vlbi_fake

vlbi_fake is a simple program which generates a fake vlbi data stream over the network in either LBADR, mark5b, VDIF or K5 format. The actual contents of the data is rubbish but the headers are correctly formatted. It can send data using either TCP data or UDP data (preceded with a 64bit sequence counter). vlbi_fake has a lot of options, most to set the time code to add the the vlbi data stream. Note vlbi_fake will send data as fast as possible, potentially much faster than the nominal recording rate (based on the bandwidth, number of channels etc).

Usage

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vlbi_fake [options]
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Where the option are (defaults in parentheses)

-H/host <HOSTNAME>	Remote host to connect to
-p/port <PORT>	Port number for transfer
-d/duration <DUR>	Time in (transferred) seconds to run (60)
-bandwidth <BANDWIDTH>	Channel bandwidth in MHz (16)
-n/nchan <N>	Number of 2 bit channels (per thread for VDIF) (4)
-day <DAY>	Day of month of start time (now)
-month <MONTH>	Month of start time (now)
-dayno <DAYNO>	Day of year of start time (now)
-year <YEAR>	Year of start time (now)
-time <HH:MM:SS>	Year of start time (now)
-mjd <MJD>	MJD of start time (now)
-mark5b/mk5b	Send Mark5b format data
-vdif	Send VDIF format data
-k5	Send K5/VSSP format data
-udp <MTU>	Use UDP with given datagram size (Mark5b/VDIF only)
-nthread <NUM>	Number of threads (VDIF only)
-complex	Complex samples (VDIF only)
-sleep <USEC>	Sleep (usec) between udp packets
-u/-update <SEC>	Number of seconds to average timing statistics
-w/-window <SIZE>	TCP window size (kB
-b/blocksize <SIZE>	Blocksize to write, kB (1 MB default)
-f/filesize <SIZE>	Size in sec for LBADR files (1)
-h/-help	This list

Examples

> vlbi_fake

Send 60 seconds of LBADR data to local host, using TCP (4×16 MHz setup)

> vlbi_fake -vdif -host mango -dur 600 -nthread 4 -bandwidth 512 -numchan 1

Send 10 minutes of VDIF data to host mango (1×512 MHz setup per thread)

> vlbi_fake -mark5b -year 2008 -dayno 150 -dur 600 -nchan 8 -bandwidth 8

Set the start time to a specific time (8×8 MHz setup, 256 Mbps nominal)

> vlbi_fake -host mango -udp -vdif -sleep 10

Send 60 seconds of UDP VDIF data to host mango, with 10usec gap between packets (4×16 MHz setup)