

# IRISYS People Counters

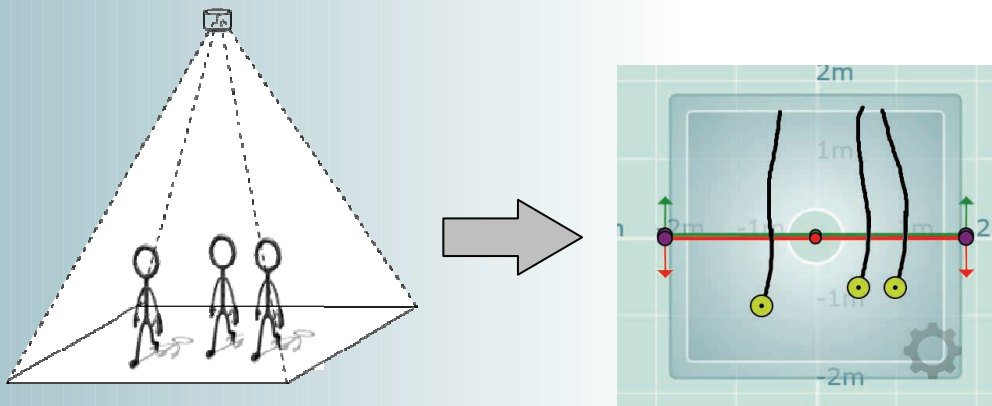


- Highly Accurate People Counting
- Accuracy typically >95%
- Up to 16 counting lines
- Highly reliable: MTBF > 25 years
- IP or Relay output
- Un-matched low cost of ownership
- Unique wide-opening capability
- Low power consumption
- Fast install and simple to configure
- Wide range of mounting heights
- Indoor and outdoor options
- Not possible to identify individuals
- No privacy issues – PCI compliant
- Discreet and unobtrusive
- Low maintenance requirement
- Operation independent of lighting levels
- Data harvester tools for data collection to data-base



**“ IRISYS: The Universal  
People Counting  
Solution ”**





Downward looking detector 'sees' people as 'blobs' moving over 'ground' plane

16 User-configurable counting lines

Highly accurate tracking & counting algorithms

All processing carried out on-device

Robust tracking algorithms

Operation independent of light level.

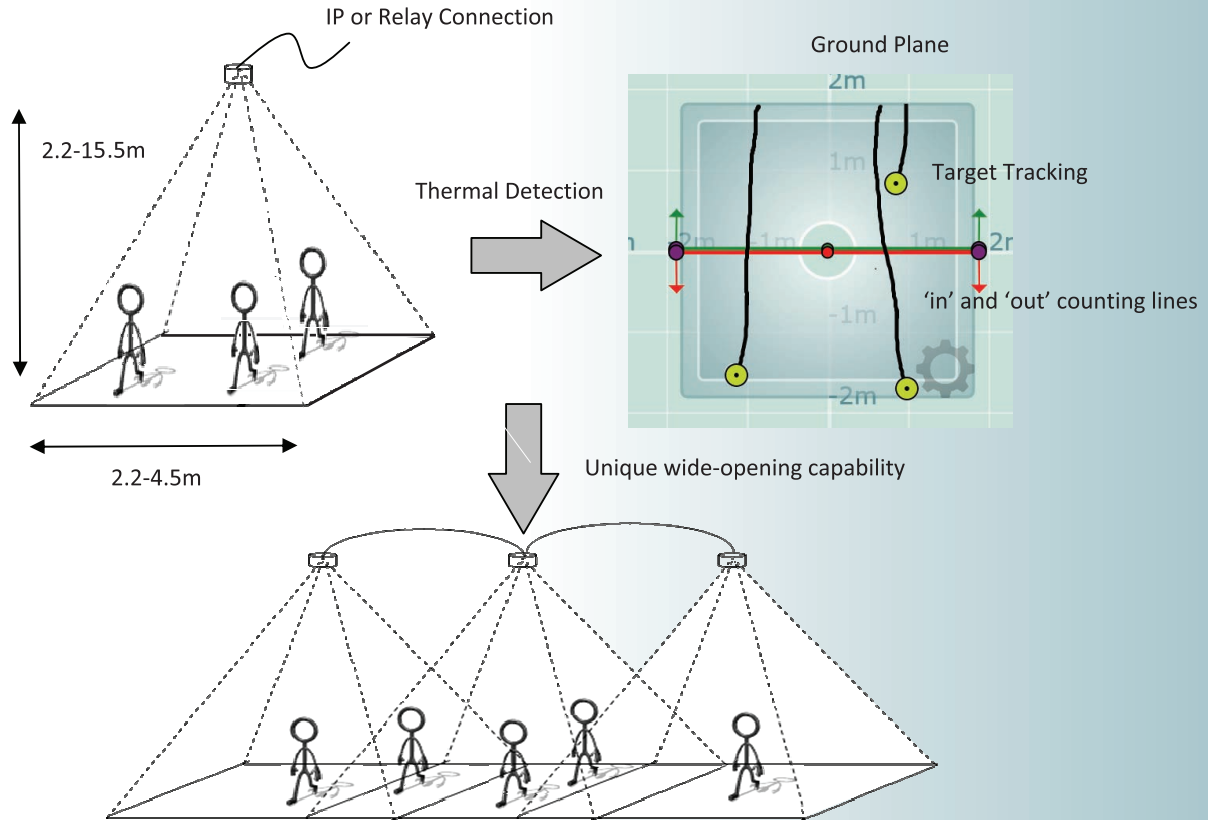
**IP Units**

- On-board data logging
- Data collection & set-up over web
- Programmable logging interval
- Real-time clock
- Plug & play RJ45 socket connections
- Harvester tool collects data to SQL Database
- Remote set-up & configuration
- Remote audit & verification

