



Manitou FEP Configuration

Manitou version 1.6.4

Mike Taylor

This document details the
parameters and standards for
the FEP for Manitou Alarm
Monitoring software.

Bold Technologies
421 Windchime Place
Colorado Springs, CO 80919
719.593.2829

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Introduction

This document details the procedure to set up and run Bold Technologies' Front End Processor (FEP).

Program Arguments

The FEP requires several mandatory, as well as, optional command line parameters. Most arguments now include a tag to identify the argument type. This allows the user the ability to provide these arguments in any order. The following table describes a complete list of parameters.

Tag	Value	Required	Description
-debug	None	No	Specifies whether the FEP is being run in normal (as an NT Service) or debug mode. This parameter is required if the FEP is not run as an NT Service.
none	<Sentry>	Yes	Name of the machine where the Manitou Sentry resides.
none	<Loggers>	Yes	Name of the machine where the FEP's Logger output should be directed.
-N or -n	<FEP #>	Yes	The logical number to describe this FEP. There must not be duplicates running concurrently. The FEP will not run if the FEP number value does not equate to a decimal value.
-I or -i	<Directory>	No	Path to the directory where the FEP will store its .dat and .sig files. Default value is the working directory of the FEP.
-P or -p	<Priority>	No	Priority number for this FEP. Default value is 1.
-F or -f	<PrimaryFEP>	No	Name of the machine where the primary FEP is running. If this argument is specified, the FEP automatically starts in Standby mode. Default value is NULL.
-B or -b	<BackupSentry>	No	The machine name where the backup Sentry resides. If the FEP cannot establish connection with the primary Sentry to locate a Marshaller, the FEP will attempt connection with this backup. Default value is NULL.
-A or -a	<AreaCode>	No	The local area code. This is so the FEP can add the area code to caller ID information when the area code isn't provided for local calls. Default value is NULL.

Setup with Supervisor Workstation

When setting up the FEP through Supervisor Workstation, the Sentry and Logger parameters are not entered as “Param n” values. The Manitou MSM automatically provides these parameters in the correct order. The following figure illustrates a sample setup.

The screenshot shows the 'Application' configuration window. It contains the following fields and values:

- Description: FEP 1
- App type: FEP (dropdown)
- Start status: Manual Start (dropdown)
- EXE path: (empty text box with search icon)
- Logger: 172.16.140.178 (dropdown)
- Param 1: -n1
- Param 2: -iD:\AppFiles\FEP
- Param 3: -p1
- Param 4: -a719
- Param 5: -bmanapp1

At the bottom, a note states: 'Making changes on this form may require you to restart the changed application before your changes will take effect.'

Standby Mode (v1.5.2)

A FEP may run as a standby FEP to a primary FEP for failover redundancy. Use the “-f” startup parameter to configure a FEP in standby mode and to provide the location of the Primary FEP. The primary and standby FEPs must have a matching FEP number. See image below for a sample configuration.

Primary FEP Configuration

The Primary FEP Configuration form contains the following fields and values:

- Description: Primary FEP 1
- App type: FEP (dropdown)
- Start status: Automatic Start (dropdown)
- EXE path: (empty text box with search icon)
- Logger: 172.16.140.178 (dropdown)
- Param 1: -n1
- Param 2: -iD:\AppFiles\FEP
- Param 3: (empty text box)
- Param 4: (empty text box)
- Param 5: (empty text box)

Standby FEP Configuration

The Standby FEP Configuration form contains the following fields and values:

- Description: Standby FEP 1
- App type: FEP (dropdown)
- Start status: Automatic Start (dropdown)
- EXE path: (empty text box with search icon)
- Logger: 172.16.140.178 (dropdown)
- Param 1: -n1
- Param 2: -iD:\AppFiles\FEP
- Param 3: -fmanfep1
- Param 4: (empty text box)
- Param 5: (empty text box)

In standby mode, the FEP will not run any receiver drivers, but will instead run a single standby poll thread. This thread will connect to the primary FEP's standby delivery thread to receive signal packets. Note, while in standby mode, the FEP does not start a control listen thread, so the FEP Commander will not connect.

The standby FEP will attempt to connect to the primary FEP for one minute at startup. If the standby FEP has not established a successful connection after one minute, it will stop its standby poll thread and restart itself as the primary FEP, including all the receiver drivers. Therefore, the standby FEP should always be started after the primary FEP is up and running.

