## Gate Monitor - Argos

A complete system for access control of license plates, on vehicles, thru a gate.

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## History

Argus is the name of the 100-eyed giant in Greek mythology. Argus, son of Arestor, was a primordial giant whose epithet, "all-seeing", led to his being described with multiple, often more than one hundred, eyes.
Hera gave him the job of guarding one of her husband's lovers. This unfortunate woman was lo, whom Zeus turned into a cow in an ill-conceived attempt to hide her from his cow-eyed wife. Argos, great and strong, who with four eyes looks every way and sleep never fell upon his eyes, but he kept sure watch always. Hermes managed to trick and kill Argus whose eyes Hera then put into a peacock's tail - and his hundred eyes were preserved forever.

## Introduction

Gate Monitor Argus is a complete system for access control of license plates, on Cars and Lorries thru a gate.
The system are sold and distributed by CameraCompagniet in Sweden AB, Helsingborg, Sweden. The system can be bought with a separate license and installed on a windows server or hosted on a central server managed by CameraCompagniet.
The gate monitor Argos is delivered in 3 basic versions with the possibility to add license for extra functions.

Gate Monitor : The basic version - Allows cars and Lorries to automatically pass a gate, based on if a valid license plate exists, in the database. The system sends an opening signal to your gate. No extra options expandable by license

## Example for Use:

A perfect solution for a building site - set up all the number plates in the database, that are allowed in to the building area - contractors, deliveries, visitors and any other...... You get a picture and timestamp so you can see when they arrived and passed the gate.

Gate Monitor + : The full version - allows cars and Lorries to automatically pass a gate based on if a valid license plate exists, in the database. Keeps track of vehicles, if they are inside or outside off the premises. Extra options expandable by license.

## Example for Use:

As a solution for an industry area, with more than one gates. The Gate Monitor + keeps track of the vehicles, if they are inside the industrial premises - good to know if an evacuation are needed quickly print a list.

Plate Finder: Finds a vehicle number and compares with the database and sounds an alarm.

## Example for Use:

Need to find a specific license plate? The Plate Finder sounds an alarm when a match is found in the database. Keeps you informed when an unwanted or a VIP license plate enters the premises. Good for filling stations to prevent unwanted license plate or to station that wants to give special customers, some special attention. It's easy to connect your existing IP-cameras.

Gate Monitor, GM - The basic solution - Compares the local database for a valid plate and sends an opening signal to your gate. License for 1 relay Camera and relay are expandable by license Time Zones, unlimited Holydays, unlimited Import holydays to database from Excel Activate and deactivate number plates Quick information of creation, modification Local database in SQL Import number plates to database from Excel Export database to Excel Upload pictures and detect number plates Advanced search functions History reports 60 days of history.
( Upgrade to Gate Monitor+ - are available No extra options expandable by license

Gate Monitor + GM+ - The Expandable solution - Allows vehicles to automatically pass a gate based on if a valid license plate exists, in the database. Keeps track of vehicles, if they are inside or outside off the premises. Every entry/exit are documented with time and date.
License for 4 camera
License for 2 relay
Camera and relay are expandable by license
Time Zones, unlimited
Holydays, unlimited
Import holydays to database from Excel
Activate and deactivate number plates
Luick information of creation, modification
Import number plates to database from Excel
Export database to Excel
Upload pictures and detect number plates
History reports functions
120 days of history.
Extra options expandable by license

Plate Finder - Finds a vehicle number and compares with the database and sounds an alarm.
License for 4 camera
License for 1 relay
Expandable by license
Activate and deactivate number plates
Luick information of creation, modification
Import number plates to database from Excel
Export database to Excel
Upload pictures and detect number plates

## Extra options - Licensed features for GM+ and PF

(Connection to external master data base)
Connection to stolen vehicles database (Larmtjänst, Sweden)
Connection to Ethiris camera system

-     + 1 pc extra Camera - 2 / 4 -on basic delivery
$\rangle+1$ pc extra I/O - relay - $1 / 2$-on basic delivery
- Import from "Learning state"
- Evacuation information - Print or Export
- Evacuation information - by Mail
$\checkmark$ Mail on every access event
- 400 days of history - or more ......

Backup of DB settings
$\checkmark$ Export of Pictures of

- Upgrade of GM to GM+


## Recommended requirements for standalone server:

OS: Windows Server2012 Essential or above
CPU: Intel Core i7-4 cores or better
RAM: 16 GB or more
Storage: $2 \times 1$ TB hard drives
Hard Drive's RPM as much as possible
We recommend more than one Physical drive.

