# Fixing Common/Current Run Control Issues

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#### Masking/Unmasking Receiver Boards:

If any boards need to be masked during production running, please make an entry in the shift log, contact Tonko using the "critical support" tab on the DAQ monitoring page, and email "starops-l" to make sure the underlying problem is addressed. Then proceed to the following.

|      |  | Coning Direction   | /home/evpops/con              | fig/daq      |           |                       |  |
|------|--|--|-------------------------------|--------------|-----------|-----------------------|--|
| trg  | daq  | Run Configuration:   | CosmicLoc                     | arcial amt h | Start Run |                       |  |
|      |  |  | Run Number: 22032026          |              |           |                       |  |
|      |  | Trigger Name   | Trigger Id Enable             |              |           | Stop Run              |  |
| itpc | tpx  | Cosmic1 openan   | 1                             | ¥            | -         |                       |  |
|      |  | Cosmic1 openan   | 2                             | ~            |           |                       |  |
|      |  | Cosmic2 openan   | 3                             | ~            |           | Issue Triggers        |  |
| btow | tof  | Cosmic3 openan   | 4                             | ~            |           | 55                    |  |
|      |  | Cosmic2_openan   | 5                             | <b>V</b>     |           |                       |  |
|      |  | Cosmic3_openan   | 8                             | <b>V</b>     | =         | Show Component T ee   |  |
|      |  | Cosmicl  | 9                             | ¥            |           |                       |  |
| etof | gmt  | Cosmic2  | 10                            | ~            |           |                       |  |
|      |  | Cosmic3  | 11                            | ~            |           | Edit Configuration    |  |
|      |  | hlt-cosmic   | 20                            | ~            |           |                       |  |
| mtd  | 4  | tof_sec0   | 24                            | ~            |           |                       |  |
|      |  | tof_sec1   | 25                            | <b>v</b>     |           | Copy Configuration    |  |
|      |  | tof_sec2   | 26                            | <b>v</b>     | _         | copy configuration    |  |
| fcs  |  | tof_sec3   | 27                            | ×            |           |                       |  |
| 105  | stgc   |  |                               |              |           | Delete Configuration  |  |
| fst  |  |  |                               |              |           | Log Debug Information |  |
|      |  |  |                               |              |           |                       |  |
|      |  | ocalClock_gmt_b <  | <@rts02.star                  | p.bnl.gov>   | $\odot$   | ○ ≥                   |  |
|      | CFG.GLB_SETUP -  |  |                               | p.bnl.gov>   | ۲         | ∞ ⊗                   |  |
|      |  | calClock_gmt_b <   |                               | p.bnl.gov>   | ۲         | 0 8                   |  |
|      | CFG.GLB_SETUP -  |  |                               | p.bnl.gov>   |           | ∞ ∞                   |  |
|      | CFG.GLB_SETUP -<br>lastRunTime<br>DICT_name  | 1612207165   | lict                          |              |           | ∞ ∞                   |  |
|      | CFG.GLB_SETUP -<br>lastRunTime<br>DICT_name<br>Trigger Config                                | 1612207165<br>cr current.c<br>ju CosmicLoca                                    | lict<br>IClock   <del>-</del> | Detail       |           |                       |  |
|      | CFG.GLB_SETUP -<br>lastRunTime<br>DICT_name<br>Trigger Config<br>TRG_RUN_nam                 | 1612207165<br>cr current.c<br>ju CosmicLoca                                    | lict<br>IClock   <del>-</del> | Detail       |           |                       |  |
|      | CFG.GLB_SETUP -<br>lastRunTime<br>DICT_name<br>Trigger Config<br>TRG_RUN_nam<br>TCD_SETUP_na | 1612207165<br>cr current.c<br>ju CosmicLoca<br>le localclock<br>ame CosmicLoca | lict<br>IClock 🗸              | Detail       |           |                       |  |
|      | CFG.GLB_SETUP -<br>lastRunTime<br>DICT_name<br>Trigger Config<br>TRG_RUN_nam                 | 1612207165<br>cr current.c<br>ju CosmicLoca<br>le localclock<br>ame CosmicLoca | lict<br>IClock   <del>-</del> | Detail       |           |                       |  |