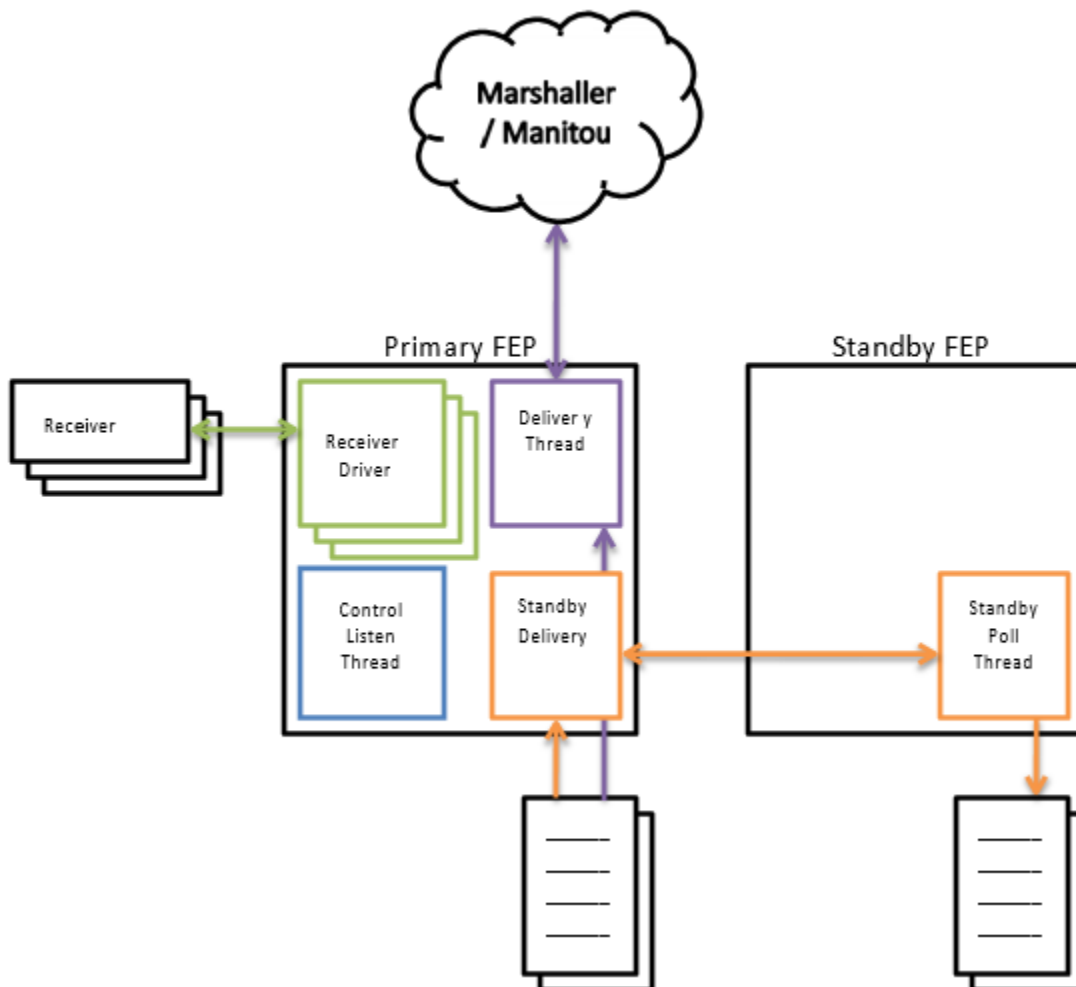
During normal operations, if the connection between the standby and primary FEP is broken, the standby FEP will also restart itself as the primary FEP. Once a standby FEP has converted itself to the primary, it will not resume standby mode until it is manually stopped and restarted through the MSM.

During the initial handshake between the standby and primary FEPs, the standby FEP will determine where the primary FEP's delivery mechanism should begin. The standby FEP will actively maintain signals from the current and previous day. If the standby FEP determines its local signals are out of sync with the primary FEP, it will request all signals from the primary FEP starting with at the beginning of the previous day's signal file.

In order to determine if the signal files are in sync, the standby FEP evaluates up to four signals between the two FEPs. If there is a failure/mismatch during this process, the standby FEP requests to restart at the beginning of the previous day's signal file.

- The standby FEP reads the first signal from the previous day's signal file, then requests the same signal from the primary FEP. If the signal sequence numbers and text match, it moves to the next step.
- The standby FEP reads the last signal from the previous day's signal file, then requests the same signal from the primary FEP. If the signal sequence numbers and text match:
 - and the primary FEP has more signals in its previous day's file beyond what the standby FEP has, this is okay if the standby FEP has no signal file for the current day or if the current day's signal file is empty. If this is true, the restart sequence number is the standby's last signal from the previous day's file plus one.
 - and the last signals in the respective signal files match, the standby FEP moves onto the next step.
- The standby FEP reads the first signal from the current day's signal file, then requests the same signal from the primary FEP. If the signal sequence numbers and text match, it moves to the next step.
- The standby FEP reads the last signal from the current day's signal file, then requests the same signal from the primary FEP. If the signal sequence numbers and text match, the restart sequence number is this signal's sequence number plus one.

The following diagram gives a rough image of the FEP architecture and how the standby model fits in:



Stopping the FEP (v1.5.2 patch 4)

When gracefully shutting down the FEP (i.e., using the MSM, FEP Commander, etc.) the Marshaller and Standby Delivery threads are not shut down until all other threads have stopped. Furthermore, the delivery threads will not stop until they have delivered all respective signals to the Marshaller or standby FEP.