## Minimum requirements for standalone server:

OS: Windows Server 2008 R2 64-Bit or above
CPU: Intel Core i5-4 cores or better
RAM: 8 GB or more
Storage: $2 \times 500$ GB hard drives
Hard Drive's RPM as much as possible
We recommend more than one Physical drive.

## Coming features:

> Selected user access to selected cameras
$>$ Connection to External DB for vehicle "information light"
$>$

## Different pages in the web application:

## General Information:

Vied by: U = User, M = Master and I = Installer

## GATE MONITOR

Vied by: U,M,I
This is the main page where a live picture of a selected camera is visible and the latest detected license plate is viewed in large.
The detected license plate are also shown, next to the local time and date at the locally connected computer and the local time and date of the server.
We also monitor that the "Capture Image" service, on the server, are running properly. Red dot indicates a problem.

With the button " Open Gate " it is possible to open the connected relay - in order to manually open a gate.

When a license plate are detected outside of its "Time Zone" a "Stop"-sign are "flashing", a popup are showing the time zone, for that license plate and a sound are playing in the loudspeaker of the client. It's also possible to connect an external siren or a flashlight, when this event occurs. The time \& Date field are also marked with red on this page and in "History Report".

When a "Blacklisted " license plate are detected then a "Stop"-sign are "flashing" and a sound are playing in the loudspeaker of the client. It's also possible to connect an external siren or a flashlight, when this event occurs. The "Status" fields are also marked with red on this page and in "History Report".

On the lower part of this page you find the recent 10 detected plates of license plate history - by search in the "History Report" under "Reports" you can search the database for a specific day or a specific license plate on a selected camera.

In the list we have the following menu items:

| Camera Name | Name of the camera that has captured the specific license plate. |
| :--- | :--- | :--- |
| Vehicle Number | Captured license plate number from the database. |
| Name | The name or free text belonging to the captured license plate from the database. |
| Image | Thumbnail picture of the captured license plate number - just click to enlarge. |
| Date \& Time | Time \& Date stamp of the captured license plate. This field turns red if the plate <br> tries to enter when "Out of Time Zone" |
| Status | Information of the license plate status, IN or OUT -side of the premises. This field <br> turns red if the plate is "Blacklisted". |

## TIME ZONE

Vied by: M,I

## Holiday

In the "Holiday Info"-page you set up the holydays for the year.
Use and type a describing name for the holyday and add the weekday or a period of days by selecting the "Select Date Range".
Choose if the holyday should be active for selection as a holiday in the time zone page.
It's also possible to import the holyday information from an Excel file. Just tick the "Import from excel" box and use the "Help" to get information about the configuration of the columns, in an Excel file.

## Search

In this section you can search for a specific holyday title that is in the database.

## List

In the list we have the option to delete all the holydays or only one specific. The list describes an overview of the holydays and under "Edit" there is the option to change and edit each holyday.

In the list we have the following menu items:

| Title |  | The name showing in "Time Zone" for selection. |
| :--- | :--- | :--- |
| Description |  | A short description of the holyday. |
| From Date |  | The start date of the holyday. |
| To Date |  | The end date of the holyday. |
| Active |  | If the holyday should be active and show up in "Time Zone" for selection. |
| Edit |  | Use this symbol to edit the holyday information. |
| Delete | Use this symbol to delete the specific holyday information. |  |

It's also possible to delete more than one holyday by checking the line in the checkbox to the left of "Title" and use the "Delete selected"-button.

## Manage Time Zone

In the Time Zone Info part you set up the rules for when a specific license plate are allowed to pass the gate.
Time zone name: - Use and type a describing name for the time zone and add the weekdays and pick the time, From/To, when the number plate is allowed to pass the gate. You have the possibility to create 10 different selections of days in week and time of the day.
Allow Holiday: - Make sure that you have created holidays on the "Holiday"-page.
Is Active: - Choose if the time zone should be active for the selected holidays or not and if the time zone should be active and available to use in selection - under number plate.
Is Default: - If the Time Zone is marked as "Is Default", then this is the time zone that every new imported number plate will get, when uploaded or imported, to the database.

## Search

In this section you can search for a specific time zone name.

