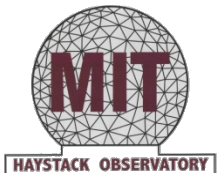


Mark5 Software Status

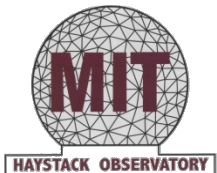
Chet Ruszczyk
January 23rd 2014

MIT Haystack Observatory, Westford, MA



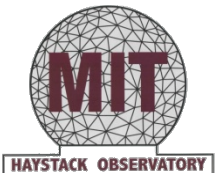
Recording Software

- SDK9.3a
- Mark5 A/B/B+
- Mark5C



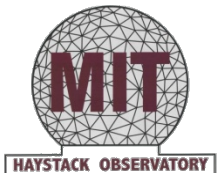
SDK9.X

- Latest released version 9.2
- Under test 9.3a
 - Standard SDK9.3 with
 - New firmware for controller cards
 - Updated header file to support Mark5C
- New Firmware fixes bug and allows:
 - Using disks > 2 TB (Discussed on VLBI forum)
 - Problem was using 32 bit vs 64 bit address space.
 - 64 bit address space was SDK's interface to applications
 - (16.35 for Amazon and 13.04 XF2) your operations will be impacted.



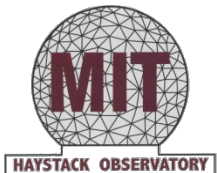
SDK9.X

- >2TB drives
 - New Versions are:
 - Version 16.37 (Amazon) or 13.05 (XF2)
 - Question, why the delay in rolling out this new firmware?,
 - The data MUST be read from the disk with a Mark5 system that has the same or later version firmware
 - Correlators have to be updated first before stations
 - Here is the issue.
 - Planned rollout will be posted on the forum next week.



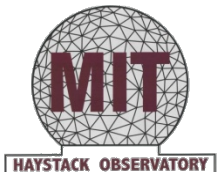
SDK9.X

- 4Gbps data speeds without dropping data
 - Size of disk write buffers are increased from 64K to 256K.
 - Planned for Mark5C and 4Gbps operations only
 - New Mark5C commands
 - reset = lberase (for large buffer configuration)
 - reset = sberase (for resetting a disk to small buffer)
 - What this command does is provide a software switch to change the mode of the Amazon card
 - Board type AMAZON-VP to AMAZON-P
 - Must be careful with mixed mode operations



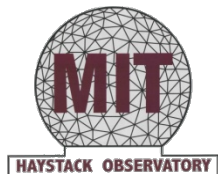
SDK9.X

- Modules can be conditioned on any version of SDK and system (Mark5A/5B/5C)
 - Haystack has a general rule when working with SDK9 and being unsure where the disk modules come from
 - EV2E
 - Erase, VSN, Erase, Erase
 - This will guarantee a seamless transition between systems and SDK version
 - Removes any problems



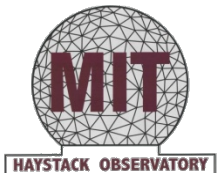
Mark5A/B/B+

- Mark5A/5B/5B+ software
 - Under test to supports SDK9.3a
 - Other features to be added in release to support CONT14
 - >1024 scan support for user directory
 - reset=lgerase
 - Checks for commands issued while record=on is active
 - Return last read information
 - scan_set based upon time settings



Mark5C

- Latest available version is 0.9.22-1
 - Fully support 4Gbps recording with large disk writes
 - Requires new Streamstor package version 9.3.a to take advantage of large block writes
 - Flash upgrades to Amazon card
- Version 0.9.23-1
 - This version will be tested / released with FS
 - Will work with Ed next week to finalize.



Thank you / Questions?