When the delivery threads detect a shutdown and they are flushing signals, each thread will log a message to the System Logger approximately every five seconds to notify users that the thread is in the process of exiting, but is still actively delivering signals.

Important: If the FEP is stopped through the MSM, for example, and the delivery threads need time to flush the signal file, the FEP's status displays yellow and the application will appear to hang. Users must check the System Logger and allow the FEP to continue if the delivery threads are flushing signals. Killing the FEP through the MSM or any other means will terminate this process, and undelivered signals may still exist in the signal file.

Driver Options

Many of the FEP drivers require startup options to initiate certain behavior. Each driver is listed below with a description of each of their startup options.

General Options

Value	Description
CALLERID=	Whether to forward caller ID data with the signals. • 1 – Forward Caller ID Data (default) • 0 – Don't Forward Caller ID Data Valid Receivers: • 3xLogic • Ademco 685 • Bold XML • BoldJSON • DMP • OH2000 • Radionics 6000/6600 • Silent Knight 2000 • Surgard • Whozz Calling?
DEBUG=	When true (DEBUG=1), the FEP will log data received from the receiver to a message file. The file location is specified by the “-l” FEP start up option, usually C:\FepFiles. The driver creates a new debug file for each day, purging old files after seven days.
DELAY=	Sets the delay between socket/port reads (sleep time) in milli-seconds. • Range: 1 – 2000 • Default: 100 TCP; 200 Serial

Value	Description
MIN=	This option is only used by receivers that do not have a heartbeat message. With this option, the FEP will issue a warning that the receiver may be down after this number of minutes has passed without any signals received. Valid Values: - Any decimal number - Default value is 60 minutes Valid Receivers: - Ademco 685 (with NOPOLL=1 and NOTEST=0) - Bold XML - BoldGPS - CP220 - Generic - Hawkeye - Morse - Radionics 6000/6600 - Silent Knight 9000 - Surgard - Varitech - Westec - Whozz Calling? (with NOPOLL=1 and NOTEST=0)
DF=	Determines what date format to use, United States or European, for SIA date/time stamps. This option is only used by drivers that interpret the SIA protocol. 0 = United States (default) 1 = European -1 = None (ignore date/time stamp) Valid Receivers: - Keltron - Osborne Hoffman 2000 - QuickAlert! - Radionics 6600 - Redcare - Silent Knight 9000 - Sur-Gard
WTFA=	Westec Foreign Account. Tells the driver whether if it should use the foreign account flag in the Westec protocol, or ignore it. - Range: 0 (ignore) or 1 (use) - Default: 0 (ignore)
MODEL=	Driver validation model: 0 – Authenticated (default) 1 – Licensed

Ademco 685

Value	Description
NOTEST=	When true (NOTEST=1), the heartbeat is not present, therefore, the FEP will not report the driver as down if a heartbeat signal is missing.
HSUAZ=	High Speed User as Zone. When true (HSUAZ=1), this option will report the user value for high speed open/close signals as the zone. The default is false (HSUAZ=0).
NO POLL=	Indicates if the driver should send the Poll String ("S") or not. - NO POLL=0 (Default): The driver will send the poll string. - NO POLL=1: The driver will NOT send the poll string.
VER=	Version. Indicates the type of receiver hardware the driver will communicate with. Valid values: - ADM – (default) Ademco 685 (or compatible) - KPR – KP Radio Receiver - MX8 – Ademco MX8000 (up to 36 lines reported) - IRF – IRfast - CSL – Supports messages from a remote CSL application
BG=	Business Groups (AES). Indicates that the FEP should incorporate the receiver number as part of the line value. - BG=0 (Default): report line number as line only - BG=1: report line number as receiver + line Note: The combined receiver and line number are treated as a hexadecimal number. E.g., Line 21 (Hex) = 33 (Decimal)
IRFCA=	IR Fast protocol CA delay time in seconds to wait for review text. The default value is 0.
CRC=	Indicates if the driver should check the IR Fast checksum or not. - CRC=1 (Default): The driver will check message CRC's. - CRC=0: The driver will NOT check message CRC's.
IRFVER=	IR Fast protocol receiver version. The currently known versions are 100 and 900. Version 900 messages do not have the extra characters at the end of the review text. The default value is 100.
FRT=	IR Fast option which determines how Review Text messages will be handled. - FRT=1 (Default): The driver will always generate an 'MI' event for Review Text lines. - FRT=0: The driver will NOT generate an 'MI' event for Review Text lines which were combined with a signal line.

