (deg), azlim2 (deg)	2	Azlim2< azlim1 for southern hemisphere
ELLIMITS	Ellim1 (deg), ellim2 (deg)	3	Ellim 2>90 for H180 mount
LOFREQ	L.O. frequency (MHz)		Sets initial value, default = 1170
GCFREQ	I.F. frequency (MHz)		Sets Graychip frequency, default = 251
DELAY	Delay (ns)		Delay center for display in connected mode
NOISECAL	Calibration temperature (K)		Default = 300
SIMULATE	ANTENNA RECEIVER GPS		Allows simulation of selected hardware
VLBI	None		Sets startup to VLBI mode
VLBIDUR	Duration (sec)		Set the VLBI record duration
CONNECTED	None		Sets startup to 2 channel mode
VLBIAUTO	Start (min), duration (sec), source		Automatic VLBI data taking
PLOTSEC	Plotting period (sec)		Default = 1
TOLERANCE	Tolerance (counts)	4	Default = 1, pointing error
CASSIMOUNT	5 parameters for elevation axis	5	
AZCOUNTS	Azcounts per degree		For non standard mount
ELCOUNTS	Elcounts per degree		For non standard mount
COMMAND	[file name]		Use cmd.txt at start-up
COUNTERPERSTEP	Number of counts per motion step	6	Used if "stepped" motion is desired
RECORD	Record interval (sec)		
RECORDSPEC	None		Adds full spectra to recorded data
NODISPLAY	None		Turns off display
NOPRINTOUT	None		Turns off printout
DEBUG	None		Turns on debug
SPEED_UP	Factor		Speeds up time for simulation
NOGRAYCLAC	None		Eliminates graychip correction
SOU	ra (hh min ss), dec (dd mm ss), name [epoch(yyyy)]		Catalog source
GALACTIC	glon(deg), glat(deg), name		Catalog galactic source
AZEL	az(deg), el(deg), name		Catalog azel source
Sun			Source name reserved for Sun
Moon			Source name reserved for moon

Notes:
1] Station name is used as an extension to the VLBI file name
2] When azlim2<azlim1 it is assumed that the dish median position will be North which is desirable in the southern hemisphere.
3] When ellim2 > 90 it is assumed that the dish will go over on its back to observe in the North (for a system normally pointed South).
4] Use the tolerance to reduce the frequency of updating the pointing.
5] The 5 parameters of the CASSIMOUNT are
   a. Rigid arm length (in)
   b. Distance from pushrod upper joint to elevation axis (in)
   c. Linear actuator collar offset (in)
   d. Elevation angle of line from elevation axis to linear actuator and point axis when dish points at the horizon (in)
   e. Linear actuator counts per inch (counts)
6] Since only one axis is driven at the time (to limit current required) it may be desirable to make a "stepped" or "staircase" motion to move the antenna. In this way the intermediate points of the motion are displayed.

Command file keywords

A command file line must start with the time in format yyyy:ddd:hh:mm:ss or the time in formal LST:hh:mm:ss or :s which means the current time plus s seconds. Lines beginning in "*" or a blank space are treated as comments and ignored.

Keyword	Parameters	Notes	Function
*			Comment when at start of line
:			Immediate execution
:s			Wait at this command for s secs
yyyy:ddd:hh:mm:ss			Wait at this command until time
LST:hh:mm:ss			Wait at this command until LST
sourcename	[n] or [b]	2	Any source name in srt.cat is recognized
$a$zel	az(deg), el(deg)		
offset	az(deg), el(deg)		Pointing offset
stow			Go to stow
calibrate			Calibrate
record	[data file]	1	Turn on record
roff			Turn off record
freq	Frequency (MHz)		Sets frequency
quit			Ends program if antenna is stowed
vlibarm			Arms vbli

Notes: 1] Default name is derived from date
        2] n = perform npoint, b = beam switch