1. Press "Edit Configuration" 2. Press "Detail" on the DAQ\_RUN\_name line 3. Select the Detector 4. Select the Sector 5. Uncheck to remove, Check to add. Boards start at 1 and numbered from the left 6. Press "Ok" on both dialogs (do NOT press Save-As) 7. REBOOT iTPC/TPX after masking daq <@rts02.starp.bnl.gov>  $\odot$   $\odot$   $\otimes$ CFG.DAQ\_RUN detectors dag CFG.DAQ\_DET - detectors[] [0] log level WARN -[2] tof 0 use\_l2 [3] btow [4] fpd use sl3 [14] etow resl [16] fgt [17] pp res2 0 [18] bsmd res3 [19] esmd 20] tpx res4 0 [21] pxl res5 [22] mtd res6 0 [23] ist [24] sst res7 0 [25] at of rese [26] gmt 0 [28] fps emulate [29] rhicf speed limit 1000 [30] fcs CFG.DAQ\_SUBDET - sub[] [31] itpc [0] Sector 1 rb mask [32] stgc [1] Sector 2 [33] fst [2] Sector 3 Sector 4 [4] Sector 5 [5] Sector 6 [6] Sector 7 [7] Sector 8 [8] Sector 9 Ok

#### **Dead TPX computers:**

#### How to know if a node is Dead:

- 1. On the main Run Control screen the subsystem will be grey
- 2. Press Show Component Tree.
- 3. The offending node will be red on the subsystem tree

### What to do if a node is dead:

- 1. A node being "dead" means that it isn't connected to run control. In general, the subsystem that "owns" the node must fix it.
- 2. For most nodes (Detectors, DAQ, and L0,L1, TCD), contact the DAQ expert.
- 3. For other Trigger nodes, contact the trigger expert.
- 4. For L4, the contact the HLT expert.
- 5. You can simply remove the offending node by pressing the red square. However, the repercussion is that the function of the node will not be performed! (Detector nodes correspond to sections of detectors, but the importance of other nodes requires understanding their function, and understanding whatever special conditions may exist in the run)



## What to do if a TPX node is dead:

There have been several recent losses of TPX nodes. For TPX nodes ONLY...

- Contact a DAQ expert. If you can not reach a DAQ expert ONLY...
- You can try power cycling the computer.

1.

2.

3.

4.

- 1. Locate the computer in the DAQ room
- 2. Press the power button for ~10-15 seconds
- 3. Press the power button again, then wait about 5 minutes, or until the button turns blue.

You should be familiar with the location of these computers. Ask the previous shift leader where they are before you start your shift. In general TPX01-24 are to the right of the center line in the DA rack rows. TPX25-36 are to the left of the center line in the DA rack rows.

