

The People Counting System is a real time people traffic measurement and analysis system for business intelligence solutions. It provides precise data on people entry and exit activities that allows users to make strategic decisions necessary to improve business performance.

It helps managers to understand factors affecting human traffic and thus plan and optimise resources effectively. These factors may include new tenants, special promotional activities, market research, customer advertising campaign, new competition and renovation. Whatever be the factors, the information gathered helps the building managers plan and optimise their resources effectively. It helps in optimising the advertising and promotional activities by making sure that these activities are exposed at a place where we can have high people traffic. For security concerns, some building management may also be interested to know the number of people that are in the building. By counting both IN and OUT direction of the visitors, the system provides the concerned authorities with verifiable numbers.

The system generates reports that are useful to understand various factors like people traffic, rush hour, etc to improve business performance. The reports can even be customised to a client as per his requirements.

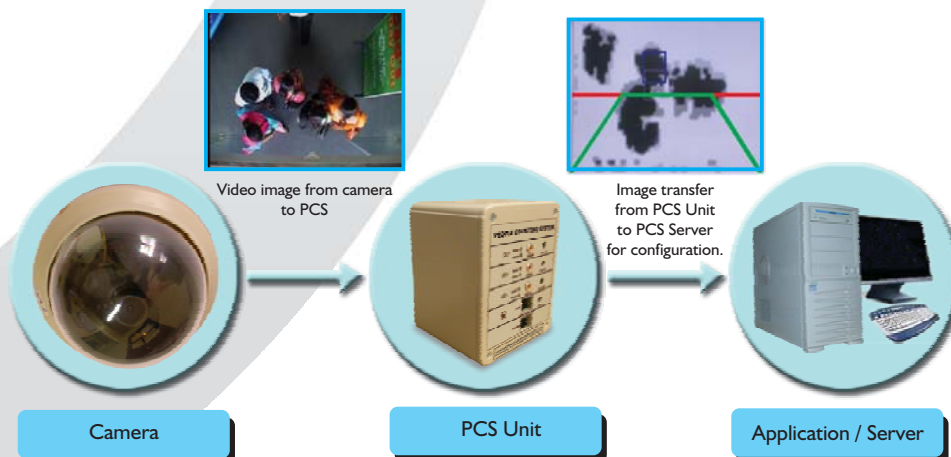
Technology

People Counting System uses overhead-mounted video camera, high speed video processing embedded electronics to unobtrusively track people movements in indoor or outdoor environments. The system is intelligent enough to either count or ignore children, and exclude counting shopping carts or strollers. People Counting System monitors people movements by tracking objects in a pre-defined area. The Objects must meet certain criteria such as size and movement in order to be counted.

DELOPT's proprietary real time vision processing engines counts people even in complex indoor / outdoor environments. The count lines can be in any direction as per user. The system can store up to 10,000 event records, with each record being as low as a minute, in its non volatile memory to protect it from any electrical supply failures. The system has RS485 / Ethernet interface to a powerful GUI software to configure, monitor & commission in least time.

Features

- Stand alone, easy to install and maintain.
- Base configuration to support one camera with a PCS computing module and baseboard.
- Expandable up to three additional PCS computing modules.
- System can work in single, multiple, wide entrance or passage ways.
- System can count in uni-directional, bi-directional & group entry methods.
- Counts people moving at various speeds & directions across a defined count zone.
- System collects data from count units automatically.
- Accurate counting under high density conditions.
- Advanced digital Image processing technologies to overcome effects of shadow & reflection.
- Overlay of count data on screen.
- Large non volatile memory to store count data.
- Reporting software to generate graphs, tables & comparison reports.
- System supports RS485 / Ethernet Interfaces.
- System has optional Relay & Display Interface.
- System has option to integrate MPEG4 / H.264 Streamer solution.
- Optionally can be integrated with onboard MPEG4 / H.264 Streamer & web server unit.



BLOCK DIAGRAM

Specifications

Video

Video Inputs	:	One (expandable up to four with additional PCS computing modules).
	:	Composite, 1Vp-p, 625 lines or 525 lines monochrome/color.
Video Outputs	:	One (optional).
	:	Composite, 1Vp-p, 625 lines monochrome/color.

Performance

Count Lines	:	Up to 8 count lines
People Counting Settings	:	Selectable through GUI
	-	To set average person width and depth
	-	Threshold adjustment
	-	Video IN brightness/contrast control
	-	RS485/Ethernet IP configuration
	-	Object Progress
	-	Non human object detection settings

Database	:	MS Access SQL (Optional)
Data Analysis	:	GUI based application software for count analysis & reporting on Windows platforms
Count Data Storage	:	Up to 10,000 records
Count Accuracy	:	Average up to 95%

Interface

External communication	:	Ethernet (10/100Mbps) / RS485 (Hardware/software selectable)
In/Out indication	:	Separate Opto-isolated outputs for IN/OUT indication for display unit (Optional)

Power

Input	:	+24VDC @ 2A through two pin PS adaptor +24VDC @ 2A through pin 3 and pin 6 of RS485 connector (Optional)
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Environment

Temperature		
Storage	:	-20deg to +70deg
Operational	:	0deg to +50deg
Humidity	:	up to 90% RH



Ordering Information

Part No	Description
DPCS-SA-130x-DRLC	PCS - (0-3 channels, D-display, R-relay, L- Ethernet, C- Camera PS option)
DPCS-SA-I300-LC	1 Channel PCS
DPCS-SA-1301-LC	Two channel PCS
DPCS-SA-1302-LC	Three channel PCS
DPCS-SA-1303-LC	Four Channel PCS
Cameras	
DELOPT-CAMFD-[B/C]-X	Fixed dome camera (B- monochrome, C- color, X- lens mm)
DELOPT-CAMVFD-[B/C]-X-Y	Varifocal dome camera (B-monochrome, C-color, X-start mm, Y-end mm)
Accessories	
DPCS-CONFIGSW	PCS configurator software
DPCS-REPORTSW	PCS Reporting Software with Dongle
DELOPT-PS-24V-1A	24V power supply at 1A
DELOPT-CAT5-[S/C]-X	CAT5 ethernet cable (S- Straight, C-Cross, X- length in meters)
DELOPT-CAT6-[S/C]-X	CAT6 ethernet cable (S- Straight, C-Cross, X- length in meters)
DELOPT-ES-X	Ethernet switch (X- ports)
DELOPT-CABLE-CB1-X	Video cable BNC male to RC male (X- length in meters)
DELOPT-CABLE-CB2-X	Video cable RC male to RC male (X- length in meters)

Applications

- Customer trend monitoring.
- Customer Centric market survey.
- Business evaluation for Shopping centers, Galleries, Banks, Nightclubs, Libraries, Malls & Retail outlets.
- For counting retail traffic, customer numbers, consumers, pedestrian flow, etc.
- Visitor counting in conference.
- Queue Monitoring.
- People Counting in Bus, Train, etc.

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