

Manual – TrueView People Counter™, embedded for Axis IP Cameras

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Overview

TrueView People Counter™ is a fully embedded software module for Axis IP cameras, intended for shops and other environments where you need to count people. TrueView People Counter™ offers an unbeaten solution for people counting with features such as

- 1) **Embedded people counter** – fully embedded into Axis IP camera. TrueView People Counter™ is a powerful stand-alone people counter directly in your Axis camera. Requiring no dedicated computer, all counting is done automatically in the camera.
- 2) **IP technology** –Using IP technology it offers a cost efficient, infinitely scalable, easy-to-install and flexible system for automatic people counting, with a superior accuracy.
- 3) **Maintenance** – Maintain your people counter remotely over IP, set and check parameters, and stream video.
- 4) **Web reporting** – automatically export counting data to TrueView Web Report™ or directly to an SQL database through the TrueView Report Daemon™.
- 5) **Bi-directional counting** – the module simultaneously differentiates and counts people moving upwards and downwards in the camera’s field of view.
- 6) **Statistics** – Built in graphs in the camera web interface.

Easy to set up, with this software you can instantly monitor your customer traffic. Integrated with your network, it supports your staff planning and entrance management. With the TrueView People Counter™ you may collect data such as customer flows, trend analysis, evaluation of advertising and promotions and enhance your strategic marketing decisions through effective monitoring of customer traffic. Improve your network video surveillance system with new cost-efficient analytics.

There are several ways to use the data from the People Counter:

- View real-time counting data and compare it with sales statistics directly on the camera through a web browser.
- View graphs of historical data directly on the camera.
- Download data through an open API.
- Use TrueView Report™, which is a powerful statistical software package that lets you manage and monitor historical data conveniently.

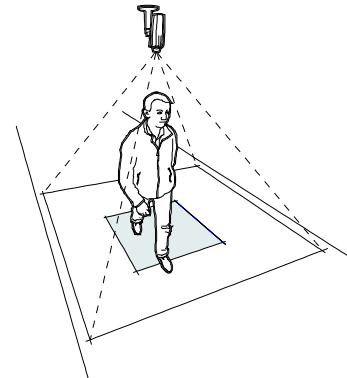
Historical data is available on the camera up to one month and is updated every 15 minutes. The data is stored in 15 minutes bins representing the in and out counts for the 15 minutes periods.

Mounting the camera

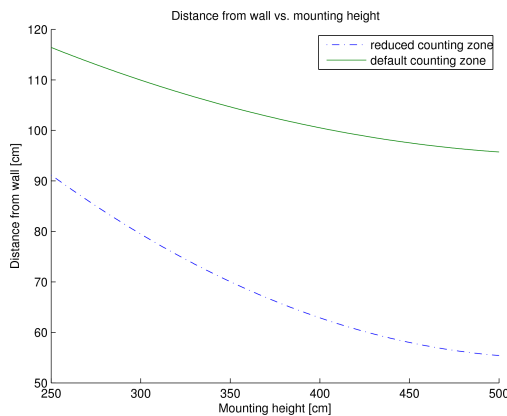
The camera should be mounted above the point where you want to count people, facing straight down. When mounting the camera above a door, the recommended distance from the wall is given by the figure below.

Height and width

TrueView People Counter™ allows a mounting height range from 250 cm to 500 cm. The recommended minimum height, however, is 300 cm. As a rule-of-thumb, one counter will cover a passage as wide as the camera mounting height. Depending on the camera model and lens configuration, both the height range and the covered width may be extended.



Mount the camera facing straight down



Recommended minimum distance from wall

Positioning the camera

Adjust the position of the camera so that it is natural for people to pass through the camera view vertically. If you install TrueView People Counter™ prior to mounting the camera, you can use the lines indicating the counting zone to guide you. The red line should run from left to right, across the path people will take when passing underneath the camera.

General guidelines

In order for the camera and, in effect, TrueView People Counter™ to function properly, make sure that the lighting is sufficient. We recommend a minimum of 80 lux in the scene.

Make sure that no doors or other items are moving within the counting area. Do not mount the camera, for example, above an escalator. Also try to avoid getting very strong light and sharp shadows in the camera view.



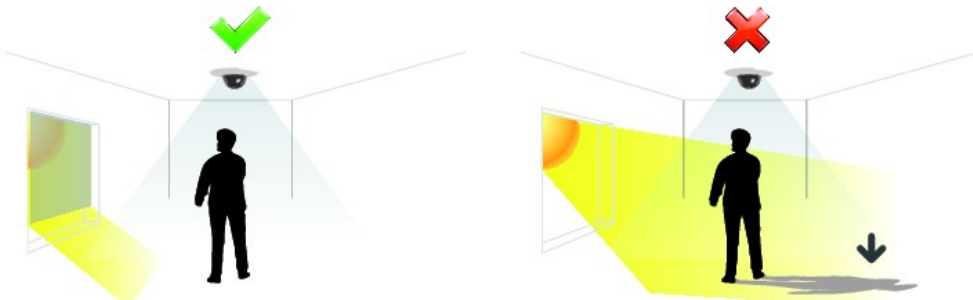
Place the camera straight over the area where people are going.



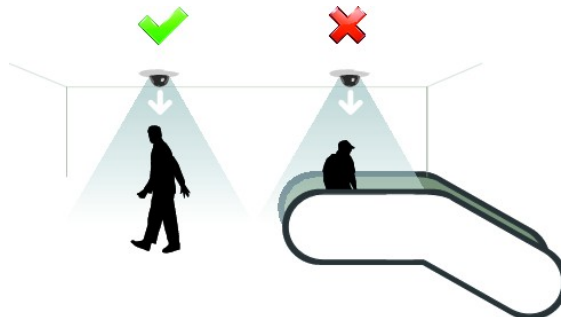
Do not tilt the camera forwards or backwards.