AdPro Fast Scan

Value	Description
YLEN	Year Length. • Range: 2 or 4 • Default: 2
IBTIMEOUT	Inbound receiver connection timeout. Specified the period of time, in minutes, with no message activity, after which, the FEP will disconnect. • Range: 1 – 35,791,394 • Default: 5
OBTIMEOUT	Outbound receiver connection timeout. Specified the period of time, in minutes, with no message activity, after which, the FEP will disconnect. • Range: 1 – 35,791,394 • Default: 10

Base 10

Value	Description

Bold GPS

Value	Description
HB	Indicates if a heartbeat signal is expected. • Range: 0 (No) or 1 (Yes) • Default: 1 (Yes)

Bold IP

Value	Description

Bold JSON

Value	Description
CID	Sets the central station ID.
BINBUF	Sets the size of the binary buffer, in bytes. • Minimum value 51200 • Default value 102400
VERBOSE	Determines if the driver logs binary data (Base64 encoded) to the debug file. • 0 – Do not log binary data (default) • 1 – Log binary data
MULTIFRAME	Determines if the driver will accept If true then you can send multi-frame binary data. (i.e., You can simulate MJPEG by sending multiple JPGs). When this option is turned on, the ACK string includes the RAWNO if FrameNo=1. • 0 – Standard binary data (default) • 1 – Multi-frame binary data

Bold XML

Value	Description
HB	Indicates if a heartbeat signal is expected. • Range: 0 (No) or 1 (Yes) • Default: 1 (Yes)
BINBUF	Sets the size of the binary buffer, in bytes. • Minimum value 51200 • Default value 102400
VERBOSE	Determines if the driver logs binary data (Base64 encoded) to the debug file. • 0 – do not log binary data (default) • 1 – log binary data

BT Adacs

Value	Description

BT Director

Value	Description

Caller ID

Value	Description

CP

Value	Description

CP220

Value	Description
EXTTXID=	Extended Transmitter ID. This option is used for a customer receiver that emulates the FBI receiver, but with an 8 character account ID length instead of 4 characters. • EXTTXID=0 (default). Uses standard 4 length account ID • EXTTXID=1. Uses 8 length account ID
RLDES=	Only applies if the extended transmitter option is in use. This determines how many left digits of the account number represent the receiver line designator. The remaining right digits are the transmitter ID. • Valid range: 0-5 • Default: 0
ACRON433=	Indicates if the driver should process an ACRON superfast signal beginning with "FF" for zones 1-2 as a 4x3x3 signal (or to process the channels). • ACRON433=0. Process individual channels 1-8 • ACRON433=1 (default). Process as 4x3x3 where channels 3-5 are the event and channels 6-8 are the zone

Digitel

Value	Description

DMP

Value	Description
ACCTLEN=	Specifies the length of the account number. The least significant digits will be used. Valid values: • 4 • 5 (default)
ZONE=	Specifies the length of the zone field. Valid values: • 2 • 3 • 4 (default)
USERLEN=	Specifies the length of the user field. Valid values: • 2 • 3 • 4 (default)
USECRC=	Specifies whether to validate the cyclical redundancy check (CRC). When true (USECRC=1), CRC is validated.
LINENOLEN=	Specifies the expected length of the line number in each signal. Valid values: • 0 • 1 • 2 (Default)
DECAREA=	Specifies if the driver should convert the area value into a decimal, where: • Area 80 = 1 • Area 40 = 2 • Area 20 = 3 • Area 10 = 4 • Area 8 = 5 • Area 4 = 6 • Area 2 = 7 • Area 1 = 8
USEZNTYP=	Use Zone Type. Specifies how the driver inputs alarm signals. • USEZNTYP=0: alarms input as *A (Activation) (Default) • USEZNTYP=1: distinguish alarms as specific type (i.e., *BA, *FA, *PA, etc.).

Value	Description
INTSYSMSG=	Interpret System Message. Determines how the driver will input system messages from the receiver. - INTSYSMSG=0: *A for zone "S<msg Id>" - INTSYSMSG=1: interpret the specified messages into Manitou Standard ST Codes (default)
ACKCR=	Indicates whether the FEP should include a carriage return (0x0D) character on the end of ACK/NAK messages to the receiver. - ACKCR=0: don't include carriage return (default) - ACKCR=1: include carriage return
DFLTAREA=	Signifies the default area to include in signals if an area isn't provided by the receiver (this is usually used to force the area to "0" because the signal handler will set the area to "1" if not area is specified).
TIME	DMP has revised its protocol has to eliminate the two GMT characters from the time update string sent from automation to the DMP receiver. The SCS-1062 V906 and SCS-150 processors will not accept a time update string that contains the 2 GMT characters. The GMT option is set by the dealer at the receiver and modification from automation is not necessary. 0 – Include GMT offset (Default) 1 – Exclude GMT offset
ANIFIRST=	Indicates whether the FEP should interpret the ANI/DNIS data field as being in ANI then DNIS order or DNIS then ANI. - ANIFIRST=0: DNIS is first - ANIFIRST=1: ANI is first (default)
ANIORDNIS=	Indicates whether the FEP should interpret the ANI/DNIS data field as being ANI or DNIS when there is only one number. - ANIORDNIS=A: ANI only - ANIORDNIS=D: DNIS only (default)

