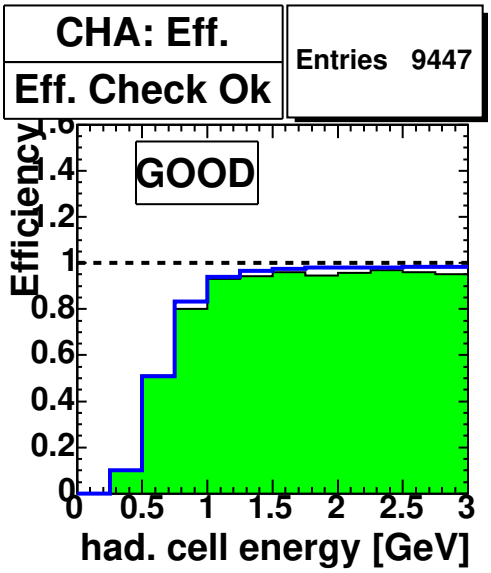
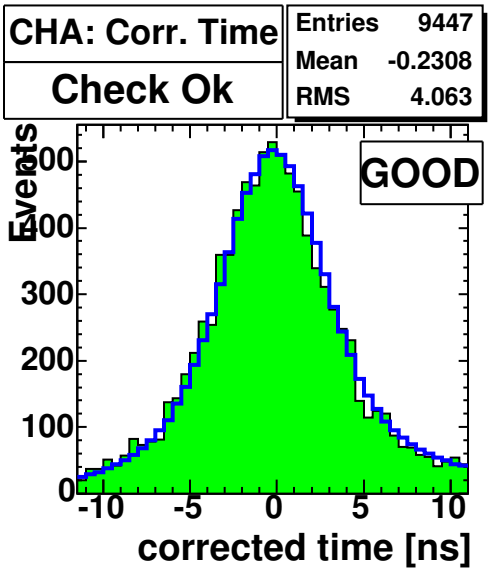
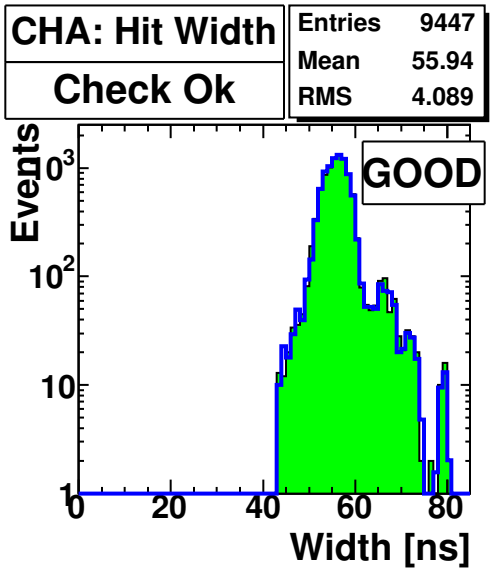
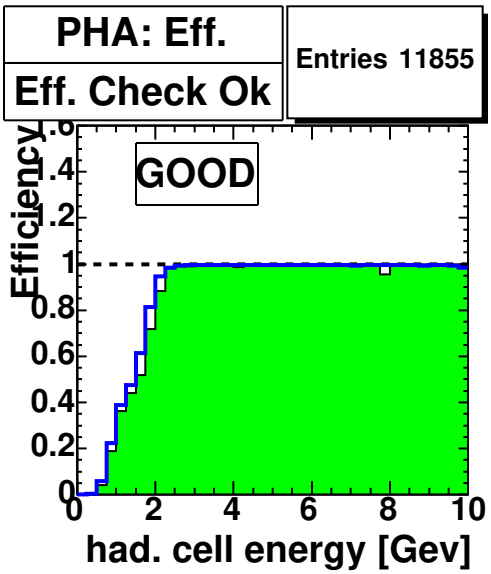
# ObjectMon #2 TimeMonitor HADTDC Timing

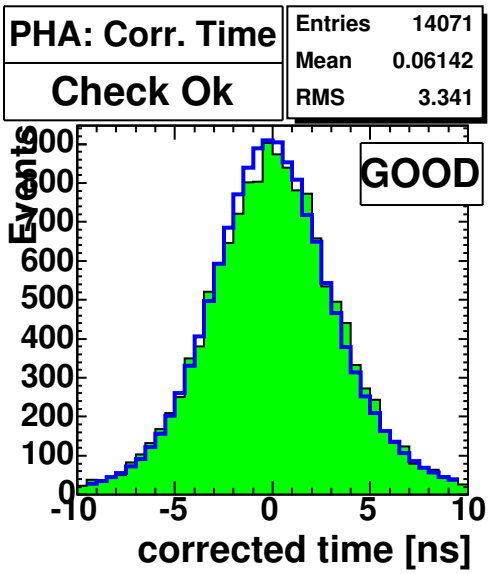
Run:233043 Event: 100616 # of Events:1714 Time: Fri Jan 26 21:42:50 2007 Ref.Run:230010

