jive5ab

and support acts `m5copy,vbs_fs`
`DirList.py, SSErase.py`

Upcoming release 2.9 ?

Technically not necessary ...

Stations upgrade to Debian 9.2+

No `.deb` for that so compile from source. Oh wait ...

GNU compiler/system changes!

`g++` compiler defaults to c++14 standard
impossible to revert to true 2003 c++ standard (fixed source)

tighter type checks ⇒ few warnings
used the wrong `abs()` function in few places (fixed)

`readdir_r(3)` was deprecated, now completely removed
rewrite bits of source, affects `vbs_fs` too! (both fixed)

So nothing changed then???

also not entirely .TRUE.

Support for crippled Mark5s

Crippled = Mark5 without I/O board [AB] or daughter board [C]
Thus: only StreamStor card present

- `jive5ab` now handles this gracefully

- *all* `disk`-related functionality remains working
  - only `record` + `in2*` functions missing

- reflected in changed `dts_id?` response
  - `!dts_id? 0 :` **StreamStor** `: .... ;`

- `m5copy,DirList.py,SSErase.py` updated
  - these tools query + check `dts_id`

O/1

2.1

4/5

Remote mount/unmount disk pack

Before clean power down of Mark5, banks must be *keyed off*
key *transition* triggers `firmware` to power off a bank!

- so can software do this too?
    - Yes! `jive5ab` can key a bank *on* or *off*

- start transfer, go home, `unmount` bank, power down cleanly

- add `mount = [A|B],unmount=[A|B]` commands

Record status on FlexBuff

Is now properly returned in `status?` query response

status – Get system status (query only)

Query syntax: status? ;
Query response: !status ? <return code> : <status word> [: <error number> : <error message> [: <error time>]] ;

Purpose: Get general system status

Monitor-only parameters:

Parameter	Type	Values	Comments
<status word>	hex	-	Bit 0 – (0x0001) system 'ready'
			Bit 1 – (0x0002) error message(s) pending; (message may be appended); messages may be queued; error is NOT cleared by this command. See also 'error?' query
			Bit 2 – (0x0004) not used
			Bit 3 – (0x0008) one or more 'delayed-completion' commands are pending. Also set whenever any data-transfer activity, such as recording, playing, or transfer to or from disk or net, is active or waiting.
			Bit 4 – (0x0010) one or more 'delayed-completion' queries are pending
			Bit 5 – (0x0020) Disk-FIFO mode
			Bit 6 - (0x0040) record 'on'
			Bit 7 - (0x0080) media full (recording halted)
			Bit 8 - (0x0100) readback 'on'

scan_check?

This really is the bane of our existence *sigh*

- `<missing bytes>` miscomputed if >1 VDIF threads (fixed)
  - overestimated by a factor of number-of-VDIF-threads

- heuristics for inferring recording bit rate for VDIF (improved)
  - now using all available information (frame numbers)

- 2Gbps Mark5B `scan_check?` failing
  - it was not a Mark5B+ and `jive5ab` did not error! (fixed)

Fixes due to user feedback

Indebted to individuals who find misbehavings/suggestions!

- compiler complains about confusing indentation (fixed)
  [AriM]

- off-by-one in initializing array of valid-number-of-bits (fixed)
  [AriM]

- unclear FILA10G=1 documentation in INSTALL (clarified)
  [EskilV]

- Mark5A default clock frequency wrong (fixed)
  [EdH]

- Mark5A play_rate= should accept $float$, not just int! (fixed)
  (documentation was misread by YT)   *[EdH]*

Timeline? It is in progress

In-field validation done.

Documentation needs changing:
- New command(s)

- Changed command(s)

- Undocumented command(s)
  - `group_def=`

謝謝