SVT Cone Cable Labeling Scheme

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Input: SVT RDO-DAQ Interface Document (J. Schambach)

Definitions:

The labeling scheme for the cone cables follows the original SVT labeling scheme. The original scheme is documented in CSN0229A and in a note by me to the SVT group (dated 1994 !). It also reflects all the requirements by the RDO electronics as documented in Jo Schambach's recent writeup.

In the original scheme we had labels based on hybrids (H), wafers (W), ladders (L), and barrels (B). Only ladder and barrel numbers will be necessary in the following.

For the intercon cables we will use abbreviations for the transition cards (TR) and the Readout boxes (RDO). For the cables we will also adapt the labeling of the East (E) and the West (W) side of the detector. The rule is that the labeling on the West Side is clock wise starting from the 1 o'clock position, and counterclockwise on the East side. That means every ladder has the same number on the East and the West side.

We will be installing the detector from the East Side. But due to the agreed upon nomenclature in STAR Note 229A, which is under change control by the STAR integration group, the East side will be labeled counterclockwise. I therefore also decided to label the RDO boxes as well as the transition boards counterclockwise on the East Side.

That means on the East Side Box 1 is in the 11 o'clock position and Box 12 is in the 1 o'clock position.

On the West Side Box 1 is in the 1 o'clock position and Box 12 is in the 11 o'clock position.

There are 36 transition cards on each manifold. 18 are mounted on the top of the manifold (up), and the other 18 are mounted to the bottom side of the manifold (down). They will by labeled TRU and TRD for the Up and Down card at each position. On the East Side TRU01 and TRD01 are in the 11 o'clock position and TRU18 and TRD18 are in the 1 o'clock position. Again the order is clockwise on the West Side.

We will not need Hybrid and Wafer numbers when connecting transition cards to ladders. Therefore only the Ladder and Barrel numbers will be used to connect from ladder to transition card.

Labeling scheme for the West Side SVT Electronics:

Ladder	Transition Card	RDO Box	Connector #
L01B3	TRUW01		T1
L01B1	TRDW01	RDOW01	T2
L02B3	TRUW02		T3
L02B1	TRDW02		T2
L03B3	TRUW03	RDOW02	T1
L04B3	TRDW03		T3
L01B2	TRUW04		T1
L02B2	TRDW04	RDOW03	T2
L03B2	TRDW05		T3
L03B1	TRUW05		T2
L05B3	TRDW06	RDOW04	T1
L06B3	TRUW06		T3
L04B1	TRDW07		T2
L07B3	TRUW07	RDOW05	T1
L08B3	TRDW08		T3
L04B2	TRUW08		T1
L06B2	TRDW09	RDOW06	T3
L05B2	TRUW09		T2
L05B1	TRDW10		T2
L09B3	TRUW10	RDOW07	T1
L10B3	TRUW11		T3
L06B1	TRDW11		T2
L12B3	TRUW12	RDOW08	T3
L11B3	TRDW12		T1
L07B2	TRDW13		T1
L08B2	TRUW13	RDOW09	T2
L09B2	TRDW14		T3
L07B1	TRUW14		T2
L13B3	TRUW15	RDOW10	T1
L14B3	TRDW15		T3
L15B3	TRUW16		T1
L08B1	TRDW16	RDOW11	T2
L16B3	TRDW17		T3
L10B2	TRUW17		T1
L12B2	TRUW18	RDOW12	T3
L11B2	TRDW18		T2

Low Voltage Cables: 12 conductor cable ended by MOLEX connector

There will be one LV cable per Transition Board, that means 36 LV cables per cone or 72 LV cables total.

Because the LV cables connect only to the Transition Board the cables are labeled according to the Transition Board labeling:

LVUW01 goes to TRUW01, LVDW01 goes to TRDW01.........LVDW18 goes to TRDW18

Each LV cable will carry two labels (one on each end).

High Voltage Cables: (single RG59 cables ended by SHV connectors

There will be two HV cables per Transition Board, which means 72 HV cables per cone or 144 HV cables total. One line will carry the 1500 V bias, the other line will bring in around 200 V. To stay with the nomenclature rules we decided to label the 1500 V line HVH for HV(high)) and the 200 V line HVL (for HV(low)). Thus the following labeling scheme will be adapted:

HVHUW01 and HVLUW01 go to TRUW01, HVHDW01 and HVLDW01 go to TRDW01........ HVHDW18 and HVLDW18 go to TRDW18

Each HV cable will carry two labels (one on each end).