

# WaveARXPlugin v 2.0 Manual

## Description

This manual describes how to install and use the WaveARX plugin. This software can be downloaded from [www.arrivalnet.se](http://www.arrivalnet.se)

The software can be used on Windows platform, installation procedure is described below.

This plugin has the following capabilities:

- Listen to event from ARX access control and alarm
- Listen to plate data from Hanwha ANPR camera
- Listen to http messages from Wave
- Activate door opening in ARX
- ARM/DISARM/MUTE/RESET Intrusion alarm in ARX
- Create bookmarks and events in Wisenet Wave

Based on incoming events the plugin can carry out various actions, one event can activate several actions.

Before you can use this plugin you need a working installation of Wisenet Wave from Hanwha Techwin and Assa ARX access control from ASSA. Check that you can access the systems over your network. The plugin can be installed on the ARX or Wave server, if Wave is installed on a Windows OS as well as a third server or you can run it in a virtual machine. The information between this service, ARX and Wave are encrypted using SSL/TLS protocol.

## Installation Windows platform

Installation is done by downloading the latest version from [www.arrivalnet.se](http://www.arrivalnet.se) download section and install by double clicking the file.

## 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 configuration tool can be found under WaveARXPlugin menu.

The first time you start the configuration tool you need to set the connection information to Wave and ARX server, click the General settings tab and enter the information.

ARX ServerIP, username and password and Wave server IP, username and password is information needed for connecting to each system, if you are not using Wisenet Wave then you don't need to add the connection details.

The user for the Wave connection need administrator rights and the same goes for the ARX user.



## General Settings

ASSA ARX Settings

ARX servername:  Connected to ARX

ARX username:  

ARX password:

Wisenet Wave Settings

Wave servername:  Connected, server version: 4.2.0.33832

Wave username:  

Wave password:

License and Language Settings

Hardware ID:

License key:  License is valid for 10 objects

Language:  

Incoming events

Incoming port:

### Example of basic configuration

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 after you received it from ArrivalNet or your distributor. Language is used when creating bookmarks in Wave, the bookmark text will be in the language you choose. When all is filled in press save to save the configuration. Incoming events port is used to receive http messages and ANPR data so please set this to a port between 1-65535, it needs to be a free port in Windows, default port is 25678. You need to make sure that the firewall is opened for this port for incoming traffic.



## Rules configuration

The rules configuration is divided by Events and Actions. First step is to select the event when the rule should be triggered. The following event can be selected:

Arx Access Event – the rule will be triggered by an event in a door

Arx Alarm Event – the rule will be triggered by an event in Arx alarm

ANPR Event – This will be triggered when a camera reads a number plate

Wave Message – This will trigger when a http message is sent from Wisenet Wave

### ARX Access Event

The screenshot shows a configuration window for an ARX Access Event. At the top left, there is a dropdown menu labeled 'ARXAccessEvent'. To its right is the title 'Events'. Below this is a table with three columns: 'Type', 'ExternalID', and 'EventtypeARX'. The table body is currently empty. Below the table is a 'Delete Rule' button. Underneath that is an 'Event' section with two dropdown menus: 'Where:' set to 'Härnäs dörr' and 'What:' set to 'All'. At the bottom of the window are two buttons: 'Save as new' and 'Update selected'.

Select the door you like to get event from and the What box means what event you like to listen to, as default All or Invalid access events are available but you can create your own groups under the tab Arx groups (more about that later in the manual). All means all event coming from a door, and invalid means just event flagged as not normal, for example door open too long or forced open as well as wrong PIN or access denied.

### ARX Alarm Event

Type	ExternalID	EventtypeARX	Camera
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Delete Rule

Event

Where - System:

Area:

Section:

What: All

Save as new    Update selected

This event listens to ARX Alarm system. Select System, Area, Section you want to listen to. If you only select System and Area the event will be triggered on all sections belonging to that area. Then select the event group in the What selection.

### ANPR Event

ID	Type	Camera	CameraID
001	ANPREvent	Garage 2	CAM_00166CCCCBAF

Delete Rule

Event

Where: Garage 2

CameraID: CAM\_00166CCCCBAF

Save as new    Update selected

Number plate: TDT77J

Select the ANPR camera you like to get plate event from. The camera ID will be shown for information. This requires at least one ANPR camera to be configured, more about that later in this manual. The plate number should also be added to a person in ARX on an additional field with the external name plate.



## Wave Message

Rules (6/10)

Type: WaveMessage Events

ID	Type	Message
002	WaveMessage	OPENDOORPORT

Delete Rule

Event

What: OPENDOORPORT

Save as new    Update selected

This event listens to a specific keyword sent from Wisenet Wave. Give a unique keyword and configure the same in a rule in Wisenet Wave like this for a soft trigger:

Event

When: Soft Trigger

At: <Any Camera>

Available to: All Users

Name: Öppna dörr i ARX

Icon: [Image]

Schedule...