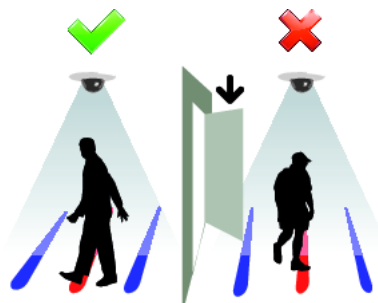
Make sure there is enough light.



Avoid having direct sunlight into the counting zone.



Avoid having moving escalator in counting area.



Make sure that doors are not opened into the counting zone.

Tuning and validation

When the cameras are installed and counting it is highly recommended to validate the accuracy and fine tune the system. This is likely to increase the accuracy or identify counters with problems.

Begin with an overview of the traffic numbers. Look at the numbers for all cameras a couple of days back. If there is no difference (<5-10%) between in and out this is a good first indication that the counting system is configured correctly.

To validate each camera:

- 1) Go to the **Live View** page of the camera.
- 2) Note the numbers in the dominant walking direction.
- 3) Manually count 100 or more passages.
- 4) Compare the numbers between your manual count and the counting systems number. The difference between the counting system and the manual count should be less than 10%.
- 5) If the difference is sufficiently small you can move on to the the next camera.
- 6) If the difference is >10% the counter needs to be manually tuned.
- 7) Make sure the camera is mounted according to the guidelines in this document.
- 8) Adjust the height settings. The changes will adjust the internal parameters inside the camera.
 - a) If the counter is counting too much compared to truth, decrease the height with around 10cm.
 - b) If the counter is counting too little compared to truth, increase the height with around 10cm.
- 9) Go back to step 3 to validate the counter. Please note that the counter will need a couple of minutes after saving parameters before counting accurately.



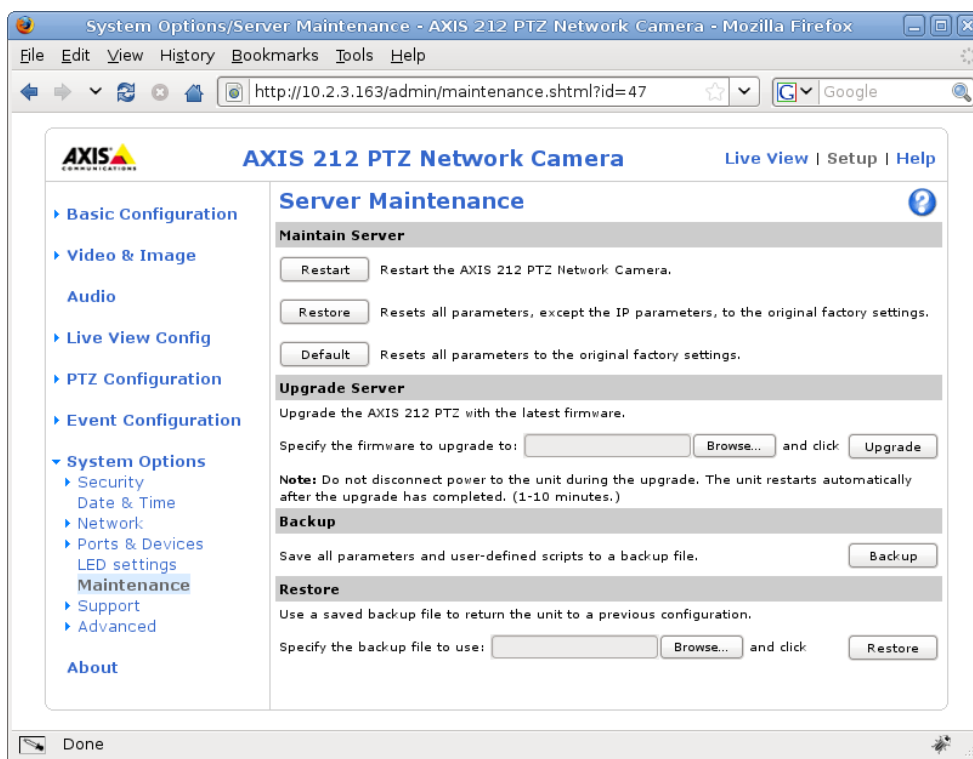
Use the live view to guide you

Installing the software

If TrueView People Counter™ software module is not already installed from your vendor it must be installed manually in your Axis camera.