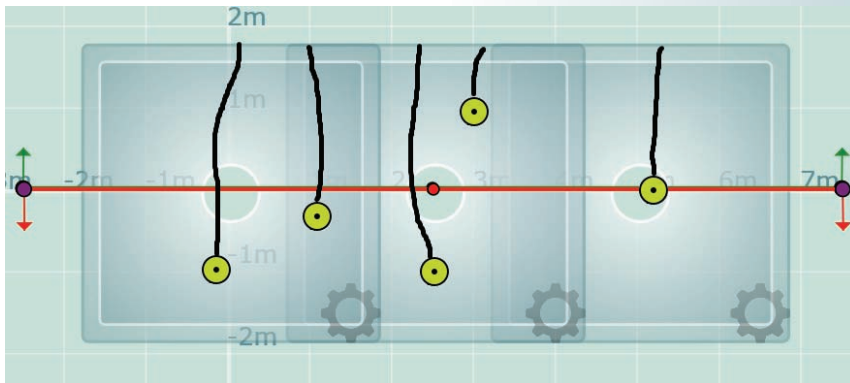
**Relay Units**

- Simple pulse output
- Pulse width programmable
- Screw terminal connection

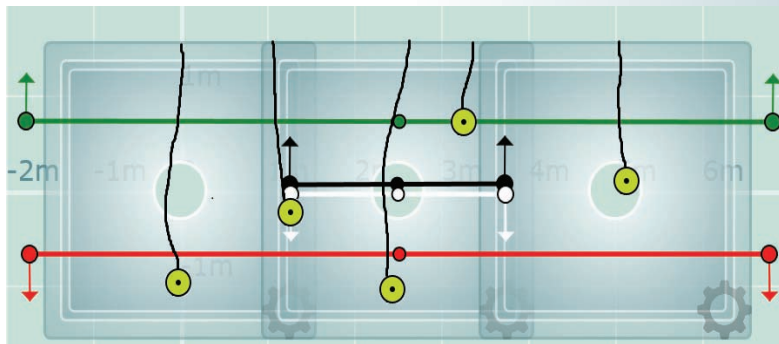
## Principles of Operation



Overlapping fields of view mapped to equivalent of one 'wide' people counter



Targets mapped to ground plane of 'wide' people counter view



Multiple counting lines allow extraction of total count plus counts for individual counters

## People Counter Family

### Simple Relay Output

### IRC3020

### Features & Benefits



- Simple relay output
- Indoor & outdoor
- Mounting height ranges:  
2.2-4.5m, 4.0-7.5m and  
7.5 -15.5m (outdoor only)
- Universal people counting  
detector

### IP Network Output

### IRC3010

### Features & Benefits



- IP output
- Indoor & outdoor
- Mounting height ranges:  
2.2-4.5m, 4.0-7.5m and  
7.5 -15.5m (outdoor only)
- APIs for data collection (.net,  
Win32, Linux, Java)
- 'Harvester' data collection to SQL

