

LVEX Parameter Tables, Rev 1.0

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5 Nov 1999

Introduction

The LVEX file contains log information relevant to the correlator for each station participating in an experiment.

The LVEX Block Structure

The LVEX file contains one '\$LOG' section containing a 'def x' for each station (or set of 'linked' stations) participating in an experiment, where 'x' is the single-character station ID code (or set of 'linked' station codes). The structure of an LVEX file is then as follows:

```
$LVEX_REV          specifies revision level of LVEX file
$LOG               station log section
  def A;           log info for station A
    monitor_trk_override = .....; monitor track override (optional)
    scan xxxx;     scan
    .
    endscan;
    scan yyyy;     scan
    .
    endscan;
  .
  enddef;
  def BC;          log info for 'linked' stations B and C
  .
  enddef;
etc.
```

'Linked' stations are defined as the case where two (or more) stations are simultaneously writing data to the same tape.

LVEX Rules

There is normally one 'def <station>' section for each station participating in the experiment covered by this log file. If the log section for a station is missing, the operator will be queried for the necessary information at correlation time.

\$LVEX_REV Block

The \$LVEX_REV block specifies the revision level of the parameters structure of the LVEX file.

Parameter	Field	Description	Type	Allowed values	Units	Comments
rev	1	LVEX revision number	real	1.0		Will be updated as necessary

\$LOG Block

The information for each scan is logged into a 'scan/endscan' block within the associated 'def <stn>' section, similar to the way scans are specified in the \$SCHED section of the ovex file:

```
scan <scan_ID>;          *scan_ID must match ovex scan_ID
  VSN = ....;            *physical tape VSN
  head_pos = .....;      *headstack position
  start_tape = .....;    *tape start time, direction, footage
  stop_tape = .....;     *tape stop time, footage
  source = ;
```

endscan;

There is no requirement that scans be in time order, though they would normally be in time order.

Up to 10 'monitor_trk_override=' statements may be specified within the \$LOG block, but outside the 'scan/endscan' block (see lvex block structure above), to specify the use of monitor tracks for the playback drive. Each 'monitor_trk_override=' statement may specify a period of time during the experiment when that statement applies.

The log parameter definitions are as follows:

Parameter	Field	Description	Type	Allowed values	Units	Comments
VSN	1	Tape VSN number	char			
head_pos	1	DAS-commanded head position	length			Head-position written into tape-frame header
start_tape	1	Tape-motion 'start time'	time			If 'continuous' tape motion, time near (preferably somewhat before) start of good data
	2	Tape position	length			Tape footage at 'start time'
	3	Tape speed at 'start time'	speed	real		Note: <u>Not</u> commanded speed. >0 if moving forward; <0 if moving in reverse. If 'continuous' motion, should reflect speed at which tape is moving at corresponding 'start time' and tape position. If starting from stopped position, should be =0.
stop_tape	1	Time at which stop command is issued	date			
	2	Tape position when stop command is issued	length			
source	1	Source name	char			
	(2)	On-source time	date			Important if late on-source
monitor_trk_override	1	forward-motion trk#	int	0-35		If null, default is used
	2	reverse-motion trk#	int	0-35		If null, default is used
	(3)	start time for applicability	time			If null, assumed to apply from start of experiment
	(4)	stop time for applicability	time			If null, assumed to apply to end of experiment

Notes:

Up to 10 'monitor_trk_override=' statements may be present, each specifying a different time period during the experiment. The times specified in the 'monitor_trk_override=' will be compared against the scan nominal start time for the corresponding station as specified in the ovex \$SCHED section to determine the proper track values to be used. If conflicting 'monitor_trk_override=' statements are present corresponding to the nominal start time of a specified scan, an error will result.