



SIGNAL PROCESSING

Attributes

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Introduction

Signal Processing Attributes are used by Manitou to define standards for signal processing and automated actions. Many attributes work in pairs. This guide will define and explain each attribute and its use.

A - Line Fault

Events with this attribute set the Line Fault condition on the Zone status form for that transmitter.

B - Line Restore

Events with this attribute set the Line Restore condition and removes the fault from the Zone status form for that transmitter.

C - Opening

Events with this attribute set the event's related area to the state of Open/Disarmed. This attribute should be on all events that should change the area status, when received, to Open.

D - Unexpected Opening

Events with this attribute set the event's related area to the state of Open/Disarmed and update the event to Unexpected when applicable. Unexpected Openings are generated when the area submitted is already flagged as Open.

E - Early or Late Opening

Events with this attribute set the event's related area to the state of Open/Disarmed and update the event to Early or Late when applicable. Early or Late Openings are generated when the area submitted has a schedule where the time of the event is in proximity to the acceptable schedule. The time period for this is defined in the Options form.

F - Closing

Events with this attribute set the event's related area to the state of Closed/Armed. This attribute should be on all events that should change the area status, when received, to Close.

G - Unexpected Closing

Events with this attribute set the event's related area to the state of Closed/Armed and update the event to Unexpected when applicable. Unexpected Closings are generated when the area submitted is already flagged as Closed.

H - Early or Late Closing

Events with this attribute set the event's related area to the state of Closed/Armed and update the event to Early or Late when applicable. Early or Late Closings are generated when the area submitted has a schedule where the time of the event is in proximity to the acceptable schedule. The time period for this is defined in the Options form.

I - Network Failure

Events with this attribute qualify the "A" and "J" characters to mean Network Failure instead of a normal Comms Failure.

J - System Test Condition

Events with this attribute signify a routine System Test condition. Do not use for periodic Transmitter Test events.

K - Transmitter Test

Events with this attribute signify a routine Transmitter Test condition. Any event that should update the transmitter test intervals must have this attribute.

L - Fire Test
Events with this attribute signify a routine Fire Test condition.

M - Unexpected Fire Test

Events with this attribute qualify the “L” character to signify that this event should be modified to an Unexpected Fire Test, if appropriate, such as received at a time not previously scheduled. This does require the use of General Schedules.

N - Executive Protection

Events with this attribute signifies a routine Executive Protection signal was sent in during specific hours. This does require the use of General Schedules.

O - Restore Required

Events with this attribute define that the event requires a restore and sets the Zone Status form, in the Customer Record, to unrestored.

P - Restore Capable

Events with this attribute signifies that the event may restore a single zone.

Q - Restore All Zones

Events with this attribute signifies that the event may restore a all zones in an area.

R - Restore All Zones for the Event Category

Events with this attribute signifies that the event may restore a all zones in the event's category, such as Fire.

S - Open All Areas

Events with this attribute are empowered to open all areas on a System instead of just the one area received. This is often used on the event code “OG” for a Group Opening.

T - Close All Areas

Events with this attribute are empowered to close all areas on a System instead of just the one area received. This is often used on the event code “CG” for a Group Closing.

U - User Event

Events with this attribute are empowered to change the zone number received to a User Number.

V - Bypass

Events with this attribute are empowered to change the zone number received to a User Number.

W - Trouble

Events with this attribute signify a Trouble condition and set the Zone Status on the customer record unitl restored.

Y - Trouble Restore

Events with this attribute signify a Trouble condition restored and removes the Zone Status on the customer record.

Z - Non-receivable

Events with this attribute signify the event may only be internally generated by the system. This can be used on events operators may need to send in manually for specific processing.

1 - Transmitter not significant

Events with this attribute signify the transmitter is not relevant to this event, and will, therefore, not display. Use this attribute carefully. This will effect the signal's ability to utilize Transmitter or Customer signal translations in programming.

2 - Area not significant

Events with this attribute signify the area is not relevant to this event, and will, therefore, not display. Use this attribute carefully. This will effect the signal's ability to utilize Transmitter or Customer signal translations in programming.

3 - Zone not significant

Events with this attribute signify the zone is not relevant to this event, and will, therefore, not display. Use this attribute carefully. This will effect the signal's ability to utilize Transmitter or Customer signal translations in programming.

4 - Reserved - not in use

This attribute is not currently configured for use.

a - Duress

Events with this attribute signify the event is a Duress condition. This should be used on events that relate to personal safety.

b - Reserved - not in use

This attribute is not currently configured for use.

c - Cancel by Restore

Events with this attribute signify the event may be canceled by a zone restore, provided the signal was generated as a result of an activation on the zone/transmitter in question and the customer has the "Auto Cancel" checkbox enabled. The most important factor here is that if this attribute is on an event the Customer record must have the checkbox enabled. The attribute has no effect on any signals on records where this checkbox is disabled.

d - Can be Cancelled

Events with this attribute signify the event may be canceled by an "abort-type" event providing the customer's Ignore Aborts option is disabled. "Abort-type" events are Canceling events flagged with the "g" attribute, or others flagged with a cancel property within the Transmitter or Customer programming, provided the "Ignore Aborts" checkbox is disabled on the Customer record.