### Dual View IP Output

### IRC 3030

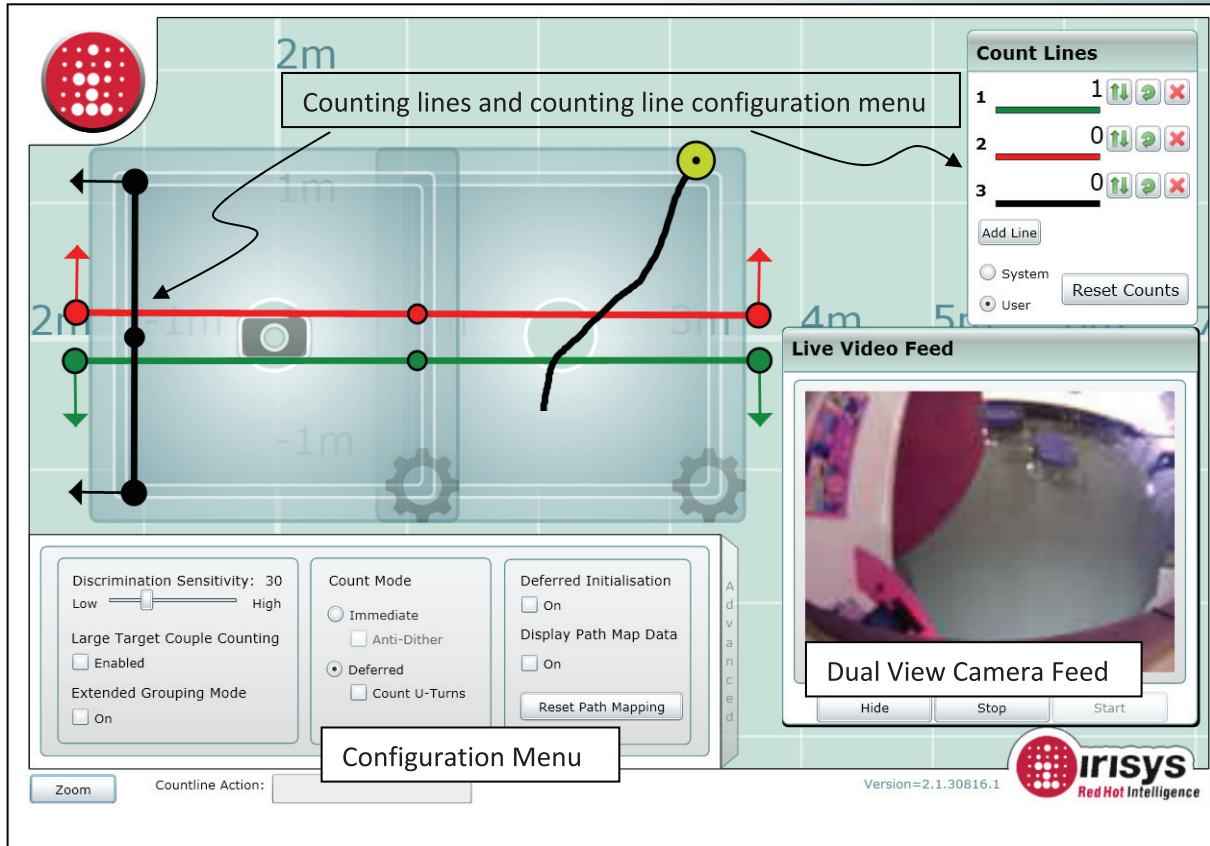
### Features & Benefits



- IP output
- Indoor only
- Mounting height ranges:  
2.2-4.5m and 4.0-7.5m
- DualView device offers remote  
configuration and validation  
options.
- 'Harvester' data collection to SQL

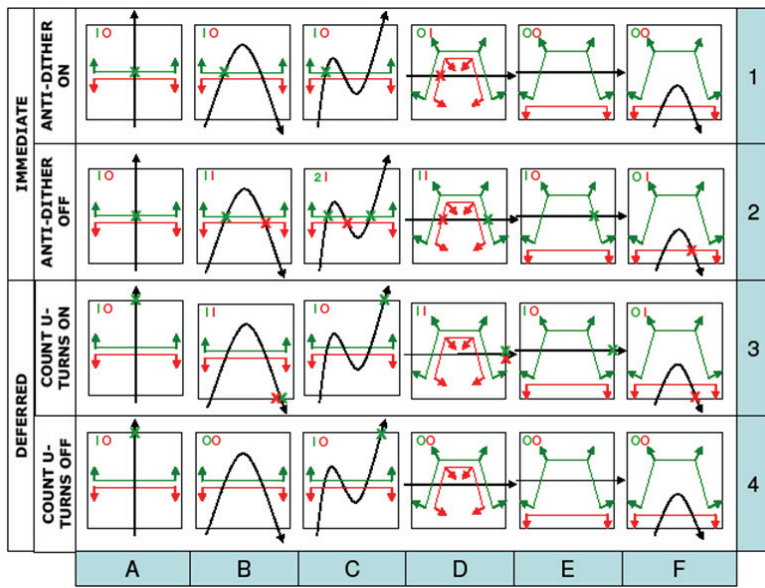
## Configuration and Set-up Software Tools

### People Counter Set-up Tool (Browser or Executable Versions available)



Set-up tool is available either as Browser (remote over IP) or local executable (serial connection) format. With the DualView device this allows remote set-up and configuration of the IP family devices.

