

Outline

- ▶ Space craft tracking mode
- ▶ Reconnect a station
- ▶ Mark 5 eVLBI emulation
- ▶ Minor update
- ▶ Mark 5B

Space craft tracking mode

- ▶ Why?
- ▶ Switching record-
ing/playback
- ▶ Timing

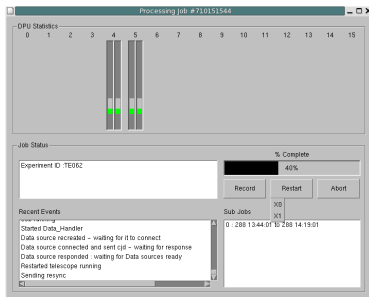
Switch between recording and playing eVLBI data				
Ok Cancel	Switch recording for scans with source			Switch
Scan name	Source	Start time	Stop time	Record
No0001	4C39.25	200013h44m01s	200013h45m01s	✓
No0002	4C39.25	200013h45m01s	200013h46m01s	✓
No0003	4C39.25	200013h46m01s	200013h47m01s	✓
No0004	4C39.25	200013h47m01s	200013h48m01s	✓
No0005	4C39.25	200013h48m01s	200013h49m01s	✓
No0006	4C39.25	200013h49m01s	200013h50m01s	✓
No0007	4C39.25	200013h50m01s	200013h51m01s	✓
No0008	4C39.25	200013h51m01s	200013h52m01s	✓
No0009	4C39.25	200013h52m01s	200013h53m01s	✓
No0010	4C39.25	200013h53m01s	200013h54m01s	✓
No0011	4C39.25	200013h54m01s	200013h55m01s	✓
No0012	4C39.25	200013h55m01s	200013h56m01s	✓
No0013	4C39.25	200013h56m01s	200013h57m01s	✓
No0014	4C39.25	200013h57m01s	200013h58m01s	✓
No0015	4C39.25	200013h58m01s	200013h59m01s	✓
No0016	4C39.25	200013h59m01s	200014h00m01s	✓
No0017	4C39.25	200014h00m01s	200014h01m01s	✓
No0018	4C39.25	200014h01m01s	200014h02m01s	✓
No0019	4C39.25	200014h02m01s	200014h03m01s	✓
No0020	4C39.25	200014h03m01s	200014h04m01s	✓
No0021	4C39.25	200014h04m01s	200014h05m01s	✓
No0022	4C39.25	200014h05m01s	200014h06m01s	✓
No0023	4C39.25	200014h06m01s	200014h07m01s	✓
No0024	4C39.25	200014h07m01s	200014h08m01s	✓
No0025	4C39.25	200014h08m01s	200014h09m01s	✓
No0026	4C39.25	200014h09m01s	200014h10m01s	✓
No0027	4C39.25	200014h10m01s	200014h11m01s	✓
No0028	4C39.25	200014h11m01s	200014h12m01s	✓
No0029	4C39.25	200014h12m01s	200014h13m01s	✓
No0030	4C39.25	200014h13m01s	200014h14m01s	✓
No0031	4C39.25	200014h14m01s	200014h15m01s	✓
No0032	4C39.25	200014h15m01s	200014h16m01s	✓
No0033	4C39.25	200014h16m01s	200014h17m01s	✓
No0034	4C39.25	200014h17m01s	200014h18m01s	✓
No0035	4C39.25	200014h18m01s	200014h19m01s	✓

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Reconnect a station

- ▶ Correlate as much data as possible
- ▶ Usage
- ▶ ROT clock



ROT clock

- ▶ Copy a ROT clock unit
- ▶ First testing: 3 seconds delay
- ▶ Further testing: not that constant
- ▶ No update for 2 or 3 seconds

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Mark 5 eVLBI emulation

- ▶ Testing
- ▶ Utility that responds as a Mark 5
- ▶ Send data stream with correct headers
- ▶ Usage

controlEvLbi at host: juw31

Configuration and detection of eVLBI network parameters

Help		Write all ipaddresses, sockbufs, workbufs, default Mtu values and protocols to database										Dismiss
SU	Station	Ping control_ip	Ping data_ip	Congestion	Servo Error	Network	MTU	Sockbuf	Workbuf	Protocol		
0	>D	↓			Not found	Restart	4470	8M	128K	✓ tcp	◆ udp	
1	>D	↓			Not found	Restart	9000	8M	128K	✓ tcp	◆ udp	
2	>X	↓			Not found	Restart	4470	8M	128K	✓ tcp	◆ udp	
3		↓				Restart				✓ tcp	✓ udp	
4		↓				Restart				✓ tcp	✓ udp	
5		↓				Restart				✓ tcp	✓ udp	
6		↓				Restart				✓ tcp	✓ udp	
7		↓				Restart				✓ tcp	✓ udp	
8		↓				Restart				✓ tcp	✓ udp	
9		↓				Restart				✓ tcp	✓ udp	
12		↓				Restart				✓ tcp	✓ udp	
13		↓				Restart				✓ tcp	✓ udp	
								Set all values	8M	128K	✓ tcp	◆ udp

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Minor updates

- ▶ Bank switching
- ▶ Mount requests

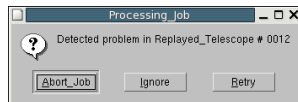
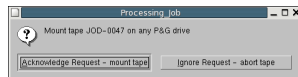
Bank switching

- ▶ From one medium to two
- ▶ Required for Mark 5B
- ▶ Allows longer night jobs



Mount requests

- ▶ On startup of job, search for media
- ▶ After 80 seconds, operator gets warnings
- ▶ And another message ...
- ▶ eVLBI: have to abort job
- ▶ Replaced with one message box

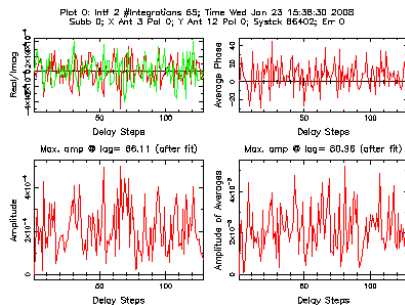


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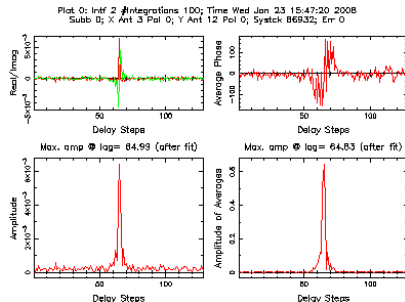
Mark 5B

- ▶ Replacing SU
- ▶ Communication
- ▶ The CF header difference



The delay problem

- ▶ Regular clock search
- ▶ Try data frames, correlator frames, seconds
- ▶ One second delayed
- ▶ Start ROT and start byte
- ▶ Model applied with an offset of 0.13 seconds



Questions

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