## List

Under the "List" we have the options to delete all the time zones or only one specific, of them. The list describes an overview of the time zone and under "Edit" there is the option to change and adjust the time zone. The "Time zone ID" is useful when importing a list of license plate, to set the right time zone to the plate, in the document, from start.


In the list we have the following menu items:

| Time Zone ID | This is the internal time zone ID, to use when importing time zones. |  |
| :--- | :--- | :--- |
| Time Zone |  | The name showing in "Number Plate" for selection. |
| Is Default |  | Indicating if the time zone are default or not. |
| Active |  | If the time zone should be active and show up in "Number Plate" for selection. |
| Edit | Use this symbol to edit the time zone information. |  |
| Delete | Use this symbol to delete the specific time zone information. |  |

It's also possible to delete more than one time zone by checking the line in the checkbox to the right of "Time Zone ID" and use the "Delete selected"-button.

## NUMBER PLATE

Vied by: M, I

## Number Plate Info

This is the main page for the number plates, were you administer, load pictures, import information to and administrator, the number plate data base.

| Upload Number Plate | Select a picture on your client to detect and extract a license <br> plate from a photo - and save it in the database. |
| :--- | :--- |
| Registration Number | This is the main field for the application - No blanks I number. |
| Name | Put your own name for the number plate - by default - the <br> system also puts the detected registration number in this field. |
| IS Active | In order to "lock out" the plate - just untick the box. |
| Time Zone | Select a suitable time zone, among the one you have created <br> under "Time Zone". |
| Blacklisted | If you need to get an attention, when a specific number plate <br> passes - the "Blacklist" sounds the alarm - nothing else. |
| Check it in the stolen data base $\mathbf{)}^{\mathbf{2}}$ | This button makes a lookup in a register of stolen vehicles of <br> Larmtjänst in Sweden, and informs you if the number plate is <br> stolen or not. |

## Search

Here you can search for a specific registrations number or name.

Search for witch number plates that have a specific "Time Zone", search for blacklisted number plates. Does any plate have an alternative number plate or is the number plate "Imported"? Search for a single- or a combination of criterias. The "Reset"-button clears all the input.

## List

Under the "List" we have the options to delete all the license plate or only one specific. The list describes an overview of the information in the data base and under "Edit" we have the option to change and edit the number plate info.

$\square$| Registration |
| :--- |
| Number | Name | TimeIs <br> Zone Alternate Alternate Number |
| :--- | Blacklisted Active Imported Edit Delete Info

In the list we have the following menu items:

| Registration Number | Registration number in the DB. |
| :--- | :--- |
| Name | The free name you have given the number plate . |
| Time Zone | Here we can see what time zone the number plate belongs to. |
| Is Alternate | Does this number plate has an alternate number ? |
| Alternate Number | Sometimes we have some problem to read the right number on the plate, <br> due to screws, stickers and other obstacles, and then you can add an extra <br> reading to the plate. You can also add a different plate number...... |
| Blacklisted | If we have a "Yes" here, the number plate is blacklisted. |
| Active | If we have a "Yes" here, the number plate is active. |
| Imported | If we have a "Yes" here, the number plate is imported. |
| Edit | Use this symbol to edit the time zone information. |
| Delete | Use this symbol to delete the specific time zone information. |
| Info | Use this symbol to get more information about the number plate. |

$\mathbf{)}^{\mathbf{2}}$ - This is an licensed option and will only be visible if you have an valid license for this option.

## IMP./EXP. NUMBER PLATE

Vied by: M,I

On this page you can import and export number plates to the data base.

## Number Plate - Excel Imp/Exp

Under this section it's easy to import to the database using Excel - just format the tables as described under the link to the right, called - "Help" - and upload the file with the help of "Upload File:". And by using "Export :" you can download a simple excel list consisting of:
RegistrationNumber, Name, IsActive, IsBlackListed, TimeZoneID and TimeZoneName

## Argus ALPR Imp/ Exp

This section gives you the possibility to get out the full information of the number plate and also the possibility to download the corresponding picture using the "Export"- and "Export Picture"- buttons. If you have another Argus Gate Monitor - then it's easy to extract and add this information.

## Search

In this search section we can search in the "Import From Learning State" for a specific number plate.