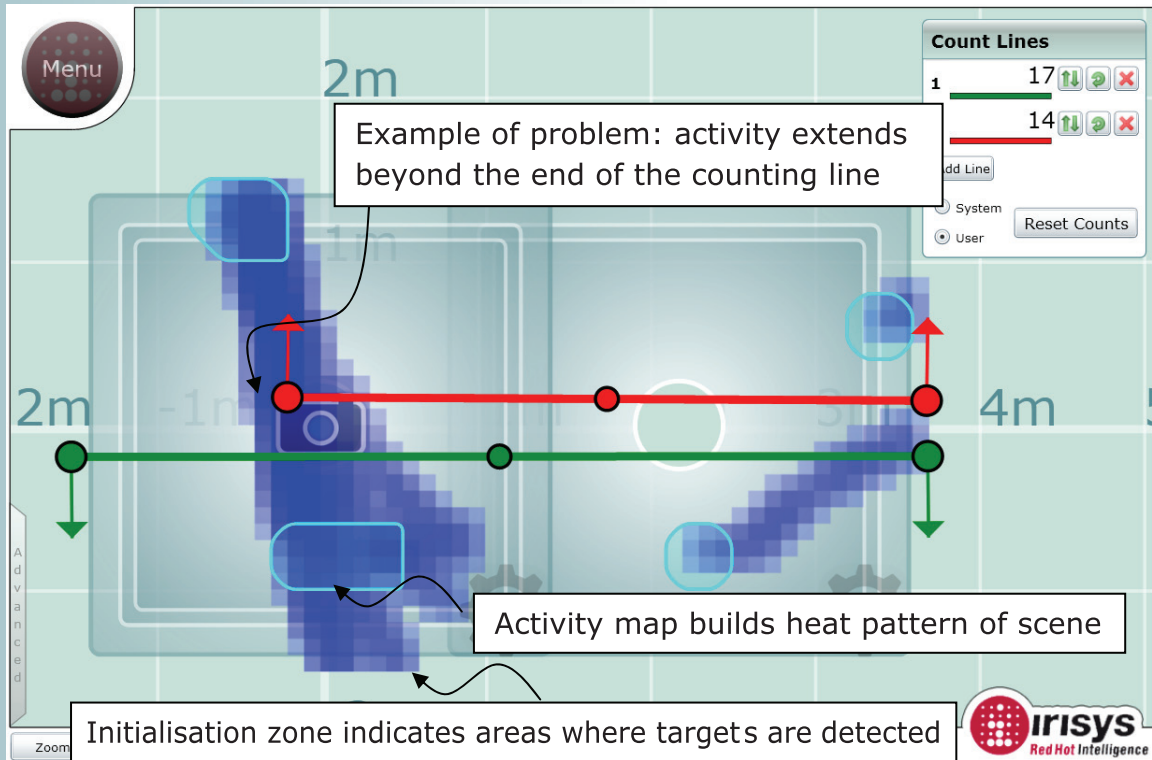
### Counting Line Configuration Options



Multiple count-line configuration options are available:

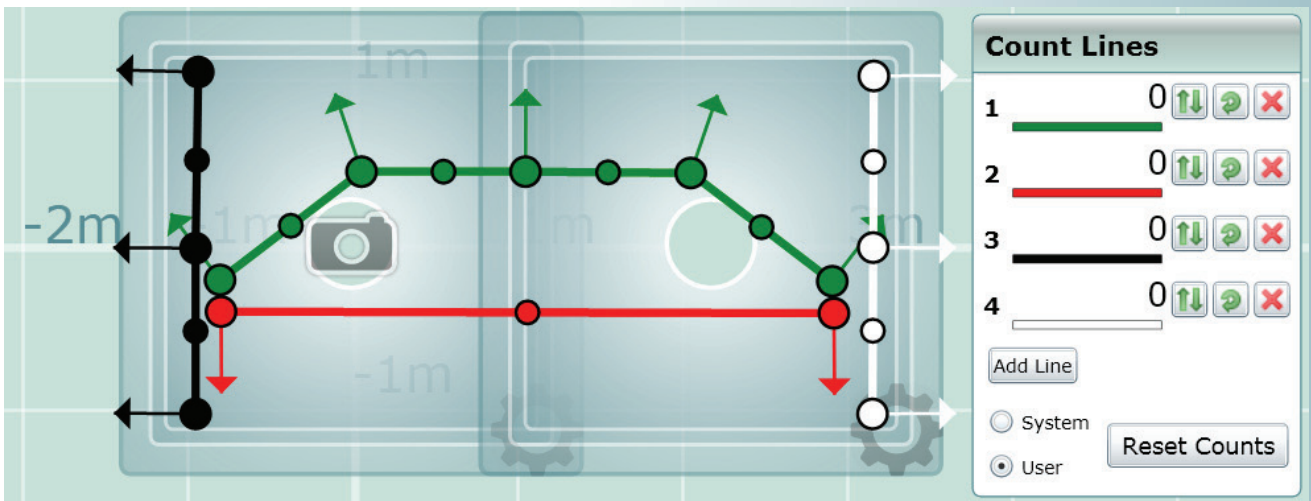
- Count or disregard 'U-Turns'
- Count on immediate line crossing
- Count on deferred line crossing
- Ignore cross-counts in small format stores

## Activity Mapping



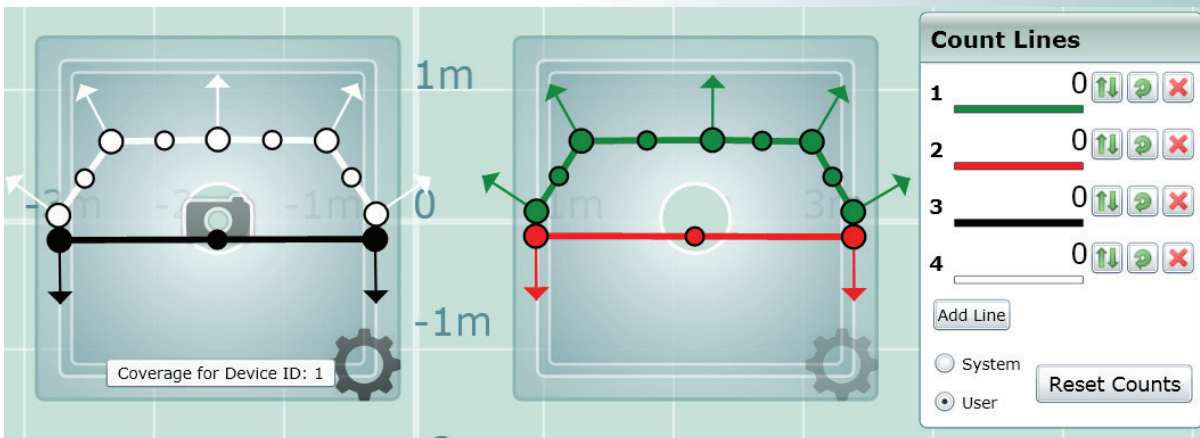
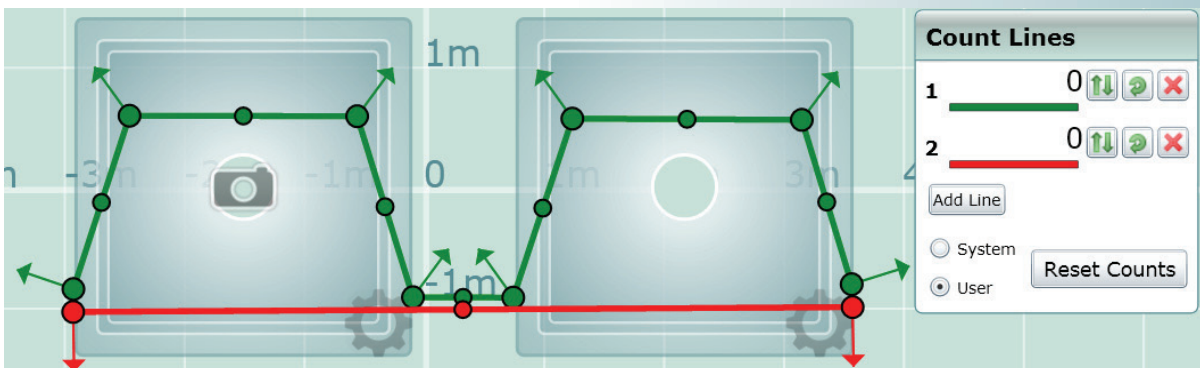
Activity mapping allows remote and local diagnosis of problems. The path information shows a heat-map representation of movement through the scene and also shows a representation of 'initialisation zones', areas where the target is first being detected and, therefore, areas where the counting line should not be placed.