e - Open event can cancel

Events with this attribute signify the event may be canceled by an “open-type” event providing the “open-type” event is for the same area and the customer’s Ignore Aborts option is disabled. This attribute should be applied to all open events to allow this feature to function. If the “Ignore Aborts” checkbox is disabled on the Customer record, this attribute is ignored.

f - Line Restore can cancel

Events with this attribute signify the event may be canceled by a line restore event providing alarming event as the “A” or “j” attribute. This attribute should be applied to all Line restoring events for this to affect the alarming events.

g - Abort qualifier for d

Events with this attribute qualifies the “d” attribute. The event signifies an abort for canceling alarms with the “d” attribute. The event must come from the same category and area.

h - Open abort qualifier for e

Events with this attribute qualifies the “e” attribute. The event signifies an open-abort for canceling alarms with the “e” attribute.

i - Delete alarm if cancelled

Events with this attribute can, if “c,” “d,” or “e” is true this attribute tells the Signal Handler that the alarm event may be removed automatically from the alarm queue if the alarm is new and suspended. This is necessary for the Signal Handler to remove the alarm from the queue. Pay attention to the AND in this attribute.

j - Line Fault on Line 2

Events with this attribute signals a Line Fault condition on the secondary communication path. This attribute will set the event to unrestored in the Zone status section of the customer record.

k - Restore Line Fault on Line 2

Events with this attribute signals a Line Fault condition restored on the secondary communication path. This attribute will remove the event in the Zone status section of the customer record.

l - Two-trip

Events with this attribute may participate in Two-trip delays. This attribute is rarely applied to events by default. If the Two-trip commands fail to work, this is the most common reason why.

m - Entry Exit

Events with this attribute may participate in Entry/Exit delays. This attribute is rarely applied to events by default. If the Entry/Exit commands fail to work, this is the most common reason why.

n - Delete alarm if cancelled

Events with this attribute can, if “c,” “d,” or “e” is true this attribute tells the Signal Handler that the alarm event may be removed automatically from the alarm queue if the alarm is new or new/suspended. This is necessary for the Signal Handler to remove the alarm from the queue. Pay attention to the OR in this attribute.

o - Low Battery

Events with this attribute signify the event represents a Low battery or Battery Trouble condition in the Customer record Zone Status form.

p - Low Battery Restore

Events with this attribute signify the event represents a Low battery or Battery Trouble condition restored and updates the Customer record Zone Status form.

q - Time based billing

Events with this attribute flag the event for use for operator time-based billing.

r - Check-in

Events with this attribute qualifies the event as a check-in signal.

s - Final Check-in

Events with this attribute qualifies the event as a final check-in signal.

t - Secondary Transmitter Test

Events with this attribute signifies that the event is notifying of a Secondary Transmitter Test condition. The transmitter where this applies is the first one found if the signal is redirected to another system on the SAME customer.

u - Reserved

This attribute is not currently in use.

v - Confirmed Alarm

Events with this attribute flag the event as Confirmed (verified) for processing purposes,

w - Multiple alarms of this event allowed (TX) - Not Implemented

Events with this attribute signifies that multiple alarms of this event are allowed, provided the transmitter number is different for each. This is not currently implemented.

x - Multiple alarms of this event allowed (Area) - Not Implemented

Events with this attribute signifies that multiple alarms of this event are allowed, provided the area number is different for each. This is not currently implemented.

y - Multiple alarms of this event allowed (Zone) - Not Implemented

Events with this attribute signifies that multiple alarms of this event are allowed, provided the zone number is different for each. This is not currently implemented.

w - Multiple alarms of this event allowed (TX and Zone) - Not Implemented

Events with this attribute signifies that multiple alarms of this event are allowed, provided the transmitter and zone number is different for each. This is not currently implemented.

Paring of Signal Processing Attributes

Signal Processing Attributes generally work in pairs or groups. Some common groupings are:

- **A & B** and **j & k** are used for Line Faults and restore, primary or secondary paths.
- **P, Q, and R** work together for requiring Restore events and identify restoral event attributes.
- **V & W** are Bypass and Unbypass.
- **X & Y** are for Trouble and Trouble restore.
- **C, D, E and F, G, H** qualify Open and Close events and their respective Early, Late, or Unexpected attributes.
- **I** changes **A & j** events from Communication failures to Network Failures.
- **J & K** qualify different Test conditions.
- **S & T** translate Open/Close events to affect all areas instead of the area contained in the signal.
- **Z** is used for an event that a receiver, or other external event, would not send to Manitou.
- **1, 2, and 3** tell the Signal Handler to ignore the Transmitter, Area, or Zone.
Use this with caution as it may prevent the Signal Handler from accounting for translations in customer or transmitter programming.
- **c, d, e,** and **f** allow alarm events to be canceled by a restoring, or canceling event.
- **g, h, i, and n** all restoring, or canceling, events to clear the alarm from the alarm queue

As in all things, it is always important to review and plan where these attributes are the best fit within your operations. Remember, these apply across the board when applied to event codes. Be careful when removing attributes as well. Remember an Open, or Close, event must know that it is and Open or Close event in order to update the Open/Close status on an area. Removing this attribute will result in Late to Open, or Close, events as the Signal Handler cannot assess the area state.