Action

Do: Do HTTP request

Interval of action: No more than once per 1 min

HTTP URL: http://192.168.2.244:25678

HTTP content: OPENDOORPORT

Content type: Auto

Login: admin    Authentication type: Basic

Password: [Masked]    Request type: Auto

Under action select DoHTTPRequest

HTTP URL is the IP to the server running this plugin followed by the port set in the General settings of this plugin, default is 25678. In this case my server is 192.168.2.244 then the URL should be http://192.168.2.244:25678

HTTP Content is the same keyword as you use in the rule created earlier. Set Authentication type to Basic and the rest to Auto. Username and password should be the same as you use to login to Wave.

This means that if you now press the soft trigger in Wave the event will be activated in this plugin.



## Actions

The following actions are available:

### ARX open door

**Actions**

ID	Type	Create	AdditionalInfo
001	ARX	OpenDoor	Port01_ExternalID

Type: ARX Open door Delete Action

Action

Door: PORT 1

Save as new
Update selected

This action type will open the selected door in Assa Arx. If this action is triggered by a ANPR camera then the door will only open if the plate is added to a person in ARX and if that person has access rights to that door.

### ARX Alarm

**Actions**

ID	Type	Create	AdditionalInfo
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Type: ARX Alarm Delete Action

Action

System:

Area:

Action: Arm

Save as new
Update selected

This will set ARX alarm area in the selected state. The available modes is

- ARM
- ARM with Prealarm
- DISARM
- Disarm with reset
- Mute Siren



- Reset

## Wave bookmark

With this action type you create a bookmark in Wisenet Wave

This action is a little bit special as you also have some dynamic variables to use. A bookmark in Wave have three text fields and you can freely give your own text here. In case the event creating this Action is coming from ARX access when a person is involved, for example access granted, access denied then you can use the following dynamic fields and that will instead be replaced with the data fetched from the ARX database. This can also be combined with free text.

If the event is coming from ARX access control you have the following dynamic text:

%PersonName%  
 %TranslatedEvent%  
 %Door%

If the event is coming from ARX alarm you have the following dynamic text:

%System%  
 %Area%  
 %SectionID%  
 %Section%

If the event is coming from an ANPR camera you have the following dynamic text:

%Plate%  
 %PersonName%

The bookmark will be created in Wave on the same second as the event is created with the pre and postalarm settings added to it. So if an event is triggered at 09:45:25 then the bookmark will be created in Wave at 09:45:20 and will end at 09:45:35 if prealarm is 5 seconds and postalarm is 10 seconds.



### Wave Event

Wave event is similar to Wave bookmark but instead just send a message to wave that can be used in Wave to create other actions. Can for example be used to move a PTZ camera to a preset position if a door in ARX is forced open.

Give some unique text in the three fields and the do a generic event in Wave listening to the specific key words.

Actions			
ID	Type	Create	AdditionalInfo
001	Wave	Bookmark	{{647431eb-ca0d-a28f-ece6-9d9578319fea}}
002	Wave	Event	Plate read: %Plate% - %PersonName%
003	ARX	OpenDoor	Port01_ExternalID

Type: Wave Event

Action

Source: %Plate%

Caption: Plate read: %Plate% - %PersonName%

Description: %Plate%

Save as new    Update selected



### ANPR camera configuration

If you like to use ANPR cameras to generate an event on incoming plate information you need to configure the camera ANPR settings first:

The screenshot shows a configuration interface titled "JSON via HTTP(s) integration" with a green checkmark icon. It contains the following fields and controls:

- Geo Latitude :
- Geo Longitude :
- Destination URL :
- Camera ID :
- Send frame to cloud :  Full frame  Crop frame
- Send mode:  On Detect  On Lost

Geo Long and Lat is the coordinates where the camera is installed, if you don't know that then put 1 in the fields.

Destination URL is built up using a username, password and IP of the server running the plugin.

Username and password is free for you to choose, remember them as you will need them in the next step, they are separated by a colon and ends with an @ sign with the server IP after. So in the example above the user is admin and password is secretpassword.

CameraID is a unique ID for each camera you like to use.

Save and then restart the app in the camera.

Then back in the plugin configuration, click on the tab ANPR cameras:

The screenshot shows a form for configuring an ANPR camera with the following fields and buttons:

- Name:
- Camera username:
- Camera password:
- CameraID:
- APX Door:
- Buttons: Update existing, Save as new

Give the camera a name that can be anything you like.

Camera username and password is the same as you earlier set in the ANPR camera.

