

TMO FZP Timing Diagram

Used by Ming-Fu's image intensifier.

```
ACR
|
v
xpm0 (room208 bldg 901)
|
|----->xpm3 (rix hutch)
v
xpm2 (tmo hutch, supervisor xpm for tmo, generates group triggers and sequences of eventcodes)
|
|-----> detectors (piranha, hsd)
v
xpm4 (tmo hutch, 1.6us delay going through each xpm stage)
|
|-----> detectors (hsd (4 hsd channels))
|
|
v-----> controls timing fanout (like a simpler xpm)
        |
        v
        -----> TPR and other hutch controls devices
                |
                |-----> multiple TTL (12?)

L0GroupTrigger means xpm2 sending out group0 trigger

time---->
begin(from acr)
-100us      L0GroupTrigger: ~-25us(Group0:L0Delay+fiberdelays)      Beam
                                                0us
                                                FZPPiranha: -16us (84-75=9us, done by daq software)
                                                IntensifierTrg: ~-25us+94us (feels late? should be more like 9us)

previous number that worked was 14us, which feels more correct than current 94us with TPR TREF=0
```