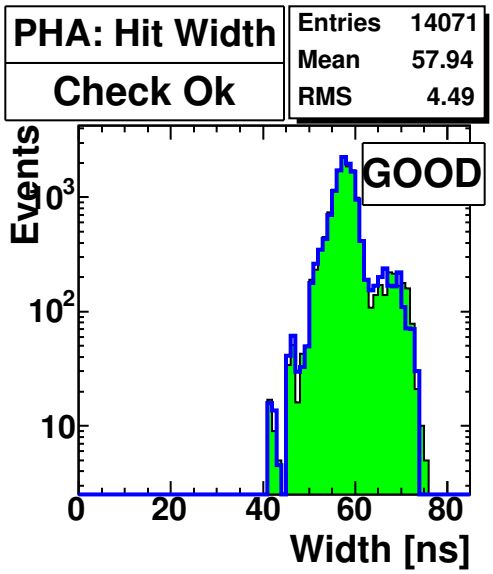


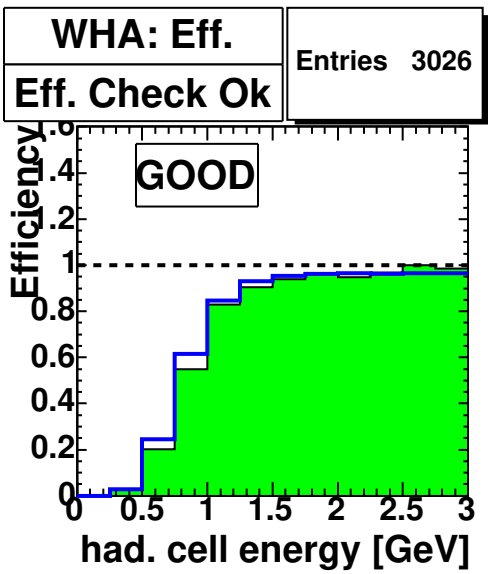



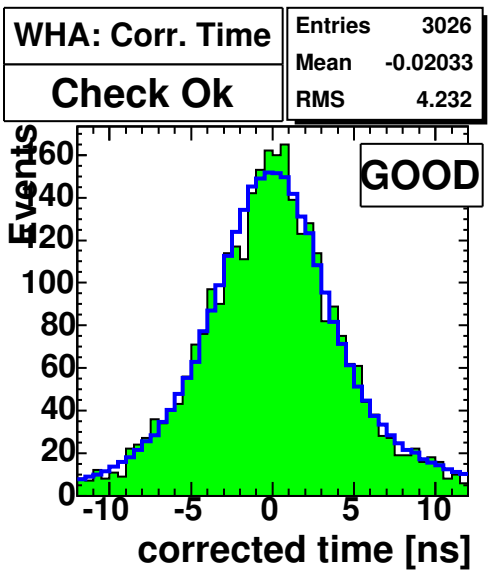



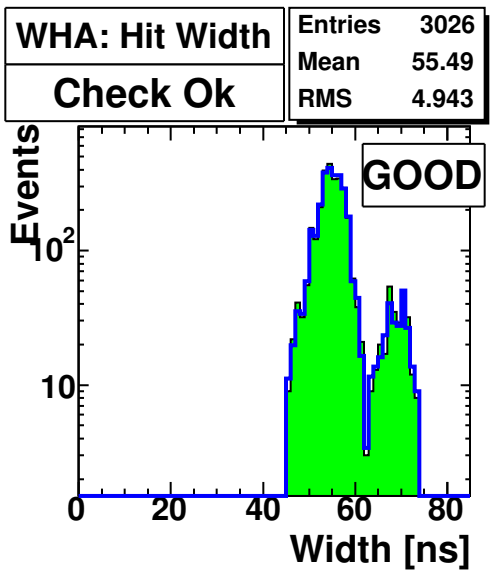



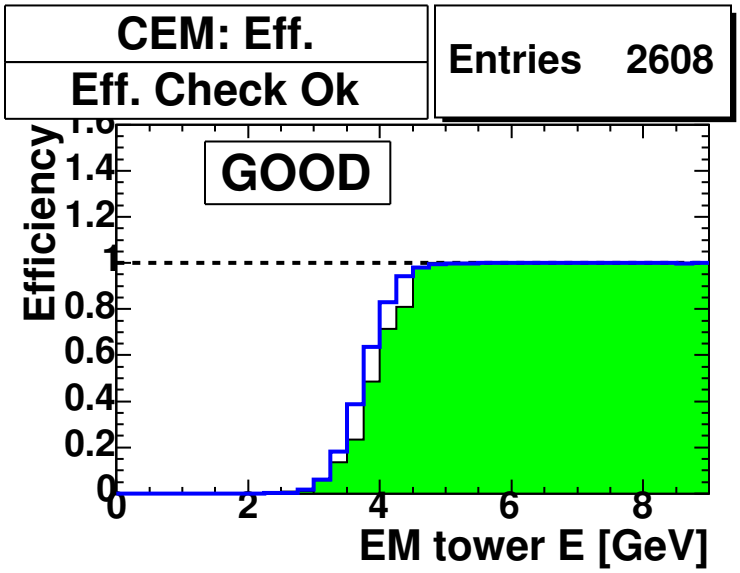



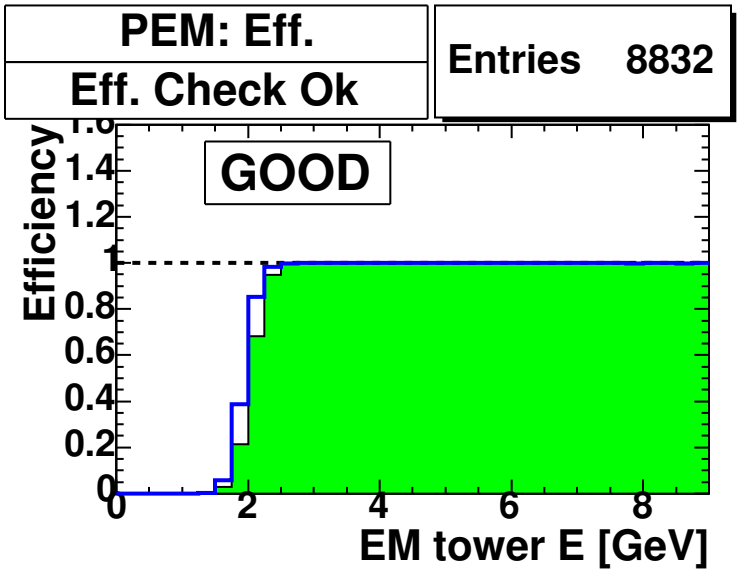



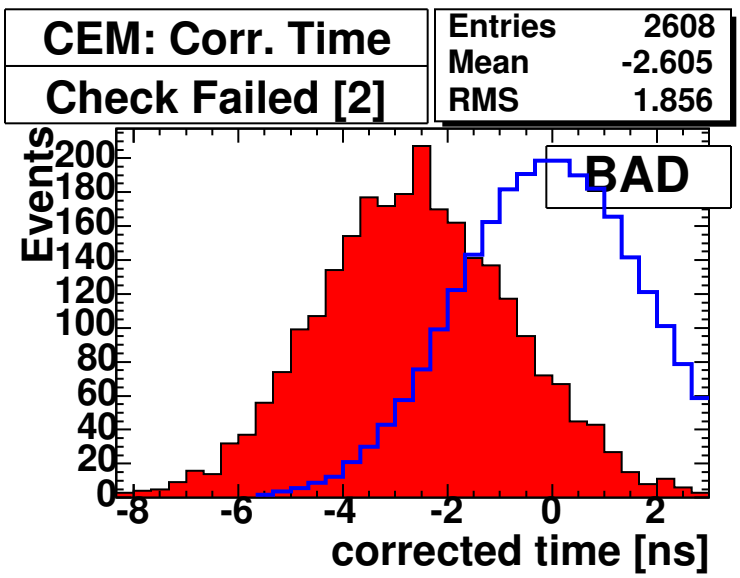



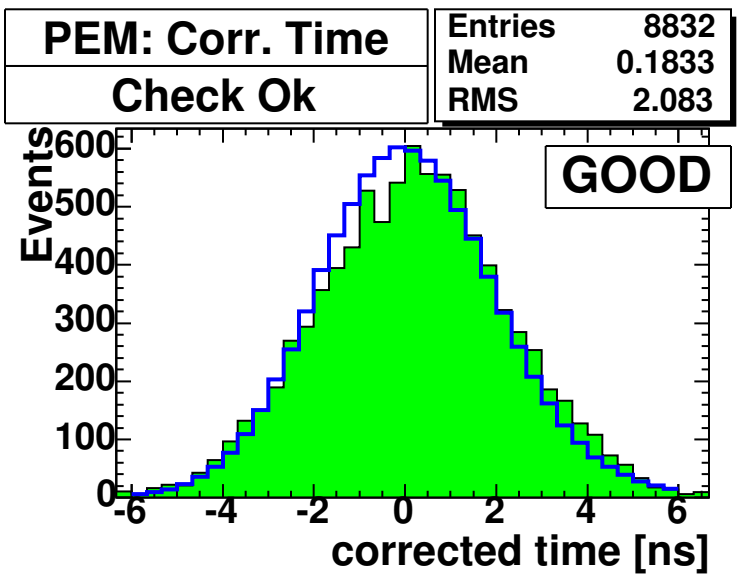
# ObjectMon #4 TimeMonitor EMTDC Timing

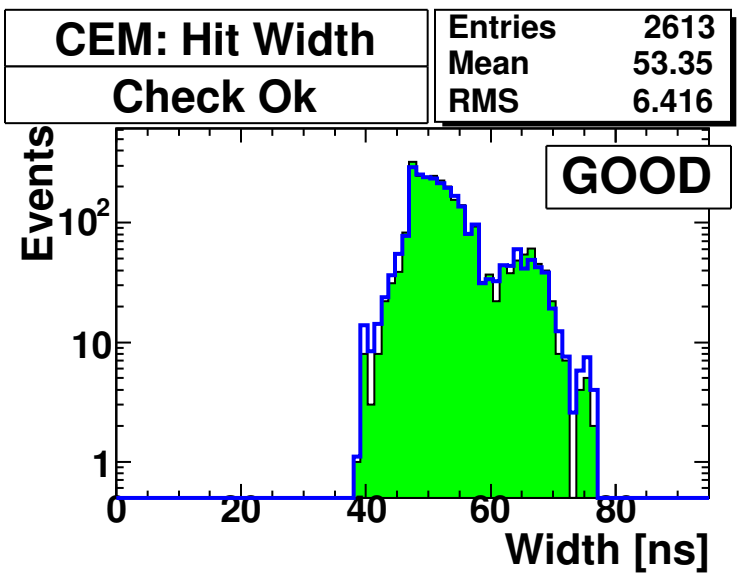
Run:233043 Event: 100616 # of Events:1714 Time: Fri Jan 26 21:42:50 2007 Ref.Run:230010

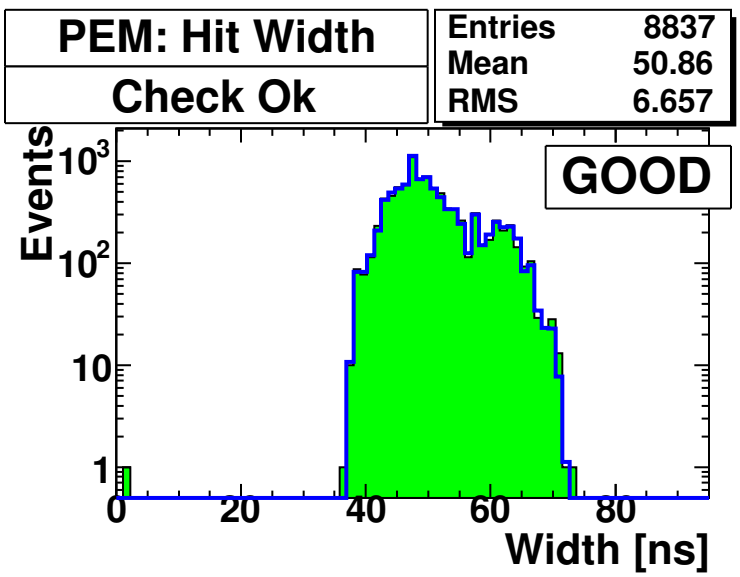


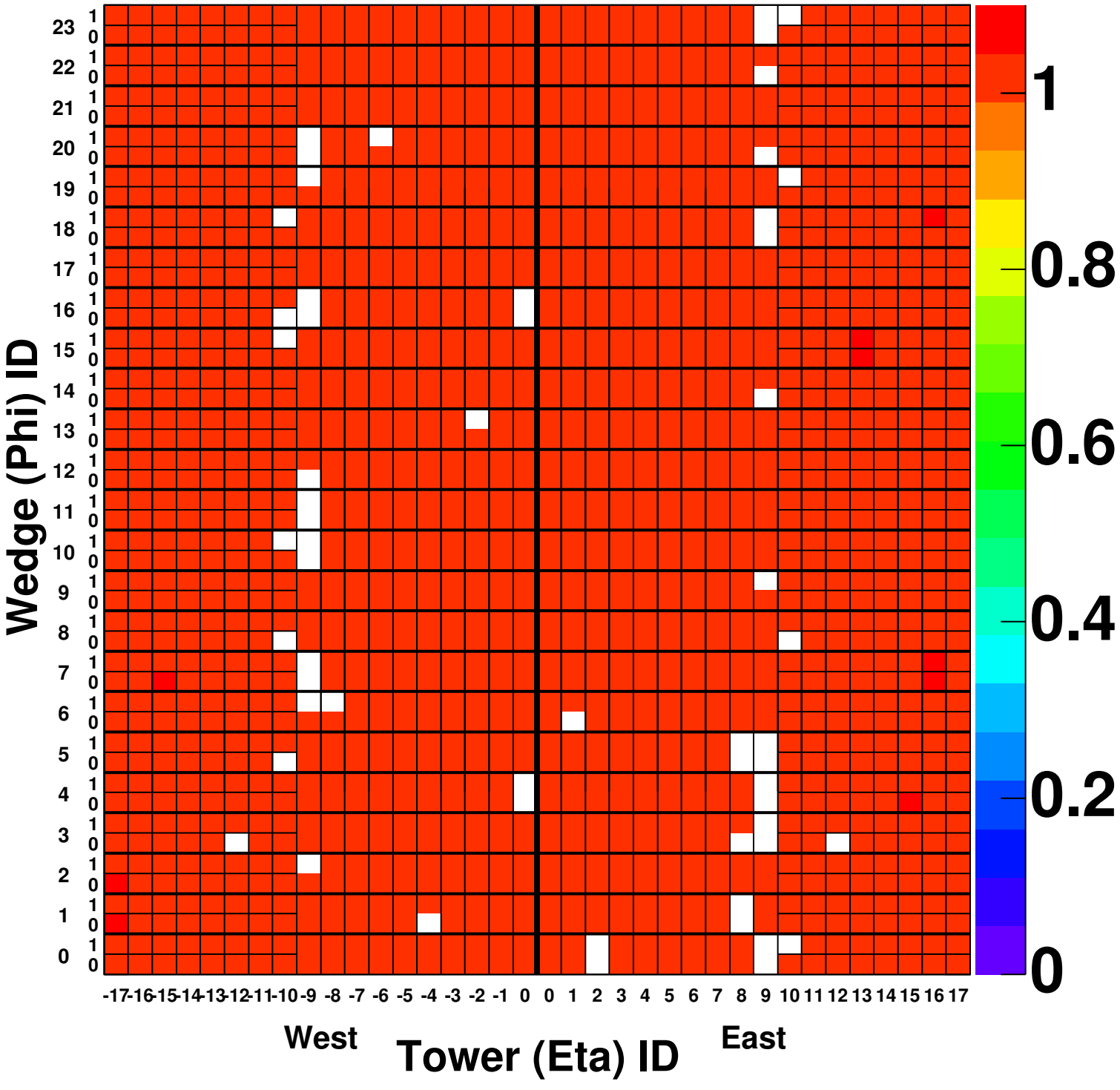
# ObjectMon #8 TimeMonitor EMTD: 100% Eff 2D