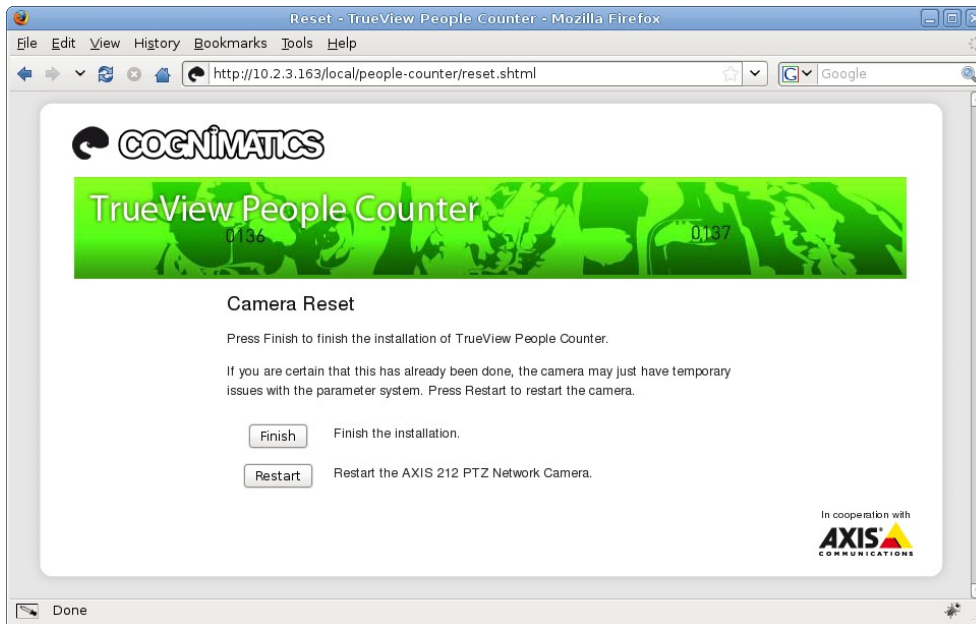
- 1) Make sure you have one of the supported AXIS IP cameras and that you have the correct corresponding software module of TrueView People Counter™. The supported cameras and the corresponding software modules are listed in Appendix A.
- 2) Install the camera on your network, start it up and point your web browser to it. Supported web browsers are Firefox 3, Internet Explorer 7 & 8 and Safari 3 & 4.
- 3) Upload the TrueView People Counter™ firmware by clicking **Setup** -> **System Options** -> **Maintenance**. Under the section **Upgrade Server**, specify the path to the TrueView People Counter™ firmware file or use the **Browse** button. Click on the **Upgrade** button. After installation the camera will restart.

Note that the user name and password will be reset to their respective default values: 'root' and 'pass'.



Axis 212PTZ maintenance page

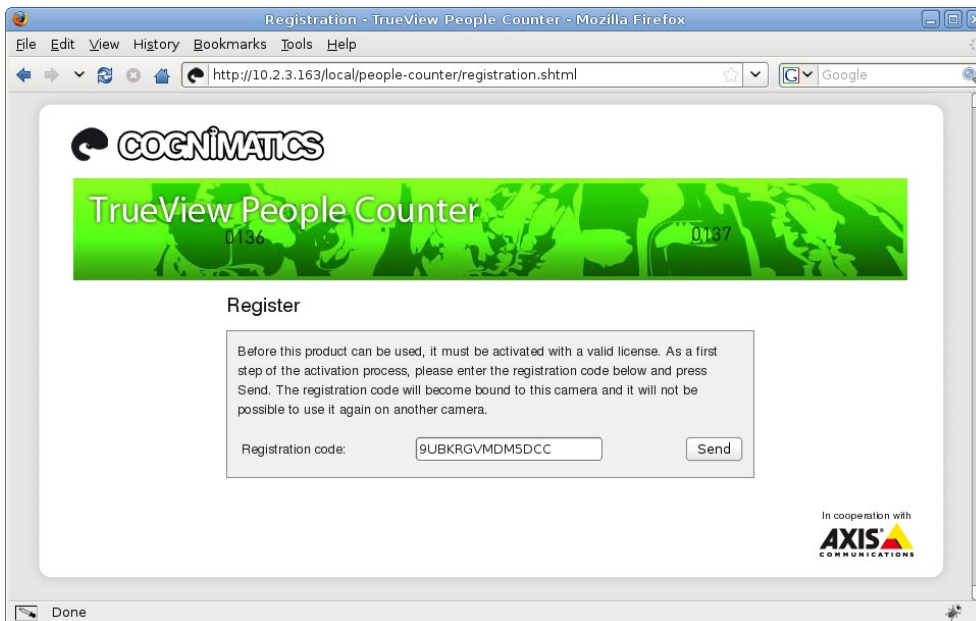
- 4) Reload the camera in the web browser.
- 5) Click the **Finish** button to complete the installation and reset all parameters to the original factory settings. After this, the camera will restart again.



Reset page

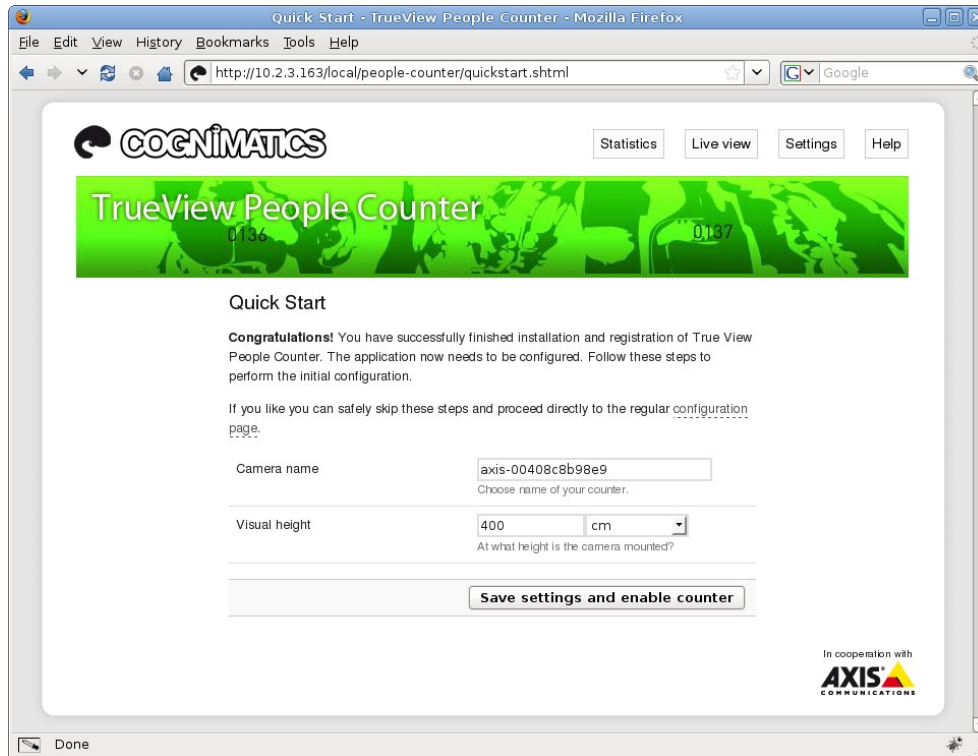
- 6) Reload the camera in the web browser.
- 7) Click the **TrueView People Counter** link to get to the People Counter interface. The first time you do this, you will be asked to enter your license code. Enter your license code and follow the instructions. The software will attempt to activate the license automatically by connecting to a registration server. If the server cannot be reached you will be asked to activate the license on a computer with internet access. When the license activation is complete the camera is ready to be used for counting.