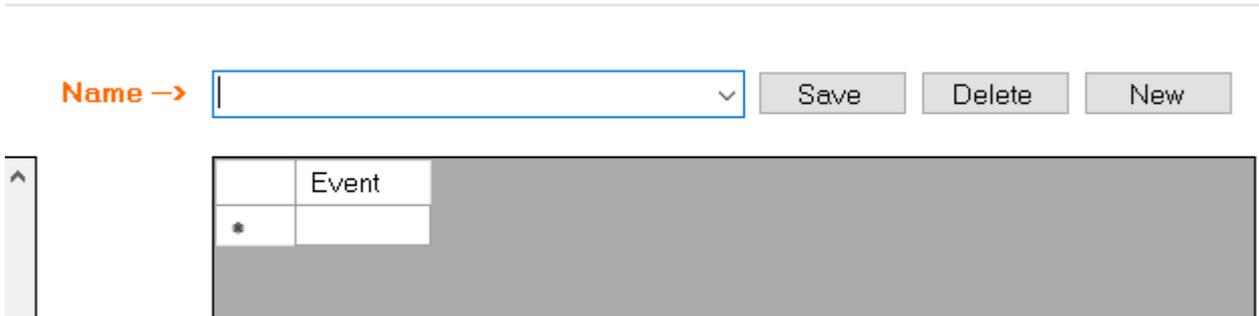
CameraID is also the same as you used in the camera earlier.

Press save and now the camera is ready for use in rules.

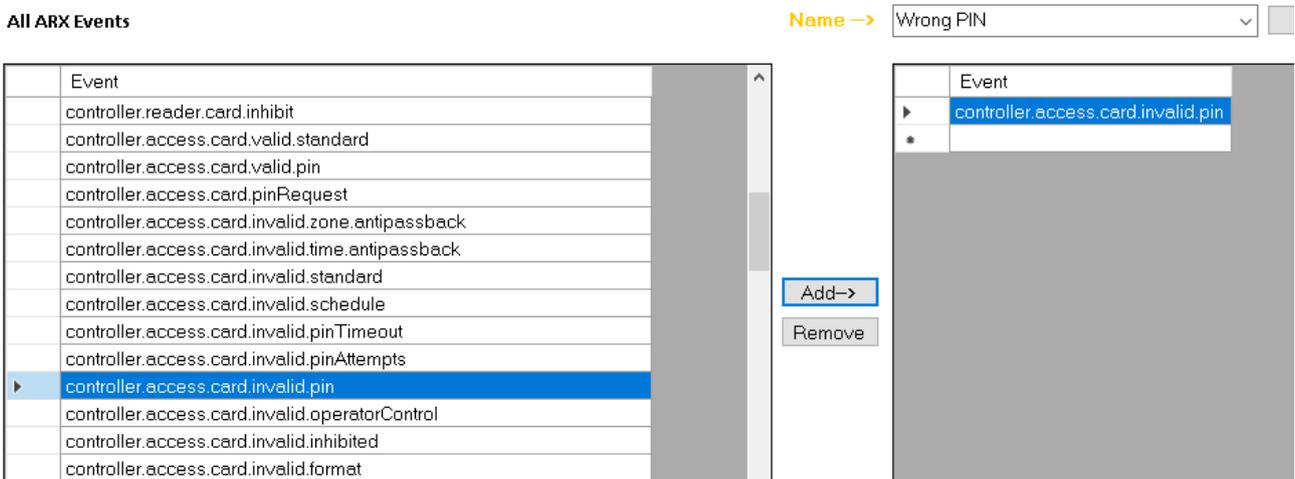


### ARX Groups

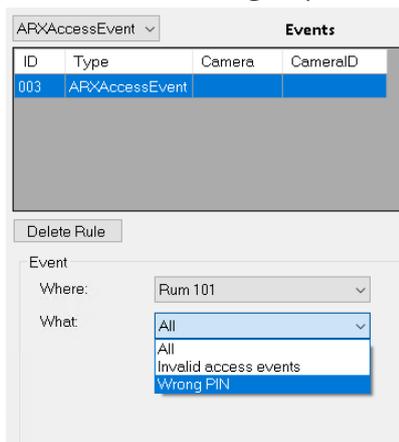
The group configuration is used to filter events from ARX that you then use when creating rules. If you for example want to listen to events from a door in ARX but you are only interested in invalid PIN event you need to create a new group. Go to the ARX groups tab and press New



You will now get some hints what to do, give a name to the group. And add the event to the group by selecting it in the left box and press add:



You can add several events to a group but in this case this is the only event we are interested in. Then press save. Now this group will be available when creating a rule from an ARX event:



## 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](http://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.

License amount are based on what you use in rules, a door, a camera and an ARX alarm area is counted as one use of a license. You can do as many rules you want for one door it will still only count as one license use. Here is an example:

A camera is added for reading number plates and a rule is created to open a door in ARX. ARX alarm is also used to create a bookmark in Wave if an alarm goes off at one section.

In the above example 3 licenses will be needed, 1 for the camera, 1 for the door and 1 for the alarm section.

In Wisenet Wave you will not need any extra license

In ARX you need export license if you like to use the ANPR function. If you only use Access event and alarm you will not need an additional license.

## Links

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

[www.arrivalnet.se](http://www.arrivalnet.se)

[www.assaabloyopeningsolutions.se](http://www.assaabloyopeningsolutions.se)

[www.wavevms.com](http://www.wavevms.com)

## Support

For support please send an email to [support@arrivalnet.se](mailto:support@arrivalnet.se)