Run:233043 Event: 100616 # of Events:1714 Time: Fri Jan 26 21:42:50 2007 Ref.Run:230010

**EMTDC: Eff. of EM Phototubes in 100% range**

**not red are BAD**

**100% Energy range [GeV]:**
**CEM: PMTE ≥ 6.25**
**PEM: PMTE ≥ 3.00**

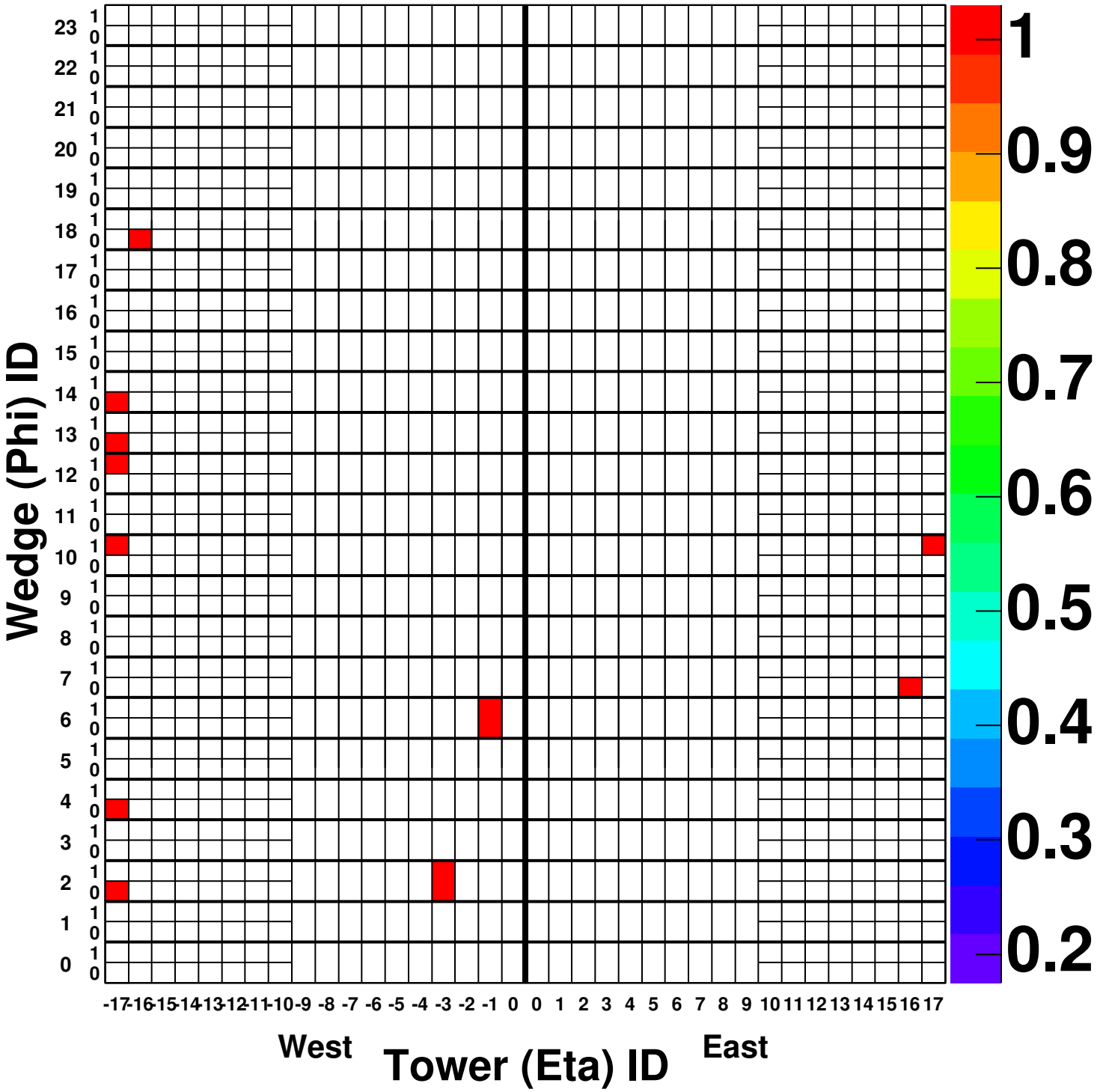


# ObjectMon #22 TimeMonitor EMTD: Fit Efficiency

Run:233043 Event: 100616 # of Events:1714 Time: Fri Jan 26 21:42:50 2007 Ref.Run:230010

## EMTDC: Eff. Fit Plateau
## not red are BAD

**ASD Time Window is**
**520 ns < $t_0$ < 660 ns**

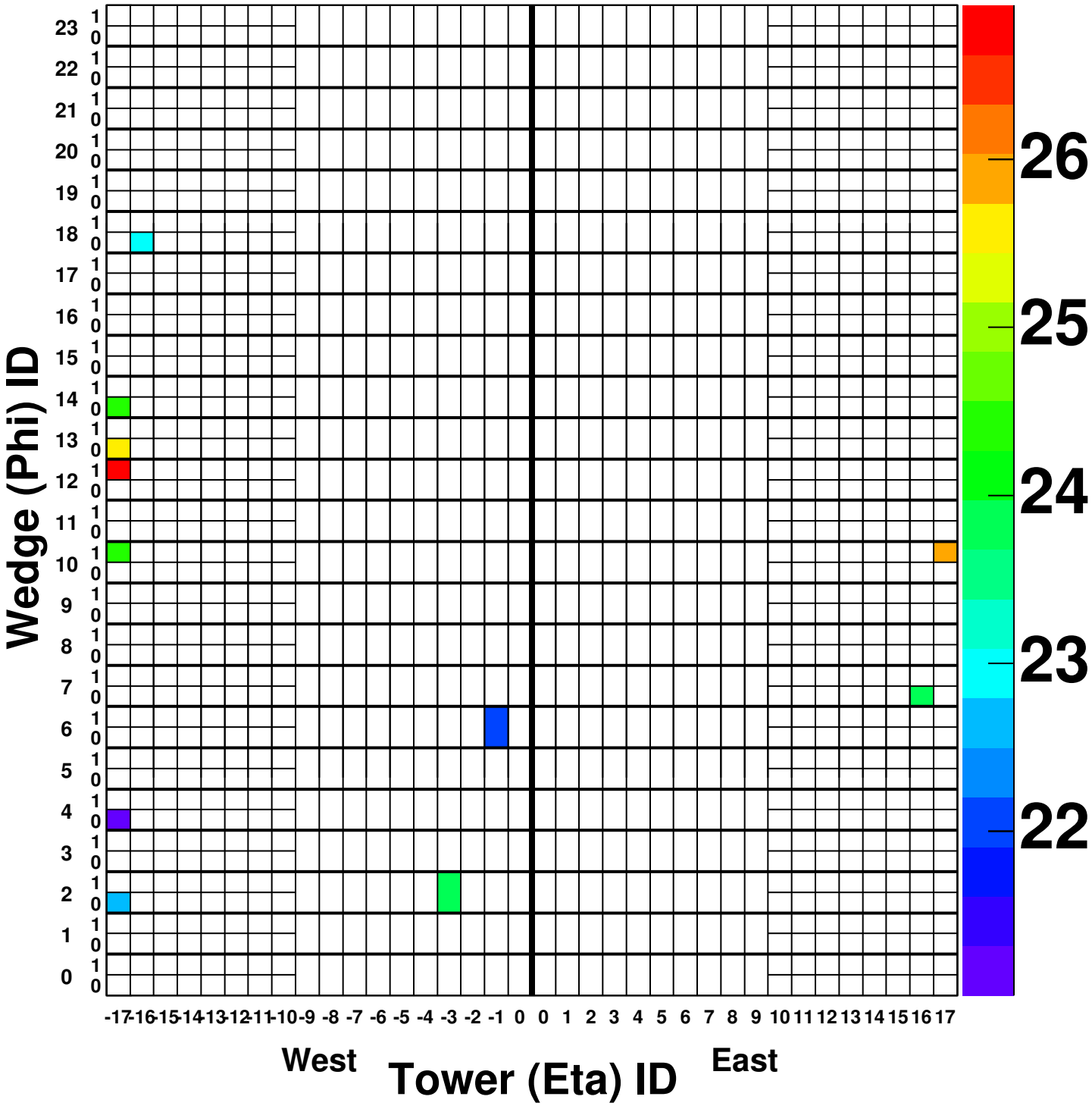


# ObjectMon #20 TimeMonitor EMTD: Thresholds

Run:233043 Event: 100616 # of Events:1714 Time: Fri Jan 26 21:42:50 2007 Ref.Run:230010

## EMTDC: 50% Thresholds
## red - BAD

ASD Time Window is
520 ns < $t_0$ < 660 ns
units for CEM: ADC counts * 0.01
units for PEM: ADC counts * 0.044