Emizon

Value	Description
ARC	Emizon ARC number, in decimal.
LEG	Leg number (0-7).
KEY	ARC specific key.
BASE	Identifies if numeric values are in decimal or hexadecimal notation. • 10 (Default) – decimal • 16 – hexadecimal

Generic

Value	Description
BOM	Specifies the beginning of message character. Since this is commonly an unprintable ASCII character, a two byte hex notation is used with ASCII characters. <i>Valid range is "00" to "FF".</i> Default value is "00", signifying NO beginning of message character. Example: "BOM=0A", referring to the hex value 0x0A, also known as the line feed character.
EOM	Specifies the end of message character. Since this is commonly an unprintable ASCII character, a two byte hex notation is used with ASCII characters. Valid range is "00" to "FF". This value is required; meaning a value of 0x00 will expect the receiver to send a null byte as the terminating character. Default value is "0D", signifying the hex value 0x0D. Example: "EOM=0D", referring to the hex value 0x0D, also known as the carriage return character.
ACK	Acknowledgement string. Since this may contain unprintable ASCII characters, a multi-two byte hex notation is used with ASCII characters. The value must contain hex pairs; meaning it is a multiple of two. Valid range is "00" to "FF" for each target byte. Default value is "06", signifying the hex value 0x06. Example: "ACK=06"

Value	Description
NAK	Negative acknowledgement string. Since this may contain unprintable ASCII characters, a multi-byte hex notation is used with ASCII characters. The value must contain hex pairs; meaning it is a multiple of two. Valid range is "00" to "FF" for each target byte. Default value is "15", signifying the hex value 0x15. Example: "NAK=15"
MAXLEN	Maximum length of message. Valid range is any valid, signed 32 bit integer. Default value is 0 (no maximum set). Example: "MAXLEN=256"
REC	Receiver type, identifying the manufacture and version of the receiver. Valid range is: 0 – Unknown 1 – Cellularm. Unless provided in the receiver type options, the driver will imply: - EOM=0D - ACK=06 - NAK=15 2 – Digitizer. Unless provided in the receiver type options, the driver will imply: - BOM=0A - EOM=0D 3 – FSK Multi-Router TCP 0211 - BOM=02 - EOM=0D Default value is 0 (unknown). Note: this value must be set; if omitted, the driver will not run. Example: "REC=1"
HB	Heartbeat string, where all characters are printable ASCII characters. Valid range is a variable ASCII string. Default value is no heartbeat message. Example: "HB=00 OKAY @" Note: this value is mutually exclusive with HBX. If both parameters are present, HBX wins.

Value	Description
HBX	Heartbeat string, where non-printable ASCII characters may exist. A multi-two byte hex notation is used with ASCII characters. The value must contain hex pairs; meaning it is a multiple of two. Valid range is “00” to “FF” for each target byte. Default value is no heartbeat message. Example: “HB=3030204F4B41592040” (aka, 00 OKAY @) Note: this value is mutually exclusive with HB. If both parameters are present, HBX wins.

Hawkeye

Value	Description

ISI

Value	Description

ISL

Value	Description

ITI

Value	Description
TRIM=	Character values to trim from the left side of the Account number. Valid values: - Any ASCII printable character - Default value is NULL

Keltron

Value	Description

MonTech

Value	Description

Morse

Value	Description

MPTP

Value	Description

OH2000

Value	Description
BFSK_E+Z=	Whether the FEP should combine the Event and Zone together for Radionics BFSK messages (Type "B"). Valid values: • 1 – Combine • 0 – Do not combine (default)
MOD2E_AS_SIA=	*** DEPRECATED *** How to map Radionics Modem 2E event codes. • 1 – SIA (default) • 0 – Radionics BFSK

Value	Description
OPT426=	Translate Acron Superfast messages (Type D) as March Networks' 4x2x6 Medical Pendant Format. 0 – Handle as standard Acron format 1 – Handle as 4x2x6 Medical Pendant format
MDM2TST	Osborne Hoffman has changed how their receiver sends test and phone trouble/restore messages for type M messages (22 Feb 2006). 0 (Default) – Interpret as original firmware 1 – Interpret as updated firmware
OPTSK	Silent Knight FSK1 decoding options: 0 (Default) – Interpret to standard Manitou Codes 1 – Interpret to SIA codes 2 – Process as 4x2 (*A for zone 00-99)
MODEM2E	Identifies how to process J, T, t protocols. 0 – process as Radionics 1 (Default) – process as SIA 2 – Use Event Maps

OH QuickAlert!