### Multiple Counting Lines



Multiple counting lines ( up to 16 ) may be placed in the field of view for complete flexibility of count data collection.

### Disjoint Wide-Opening Networks



Wide opening configurations can be connected (where the fields of view overlap, forming a continuous wide opening), 'disjoint' (where the fields of view do not overlap but single counting lines measure a total count for the opening) or 'separated' where the wiring configuration of the wide opening is used but separate counts are calculated.

## Data Collection and Reporting Software (IP units)

### Developers APIs

APIs are freely available for the following platforms:

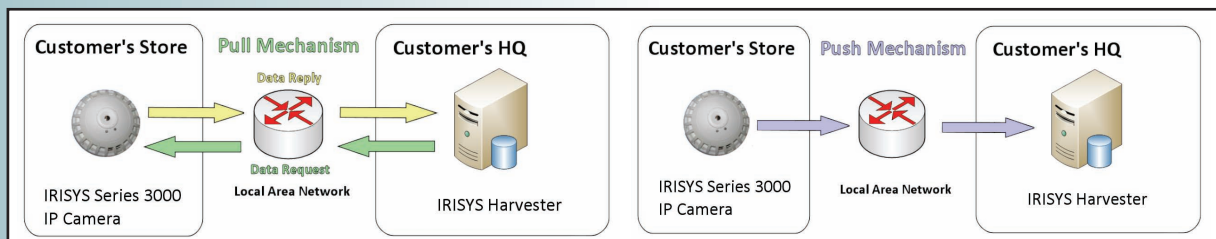
**.Net, Win 32, Linux and Java .**

APIs allow developers to construct their own data collection and display utilities with a rich suite of programming calls and routines.