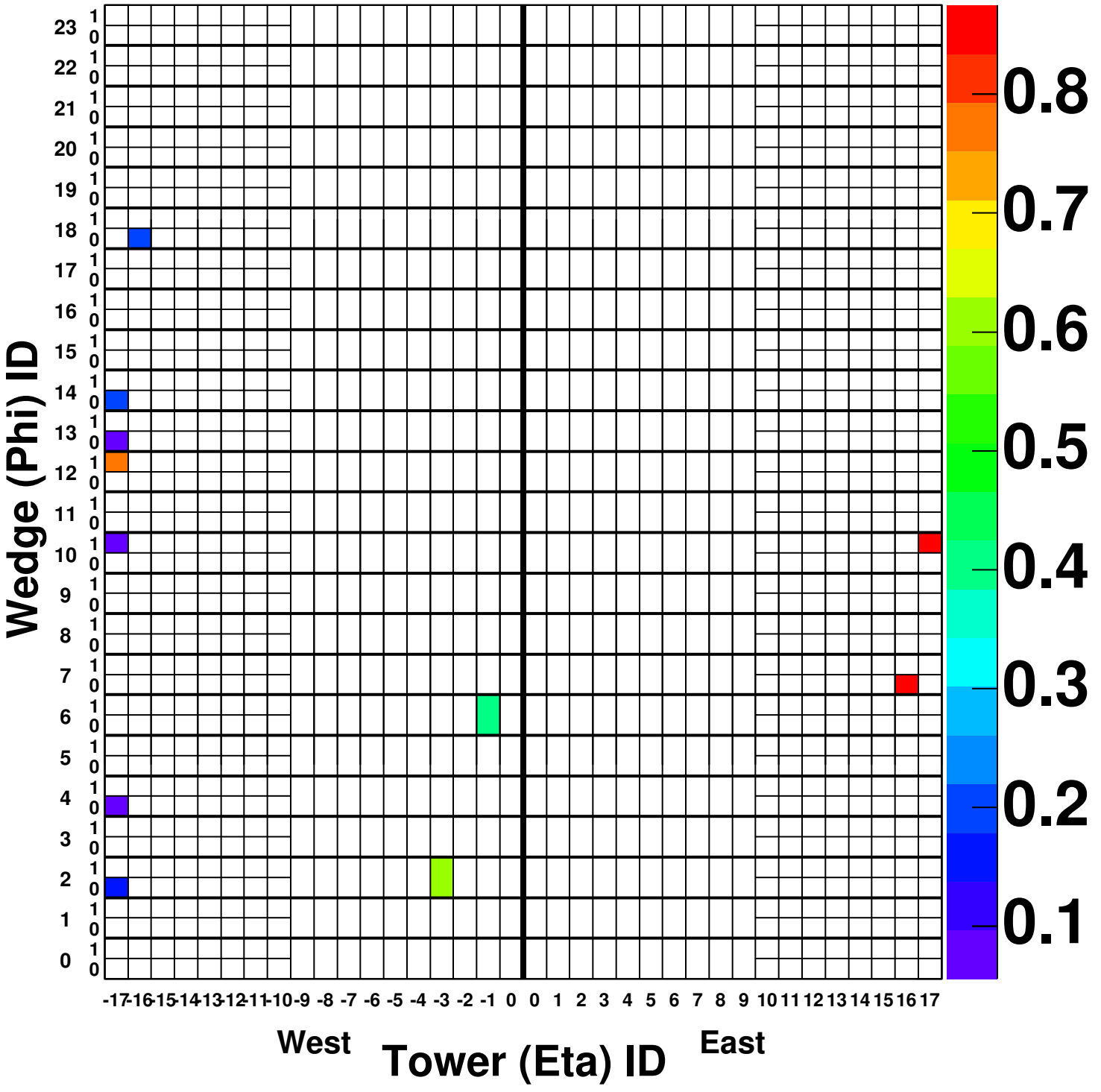
# ObjectMon #21 TimeMonitor EMTD: Threshold Sigma

Run:233043 Event: 100616 # of Events:1714 Time: Fri Jan 26 21:42:50 2007 Ref.Run:230010

## EMTDC: Threshold Width

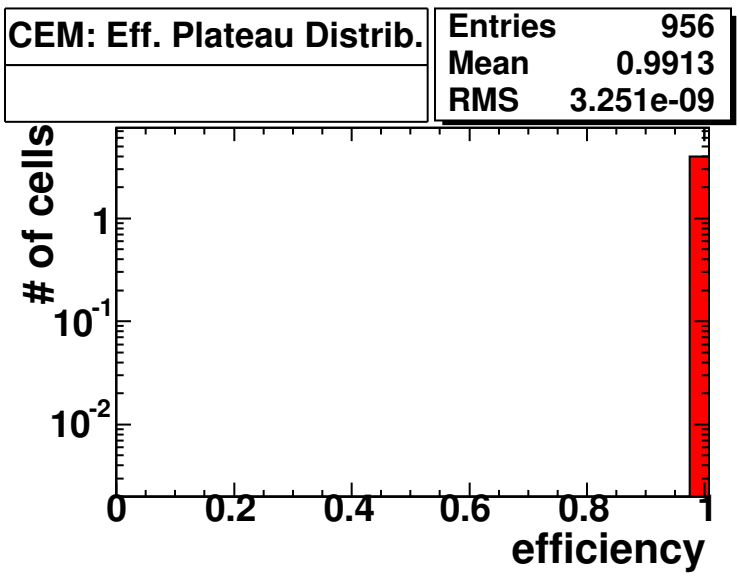
red - BAD

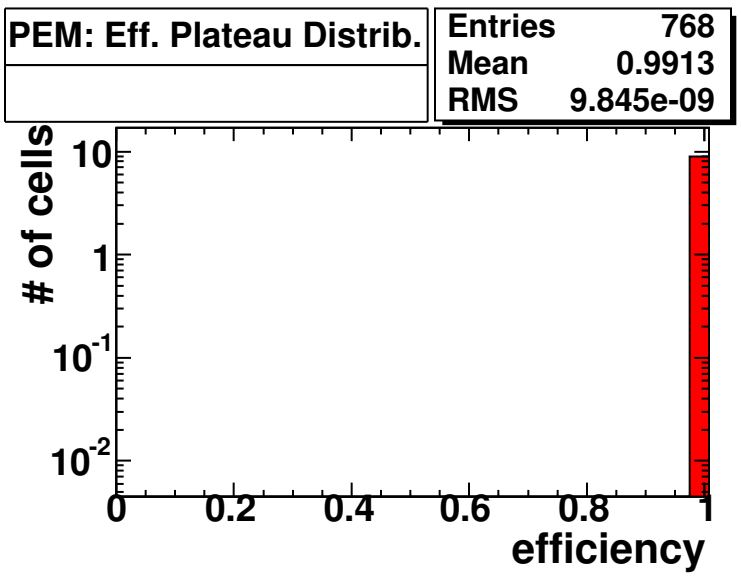
ASD Time Window is
520 ns < $t_0$ < 660 ns
units for CEM: ADC counts * 0.01
units for PEM: ADC counts * 0.045

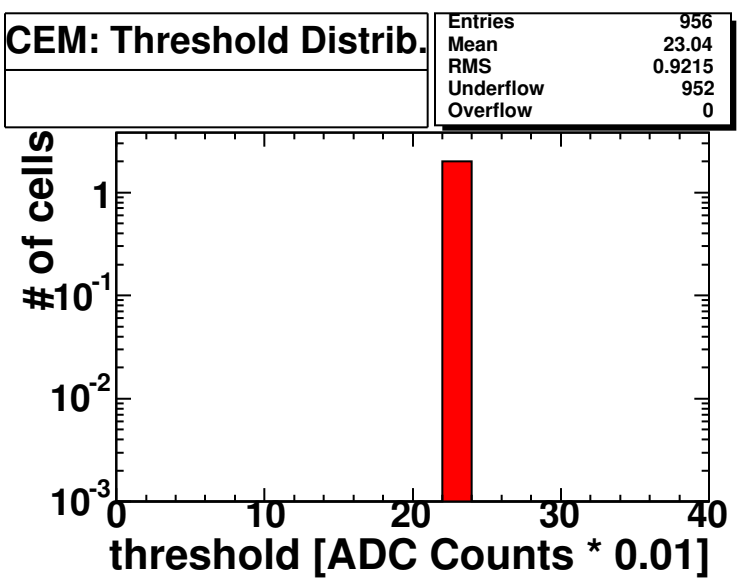


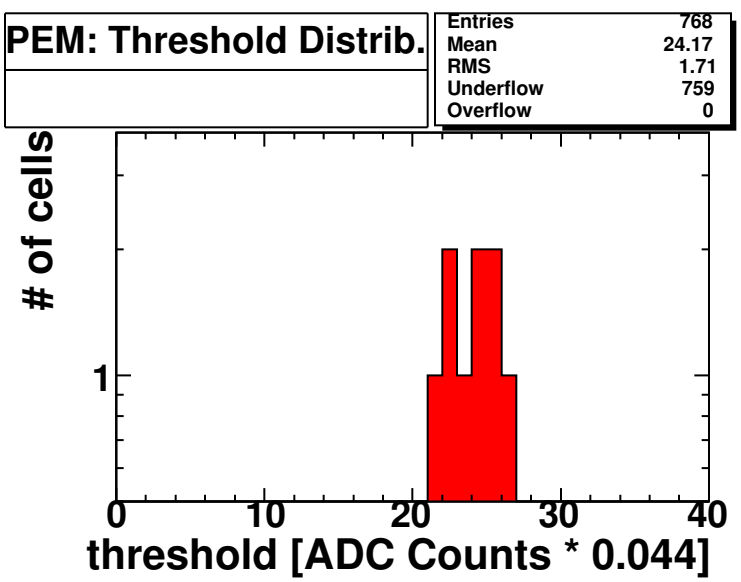
# ObjectMon #9 TimeMonitor EMTD: Thresh., Eff. and Sigmas

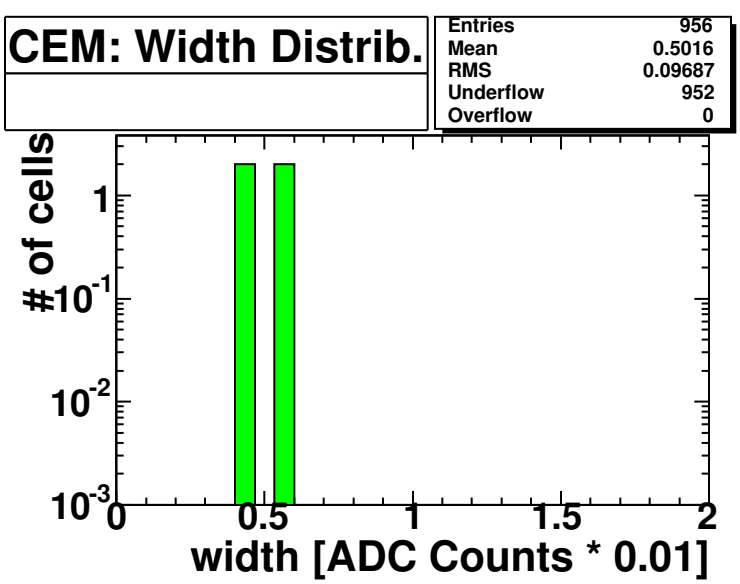
Run:233043 Event: 100616 # of Events:1714 Time: Fri Jan 26 21:42:50 2007 Ref.Run:230010