Note that your software license is for one camera only. You can not install the software to another camera without a new registration key.



Registration page

- 8) When the registration is done you'll be redirected to a Quick start page where you can manage the essential settings for the counter to work. You can find these settings in the Settings page as well so if you are used to work with TrueView People Counter™ you can safely skip this step.
- 9) When you update any setting it will take a while for the counter to calibrate, sometimes up to ten minutes. You can see if the counter is working by navigate to the Live view page and walk in the Counting zone.



Quick start page

Configuring TrueView People Counter™

Note: To ensure accurate counting of persons passing the camera, the TrueView People Counter™ must be calibrated before use. This is done using the Visual height setting.

The people counter settings are divided into three categories: *Basic/counting*, *Data/reporting* and *Connectivity*. There are also direct links to some basic Axis camera settings for convenience.

Basic counting configuration

For the basic setup, go to the *General* section. This is where one toggles the counter status, name the counter and set the most fundamental parameters.

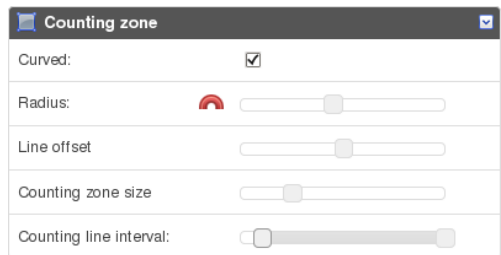
- 1) Verify that Counter **status** is set to Enabled.
- 2) Enter the **name** of the camera or location the TrueView People Counter™ is viewing. Note that all cameras used for people counting need to have unique names.
- 3) Input the camera's **visual height** above the floor and select the proper height unit. This is normally the actual height over the floor but may differ from this value due to e.g. lighting conditions. It is recommended that the visual height is at least 300 cm.
- 4) If the camera can use different lenses, verify that the **lens** setting corresponds to the lens currently mounted on the camera.
- 5) Set the **direction** through the camera view, in which people are to be counted as going in when passing underneath the camera.



General	
Counter status	Enabled
Camera name	Store 1
Visual height	315 cm
Direction in	Up

Under the *Counting zone* section one can adjust the area, in which counting will take place. The counting zone is indicated in the image by two blue lines and a red area. The red area is the virtual counting “line” and the blue lines show the extent of the counting zone. For proper counting, a person needs to be visible within the entire zone. In addition to adjusting the size and position of the counting zone, one can also change the shape of the counting “line”. Use the curvature settings to change its shape such that it is natural for people to pass through the count line at as close to a straight angle as possible. You will notice that there are certain limitations on these values as well as the visual height setting. Note that the position of the red and blue lines over the video on the settings page are just an estimate of where the line will be. For the actual position, go to the live view page.

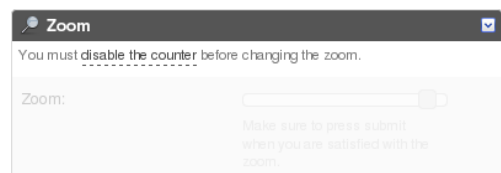
- 1) The *Line offset* moves the entire counting zone upwards or downwards. How much it can be moved will depend on the counting zone size.
- 2) The *Counting zone size* slider sets the size of the counting area. How much it can be changed will depend on the visual height setting.
- 3) Use the *Counting line interval* setting to shorten/move the counting lines sideways.
- 4) Let the counter use a curved counting area by checking the *Curved* checkbox. Doing so will enable another slider with an icon next to it. Use the slider to adjust the radius and click the icon to change the direction of the curvature.



Counting zone	
Curved:	<input checked="" type="checkbox"/>
Radius:	
Line offset	
Counting zone size	
Counting line interval:	

If you have a camera with zoom capabilities you can also change it from the settings page in the *Zoom* section.

- 1) Move the slider to the wanted value. Note that you must disable the counter before doing this, this can be done by click on the link above the slider.



Zoom	
You must <u>disable the counter</u> before changing the zoom.	
Zoom:	
Make sure to press submit when you are satisfied with the zoom.	

Note! Do not forget to press the Submit button when changes in settings are made, otherwise the settings won't be saved.

Under the *Counting schedule* section start and stop times for the counter can be set individually for each day of the week. By unchecking the Per day schedule box, changing the times for one day will affect all days. Unchecking a box by the sliders will disable counting for that particular day.

Data and reporting configuration

The format of the strings used when exporting data to CSV files can be customized in the *Data export* section. The CSV files are constructed using either the *time drive* or the *type drive* strategy. Time drive gives one line per time interval and may include values of several data types. Type drive gives one line per count type and time interval and may include a type description.

