WaveGalaxyPlugin v 1.0.2 Manual

Description

This manual describes how to install and use the WaveGalaxy plugin. This software can be downloaded from www.arrivalnet.se
The software can be used on Windows and Linux platform, installation procedure is described below. The plugin listens to events from Honeywell Galaxy intruder panels and creates events in Wisenet Wave, furthermore a trigger can be created in Wave to control the panels relays and intruder areas. Before you can use this plugin you need a working installation of Wisenet Wave from Hanwha Techwin and a Galaxy intruder panel from Honeywell equipped with a Ethernet module. Check that you can access the systems over your network.
The plugin can be installed in the Wave server as well as a standalone server or you can run it in a virtual machine. The information between this service and Wave are encrypted using SSL/TLS protocol.

Installation on Windows platform

Installation is done by downloading the latest version from www.arrivalnet.se download section and install by double clicking the file.

Installation on Linux Debian platform

Installation is done by opening a terminal window (CTRL + ALT + T) and paste the following command:

```
curl -s https://www.arrivalnet.se/linux/installwavegalaxyplugin.sh
| sudo bash
```

In case curl is needed you can first install that with the command: `sudo apt install curl`

Configuration

After installation is done you will have two components installed. One is a service running in the background and one is a configuration tool. The service starts with the PC even if you are not logged in. On Windows the configuration tool can be found under WaveGalaxyPlugin menu and in Linux you find the same tool under accessories.
The first time you start the configuration tool you need to set the connection information to Wave and Galaxy panel. Wave server IP, username and password, Galaxy panel IP, panel port that is used to receive commands and the remote user code (default is 543210), if you want to get alarms from the Galaxy panel you will also need to set the panel event port, usually 10002 and the ARC Account number.
Hardware ID is a key generated at install time used when requesting a license code (licensing is described later in this manual) and License key is a key you will need to paste in when you received it from your order.

Configuration in the Galaxy panel

Setup for Galaxy dimension panel

Static IP address for Ethernet module should be set at the panel (Option 56.4.01.1 IP Address)
Network Mask (Option 56.4.01.4) . Usually 255.255.255.0 on a LAN.
Format (Option 56.4.02.1.1) should be set to SIA - Level 4
IP address of the PC sending the SIA commands is programmed at the panel (Option 56.4.08 SIA Control)
The Port Number used on the IP module for this connection is fixed at 10005

Event signaling Ethernet

- 56.4.02 = Alarm Reporting

  - .1 = Format (must be SIA level 4)

    - .1 = Trigger Events

    - The triggers control the type of events that are required to be transmitted.

  - .2 = Primary IP

    - .1 = This is the IP of the server where the plugin is installed

    - .2 = Port No. Enter the port number of the primary destination receiver. The default value is 10002, (should not be blank, and acknowledgement for SIA blocks back on the same port)

    - .4 = Account No. The account number identifies the Galaxy system to the receiver when signals are transmitted. (always 6 digits)

  - .8 = Should be set to TCP

- 56.4.08 = IP – This is the IP of the server where the plugin is installed

Setup for Galaxy Flex

Static IP address for Ethernet module should be set at the panel (Option 56.3.3.2 IP Address)
Alternatively enable DHCP (Option 56.3.3.1 = DHCP)
Network Mask (Option 56.3.3.4) . Usually 255.255.255.0 on a LAN.
IP address of the PC sending the SIA commands is programmed at the panel (Option 56.5.1.1=2 IP Callback)
Alternatively, Enable (Option 56.5.1.1.1 = Any Address)
Enable SIA control path (Option 56.5.1.2.1 Ethernet = Enable)
The Port Number used on the IP module for this connection is fixed at 10005

56.1 ARC Notify – Single Receiver

Enter 56.1.1 = Receivers menu, select a receiver (example Receiver 1).

- 56.1.1.1 Select a path   (example Ethernet).
- 56.1.1.1.1 Program the destination   (example IP Address of ARC)
  - Enter Port Number of ARC receiver (default = 10002)
- 56.1.1.1.2 Select the format   (SIA Level 4).
- 56.1.1.1.3 Set the auto test requirements   (the default is 24 h).