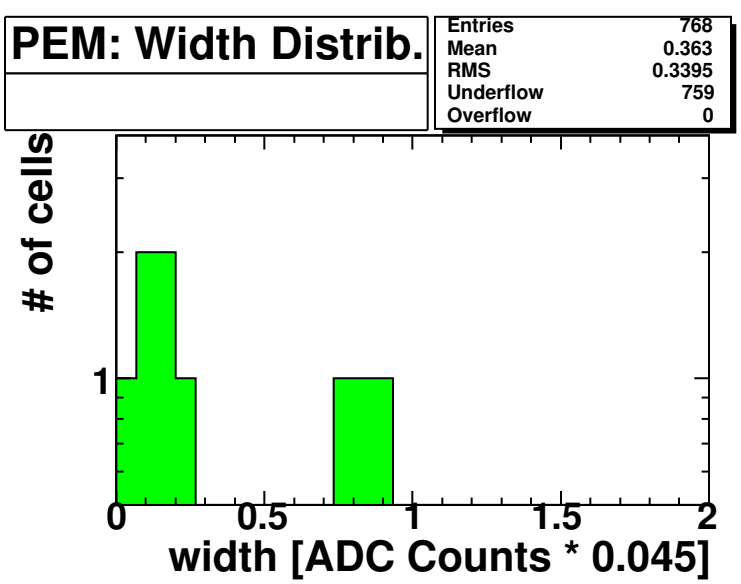


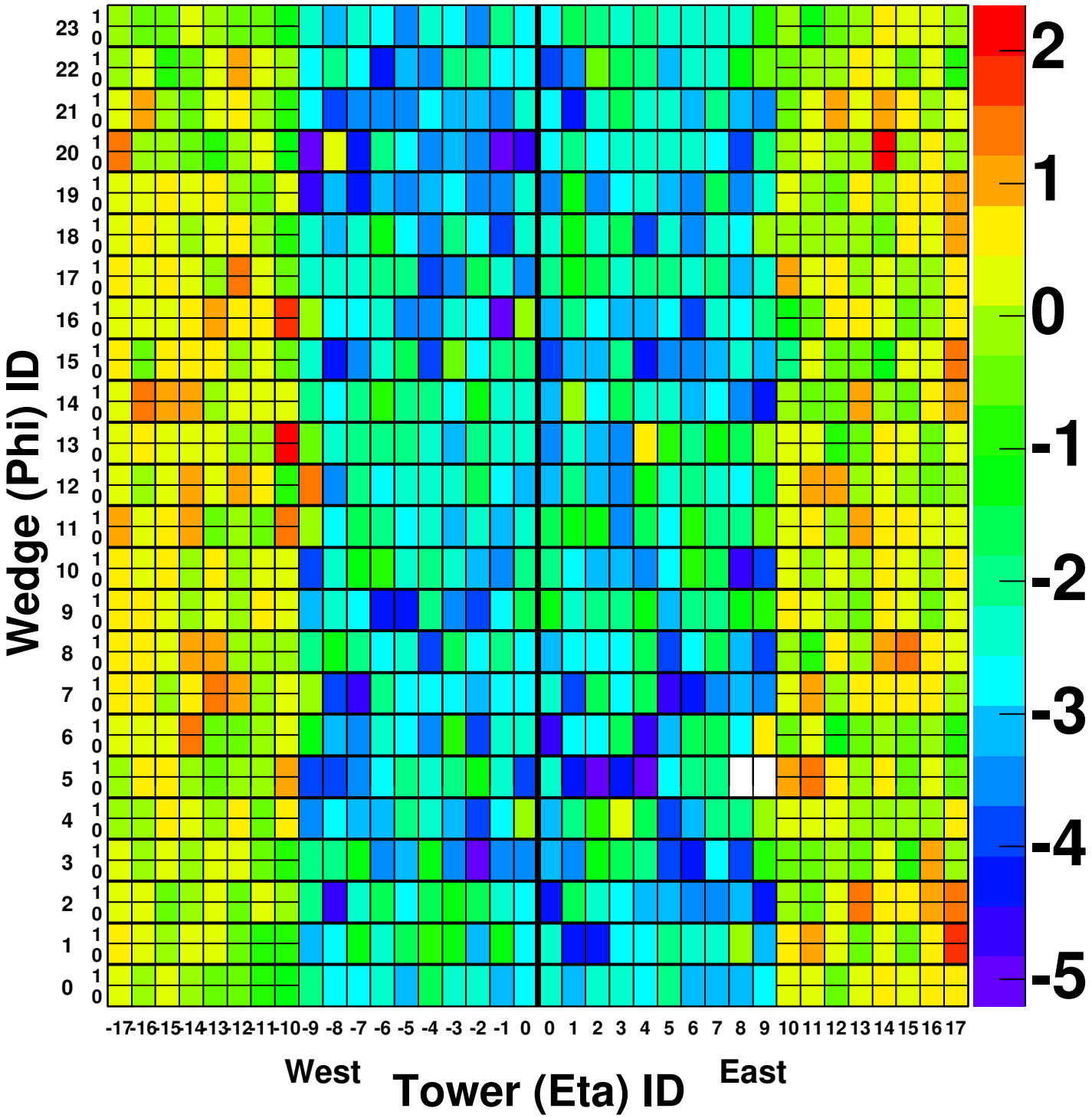
# ObjectMon #12 TimeMonitor EMTD: Mean Corrected t0

Run:233043 Event: 100616 # of Events:1714 Time: Fri Jan 26 21:42:50 2007 Ref.Run:230010

## EMTDC: Mean Corrected $t_0$

purple or red - problems

ASD Time Window is
520 ns < $t_0$ < 660 ns
Eeven+Eodd > 0.20 GeV
$|t_{0corr}|$<15.0 ns



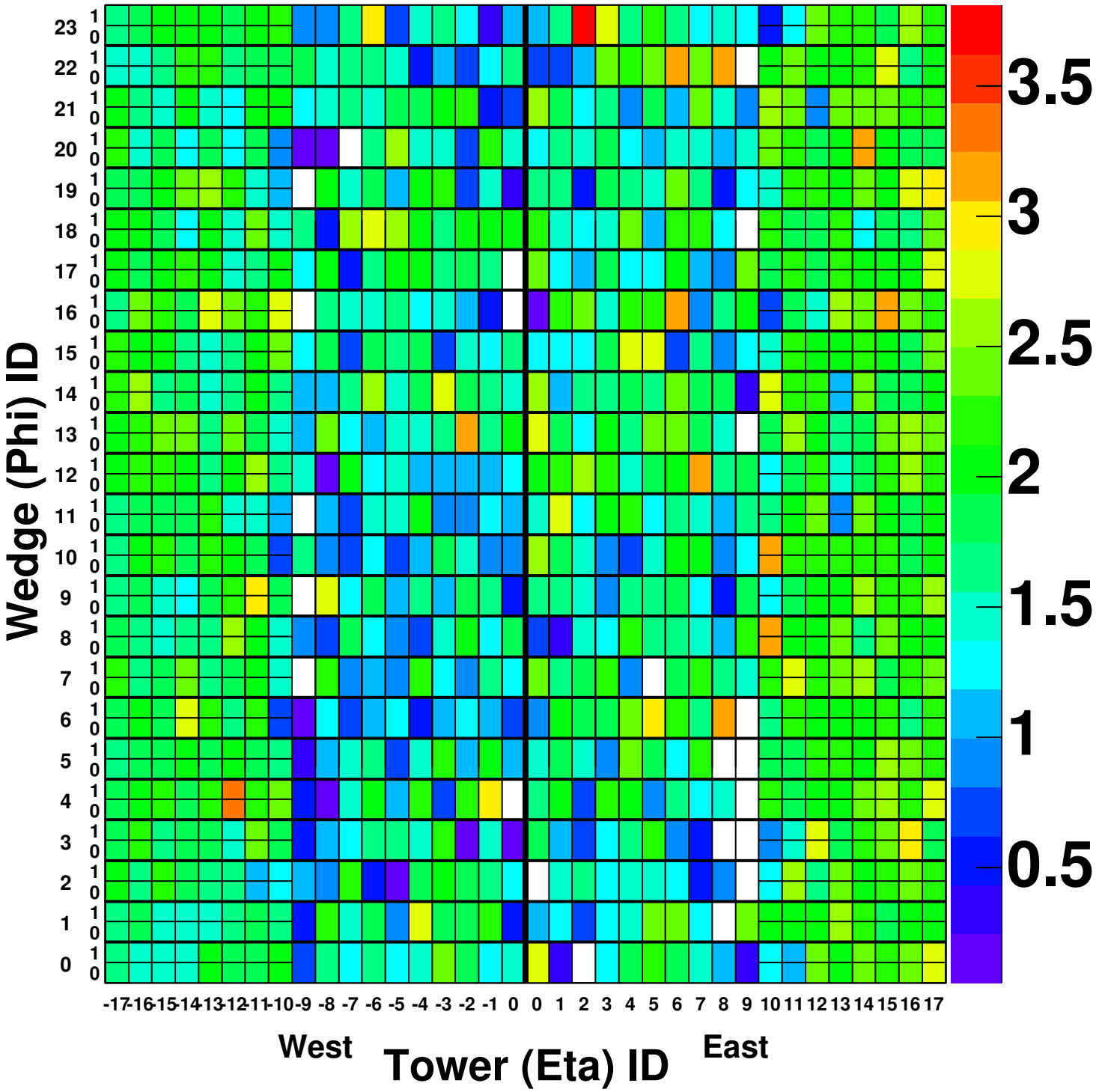
# ObjectMon #13 TimeMonitor EMTD: RMS for Corrected t0

Run:233043 Event: 100616 # of Events:1714 Time: Fri Jan 26 21:42:50 2007 Ref.Run:230010