Possible patterns are

- %i in
- %o out
- %c type-code
- %d type description
- %r short type description
- %n counter name
- %s camera serial number
- %v value
- %t timestamp
- %u Unix timestamp
- %S separator character

Patterns associated with the two different strategies mentioned above are conflicting and may not be used in conjunction. The patterns %i and %o are used with *time drive* and patterns %c, %d, %r and %v are used with *type drive*.

The default pattern is %t%S%s%S%n%S%i%S%o.

Apart from showing statistics in the camera interface and serving CSV/XML data, the people counter software can also push count data to the TrueView Web Report™ system. The settings for this are found in the *Web Report* section.

- 1) Check the *Enable* checkbox to enable pushing data to TrueView Web Report.
- 2) Select the correct version of TrueView Web Report™ that will be accessed.
- 3) Enter the Web Report server address and your account credentials.
- 4) If the camera resides behind a proxy server, enter the proxy server address and credentials.

In the *Events* section you can enable if the counter should generate events for each passage. Please read more about this functionality in the Events section in the manual.

Connectivity configuration

If there are several counters on your network you can enter them in the *Additional counters* section, on this form: `http://<user>:<password>@<address>`. This makes it possible to see statistics from all counters on the statistics page of one counter. Up to nine additional counters can be added.

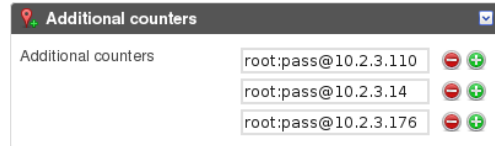
To display sales statistics from the POS system, go to the *POS data* tab. The connection to the POS system is described later on in this manual.

- 1) Enter the POS data address.
- 2) Select your currency.

Axis settings

You can set the standard parameters of the AXIS camera by selecting one of **Users**, **TCP/IP** or **Date & Time** in the *Axis settings* section. See your AXIS camera manual for how to set the parameters. To assure the best counting performance, avoid using any camera built-in functionality that may affect the counting accuracy. Do not set any other parameters than:

- a. Local time
- b. IP address
- c. Users



Additional counters		
root:pass@10.2.3.110	-	+
root:pass@10.2.3.14	-	+
root:pass@10.2.3.176	-	+



POS data address:	10.2.3.142/pos.php
Currency:	EUR



- Users
- TCP/IP
- Date & time

Live view

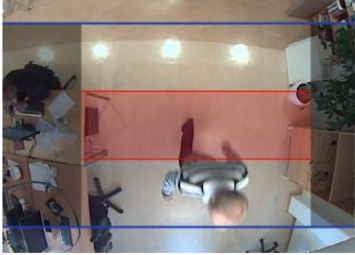
To see when TrueView People Counter™ is counting you go to the *Live view* page. This page can also be a great help when polishing the settings. To the right the latest counts are shown in a table.

COGNIMATICS

Statistics Live view Settings Help

TrueView People Counter
0136 0137

Live view



In ↑ Out ↓
119 114

	In	Out
4 seconds ago	1	0
12 seconds ago	0	1
16 seconds ago	1	0
41 seconds ago	0	2
44 seconds ago	2	0
56 seconds ago	1	0
1 minute ago	5	6
2 minutes ago	1	1

In cooperation with
AXIS
COMMUNICATIONS

Done

Statistics

You can configure your TrueView People Counter™ in different ways to generate the statistics you require and also link in data from point of sales. This includes important measurements like **conversion rate** and **average basket**, which helps you optimize the performance of your shop. You can obtain statistics from your counters in four different ways.

- 1) **Real time data with graphs** – Real time people counter data linked with Point of Sales (POS). This data is updated in real time every five seconds. Using Cognimatics API you can link in point of sales data to generate important key figures like **conversion rate** and **average basket size**. Click on **Statistics** at the top left hand side of the page to see data updated in real time.

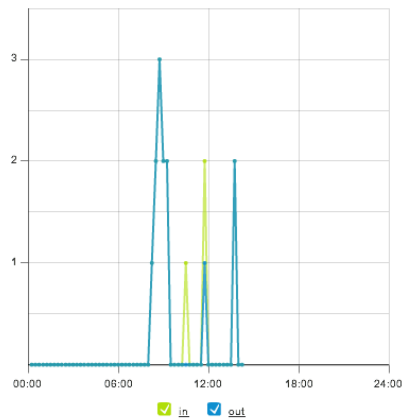
If no POS data file is specified in the settings the top table on the statistics page will contain in and out count for the latest week together with the average count. Beneath the table there are two charts. The left chart (*Day chart*) shows counts of the current day while the right chart (*Week chart*) shows values for the last week (not including the current day). When new data is

Statistics for Office

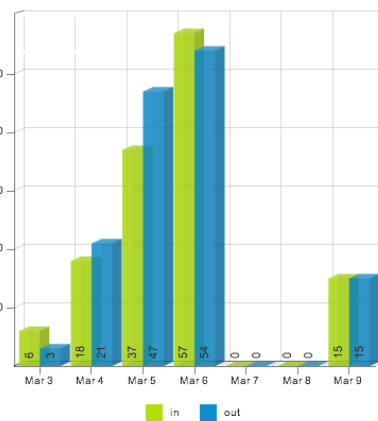
[Multiple counters](#)

	3/3	4/3	5/3	6/3	7/3	8/3	9/3	10/3	Average
In	6	18	37	57	0	0	15	15	19
Out	3	21	47	54	0	0	15	13	20

Day chart



Week chart



available the day chart will automatically be updated.