Value	Description
PCMNE=	Tells the driver if the PCMNE option is on. Valid values: 1 – PCMNE is on 0 – PCMNE is not on (default)

Open Access

Value	Description

OzVision

Value	Description

Passthrough

Value	Description
PORT1=	Primary port to send to (bi-directional – ACKs back to receiver). Format: <PortType> <Host> <PortNumber> Example: 1 localhost 7511
PORT2=	Secondary port to send to (one-way) Format: <PortType> <Host> <PortNumber> Example: 1 localhost 7601
BOM=	Beginning of message character (demo mode only).
EOM=	End of message character (demo mode only).

Radionics 6000

Value	Description
TXIDLEN=	Length of the transmitter ID. • 3 – (default) • 4
TERM=	Message Terminator. • 0 – use 0x14 (Default)\ • 1 – use 0x0D
HEADER=	Indicates if the header character is present in the message. • 0 – Header character <i>not</i> present • 1 – Header character present (default)

Radionics 6600

Value	Description
VER=	Tells the driver what type of receiver it is connecting to. Valid values: • SIA65 – Radionics 6500 SIA driver • SIA66 – Radionics 6600 SIA driver • 6600 – Radionics 6600 driver • 6500 – Radionics 6500 driver (default) • AES – AES Receiver (emulates Radionics) • EPLX – Europlex • EPLX2 – Europlex with 0x0D end of line character
HB=	Whether to process heartbeat. Valid values: • 1 – Yes, process the heartbeat message (default) • 0 – No, do not process the heartbeat message
PROTID=	Europlex Receiver: protocol identifier for 3GS panel messages. Allows any single character value except for “1”. Default is NULL.
CONVHX=	Europlex Receiver: indicates if panel message zone & user values should be converted from HEX to decimal. • 1 – Convert • 0 – Don’t Convert (Default)
RPLCLDGZERO	Replace leading zone – when true, this option will replace a leading zero with an “F” for account IDs that are 6 characters in length (i.e., 001234 will convert to F01234). This is used by AAA because transmitter IDs 001234 and 1234 of the same RLDes are for different accounts. • 0 (default) – do not replace, trim zeros as normal • 1 – replace leading space with “F”
BOLD72=	Applies to SafeCom messages only! Boolean (0/1). Determines how to process Radionics Modem II and Modem IIc messages: • 0 – translate to standard ST codes (default) • 1 – process as activation (*A) on E+ZZZ and let programming handle
MOD2E_AS_SIA=	Applies to SafeCom messages only! How to map Radionics Modem 2E event codes: • 1 – SIA (default) • 0 – Radionics BFSK

Value	Description
DMPZONELEN=	Applies to SafeCom messages only! DMP Format: Specifies the length of the zone field. Valid values: • 2 • 3 • 4 (Default)
DMPUSERLEN=	Applies to SafeCom messages only! DMP Format: Specifies the length of the user field. Valid values: • 2 • 3 • 4 (Default)
DMPDECAREA=	Applies to SafeCom messages only! DMP Format: Specifies if the driver should convert the area value into a decimal, where: • Area 80 = 1 • Area 40 = 2 • Area 20 = 3 • Area 10 = 4 • Area 8 = 5 • Area 4 = 6 • Area 2 = 7 • Area 1 = 8
DMPUSEZNTYP=	Applies to SafeCom messages only! DMP Format: Use Zone Type. Specifies how the driver inputs alarm signals: • USEZONETYPE=0: alarms input as *A (Activation) (Default) • USEZONETYPE=1: distinguish alarms as specific type (i.e., *BA, *FA, *PA, etc.)
DMPINTSYSMSG=	Applies to SafeCom messages only! DMP Format: Interpret System Message. Determines how the driver will input system messages from the receiver: • INTSYSMSG=0: *M for zone <msg Id> • INTSYSMSG=1: interpret the specified messages into Manitou Standard ST Codes (default)
DFLTAREA=	Applies to SafeCom messages only! Signifies the default area to include in signals if an area isn't provided by the receiver (this is usually used to force the area to "0" because the signal handler will set the area to "1" if not area is specified).

Value	Description
USEEVMAPS=	Applies to SafeCom messages only! Signified that the driver should not assign standard event codes to receiver status messages, but instead allow the Signal Handler to apply event maps. - USEEVMAPS=0 (Default): assign Manitou standard codes - USEEVMAPS=1: allow SH to use event maps
OPTSK	Silent Knight FSK1 decoding options: 0 – Interpret to standard Manitou Codes 1 (Default) – Interpret to SIA codes 2 – Process as 4x2 (*A for zone 00-99)
BG=	Business Groups (AES). Indicates that the FEP should incorporate the receiver number as part of the line value. - BG=0 (Default): report line number as line only - BG=1: report line number as receiver + line
HDR=	This is a temporary option to accommodate the Bold “CNVRT” option. If it is set to true the header character (first character) of each message will be ignored. Once Manitou is live the receiver should be reconfigured to not include the header character and this option should be removed. - HDR=0 (Default). - HDR=1: Receiver messages include a single character header. Ignore the first character.
TYPEN=	Use Type N message for DNIS. - TYPEN=1 (Default) - TYPEN=0 Use older style DNIS (D XXXX in signal)
USECRC=	Check SIA CRC for SIA signals. - USECRC=1 (Default) - USECRC=0 Don’t check CRC for SIA signals
SIATEXT=	Defines how the FEP parses point descriptions within a signal. 0 – Normal parsing (default) 1 – /A marks the start of the point description 2 – Terminated point description parsing