## Restore Deleted Number Plate

Pressing the button "Restore Deleted Number Plate" will take you to de backend of the removed pictures and number plates. Here we have the possibility to restore removed/deleted number plates and pictures. If by accident you have removed a valid number plate - then you will find it here.
You have the possibility to search for the number and restore the number plate to the data base - as if we had select it as a "New Number Plate" (explained below) or delete the captured number plate and picture - completely from the system. It's also possible to delete or restore, more than one number plate, by checking the line in the checkbox to the left of "Registration Number" and use the "Remove selected" -button or the "Restore" - button.

## Import From Learning State - $)^{\mathbf{2}}$

Under "Import From Learning State" it's possible to select and import detected number plates with corresponding picture. If you temporarily want to turn off the learning state - just press "Learning State Running" .......

Make sure, looking at the picture - just double-click on the thumbnail picture, to view a larger picture - that the reading of the number plate is correct.
To add the detected number plate in the data base - just select the different options under the menu item "Filter As" and then press the "Upload"-button.

## Process later

This is the default value we add to all the new captured pictures. When leaving this option, next to a picture - nothing will happen when pressing the "Upload"-button.

## New Number plate

When choosing this option, next to a picture - the Number plate, Name and picture are stored in the local database. The number plate will be stored with the default time zone - according to settings in "Time Zone".

## Remove

When choosing this option, next to a picture - the Number plate, Name and picture are removed from the list but stored in a separate "Deleted database". The learning state will be more and more accurate after that more pictures are removed, since a database match are made every time, before saving the new number plate, in the "Learning List".

## As Alternate

When choosing this option, next to a picture - the detected number plate will be added as an alternative number for an existing number plate in the database. Chose from the menu item "Alternate For" which number to "connect to" the selected number plate.

It's also possible to delete more than one detected number plate in the list, by checking the line in the checkbox to the left of "Registration Number" and use the "Remove Selected"-button.
$\boldsymbol{J}^{\mathbf{2}}$ - This is an licensed option and will only be visible if you have an valid license for this option.

## REPORTS

Vied by: U,M,I

## HISTORY REPORT

History report is where you can search for the license plate history that is saved in the database. You have a set of search option like:

Under "Vehicle Type" you have the option to choose:

- "All"
- "Black Listed"
- "Not Blacklisted"

Select from witch camera/s that shall be in the search - by default all active cameras are selected. Use the "Search"-button to get the result or the "Clear"-button to remove the search criteria's. There is also the option to export the search by using - "Export to Excel" in the section of "Vehicle In/Out History" at the bottom of the page.

## Reset Vehicle Status as Out ) ${ }^{\mathbf{2}}$

This section is a part of the licensed feature called "Evacuate" - explained later for the separate page "Evacuate". Here you can set the time and the time interval for resetting the status of the number plates as "OUT". You have also the possibility to turn off the "reset" by unticking the "Active" -box. After changing the value - just press the "Set"-button to update.

## Vehicle In/Out History

| Camera | Registration Number | Client Name | Image | Date \& Time |
| :--- | :--- | :--- | :--- | :--- | Status


| Camera | The camera in the system, that captured the license plate. |
| :--- | :--- |
| Registration Number | Registration number in the DB. |
| Client Name | The free name you have given the number plate. |
| Image | The thumbnail picture - just click to enlarge the picture. |
| Date \& Time | Date and Time stamp - when the number plate was captured. |
| Status | If we have a "OUT" here, the number plate is leaving the premises - and if <br> "IN" the number plate has gone in to the premises. |

CREATE USER
Vied by: M,I
When you first start the system you have 3 levels of users.

## User - user/user

Can watch and edit the "Gate Monitor", "Reports" and "Change Password"

## Master -master/master

Can watch and edit as "User" and "Time Zone", "Number Plate", "Imp./Exp. Number Plate" and
"Create User".

Installer -installer/installer
Can watch and edit as "Master" and "Settings" - "Camera" and "I/O"

## SETTINGS

## SETTINGS - CAMERA SETTINGS

Vied by: I

This page is for the installer to set up the cameras in the system.
The system are based only on cameras that provides separate video and Image URL's
Tested with the following provider: AXIS

## Camera Info:

Just fill in the required camera information on the page and then use the test button to make sure that the connection are correct.
Active: - To use the camera in the system - tick.
Online: - To use the camera to capture license plates - tick.

## Search

Here you can search for a specific camera in the list below.

## List

The list provides an overview of the cameras in the system and under "Edit" there is the option to change and edit the selected camera. We also have the options to delete a specific camera in the list.