If POS data is specified the data table will contain different data:

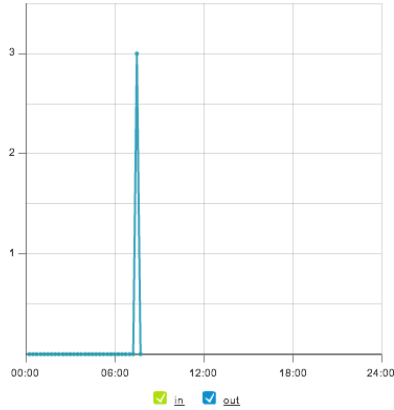
- a. **Visitors** – total number of visitors counted as going in by the units in your network
- b. **Buyers** – total number of transactions
- c. **Did not buy** – difference between Visitors and Buyers
- d. **Turnover** – sales in shop
- e. **Conversion rate** – the number of buyers divided by the number of visitors (Buyers/Visitors)
- f. **Average basket** – the size of the average purchases (Turnover/Visitors)

Statistics for Office

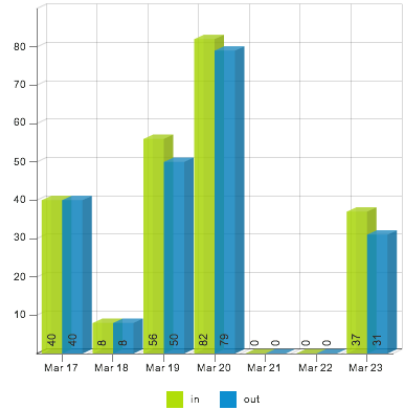
[Multiple counters](#)

	17/3	18/3	19/3	20/3	21/3	22/3	23/3	24/3	Average
Visitors	40	8	56	82	0	0	37	3	32
Buyers	18	4	29	22	0	0	26	3	14.57
Did not buy	22	4	27	60	0	0	11	0	8.86
Turnover	234	348	2494	176	0	0	780	137	595.57
Conversion rate	45%	50%	52%	27%	100%	100%	70%	100%	32%
Average basket	13.0	87.0	86.0	8.0	0.0	0.0	30.0	45.7	38.52

Day chart



Week chart



[XML](#) | [DTD](#)

Data files can be downloaded in cnt, xml or csv-format by selecting the format and click day you want the data for. For csv and xml different time resolutions can be chosen as well. If you want to download all files for a certain format just press the All files link.

Download data files

Format cnt All files
 xml All files
 csv All files

Time resolution 15 minutes
 hour
 day



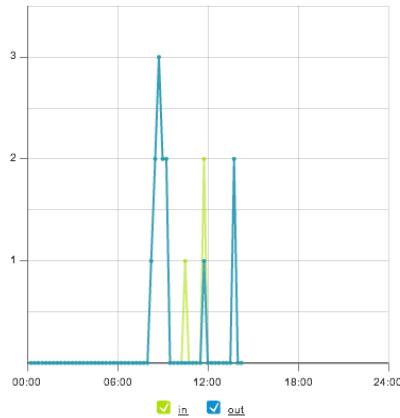
If additional counters are specified you will see a link in the upper right corner with the text “Multiple counters”. By clicking this link you can see data from all counters that your counter can connect to. By clicking on a counter name you will see the day and week charts for that counter.

Multiple counters

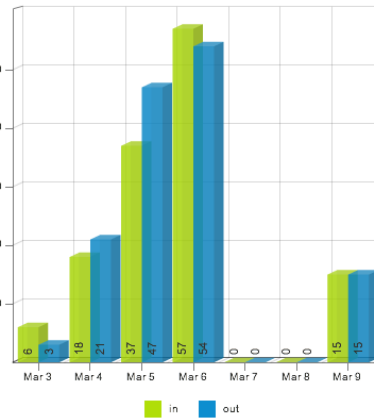
[Single counter](#)

Name	3/3		4/3		5/3		6/3		7/3		8/3		9/3		10/3	
	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Office	6	3	18	21	37	47	57	54	0	0	0	0	15	15	15	13
Entrance 3	24	22	24	25	12	13	54	54	12	42	32	29	12	14	0	0
Sum	30	25	42	46	49	60	111	108	12	42	32	29	27	29	15	13

Day chart



Week chart



- 2) **TrueView Report™** – Installing TrueView Report™ on your windows PC or TrueView Web Report™ on a web server lets you manage and view historical data conveniently. For more information about these statistical software packages we refer to their respective manuals.

At the bottom of the statistics page you can find data from TrueView People Counter in both .cnt and .xml format.

- 3) **HTTP API** – Download data in text format using the HTTP API described below.
- 4) **Events** – Let the counter generate events for each passage, with 1 second resolution.

Cognimatics POS data format

The POS data file specified in the settings must be on the **Cognimatics POS data format** for the counter to be able to interpret the data. The data format can handle up to eight days including the current day.

An example of the POS data format is the following:

```
{"data": [
  {"timestamp":1236084604,"buyers":5,"turnover":61},
  {"timestamp":1236171004,"buyers":15,"turnover":198},
  {"timestamp":1236257404,"buyers":31,"turnover":530},
  {"timestamp":1236343804,"buyers":46,"turnover":647},
  {"timestamp":1236430204,"buyers":0,"turnover":3},
  {"timestamp":1236516604,"buyers":0,"turnover":3},
  {"timestamp":1236603004,"buyers":6,"turnover":123},
  {"timestamp":1236689404,"buyers":12,"turnover":87}
]}
```

The data should be a JSON¹ array with the key “data”. Each row in the array should have the keys

- timestamp: a UNIX timestamp in the day
- buyers: number of persons who bought something that day
- turnover: the turnover that day

Note that if the current days' data is updated the People Counter will also show the changes in the interface.