Redcare

Value	Description
RDX=	Get the radix value for pin numbers/states. Valid values: • 10 – base 10 (default) • 16 – base 16
DSPID=	Identifier for the DSP System. • Value is one byte, alpha-numeric • Default value is “A” NOTE: to use multiple DSPIDs for different FEP receivers, multiple Receiver Type entries for Redcare are required.
NGR=	Driver name (RCode) for the Redcare Next Generation receiver (video retrieval). Default: “RedcareNGr”
NGR_TO=	Timeout value, in seconds, for Redcare Next Generation video retrieval requests. Default: 60 Seconds
VER=	DSP version. • 0 – Redcare (default) • 1 – Redcare NGR
SUPPRESS=	The ISDN TA alarm report (ALM) may have encoded serial data or alarm text in it. If alarm text is found it is forwarded as a *M signal unless this option is set to one. • 0 – Send alarm text signals (default) • 1 – Suppress alarm text signals

Redcare NGr

Value	Description
JSPP=	Path for the Java Server Page used to retrieve images. • Default: None. • Example: JSPP=/arc-video-gwy/uhs/jsp
LOGBIN=	Log binary data in the FEP debug file. • LOGBIN=0 (Default): do <i>not</i> log the binary data • LOGBIN=1: log the binary data

RSI Frontal GI

Value	Description
FS=	Frame Size. The size, in bytes, at which the driver will forward binary video data to the Signal Handler. Default is 1024.
VER=	Frontel Receiver Protocol Version. • VER=1: GI version 1.x • VER=2 (Default): GI version 2.x

Safecom

Value	Description
BOLD72=	Boolean (0/1). Determines how to process Radionics Modem II and Modem IIc messages: • 0 – translate to standard ST codes (default) • 1 – process as activation (*A) on E+ZZZ and let programming handle
MOD2E_AS_SIA=	How to map Radionics Modem 2E event codes: • 1 – SIA (default) • 0 – Radionics BFSK
DMPZONELEN=	DMP Format. Specifies the length of the zone field. Valid values: • 2 • 3 • 4 (Default)
DMPUSERLEN=	DMP Format. Specifies the length of the user field. Valid values: • 2 • 3 • 4 (Default)
DMPDECAREA=	DMP Format. Specifies if the driver should convert the area value into a decimal, where: • Area 80 = 1 • Area 40 = 2 • Area 20 = 3 • Area 10 = 4 • Area 8 = 5 • Area 4 = 6 • Area 2 = 7 • Area 1 = 8
DMPUSEZNTYP=	DMP Format. Use Zone Type. Specifies how the driver inputs alarm signals: • USEZONETYPE=0: alarms input as *A (Activation) (Default) • USEZONETYPE=1: distinguish alarms as specific type (i.e., *BA, *FA, *PA, etc.).

Value	Description
DMPINTSYSMSG=	DMP Format. Interpret System Message. Determines how the driver will input system messages from the receiver: • INTSYSMSG=0: *M for zone <msg Id> • INTSYSMSG=1: interpret the specified messages into Manitou Standard ST Codes (default)
DFLTAREA=	Signifies the default area to include in signals if an area isn't provided by the receiver (this is usually used to force the area to "0" because the signal handler will set the area to "1" if not area is specified).
USEEVMAPS=	Signified that the driver should not assign standard event codes to receiver status messages, but instead allow the Signal Handler to apply event maps. • USEEVMAPS=0 (Default): assign Manitou standard codes • USEEVMAPS=1: allow SH to use event maps

Scancom

Value	Description

SGVisual

Value	Description
BINBUF	Sets the size of the internal working binary buffer, in bytes. • Minimum value 51200 • Default value 102400
VERBOSE	Determines if the driver logs binary data (Base64 encoded) to the debug file. • 0 – Do not log binary data (default) • 1 – Log binary data

SK9000

Value	Description
VER=	Receiver Version. 9000 – Silent Knight 9000 (won't process a heartbeat) 9800 (default) – Silent Knight 9800 (processes heartbeat)
MODE=	Receiver Mode (applies to SK9000 only). Determines if the receiver will translate signals as originally designed for Manitou, or decode them similar to Bold 7.2. 0 – original Manitou decoding 1 – Bold 7.2 Old decoding 2 (default) – Bold 7.2 decoding (leading space (' ') in SIA event replaced with 'U')
EXTSIA	Extended SIA codes for combining with area open/close messages. Only "Cx" and "Ox" event codes are accepted. If a CG/OG code immediately follows a listed code, the area value for that message is updated and the CG/OG event is dropped. Codes are pipe delimited. Default value – none Example: EXTSIA=CL CF CA
DLRF	Dialer Format. Identifies if a particular dialer format should be processed as 4x2 or as SIA like. The option structure consists of pipe delimited key/value pairs. Each key/value pair consists of the dialer format (0-104), a hyphen (-), and if it is a SIA like protocol (0 = no, 1 = yes). Examples: DLRF=62-0 DLRF=50-0 62-0 75-1

Surgard

The MLR2 driver is obsolete and was replaced by the Surgard driver.