Enter 56.1.2 = Reports menu,

- 56.1.2.1 Setup the ARC Report as follows:

- ○ 56.1.2.1.1 Program the Account number. (always 6 digits)
- ○ 56.1.2.1.2 Set up triggers to define what type of messages should be sent

Example of configuration

After the basic information is saved it is time to create some rules. All rule configuration is done in Wisenet Wave so open the Wave client and create a rule. There are two types of rules that you can do with this plugin, listen to event or control the panel, to listen to event from the Galaxy panel you will need to choose Generic Event as your action.

Events

The Generic event in Wisenet Wave has three fields named Source, Caption and Description. When there is an event in the Galaxy panel a message will be sent to Wave. To be able to listen to specific event you can use the three textboxes to filter the event coming from the Galaxy panel.
**Sorce** field will always be **GalaxyIntruderPanel<ARC ACCONTNUMBER>**. This means if your rule has this text in the Source field this rule will only be triggered if a message comes from a Galaxy panel and not from any other system that may send messages to Wave, so for example if my Account number is 462840 then the Source will be GalaxyIntruderPanel462840
Caption this field will have the SIA code messages the Galaxy panel is using, you can find all message codes in the table 1 below. This message also have additional information about section or area after the SIA code if panel is sending that and additionally the panel time when the event happened is added. For example BA1002 13:56 (intruder alarm from section 1002 at 13:56)
Description this field will have additional information about the event, for example UNSET or FULL SET when controlling an area
Here are some examples of event rules

Here we are listening to the Caption OP that means "Account is disarmed" (see table 1) and on that event we are showing a text on a specific camera.
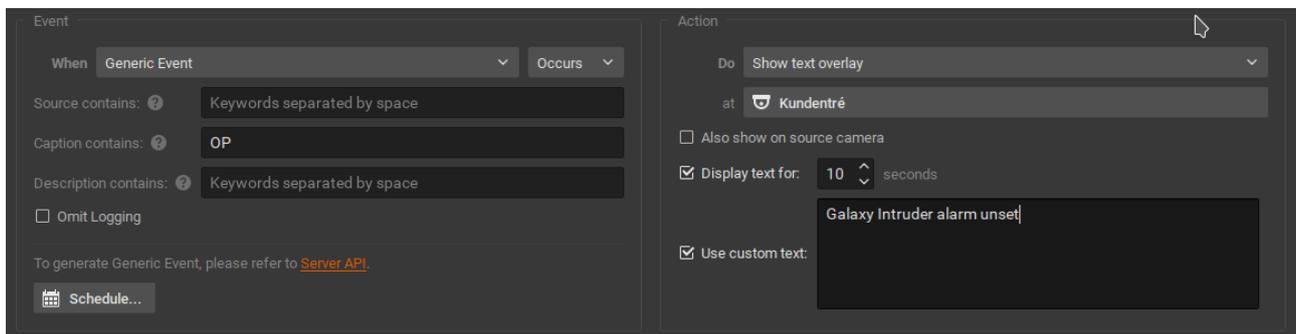
Here we are listening to Caption BA1002 meaning "Burglary zone has been violated while armed" in other words intrusion alarm from section 1002 and on this event we are doing a bookmark on a camera with additional text. This example also shows that we can combine SIA code with digits corresponding to a section. When bookmarking video you can search for it in the bookmark log.

In this more advanced example we are listening to events from a Galaxy panel with account 462840 and arming of area 001. On this event we are using the API of Wave with a http request that will activate the recording schedule of a camera with a specific cameraID.

Controlling the panel

To control Galaxy intruder panel you should create a rule in Wisenet Wave with the action set to "Do http request" in the HTTP content section you have some keywords that the panel plugin will listen to:

GALAXYCOMMAND – This is the start of all messages

ARM – Command to use when arming
ARMFORCE – Command to use when you want to force arming, even if sections are open
DISARM – Command to use when disarming
DISARMRESET – Command to use when you want to disarm and reset alarms
RELAYON – Controls a relay to active mode
RELAYOFF – Controls a relay to inactive mode

After the command you need to give additional information, for example what number the relay have that you want to control or the area you want to arm/disarm. The commands should be separated with the % sign. So a message to arm can look like this: GALAXYCOMMAND%ARM%1 to arm area 1. Note that if you want to arm/disarm all areas in a panel you should use group number 0.