An example of an POS-data file is available in the counter. Put

`http://<user>:<pass>@127.0.0.1/local/people-counter/random-pos.cgi` as POS data address on the Settings page for using this.

¹ For more information about the JSON format, see <http://www.json.org>.

Axis Camera Station integration

TrueView People Counter™ have pages suited customized for the Axis Camera Station software (ACS).

A lightweight version of the People Counter interface, suitable for use in ACS, be opened from the URL below:

<http://<servername>/local/people-counter/acs/>

The default view is the Day chart. You can select the Week chart and Live view from the menu in the right lower corner.

The week chart can be chosen directly by giving the following URL:

<http://<servername>/local/people-counter/acs/index.shtml?type=chart&time=week>

Live view can be accessed by

<http://<servername>/local/people-counter/acs/index.shtml?type=liveview>

If the menu should be hidden pass `clean` as an URL option, i.e.

<http://<servername>/local/people-counter/acs/index.shtml?clean&type=liveview>

A lightweight settings page can be found at

<http://<servername>/local/people-counter/acs/settings.shtml>

For more precise instructions how to embed web pages in ACS please see the ACS manual.

HTTP API

You can request and clear data in different ways.

- 1) **Request real time data:** Returns text file with counting data
- 2) **List available data:** Returns a list of available binary data files
- 3) **Download binary data:** Returns Cognimatics proprietary format
- 4) **Request CSV data:** Returns a file with comma-separated values
- 5) **Request DTD file:** Returns a DTD file describing the format of the XML data
- 6) **Request XML data:** Returns an XML file containing historical data
- 7) **Clear local counting data**
- 8) **Live view information:** Returns information about the placement of the lines in Live view

1) Real time data

Method: GET

Syntax:

```
http://<servername>/local/people-counter/live sum.js
```

Return:

```
{
  "name": "<cameraName>",
  "timestamp": <timestamp>,
  "in": <in>,
  "out": <out>
}
```

where <cameraName> is
the name of the camera

and <timestamp> is
the UNIX timestamp of the latest count

and <in> is
the number of people passing in until now today

and <out> is
the number of people passing out until now today.

Example: Request real time data from TrueView People Counter™.

```
http://myserver/local/people-counter/live_sum.js
```

Return:

```
{
  "name": "Entrance south",
  "timestamp": 1236769334,
  "in": 3,
  "out": 2
}
```

2) List all available .cnt data files.

Method: GET

Syntax:

```
http://<servername>/local/lscnt.cgi?plain
```

Return:

```
{
  "timestamp":"1237294947",
  "files":["xx.cnt", [..] "xx.cnt"]}
}
```

where <timestamp> is
the time set in the camera

and <files> is
an array of available .cnt files sort in write date descending order.

Example: List all data files available in TrueView People Counter™.

```
http://myserver/local/lscnt.cgi?plain
```

Return:

```
{"timestamp":"1237294947","files":["17.cnt","16.cnt"]}
```

3) Download .cnt data files

Method: GET

Syntax:

```
http://<servername>/local/getcnt.cgi?[day=<day>|all]
```

Return:

This script returns a Cognimatics proprietary binary data file, to be used in TrueView Report™.

Example: Request historical data for the 12th of the current month.

```
http://myserver/local/getcnt.cgi?day=12
```

Example: Request all available historical data.

```
http://myserver/local/getcnt.cgi?day=all
```

4) Request CSV data

Method: GET

Syntax:

```
http://<servername>/local/getdata.cgi?  
    format=csv &  
    [day=<day>|all] | [days=<day1>,<day2>,...] &  
    [res=15m|hour|day]
```

Return:

This script returns data in plain text, comma-separated values. The format for each line can be defined on the settings page, described above.

Example: Request historical data for the 3rd, 12th and 19th of the current month with 15 minute resolution.

```
http://myserver/local/getdata.cgi?format=csv&days=3,12,19
```

Example: Request historical data for all available days, with 24 hour resolution.

```
http://myserver/local/getdata.cgi?format=csv&day=all&res=day
```

5) DTD file

Method: GET

Syntax:

```
http://<servername>/local/people-counter/appdata.dtd
```

Return:

```
<?xml version="1.0"?>

<!-- A countdata element contains at least one typedesc element and a -->
<!-- number of cntset elements. A typedesc element contains a number of -->
<!-- type elements, each having a unique id attribute and a string -->
<!-- value describing the data type. A cntset element has three -->
<!-- attributes for the name of the counter, the data set start time -->
<!-- and the save interval delta. The starttime is given in seconds -->
<!-- since the epoch, delta is given in seconds. A cntset contains a -->
<!-- number of cntgroup elements, each in turn containing a number of -->
<!-- cnt elements carrying data for one save interval. A cnt element -->
<!-- has one attribute describing the data type id and a value that -->
<!-- gives the actual count. -->
<!-- -->
<!-- This specification can be used for event driven data collection as -->
<!-- well as time driven. In that case, each cntgroup should be given a -->
<!-- timestamp. With timestamps in the cntgroup elements, the cntset -->
<!-- starttime and delta may be ignored (but must still be included). -->

<!ELEMENT countdata (typedesc+) (cntset*)>
  <!ATTLIST countdata
    version CDATA #IMPLIED>

<!ELEMENT typedesc (type?)>

  <!ELEMENT type (CDATA)>
    <!ATTLIST type
      typeid ID #REQUIRED>

<!ELEMENT cntset (cntgroup*)>
  <!ATTLIST cntset
    name CDATA #REQUIRED
    starttime CDATA #REQUIRED
    delta CDATA #REQUIRED>

<!ELEMENT cntgroup (cnt*)>
  <!ATTLIST cntgroup
    timestamp CDATA #IMPLIED>

  <!ELEMENT cnt (CDATA)>
    <!ATTLIST cnt
      typeid IDREF #REQUIRED>
```

6) XML file

6-1) Predefined XML

Method: GET

Syntax:

```
http://<servername>/local/people-counter/appdata.xml
```

Note! There may be multiple sets in the file.

