MANITOU® SOFTWARE | BOLD GROUP

SIGNAL PROCESSING

Understanding Signaling in Manitou

LEGACY USER GUIDE

© 2026 BOLD GROUP | MANITOU

Introduction

This document details how to read the raw signals presented to Manitou and how they process through the Signal Handling process. This documentation details basics of common signaling formats. For more information about specific signals, please see the receiver documentation. If you would like to add additional signals to this document, please submit a detailed description and breakdown to BoldU@boldgroup.com.

Types of Signals

Every signal contains some basic format details that our developers wrote, what are called "drivers," for the FEP (Front End Processor), to do basic translations and present that information to the Signal Handler for further processing.

What are Intelligent verses Non-intelligent signals?

Intelligent signals are events that have enough information within their raw signal to provide "what" type of an alarm, or restore, event it is. Examples of intelligent signal formats are: (See Image 1 on the next page)

- Ademco Contact ID (Also known as Contact ID)
- SIA
- DMP

Non-intelligent signals just have enough information to tell you something happened on a zone and require customized signal translations on the customer or transmitter type. (See Image 2 on the next page.)

Image 1

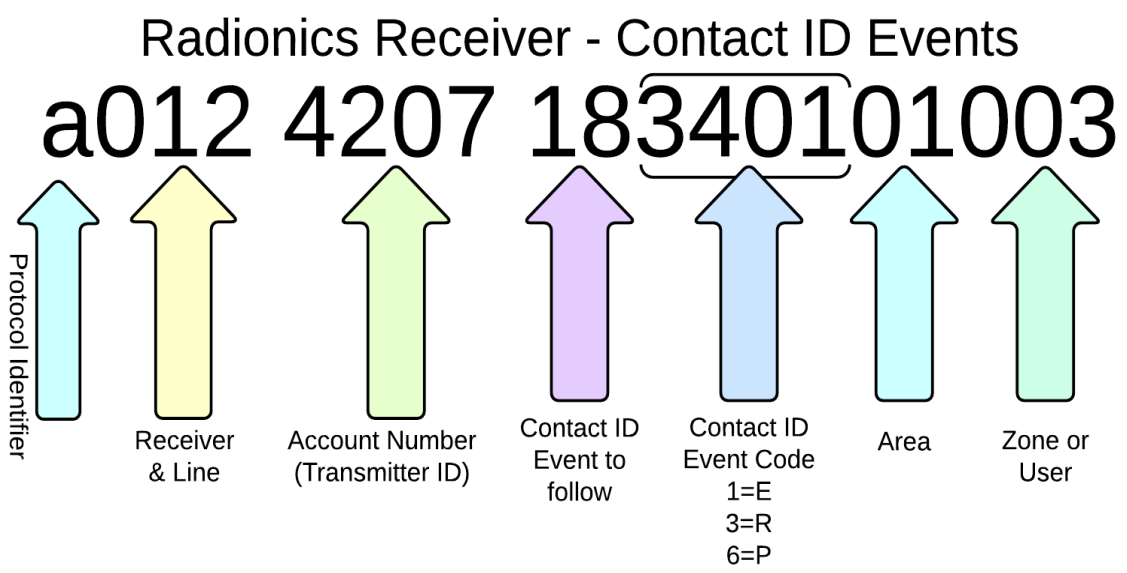
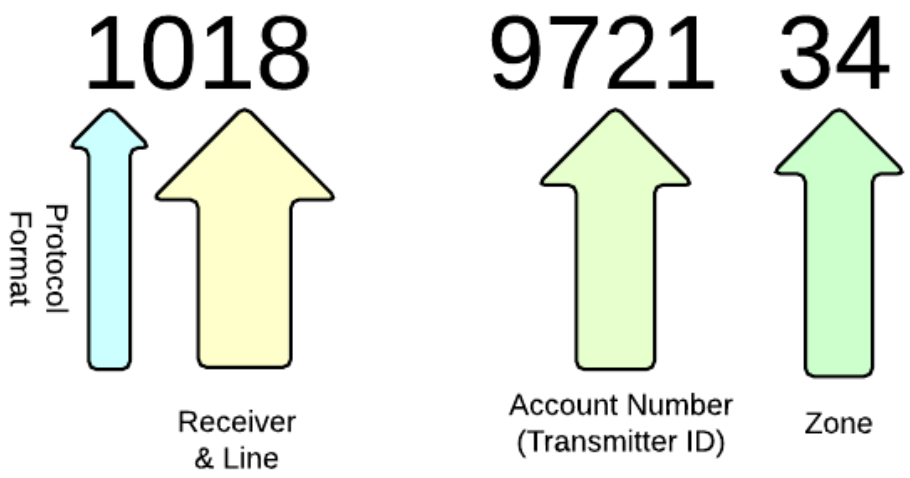


