







- 2 circulating beams
- redundancy for each beam

Introduction of CIBDS

• 4 optical fiber paths



Lesson 2. If your component has high dispersion + current and temperature dependency, you will end with one in the worst case. Power margin at minimal and noise at maximal. Research for replace with Small Form-Factor Pluggable transceiver (SFP) based in new laser

technologies are ongoing.

Lesson 3. The LHC Sequencer, "arming", timeouts and dead-locks. (applications does

	01@200	70606105847548_circuit: RCBI	111 L 8B1			r 7 X	
Oper		D1@20070606105847575 circ	uit: RCBH12.L8B2	r Q 🛛			
	Opera	PNO1@20070606105847	597 circuit: RCBH13.L8B1		r 🛛 🛛		
SEQU		Operator View Expert Vie	w Sequence summary	Variables trace			_
Norm Co Init PLI Re Shi	Start te Norma Con Initia PLE Rea Sho	PN01 version for 60A and 80-120A Getting circuit info from LSA DB RUN Start test and register this fact in LSA DB RUN Normal execution RUN Connect to devices RUN Initialization RUN PLEP to LINTERIM=30A RUN Showing current lead voltage measurements RUN Showing current lead voltage Start	CIRCUIT_OUENC Operator View E ///Script preparations TEST_NAME = "PIC Ref GC_TIMEOUT = 60 POST_MORTEM_TII PIC MAX TIMEOUT	H_VIA_QPS@20070606110817 xpert View <u>Sequence summ</u> Command : CIRCUIT QUENCH VIA QPS°; 000; HEOUT = 60000 * 3; = 60000 * 2;	7345 Nary Variables trace RUN OK RUN OK RUN OK SKIP SKIPPED RUN OK	e ມີ Result	
Cons	Consc	Console 11:00:28 - CANCEL reques	it	OPS_OK_MAX_TIME TEST_SUCCESS = ///Getting circuit info circuitinfo = prepare ///Start test and regis	COUT = 60000 * 10; from LSA DB Circuit(socName_circuitName); for this fact in LSA DB art Suspend Resume	RUN OK SKIP SKIPPED BREAKPOINT Step Skip Execu	e Abort
				_		SUSPENDED	

CIBG - Beam Permit generator

CIBM - permit matrix

what programmers writes)

Console		
10:58:48 - SOC	C P2N 50A, test sequence PN01 for circuit RCBH12.L8B2 loaded with ID PN01820070506105847575.	
10:58:48 - SOC	C P2N_60A, test sequence PN01 for circuit RCBH13.L8B1 loaded with ID PN01@20070606105847597.	
10:59:39 - New	# sequence CIRCUIT_QUENCH_VIA_QPS created with ID CIRCUIT_QUENCH_VIA_QPS@20070606105939211.	
11:03:36 - New	w sequence CIRCUIT_QUENCH_VIA_QPS created with ID CIRCUIT_QUENCH_VIA_QPS@20070606110336383.	
11:05:13 - SOC	C P2N_60A, test sequence PNO2 for circuit RCBV15.L8B2 loaded with ID PNO2@20070606110513659.	
11:06:34 - New	# sequence CIRCUIT_QUENCH_VIA_QPS created with ID CIRCUIT_QUENCH_VIA_QPS@20070606110633996.	
11:08:17 - New	w sequence CIRCUIT_QUENCH_VIA_QPS created with ID CIRCUIT_QUENCH_VIA_QPS@20070606110817345.	

BIS and LBDS depends on each other to be in an operational state. This creates a deadlock situation at the start-up when both systems are not ready. There is a special "arming" sequence guarded by timeouts to overcome this. If you introduce a third element that is also dependent on the previous two, your old automatic application running the "arming" sequence needs to be modified accordingly. (Exploration on other

methods to overcome the dead-lock are ongoing)