Value	Description
HB	Indicates if a heartbeat signal is expected. - Range: 0 (No) or 1 (Yes) - Default: 1 (Yes)
VER=	What version of the driver is being run. Valid values: - MLR2 – the receiver is an MLR2 - MLR2000 – the receiver is an MLR2E or MLR2000 - C20 – designates a unique receiver for a customer

Value	Description
DNIS=	Is the receiver in DNIS mode (only applies to MLR2000/MLR2E). Valid values: • 1 – in DNIS mode • 0 – not in DNIS mode (default)
DNISLEN=	Length of the DNIS. Valid values: • 3-10 • 5 (default)
LINE=	What is the line length (only applies to MLR2000/MLR2E)? Valid Values: • 1 (default) • 2 • 3
MODE=	Determines how type “1” (Sur-Gard Basic) signals are processed. • 0 (default) – Normal • 2 – Bold Type 1 • 3 – Bold Type 2
DMPACCTLEN=	Specifies the length of the account number. The least significant digits will be used. Valid values: • 4 • 5 (default)
DMPZONELEN=	DMP Format. Specifies the length of the zone field. Valid values: • 2 • 3 • 4 (Default)
DMPUSERLEN=	DMP Format. Specifies the length of the user field. Valid values: • 2 • 3 • 4 (Default)
DMPDECAREA=	DMP Format. Specifies if the driver should convert the area value into a decimal, where: • Area 80 = 1 • Area 40 = 2 • Area 20 = 3 • Area 10 = 4 • Area 8 = 5 • Area 4 = 6 • Area 2 = 7 • Area 1 = 8
DMPUSEZNTYP=	DMP Format. Use Zone Type. Specifies how the driver inputs alarm signals: • USEZONETYPE=0: alarms input as *A (Activation) (Default) • USEZONETYPE=1: distinguish alarms as specific type (i.e., *BA, *FA, *PA, etc.)

Value	Description
DMPINTSYSMSG=	DMP Format. Interpret System Message. Determines how the driver will input system messages from the receiver: - INTSYSMSG=0: *M for zone <msg Id> - INTSYSMSG=1: interpret the specified messages into Manitou Standard ST Codes (default)
DFLTAREA=	Signifies the default area to include in signals if an area isn't provided by the receiver (this is usually used to force the area to "0" because the signal handler will set the area to "1" if not area is specified).
MLR2K=	Indicates if the receiver hardware really, truly is an MLR2000 versus another SurGard that utilizes the MLR2000 driver (i.e., the SurGard System 3). 0 (default) – not MLR2000 hardware 1 – is MLR2000 hardware
RPLCLDGZERO	Replace leading zone – when true, this option will replace a leading zero with an "F" for account IDs that are 6 characters in length (i.e., 001234 will convert to F01234). This is used by AAA because transmitter IDs 001234 and 1234 of the same RLDes are for different accounts. 0 (default) – do not replace, trim zeros as normal 1 – replace leading space with "F"
OPTSK	Silent Knight FSK1 decoding option. 0 (Default) – Interpret to standard Manitou Codes 1 – Interpret to SIA codes 2 – Process as 4x2 (*A for zone 00-99)
CEC	Common Event Code: identifies the event code that Sur-Gard adds to a 4+2 message indicating an activation so that it can report those messages in their Type 1 protocol. <space> (default)
EXTSIA	Extended SIA codes for combining with area open/close messages. Only "Cx" and "Ox" event codes are accepted. If a CG/OG code immediately follows a listed code, the area value for that message is updated and the CG/OG event is dropped. Codes are pipe delimited. Default value – none Example: EXTSIA=CL CF CA
EXTSIATO	Number of seconds to wait for an extended SIA message for combining. Default value – 5 seconds

Value	Description
SHELCNT	Number of receiver lines per shelf. Manitou v1.5.2. Default value – 12

Varitech

Value	Description

Wells Fargo

Value	Description

Westec

Value	Description

Whozz Calling?

Value	Description
NOTEST=	When true (NOTEST=1), the heartbeat is not present, therefore, the FEP will not report the driver as down if a heartbeat signal is missing.
NO POLL=	Indicates if the driver should send the Poll String (“@”) or not. • NO POLL=0 (Default): The driver will send the poll string. • NO POLL=1: The driver will NOT send the poll string.