Image 2



Raw Signals

What are RAW signals?

Raw signals are the base signals presented to the alarm automation system from the receiver from the signaling control panel, before processing by the drivers and Signal Handler. These are sending in the format provided from the control panel. Raw Signals may be viewed within the details of the customer alarm activity log, or from within the Raw Data Log. The Raw Data Log is a key resource for troubleshooting signal failures.

Give it a Try...

Now that you have a bit more understanding of how signals some break down, take a look at the following signals and see what you can identify.

Translate the following signals:

Given what you just learned, work with a partner and define the following alarms as:

- Intelligent/Not Intelligent
- Customer / Transmitter ID
- Type of Alarm - Contact ID, SIA, 4X2, High Speed, Etc.
- Area (if available)
- Zone
- Event, if you can figure it out

f043 2492 5155 5555 2

11 6141 18 E602 00 C000

51 1515 6

11 6157 18 E401 01 C002

1061 4233 A 99

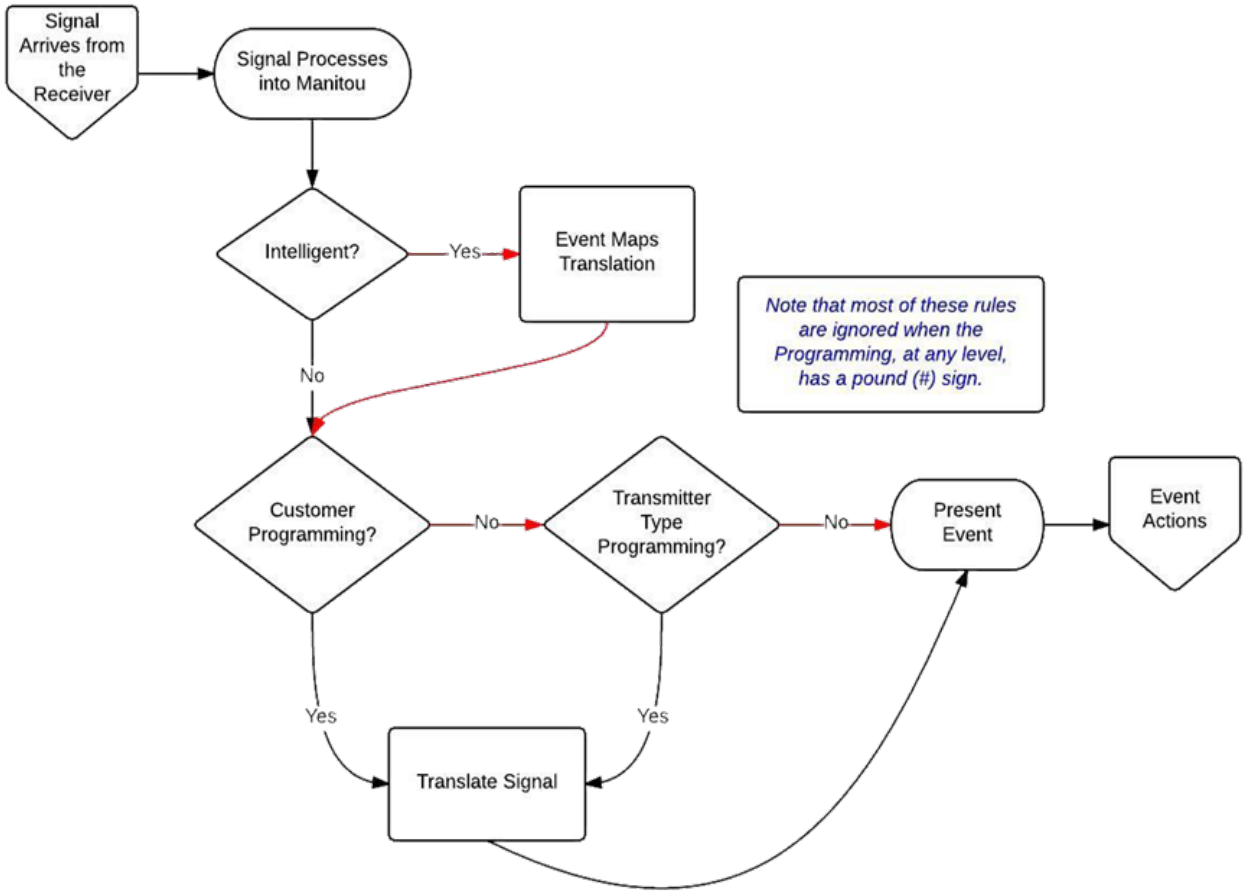
51 1235 5555 5153 1

a012 4207 18313001003

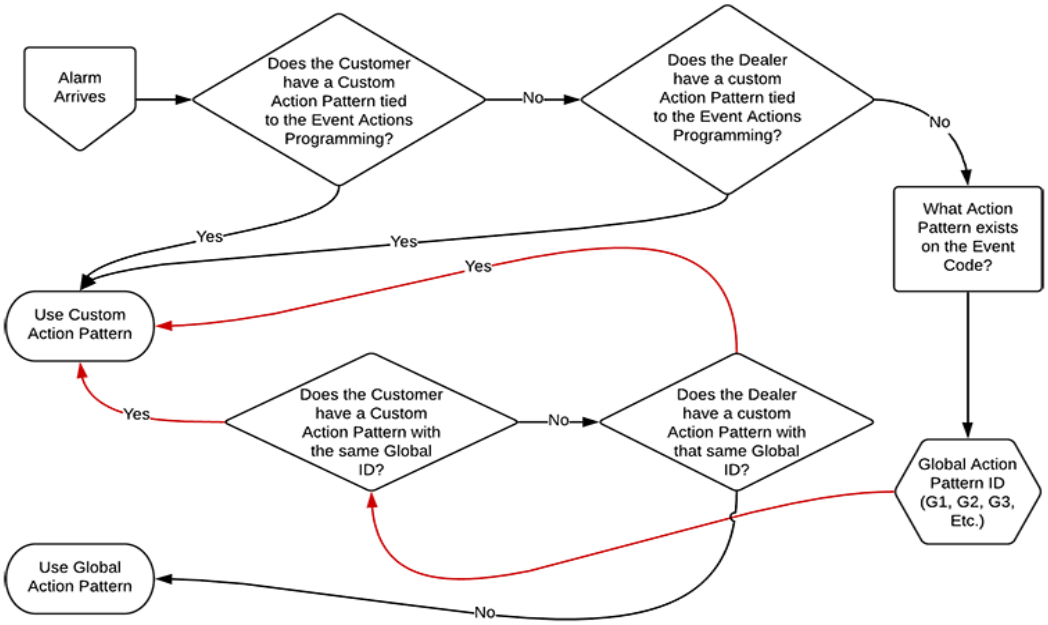
S09J[#1821|Nri2/BA01/BR01/OP12]