Here is an example of a Soft trigger in Wave to disarm area 1 in the Galaxy intruder panel:
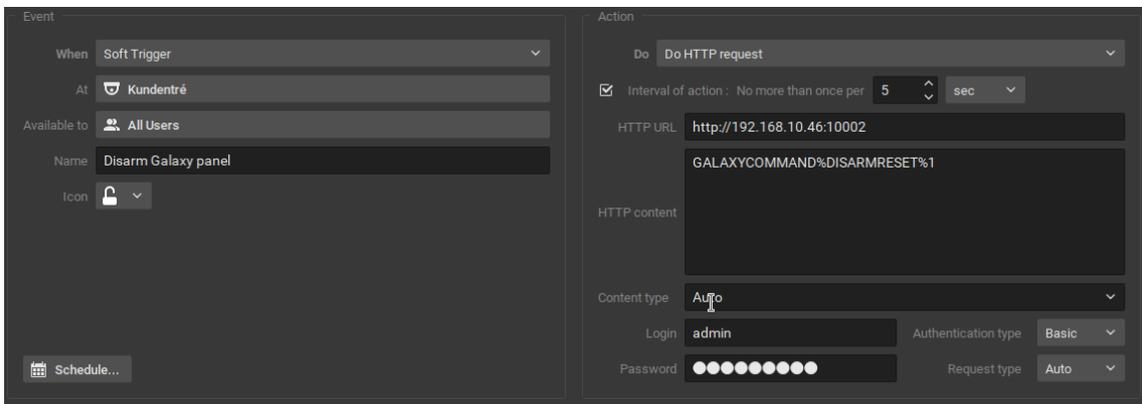
Here is an example of arming all groups in a panel:
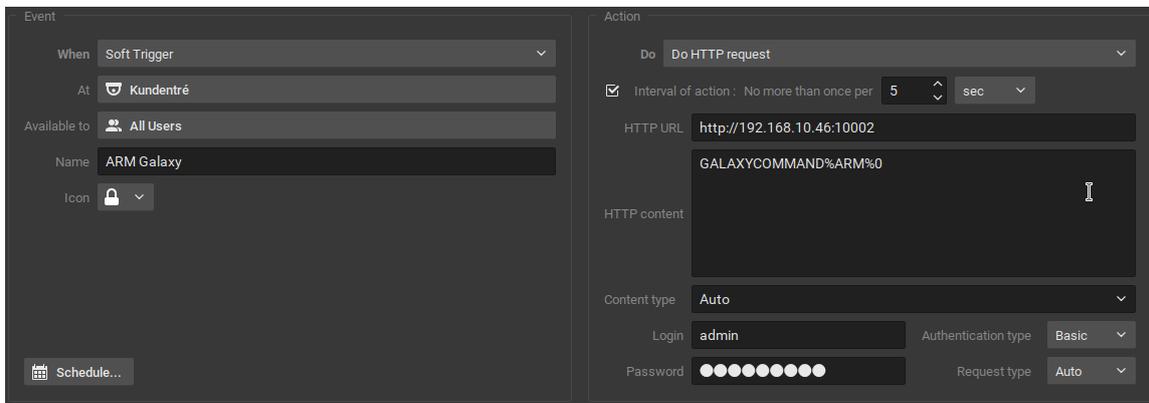
On all http request to the plugin you should also give the same username and password that you use for the Wave connection and you should also set the authentication type to Basic.

Licensing

In the configuration tool you can also find the Hardware ID needed to get a license. You can order the license from a authorized reseller found on www.arrivalnet.se Send the hardware ID with the order number you get from the distributor, when it is processed you will get a license code and you need to paste that into the License textbox and press Save.