## EMTDC: Corrected $t_0$ RMS

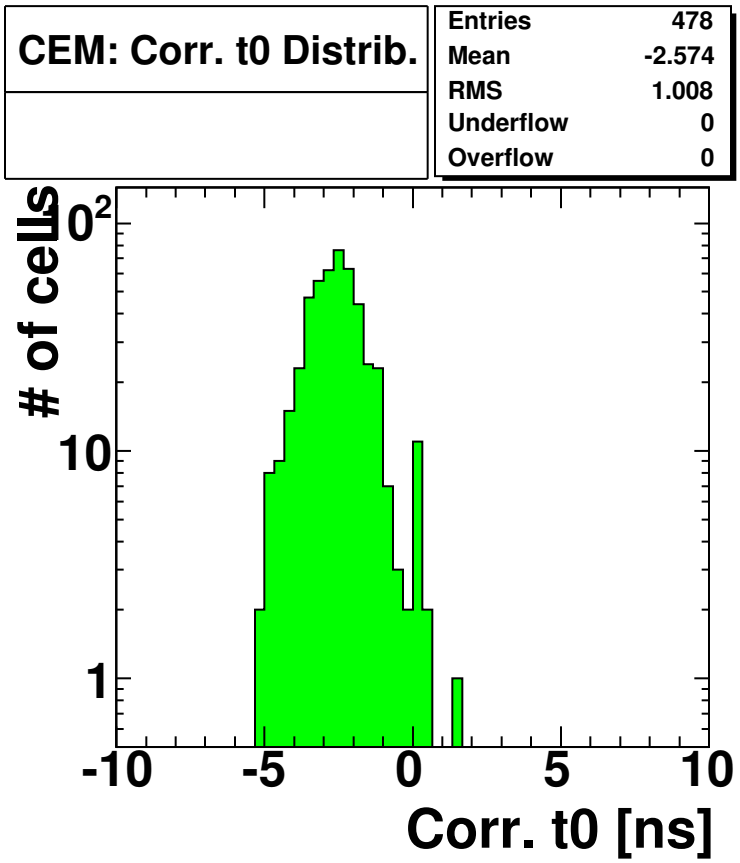
## purple or red - problems

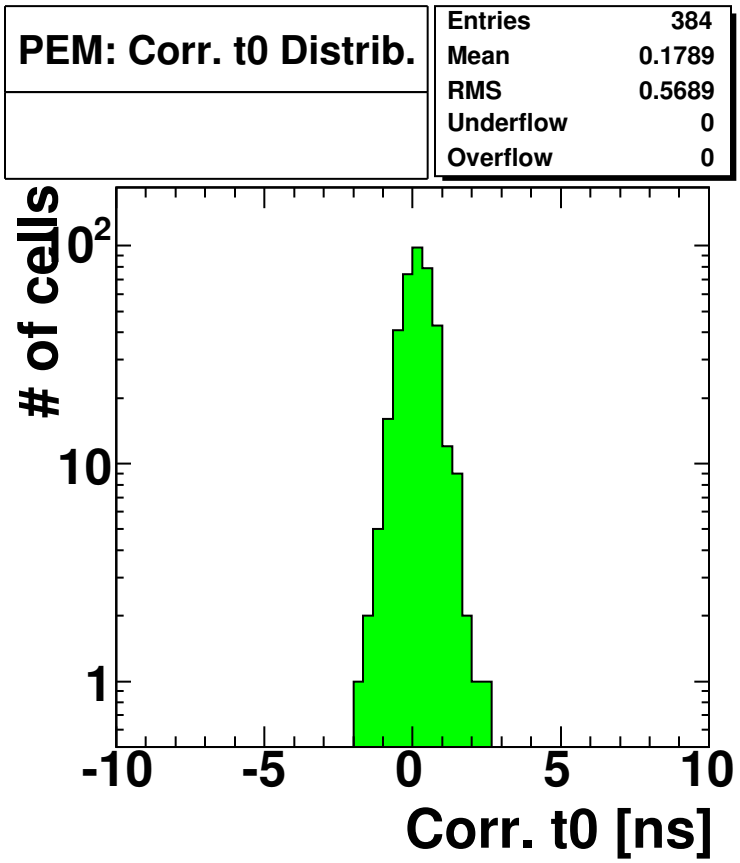
ASD Time Window is
520 ns < $t_0$ < 660 ns
Eeven+Eodd > 0.20 GeV
$|t_{0corr}|$<15.0 ns

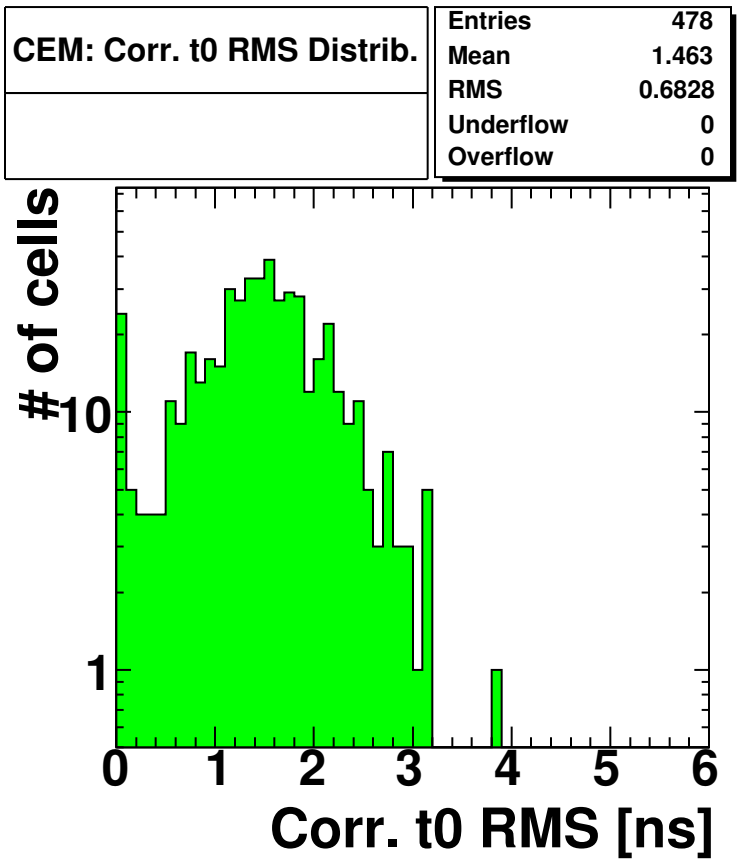


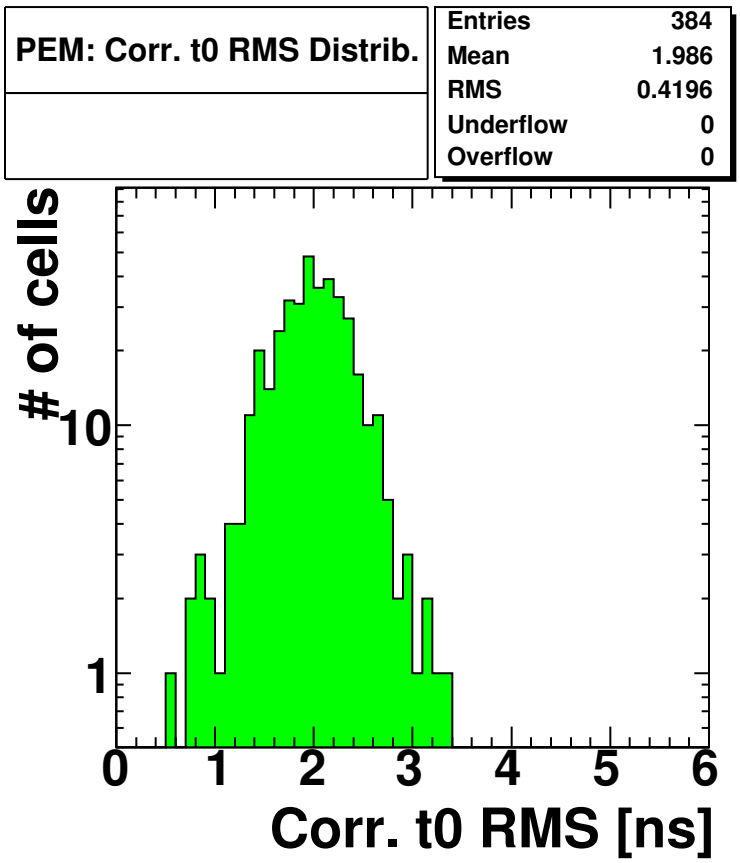
# ObjectMon #14 TimeMonitor EMTD: Corrected t0 and RMS

Run:233043 Event: 100616 # of Events:1714 Time: Fri Jan 26 21:42:50 2007 Ref.Run:230010



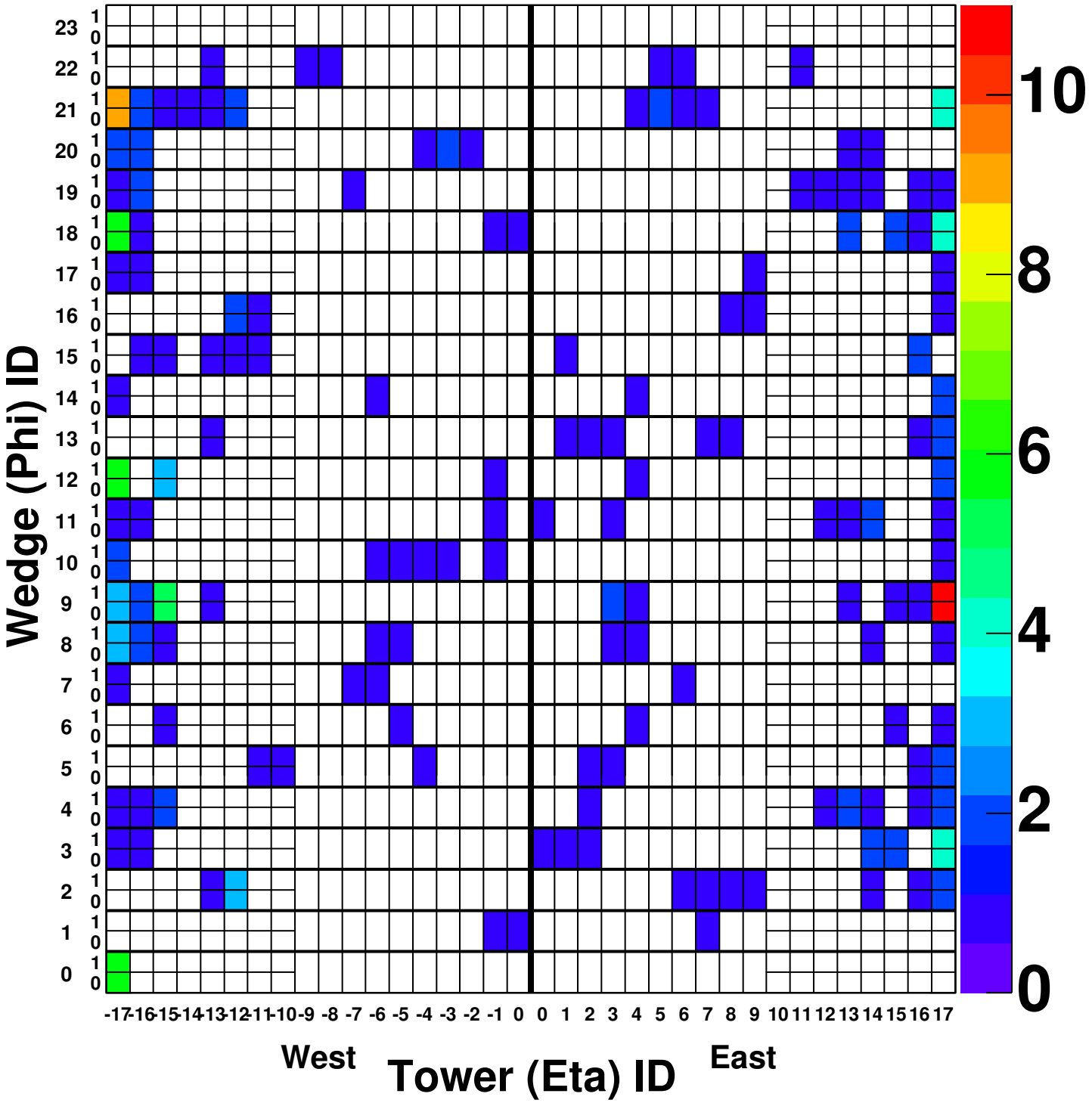
# ObjectMon #18 TimeMonitor EMTD: Corr. t0 Far From Mean