6-2) Custom XML

Method: GET

Syntax:

```
http://<servername>/local/getxml.cgi?[day=<day>|all]
```

```
http://<servername>/local/getdata.cgi?  
    format=xml &  
    [day=<day>|all] | [days=<day1>,<day2>,...] &  
    [res=15m|hour|day]
```

Return:

If `day=all` or no arguments are given to `getxml.cgi`, all available data files are converted to XML and returned. Otherwise, the data for each day specified in the argument list is converted to XML and returned.

Using the script `getdata.cgi`, the time resolution can be selected to either 15 minutes, 1 hour och 24 hours.

Example: Request the historical data for the 6th of the current month.

```
http://<servername>/local/getxml.cgi?day=06
```

Example: Request historical data for all available days, with 1 hour resolution.

```
http://<servername>/local/getdata.cgi?format=xml&day=all&res=hour
```

7) Clear local counting data.

Method: GET

Syntax:

```
http://<servername>/local/people-counter/rmcnt.cgi
```

8) Live view information

Method: GET

Syntax:

```
http://<servername>/local/people-counter/lvinfo.js
```

Return:

```
{
  "left":<left>,
  "right":<right>,
  "top":<top>,
  "bottom":<bottom>,
  "yfirst":<yfirst>,
  "ylast":<ylast>,
  "radius":<radius>
}
```

where <left> and <right> are

the x coordinates in pixels for start and stop for the blue lines in Live view

and <top> and <bottom> are

the y coordinates in pixels for the two blue lines in Live view

and <yfirst> and <ylast> are

the y coordinates in pixels for the top and bottom of the red counting area, disregarding curvature

and <radius> is

the radius in pixels describing the curvature of the red counting area, as measured in the center of the area on both axes, or 0 if the area is not curved.

Example: Request Live view information form TrueView People Counter™.

```
http://<servername>/local/people-counter/live_sum.js
```

Return:

```
{
  "left":56,
  "right":296,
  "top":88,
  "middle":136,
  "bottom":224
}
```


Events

The counter can generate events for each passage, with 1 second time resolution. The daemon that handles the event system can act either as a server or as a client. When running as a server, one or more clients may connect to the counter to start receiving events. When running as a client, the daemon itself connects to a provided listener that collects the events and handles the information.

TrueView Web Report v2 comes with an event handler. Example code is available for those who want to write their own event handler.

Maintenance

On the Maintenance page (found under Help > Maintenance) there are several actions that can be taken.

1) Restart

If you find the counting inaccurate or the web interface unusually slow, you may try restarting the running services or restart the camera.

2) Logs

If you have any trouble with your camera you can send counter logs to Cognimatics. These can be generated by pressing the “Generate logs” button. After a while you'll be prompted with a file you can save to your computer and send to support@cognimatics.com.

3) Record video

You can use this feature to record video from your camera, locally to your computer. Just select the desired duration of the video and press Record.

4) Patch software

When minor modifications to the counter software is made they are usually released as patches that'll be provided by Cognimatics. When you have such patch file you can use it by selecting the file in the form and press “Upload and patch”.

Troubleshooting

The video does not show in Live view

Make sure no one else is watching the video and click reload in your web browser. In the Axis 207W only one viewer is allowed while Axis 209FD and 212PTZ support a few more viewers at the same time. If you are using Internet Explorer an additional ActiveX plugin must be installed, the browser will prompt you with a notification if it is not.

The software asks for registration code every time

Reset to factory default after installation and restart the camera.

The software prompts me with a warning saying that the frame rate is too low

- If the scene is too dark, the Axis camera does not deliver enough frames per second for the People Counter to work. The scene must have a lightning with at least 80 lux.
- When streaming video from the camera make sure to open only one stream at a time and to stream in 320x240 MJPEG format.

The setting page does not show the parameter values

Reset to factory default after installation and restart the camera.

The software does not upload to TrueView Web Report

Go to `http://<servername>/local/people-counter/showlogs.cgi` in your web browser and look at `wrupload.log` to see if the error can help you. Note that some times it can take up to half an hour for the software to upload data to TrueView Web Report.

The software does not count

Make sure you reset to factory default after installation and restart the camera. Make sure the scene is well lit. People Counter only works when the scene has at least 80 lux.

The software does not count after changing parameters

After changing the parameters the software may need to run up to 10 minutes before the counting accuracy is at optimum.

The software does not count correctly

- Make sure people are passing the entire counting zone crossing both blue lines – not passing out to the left or to the right.
- If the software counts too many – lower the visual height.
- If the software counts too few – increase the visual height.

I still can't get the software to count

If you've followed all of the advices above and still can't get the software to work please contact the Cognimatics support team at support@cognimatics.com. Don't forget to send the archive with logs and other generated from the page `http://<servername>/local/people-counter/genlogs.cgi`.

Appendix

The following camera models are currently supported

Camera model	Software module
Axis 212PTZ	tvpAxis212_xx.bin
Axis 207W	tvpAxis207W_xx.bin
Axis 209FD-R	tvpAxis209FD-R_xx.bin

xx is the version number of the software module.