Links

Here are some useful links to the manufacturers of the software mentioned in this manual

www.arrivalnet.se
www.wavevms.com

Table 1. SIA Codes

Event code	Description
AR	AC power has been restored
AT	AC power has been failed
BA	Burglary zone has been violated while armed
BB	Burglary zone has been bypassed
BC	Alarm has been cancelled
BH	Alarm condition eliminated
BJ	Trouble condition eliminated
BR	Alarm/trouble condition eliminated
BS	Unsafe intrusion detection system condition
BT	Burglary zone activated during testing
BU	Zone bypass has been removed
BV	More than 3 burglary zones have been triggered
BX	Burglary zone activated during testing
CA	System armed automatically
CE	Extend closing time
CF	System armed, some zones not ready
CG	System has been partially armed
CI	An area has not been armed at the end of the closing window
CJ	An area was armed after the closing window
CK	An area was armed before the closing window
CL	System armed normal
CP	System armed automatically
CR	An alarm occurred within five minutes after the system was closed
CS	Account has been armed by Keyswitch
CT	System was not disarmed on time
CW	Header for a force armed session, forced point msg. May follow
CZ	A point, as opposed to a whole area or account, has closed.
DC	Access to all users prohibited
DD	Access denied, unknown code
DF	Door opened without access request
DG	Door access granted
DK	Access denied, known code
DO	Access to authorised users allowed
DR	access alarm/trouble condition eliminated
DS	Identifies door for next report
DT	Access system trouble
DU	Zone description gives dealer ID #
EA	An exit zone remained violated at the end of the exit delay period
EE	An exit zone remained violated at the end of the exit delay period
ER	Expansion device trouble eliminated
ET	Expansion device trouble
FA	Fire condition detected
FB	Zone has been bypassed
FH	Alarm condition eliminated
FI	The transmitter area's fire test has begun
FJ	Trouble condition eliminated

FK	The transmitter area's fire test has ended
FR	Alarm/trouble condition has been eliminated
FS	Unsafe fire detection system condition
FT	Zone disabled by fault
FU	Bypass has been removed
FX	Fire zone activated during test
FY	A fire point is now logically missing
GA	Gas alarm condition detected
GB	Zone has been bypassed
GH	Alarm condition eliminated
GJ	Trouble condition eliminated
GR	Alarm \ trouble condition has been eliminated
GS	Unsafe gas detection system condition
GT	Zone disabled by fault
GU	Bypass has been removed
GX	Zone activated during test
HA	Silent alarm, user under duress
HB	Zone has been bypassed
HH	Alarm condition eliminated
HJ	Trouble condition eliminated
HR	Alarm \ trouble condition eliminated
HS	Unsafe holdup system condition
HT	Zone disabled by default
HU	Bypass has been removed
JA	Too many unsuccessful attempts have been made to enter a user ID
JD	The date was changed in the transmitter/receiver
JH	The transmitter's holiday schedule has been changed
JL	The transmitter's log memory has reached its threshold level
JO	The transmitter's log memory has overflowed
JR	An automatic scheduled event was executed
JS	An automatic schedule was changed
JT	The time was changed in the TX\RX
JV	A user's code has been changed
JX	A user's code has been removed
KA	High temperature detected on premise
KB	Zone has been bypassed
KH	Alarm condition eliminated
KJ	Trouble condition eliminated
KR	Alarm/Trouble condition has been eliminated
KS	Unsafe heat detection system condition
KT	Zone disable by fault
KU	Bypass has been removed
LB	Begin local programming begin
LD	access code incorrect
LE	The listen-in session has been terminated
LF	The listen-in session with the receiver has begun
LR	Phone line restored to service
LS	Local programming successful
LT	Phone line report
LU	Local programming unsuccessful