## SETTINGS - I/O SETTINGS

Vied by: I

This page is for the installer to set up the output from the system.
The system are based on two models from "Control by Web"

1) Relay 1 port - http://www.controlbyweb.com/webrelay/
2) Relay 4 ports - http://www.controlbyweb.com/webrelay-quad/

I/O Info:

Just fill in the required information on the page and then use the test button to make sure that the connection are correct. Observe that the password MUST be encoded - when using "Control by Web" relays - just follow the link to encode.

## Search

Here you can search for a specific I/O in the system, in the list below.

## List

The list provides an overview of the I/O's in the system and under "Edit" there is the option to change and edit the selected I/O. We also have the options to delete a specific I/O in the list.

## SETTINGS - DATABASE SETTINGS - Licensed option

Vied by: I

This page is for the Installer to set up the connections to the external database to the system.

This option activates the ability to connect to an external database. The connections are made to the same database as the local - just another "Gate Monitor" - "Number Plate" database.
"Allow external connection" - if ticked - allow other "Gate Monitor" to connect to the local "Number Plate" database.
"Connect to database" - if ticked - and the "Username", "Password" and "URL" are filled in then the external database are "as one" with the local. We also need a test button to check the connection.

## SETTINGS - ETHIRIS CONNECTION - Licensed option

Vied by: I

This page is for the Installer to set up the connections for an Ethiris system.
Special scripted code are needed in the Ethiris system, please ask for assistance when setting up the Ethiris system.

## SETTINGS - MAIL CONNECTION - Licensed option

Vied by: M,I
This page is for Master and Installer to set up the connections for sending mail.

Add a new box for "Gate Monitor Receiver" and activation for this. Meaning - if activated then every event on detected plates on "Gate Monitor" -page are automatically sent to "Gate Monitor Receiver"-address. Containing information of "Plate number", "Time \& Date" and "Status"

## SETTINGS - LPR SETTINGS

Vied by: I

This page is for the Installer and Admin to adjust the settings and fine tune the LPR-system.

Set the following variables:

| Variables | Default value | Note |
| :--- | :---: | :--- |
| Minimum Char Height: | 25 | The min. value of pixel height. |
| Maximum Char Height: | 70 | The max. value of pixel height. |
| Country Codes: | SE | Se separate information of available countries. * |
| Deviation angle: | 25 | The angle of the camera towards the plate. |
| Rotate Angle: | 0 | Normally 0 |
| FPS: | 10 | The number of frames the system handles |
|  |  |  |

## Supported Countries

- Algeria (DZ)
- Argentina (AR)
- Australia (AU)
- Austria (AT)
- Azerbaijan (AZ)
- Bahrain (BH)
- Belarus(BY)
- Belgium (BE)
- Bosnia Herzegovina (BA)
- Brasil (BR)
- Brunei (BN)
- Bulgaria (BG)
- Canada (CA)
- Chile (CL)
- Columbia (CO)
- Czech Republic (CZ)
- Cuba (CU)
- Danmark (DK)
- Egypt (EG)
- Estonia (EE)
- Finland (FN)
- France (FR)
- Germany (DE)
- Luxembourg (LU)
- Georgia (GE)
- Greece (GR)
- Guatemala (GT)
- Hong Kong (HK)
- Horvatia (HR)
- Hungary (HU)
- India (IN)
- Indonesia (ID)
- Iran (IR)
- Ireland (IE)
- Isle Of Man (IM)
- Israel (IL)
- Italia (IT)
- Jersey (JE)
- Jordan (JO)
- Kazakhstan (KZ)
- Korea, North (KP)
- Korea, South (KR)
- Kuwait (KW)
- Latvia (LV)
- Lebanon (LB)
- Lithuania (LT)
- Macedonia (MK)
- Malaysia (MY)
- Mexico (MX)
- Moldova (MD)
- Monaco (MC)
- New Zeland (NZ)
- Netherlands (NL)
- Nigera (NG)
- Norway (NO)
- Paraguay (PY)
- Peru (PE)
- Philippines (PH)
- Poland (PL)
- Portugal (PT)
- Romania (RO) If this list does not contain
- Russia (RU) your country, we can
- Serbia (RS) include it by your request.
- Singapore (SG) Please contact us.
- Slovakia (SK)
- Slovenia (SL)
- South Africa (ZA)

On this page the password for the different levels of access can be changed. The higher level has the ability to change the underlying levels of access.
You need to know your present password, in order to change it. If you have forgotten your password - only higher access levels can change it for you.