Run:233043 Event: 100616 # of Events:1714 Time: Fri Jan 26 21:42:50 2007 Ref.Run:230010

## EMTDC: Hits Far From Corr. <t0>

## potential problems are colored

ASD Time Window is
520 ns < $t_0$ < 660 ns
Eeven+Eodd > 0.2 GeV
$|t_{0corr}|$>15.0 ns



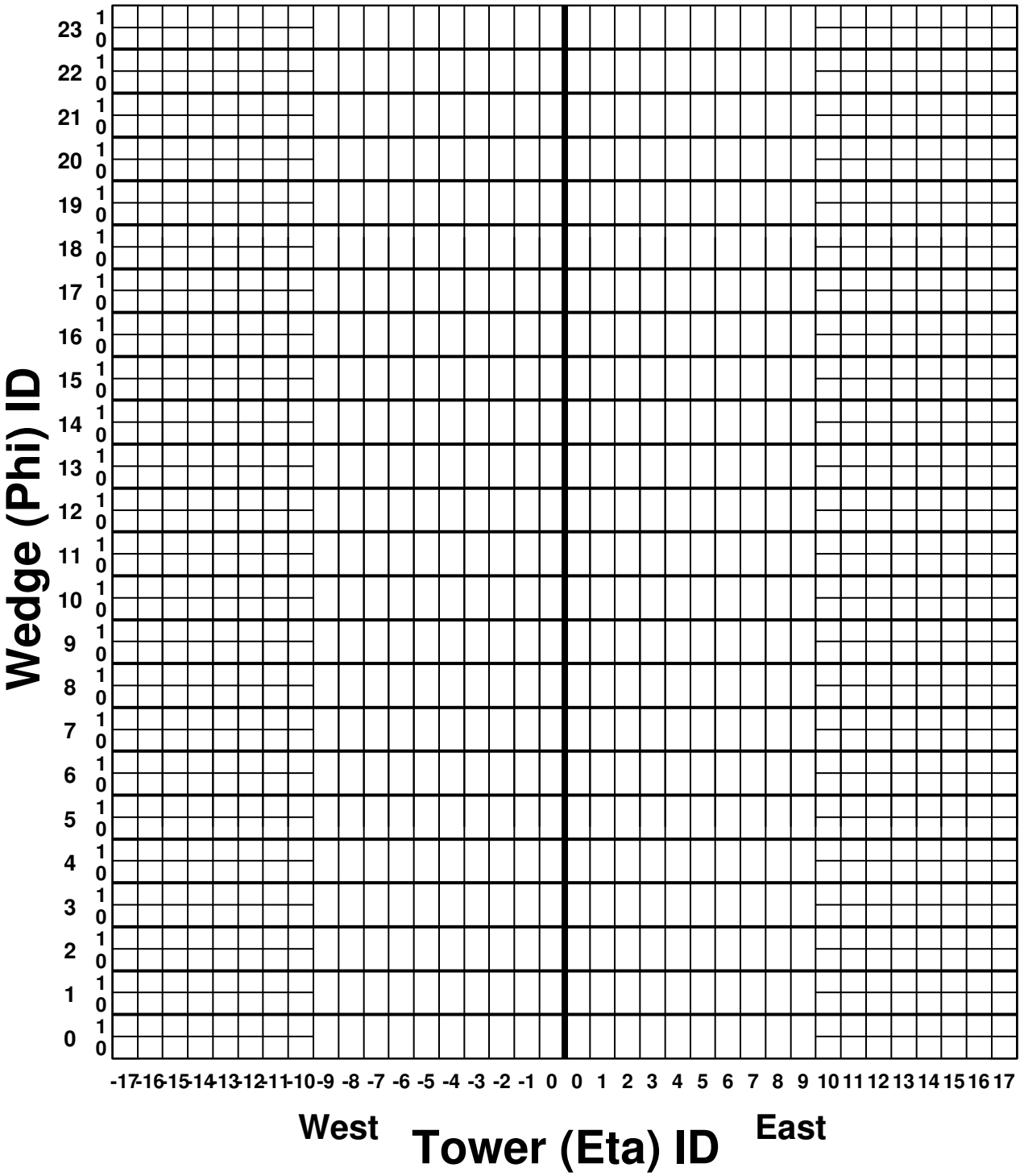
# ObjectMon #15 TimeMonitor EMTD: Fake Firings

Run:233043 Event: 100616 # of Events:1714 Time: Fri Jan 26 21:42:50 2007 Ref.Run:230010

## EMTDC: Fake Firings Occupancy

potential problems are colored

Energy range [GeV]:
Eeven+Eodd < 0.20
ASD Time Window is
520 ns < $t_0$ < 660 ns



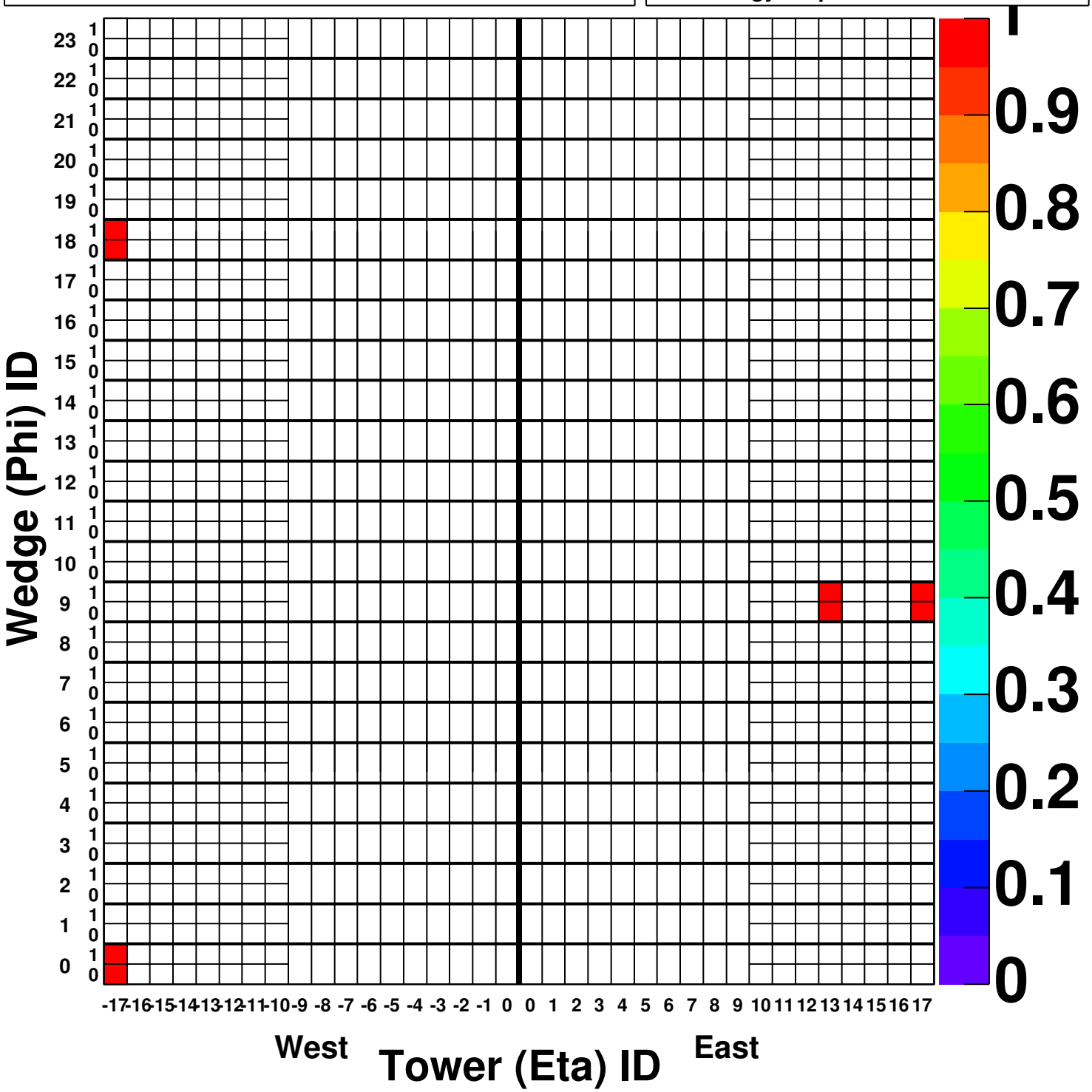
# ObjectMon #17 TimeMonitor EMTD: Multiple Firings & Ok Width

Run:233043 Event: 100616 # of Events:1714 Time: Fri Jan 26 21:42:50 2007 Ref.Run:230010

**EMTDC: Multiply Ok Width Firing Towers**

**potential problems are colored**

ASD Time Window is
520 ns < $t_0$ < 660 ns
20 < Hit width < 200 ns
No Energy Requirement