LX	A local programming session has been terminated
MA	Emergency assistance request
MB	Zone has been bypassed
MH	Alarm condition eliminated
MJ	Trouble condition eliminated
MR	Alarm/trouble condition has been eliminated
MS	Unsafe system condition exists
MT	Zone disabled by fault
MU	Bypass has been removed
NA	There has been no activity for a programmed amount of time
NF	Some zones/points not ready
NL	An area has been perimeter armed
OA	System has disarm automatically
OC	Untyped zone cancel
OG	System has been partially disarmed
OI	An area has not been armed at the end of the opening window
OJ	An area was disarmed after the opening window
OK	An area was disarmed before the opening window
OP	Account was disarmed
OR	Account in alarm was reset/disarmed
OS	account has been disarmed by Keyswitch
OT	System was not armed on time
OZ	A point, rather than a full area or account, disarmed
PA	Emergency assistance request, manually activated
PB	Panic zone has been bypassed
PH	Alarm condition eliminated
PJ	Trouble condition eliminated
PR	Alarm/trouble condition has been eliminated
PS	Unsafe system condition exists
PT	Zone disabled by fault
PU	Panic zone bypass has been removed
QA	Emergency assistance request
QB	Zone has been bypassed
QH	Alarm condition has been eliminated
QJ	Trouble condition has been eliminated
QR	Alarm/trouble condition has been eliminated
QS	Unsafe system condition exists
QT	Zone disabled by fault
QU	Bypass has been removed
RA	Transmitter failed to communicate with the remote programmer
RB	Remote programming session initiated
RC	The relay specified in the address field (optional) has energised
RD	Access passcode incorrect
RN	A transmitter was reset via a remote programmer
RO	The relay specified in the address field (optional) has de-energized
RP	Automatic communication test report
RR	System lost power, is now restored
RS	Remote programming successful
RT	Dialer data lost, transmission error
RU	Remote programming unsuccessful
RX	Manuel communication test report

SA	Sprinkler flow condition exist
SB	Sprinkler zone has been bypassed
SH	Alarm condition eliminated
SJ	trouble condition eliminated
SR	Alarm/Trouble condition has been eliminated
SS	Unsafe sprinkler system condition
ST	Zone disabled by fault
SU	Sprinkler zone bypass has been removed
TA	Alarm equipment enclosure opened
TB	Tamper detection has been bypassed
TE	Communicator restored to operation
TR	Alarm equipment enclosure has been closed
TS	Communicator taken out of operation
TU	Tamper detection bypass has been removed
TX	an unspecified (manual or automatic) communicator test
UA	Alarm condition from zone of unknown type
UB	Zone of unknown type has been bypassed
UH	Alarm condition eliminated
UJ	Trouble condition eliminated
UR	Alarm/Trouble condition eliminated from zone of unknown type
US	Unsafe condition from zone OK unknown type
UT	Trouble condition from zone of unknown type
UU	Bypass on zone of unknown type has been removed
UX	An undefined alarm condition has occurred
UY	A point which was not armed is now logically missing
UZ	A point which was armed is now logically missing
VI	Transmitter or receiver paper in, printer X
VO	Transmitter or receiver paper out, printer X
VR	Transmitter or receiver trouble restored, printer X
VT	Transmitter or receiver trouble, printer X
VX	Transmitter or receiver test, printer X
VY	The receiver's printer is now on line
VZ	The receiver's printer is now off line
WA	Water detected at protected premise
WB	Water detection has been bypassed
WH	Alarm condition eliminated
WJ	Trouble condition eliminated
WR	Alarm/Trouble condition has been eliminated
WS	Unsafe water detection system condition
WT	Zone disable by fault
WU	Water detection bypass has been removed
XE	The panel has sensed an extra point not specified for this site
XF	The panel has sensed an extra RF point not specified for this site
XI	A user has reset a sensor
XR	Low battery has been corrected
XT	Low battery in wireless transmitter
XW	A point was forced out of the system at arm time
YB	Percent of time receiver's line card is on-line
YC	Receiver and transmitter
YD	A line card identified by the passed address is in trouble
YE	A line card identified by the passed address is restored

YF	System data corrupted
YG	A transmitter's parameters have been changed
YK	The transmitter has resumed communication with a receiver
YM	The transmitter/receiver battery is missing
YN	The transmitter has sent a packet with invalid data
YO	An unknown message was received from automation or the printer
YP	The transmitter/receiver has a problem with the power supply
YQ	The transmitter/receiver's power supply has been restored
YR	Low battery has been corrected
YS	Receiver and transmitter
YT	Low battery in control/communicator
YW	The transmitter created an internal reset
YX	A transmitter/receiver needs service
YY	This is a header for an account status report transmission
YZ	required transmitter / receiver service completed
ZA	Low temperature detected at premise
ZB	Low temperature detection has been bypassed
ZH	Alarm condition eliminated
ZJ	Trouble condition eliminated
ZR	Alarm/Trouble condition has been eliminated
ZS	Unsafe freeze detection system condition
ZT	Zone disabled by fault
ZU	Low temperature detection bypass removed