|       |                  |                 |                   |                 | Subsys          | tems <@rt       | s02.starp.br      | l.gov>          |                 |                  |                  |                 | $\odot$ $\odot$ $\otimes$ |
|-------|------------------|-----------------|-------------------|-----------------|-----------------|-----------------|-------------------|-----------------|-----------------|------------------|------------------|-----------------|---------------------------|
|       |                  |                 |                   |                 |                 | 🖌 Show a        | all Nodes         |                 |                 |                  |                  |                 |                           |
| tof   | tof[1]           |                 |                   |                 |                 |                 |                   |                 |                 |                  |                  |                 |                           |
| btow  | btow[1]          |                 |                   |                 |                 |                 |                   |                 |                 |                  |                  |                 |                           |
| trg   | 🔶 L0             | 🔶 L1            | 🐥 TCD             | 🔷 MIX           | SCLR48          | = BC1           | = BCE             | = BCW           | 🐥 BBC           | 🗢 bbq            | 🐥 mxq            | 🔷 eq3           | 🐥 eq1                     |
|       | eq2              |                 |                   |                 |                 |                 |                   |                 |                 |                  |                  |                 |                           |
|       | 🔶 L2[1]          |                 |                   |                 |                 |                 |                   |                 |                 |                  |                  |                 |                           |
| etow  | = etow[1]        |                 |                   |                 |                 |                 |                   |                 |                 |                  |                  |                 |                           |
| daq   | 🔶 EVP            | = тм            | = CNTRL           |                 |                 |                 |                   |                 |                 |                  |                  |                 |                           |
|       | = EVB[1]         | = EVB[2]        | 🔶 EVB[3]          | 🔶 EVB[4]        | 🔶 EVB[5]        | 🔶 EVB[6]        | = EVB[7]          | = EVB[8]        | 🔶 EVB[9]        | 🔶 EVB[10]        | EVB[11]          | 🔶 EVB[12]       | EVB[13                    |
|       | 🔶 EVB[14]        |                 |                   |                 |                 |                 |                   |                 |                 |                  |                  |                 |                           |
| рр    | = pp[1]          | = pp[2]         |                   |                 |                 |                 |                   |                 |                 |                  |                  |                 |                           |
| bsmd  | = bsmd[1]        | = bsmd[2]       |                   |                 |                 |                 |                   |                 |                 |                  |                  |                 |                           |
| esmd  | esmd[1]          |                 |                   |                 |                 |                 |                   |                 |                 |                  |                  |                 |                           |
| tpx   | 🗢 tpx[1]         | 🔷 tpx[2]        | 🐥 tpx[3]          | 🔷 tpx[4]        | 🔷 tpx[5]        | 🔷 tpx[6]        | \varTheta tpx[7]  | 🔷 tpx[8]        | 🔶 tpx[9]        | 🔷 tpx[10]        | tpx[11]          | 🕈 tpx[12]       | 🔶 tpx[13]                 |
|       | 🔷 tpx[14]        | 🔷 tpx[15]       | 🔷 tpx[16]         | 🔷 tpx[17]       | 🔷 tpx[18]       | 븢 tpx[19]       | 🔶 tpx[20]         | 🔷 tpx[21]       | 🔷 tpx[22]       | 🔷 tpx[23]        | 🔷 tpx[24]        | 🔷 tpx[25]       | 🔶 tpx[26]                 |
|       | 🔶 tpx[27]        | 🔷 tpx[28]       | \varTheta tpx[29] | 🔶 tpx[30]       | 🔶 tpx[31]       | 🔶 tpx[32]       | \varTheta tpx[33] | 🔷 tpx[34]       | 🔶 tpx[35]       | 🔷 tpx[36]        | = tpx[37]        |                 |                           |
| mtd   | = mtd[1]         |                 |                   |                 |                 |                 |                   |                 |                 |                  |                  |                 |                           |
| etof  | 🔷 etof[1]        |                 |                   |                 |                 |                 |                   |                 |                 |                  |                  |                 |                           |
| gmt   | 🐥 gmt[1]         |                 |                   |                 |                 |                 |                   |                 |                 |                  |                  |                 |                           |
| 14    | = [4[1]          | = [4[2]         | = [4[3]           | = 14[4]         | = 14[5]         | = 14[6]         | = [4[7]           | = 14[8]         | = [4[9]         | 🔷 l4[10]         | • [4[11]         | 🔶 [4[12]        | 🔶 [4[13]                  |
|       | • [4[14]         | <b>=</b> [4[15] | <b>=</b> [4[16]   | <b>=</b> [4[17] | <b>=</b> [4[18] | <b>=</b> [4[19] | <b>=</b> [4[20]   | <b>=</b> [4[21] | <b>=</b> [4[22] | <b>=</b> [4[23]  | <b>=</b> [4[24]  | <b>=</b> [4[25] | <b>=</b> [4[26]           |
|       | <b>=</b> [4[27]  | 🔷 l4Cal         | 🐥 l4Evp           |                 |                 |                 |                   |                 |                 |                  |                  |                 |                           |
| fps   | = fps[1]         | = fps[2]        |                   |                 |                 |                 |                   |                 |                 |                  |                  |                 |                           |
| rhicf | = rhicf[1]       |                 |                   |                 |                 |                 |                   |                 |                 |                  |                  |                 |                           |
| fcs   | = fcs[1]         | <b>=</b> fcs[2] | <b>=</b> fcs[3]   | <b>=</b> fcs[4] | <b>=</b> fcs[5] | <b>=</b> fcs[6] | <b>=</b> fcs[7]   | <b>=</b> fcs[8] | <b>=</b> fcs[9] | <b>=</b> fcs[10] | <b>=</b> fcs[11] |                 |                           |
| itpc  | 🔷 itpc[1]        | 🗧 itpc[2]       | 🗧 itpc[3]         | 🗧 itpc[4]       | 🔷 itpc[5]       | 🛑 itpc[6]       | 🗧 itpc[7]         | 🔷 itpc[8]       | 🛑 itpc[9]       | 🔷 itpc[10]       | 🔷 itpc[11]       | 🔷 itpc[12]      | 🗧 itpc[13                 |
|       | 🐥 itpc[14]       | 🜻 itpc[15]      | 🌻 itpc[16]        | ؋ itpc[17]      | 🗧 itpc[18]      | 🛑 itpc[19]      | 🜻 itpc[20]        | 🜻 itpc[21]      | 🗧 itpc[22]      | 🗧 itpc[23]       | 🛑 itpc[24]       |                 |                           |
| stgc  | <b>=</b> stgc[1] | = stgc[2]       | = stgc[3]         | = stgc[4]       |                 |                 |                   |                 |                 |                  |                  |                 |                           |
| fst   | <b>=</b> fst[1]  |                 |                   |                 |                 |                 |                   |                 |                 |                  |                  |                 |                           |