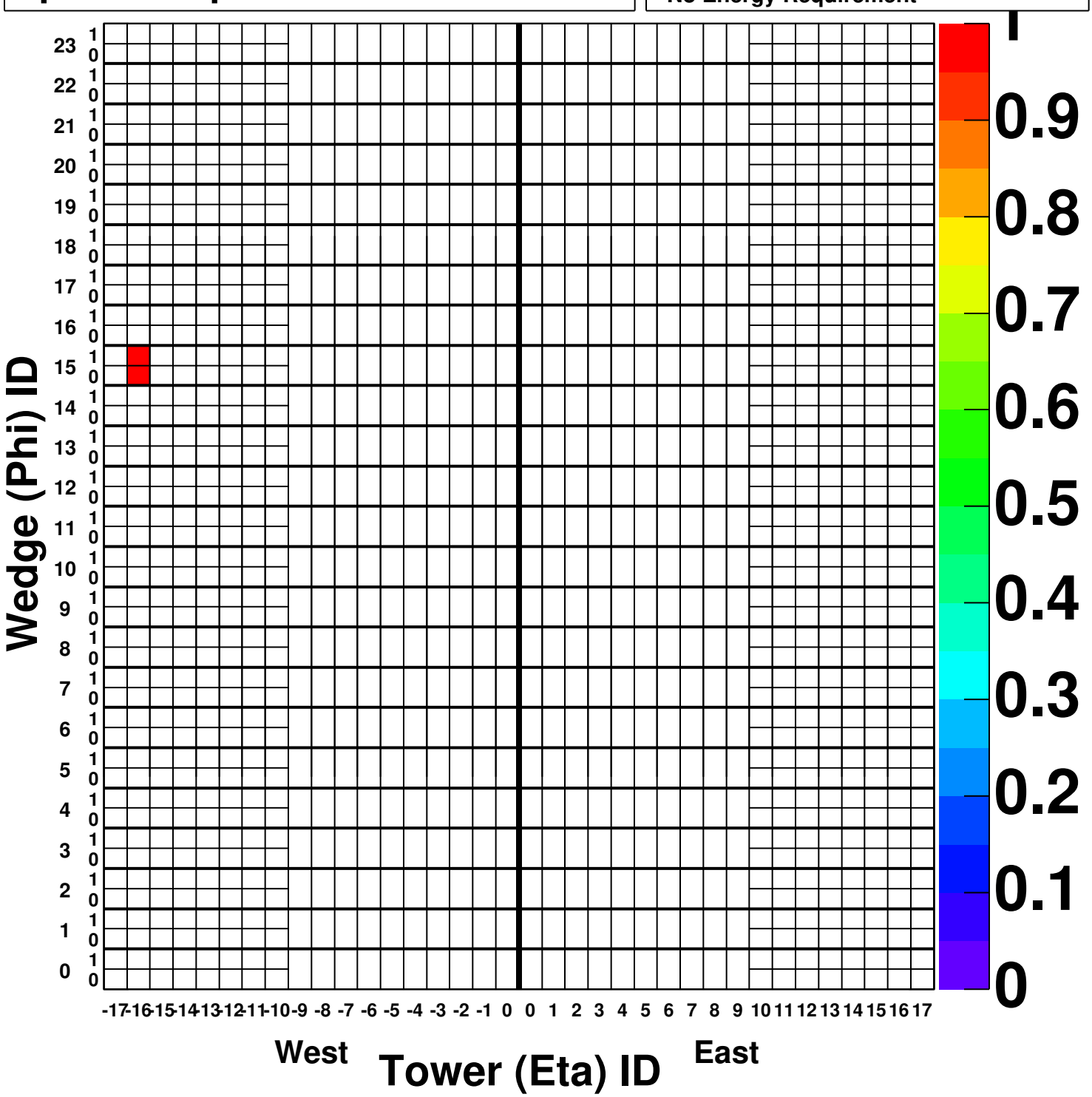
# ObjectMon #16 TimeMonitor EMTD: Multiple Firings & Low Width

Run:233043 Event: 100616 # of Events:1714 Time: Fri Jan 26 21:42:50 2007 Ref.Run:230010

## EMTDC: Low Width Firing Towers

## potential problems are colored

ASD Time Window is
520 ns < $t_0$ < 660 ns
0 < Hit width < 20 ns
No Energy Requirement

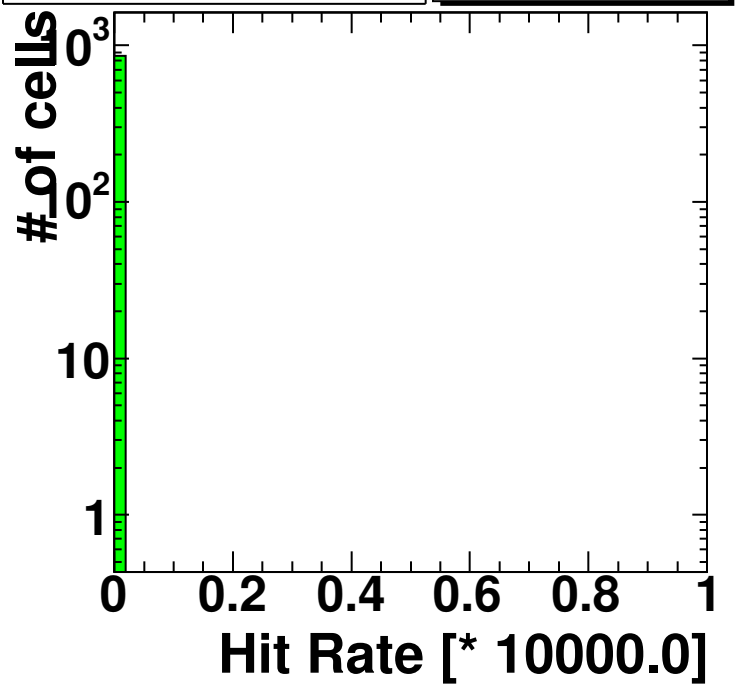


ObjectMon #19 TimeMonitor EMTD: Fakes, Low Width and OOT Hits & Mult. Firings

Run:233043 Event: 100616 # of Events:1714 Time: Fri Jan 26 21:42:50 2007 Ref.Run:230010

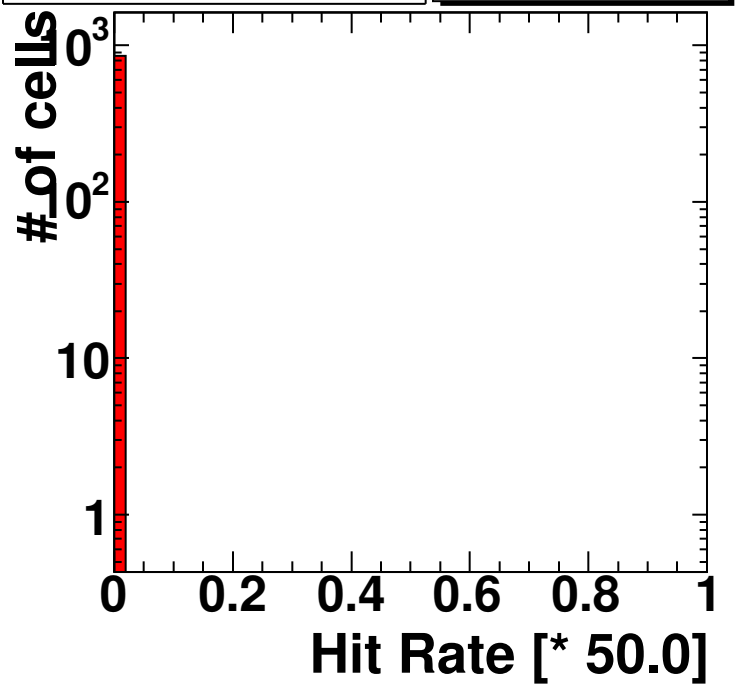
## Fake Firing Rate

| | |
|---|---|
| Entries | 862 |
| Mean | 0 |
| RMS | -0 |
| Underflow | 0 |
| Overflow | 0 |



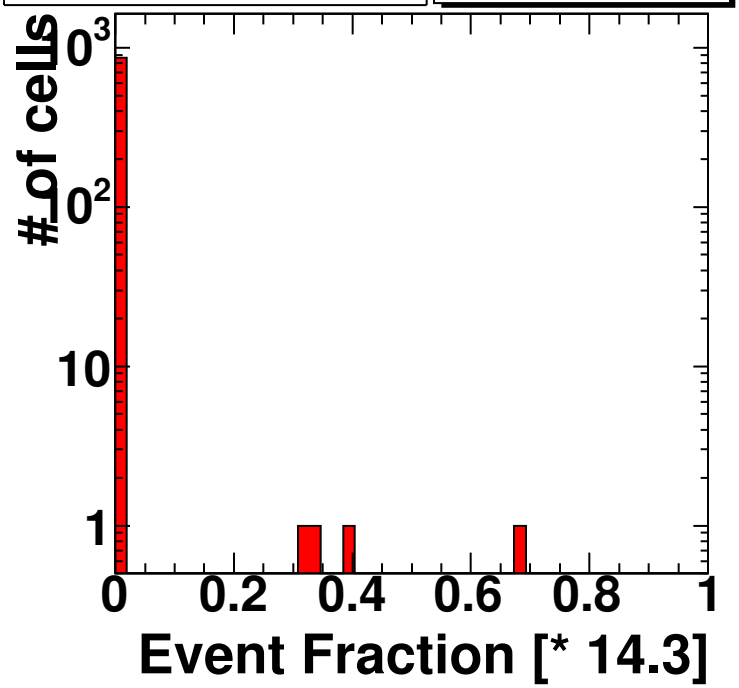

## Low Wid. Firng. Rate

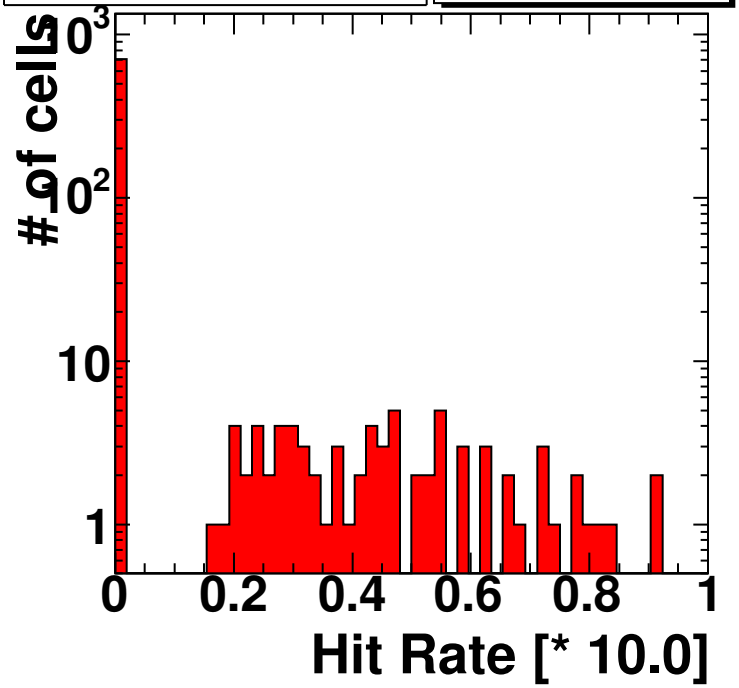
| | |
|---|---|
| Entries | 862 |
| Mean | 0 |
| RMS | -0 |
| Underflow | 0 |
| Overflow | 1 |




## Mult. Ok-Wid. Firng. Rate

| | |
|---|---|
| Entries | 862 |
| Mean | 0.00014 |
| RMS | 0.002165 |
| Underflow | 0 |
| Overflow | 0 |




## OOT Hit Rate

| | |
|---|---|
| Entries | 862 |
| Mean | 0.004393 |
| RMS | 0.01474 |
| Underflow | 0 |
| Overflow | 80 |