

# Index Panel

SLAC's Software Engineering Newsletter

## SLC Control

<input type="checkbox"/>	INDEX						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Program	
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March 9, 1992

All that Fits is News to Print

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## Vetobus Delay Offset

March 3, 1992

**Author:** Steve Levitt

**Subsystem:** BPM

**User Impact:** Small

**Panel Changes:** Few

**Documents:** No

**Help File:** Yes

A new button 

ENTER
VTOBUS
DELAY

 has been added to the BPM buffered acquisition panel and allows one to input an offset for the vetobus delay.

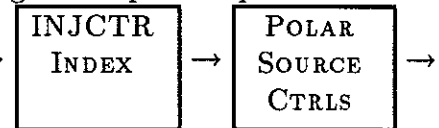
When the polarization bits on the vetobus are generated, they are passed through a hardware vetobus delay unit. The purpose of this unit is to delay the signal on the vetobus while its corresponding bunch goes around the damping ring, so that the bunch and the vetobus signal are synchronized. This, however, means that until the bunch leaves the damping ring, it cannot be correlated with the polarization information on the vetobus.

The vetobus delay offset allows one to compensate for this by using the polarization bits that arrive several pulses later for the filtering. The offset is specified in 1/360th of a second. It must be a positive integer between zero and thirty-six inclusive. It must also be a multiple of three, as the resolution of the BPM system readout is to 1/120th of a second. The offset has no effect whatsoever if there is no filtering on the polarization state.

Beam Pulse ID	Corresponding Pulse ID for vetobus information			
	Offset=0	Offset=3	Offset=6	offset=36
4	4	7	10	40
7	7	10	13	43
10	10	13	16	46
13	13	16	19	49
16	16	19	22	52
19	19	22	25	55

Table 1. Relationship between pulse ID and Vetobus polarization information for typical delays

The Vetobus Delay unit mentioned above is programmed either through front panel inputs at CID or from the Veto Delay Panel. One path to this panel is Index Panel →



. For BPM Correlations to work correctly downstream of the damping rings, this delay

must correspond to the actual damping ring storage time of the electrons.

**LGPS Controller Self-test**

March 3, 1992

**Author:** Kristi Luchini  
**Panel Changes:** None

**Subsystem:** Magnets  
**Documents:** No

**User Impact:** Small  
**Help File:** Yes

The PSC-I and PSC-II power supply controllers have a Built-in self-test capability. The control software has been modified to exercise the self-test procedure whenever an LGPS module is turned on from a SCP. The software issues the appropriate CAMAC command and then checks that the database is expecting the same type of PSC module. If not, an error message is issued.

**TMIT Added to the Positron Yield Display**

March 4, 1992

**Author:** Steve Levitt  
**Panel Changes:** None

**Subsystem:** BPM  
**Documents:** No

**User Impact:** small  
**Help File:** No

The TMIT for the final unit in the positron extraction line has been added to the PYIELD vs. Z special display. The new figure is shown in parentheses above the yield for this unit.