### Data Harvester Module

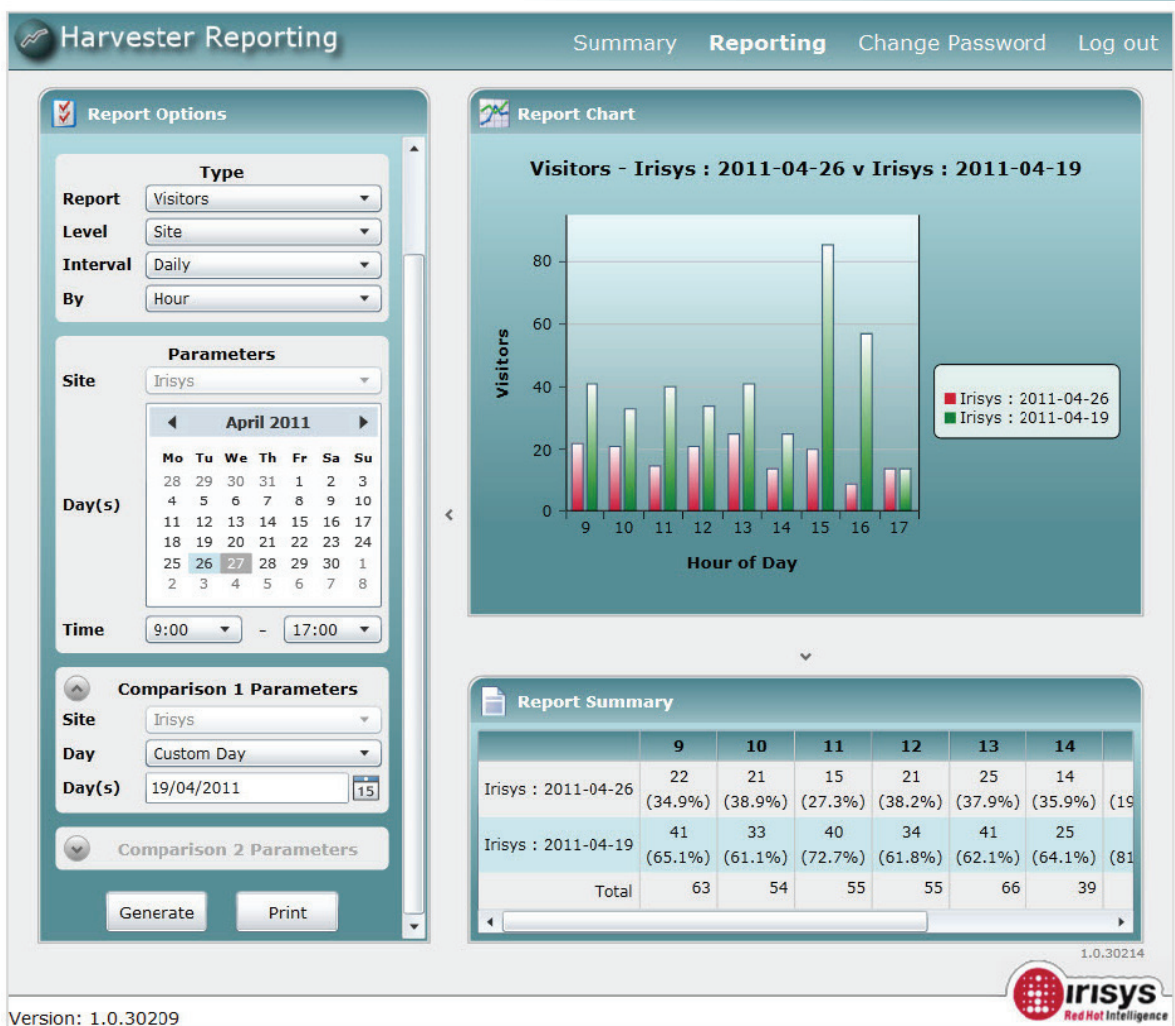


Data Harvester collects data from one or many IP units back to a centralised SQL data base. Harvester allows fast access to the remote data logging facilities of the IP counter family.



Harvester can operate either in 'push' or 'pull' mode allowing data to be collected through customer's firewalls.

## Reporting Software



**Harvester Reporting** Summary **Reporting** Change Password Log out

Report Options

**Type**

Report: Visitors  
 Level: Site  
 Interval: Daily  
 By: Hour

**Parameters**

Site: Irisys

April 2011

Mo	Tu	We	Th	Fr	Sa	Su
28	29	30	31	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	1
2	3	4	5	6	7	8