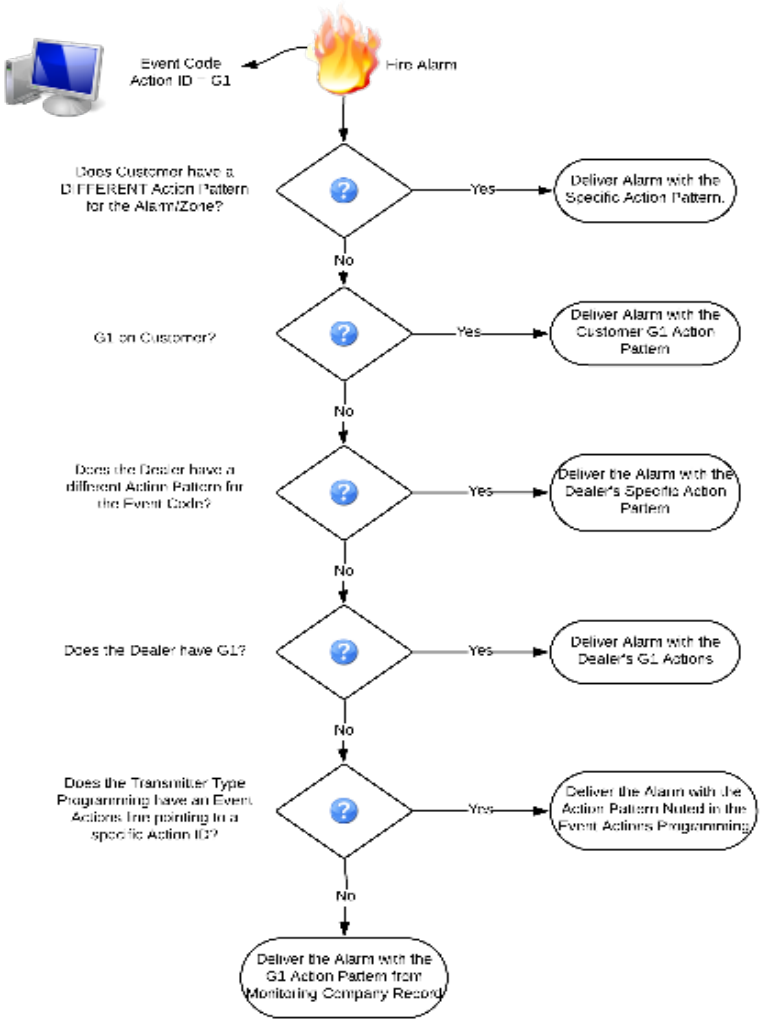
How signals process through Manitou

The Manitou Signal Handler is responsible for processing signals. Here are a couple images of how signals process through Manitou. Remember, the Front End Processor (FEP) acknowledges ("thanks") the receiver for the event and passes it to the Signal Handler. First, we have the flow of how signals present events to Manitou.



Next, the system needs to know what Action Pattern to apply. That is found in the Event Actions Programming on the Customer, Transmitter, or on the Event codes themselves. Here are some images that demonstrate the decisions and how they flow.


Alarm Arrives
Does the Customer have a Custom Action Pattern tied to the Event Actions Programming?
No
Does the Dealer have a custom Action Pattern tied to the Event Actions Programming?
No
What Action Pattern exists on the Event Code?
Yes
Yes
Yes
Use Custom Action Pattern
Yes
Does the Customer have a Custom Action Pattern with the same Global ID?
No
Does the Dealer have a custom Action Pattern with that same Global ID?
Global Action Pattern ID (G1, G2, G3, Etc.)
Use Global Action Pattern
No


Event Code Action ID = G1
Fire Alarm
Does Customer have a DIFFERENT Action Pattern for the Alarm/Zone?
Yes
Deliver Alarm with the Specific Action Pattern.
No
G1 on Customer?
Yes
Deliver Alarm with the Customer G1 Action Pattern
No
Does the Dealer have a different Action Pattern for the Event Code?
Yes
Deliver the Alarm with the Dealer's Specific Action Pattern
No
Does the Dealer have G1?
Yes
Deliver Alarm with the Dealer's G1 Actions
No
Does the Transmitter Type Programming have an Event Actions line pointing to a specific Action ID?
Yes
Deliver the Alarm with the Action Pattern Noted in the Event Actions Programming
No
Deliver the Alarm with the G1 Action Pattern from Monitoring Company Record

Conclusion

Now that you have a better understanding of signals and how they process through Manitou, now is your turn to get to know the signals in your operations. Go into your Customer Activity Log or the Raw Data Log, see what you can identify and feel free to ask questions or email BoldU@boldgroup.com and ask!