Day(s): 15

Time: 9:00 - 17:00

**Comparison 1 Parameters**

Site: Irisys  
 Day: Custom Day  
 Day(s): 19/04/2011

**Comparison 2 Parameters**


Generate Print

**Report Chart**

Visitors - Irisys : 2011-04-26 v Irisys : 2011-04-19

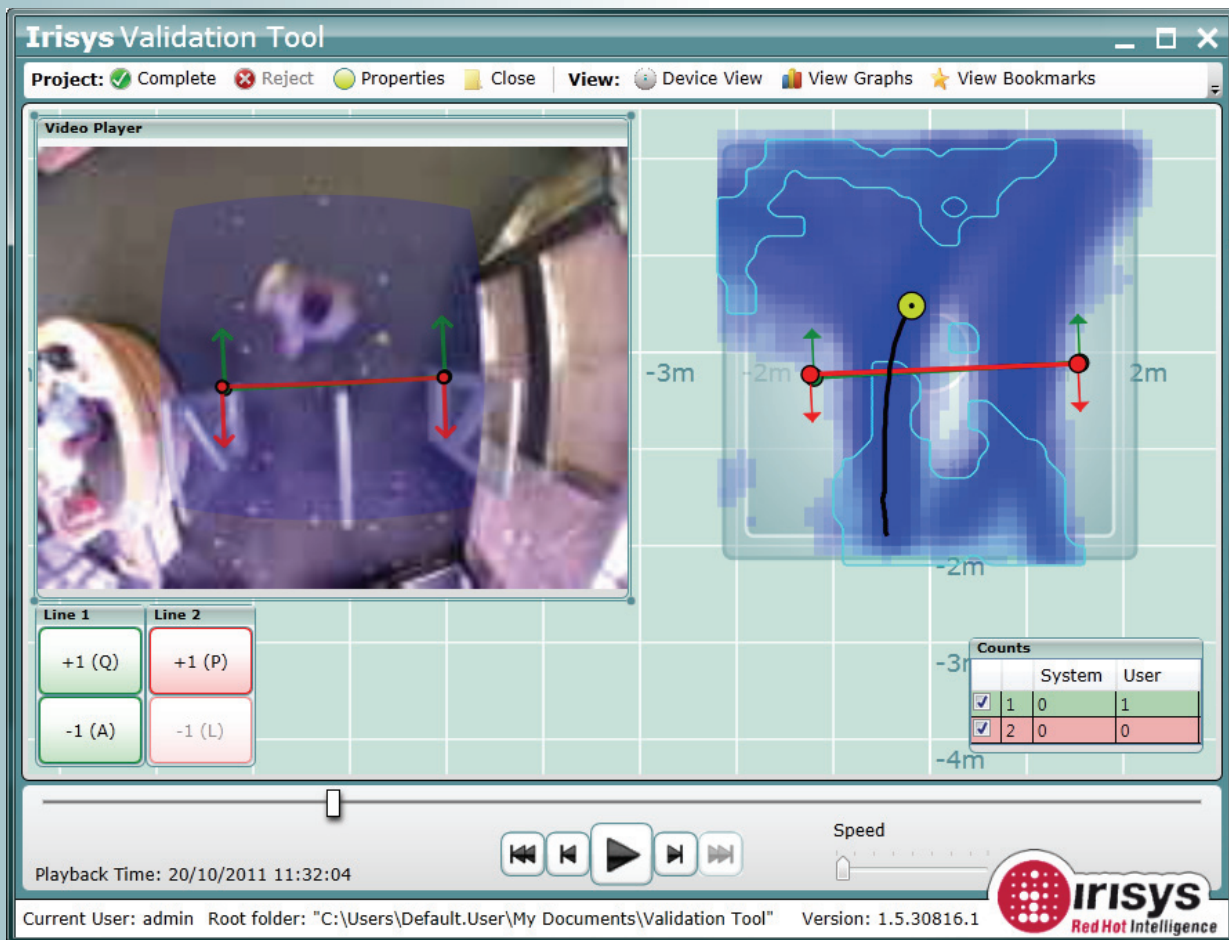
**Report Summary**

	9	10	11	12	13	14	15
Irisys : 2011-04-26	22 (34.9%)	21 (38.9%)	15 (27.3%)	21 (38.2%)	25 (37.9%)	14 (35.9%)	19 (42.9%)
Irisys : 2011-04-19	41 (65.1%)	33 (61.1%)	40 (72.7%)	34 (61.8%)	41 (62.1%)	25 (64.1%)	81 (180.0%)
<b>Total</b>	<b>63</b>	<b>54</b>	<b>55</b>	<b>55</b>	<b>66</b>	<b>39</b>	<b>100</b>

Version: 1.0.30209 1.0.30214 

Irisys reporting tool allows display of data collected into the Harvester SQL data base allowing simple representations of counting data.

## Counter Validation and Audit Tools (Dual View, IP)



### People Counter Network Validation Report

**Validation Details**

Approved by: admin At: 20/10/2011 17:42:56  
 Validated by: admin At: 20/10/2011 17:42:52  
 Date / Time: 20/10/2011 11:31:34  
 Duration: 00:01:30

**Counter Network**

Site Name: DefaultSiteName  
 Site ID: DefaultSiteID  
 Count Mode: Deferred Mode, Ignore U turns  
 Time Zone: Eastern Standard Time  
 (Use DST) false

Device Name: 121 Device Name: 1  
 CAN ID: \_ CAN ID: DefaultName  
 Serial Number: \_ Serial Number: DefaultID  
 Device ID: K20 3 Device ID: K161751

<b>Count Line 1</b>	<b>Count Line 2</b>
System Count: 240	System Count: 240
User Count: 243	User Count: 243
Accuracy: 98 %	Accuracy: 98 %

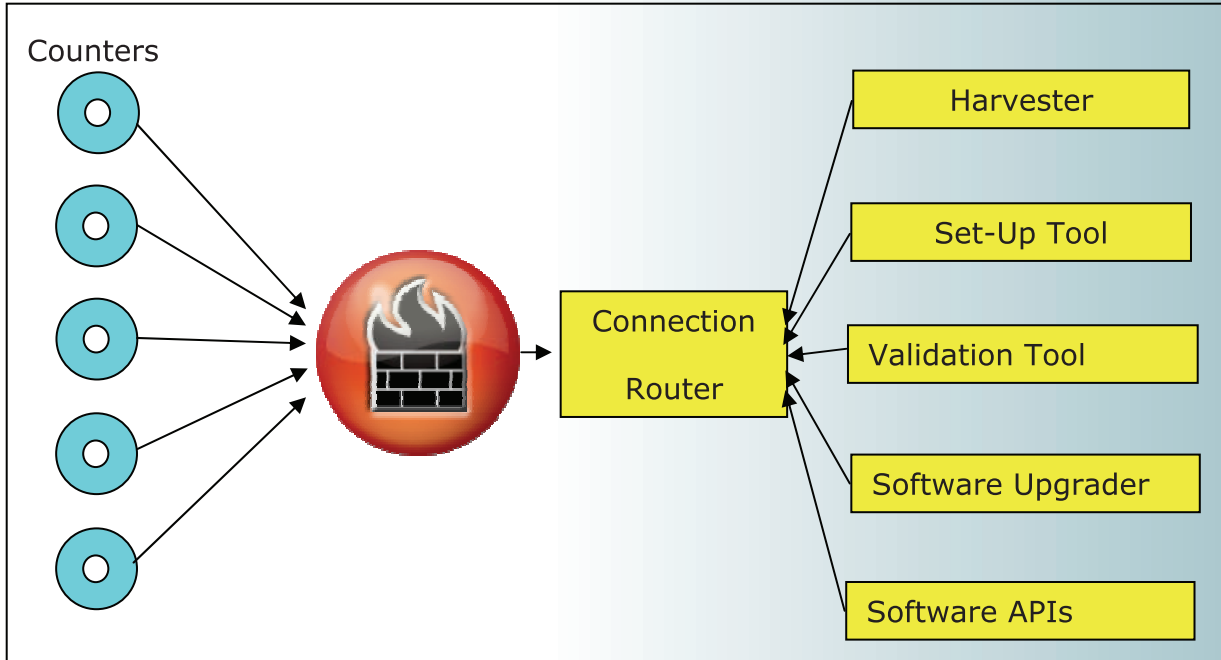
Signature of Approval: \_\_\_\_\_

Date: \_\_\_\_\_

Validation Tool:  
 Audit and verify counting accuracy at remote sites.  
 Provide customer accuracy reports for each site as part of service and support package.  
 View video, ground plane and heat map views to give full-featured audit package.  
 Hot-key shortcuts for manual counting.  
 Replay, rewind, fast and slow replay modes.

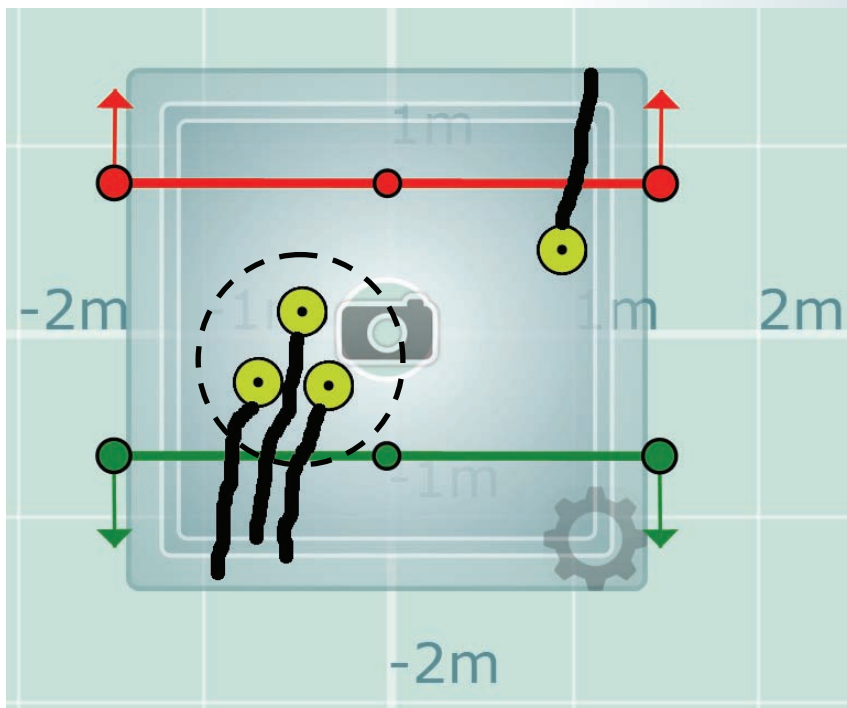
## Software Tools in Development

### Connection Router Software (March 2012)



Connection router allows the connection of multiple software tools to multiple counters through user firewalls. Shared connection of People Counter Set-Up tool, Harvester, Validation Tool, etc. are all allowed using this tool.

### Shopper Grouping Capability (March 2012)

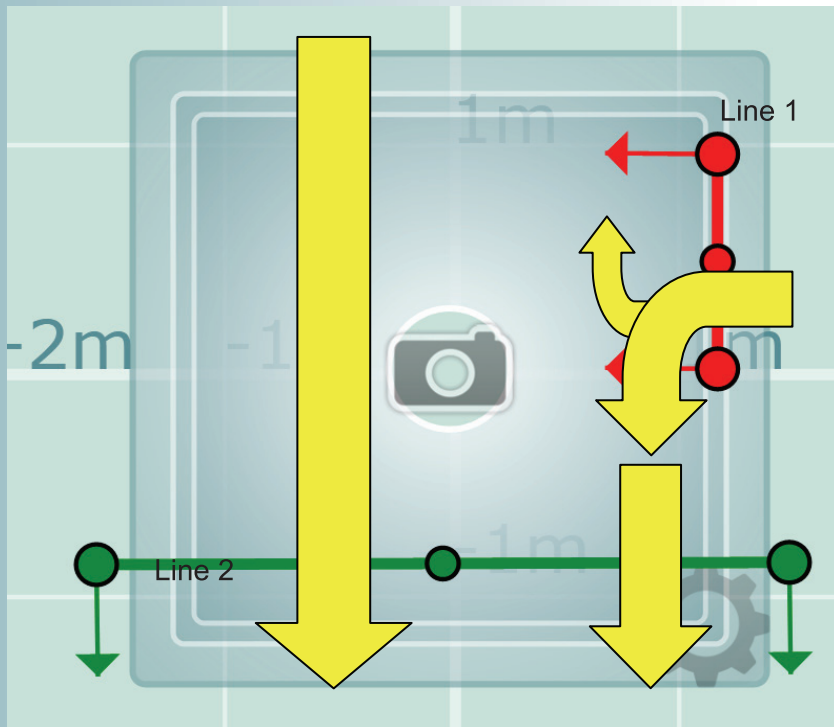


#### Grouping Mode

Adjust 'Discrimination Sensitivity' and measure three separate people or a group of three people as one unit.

Sensitivity mode is adjustable to manage group size criteria.

### Count-Line Logic Capability (March 2012)



**Count-Line Logic**

**Example 1:**

Staff Exit:

Assign Counters:

Counter 0 =

'Line 2 OutCount'

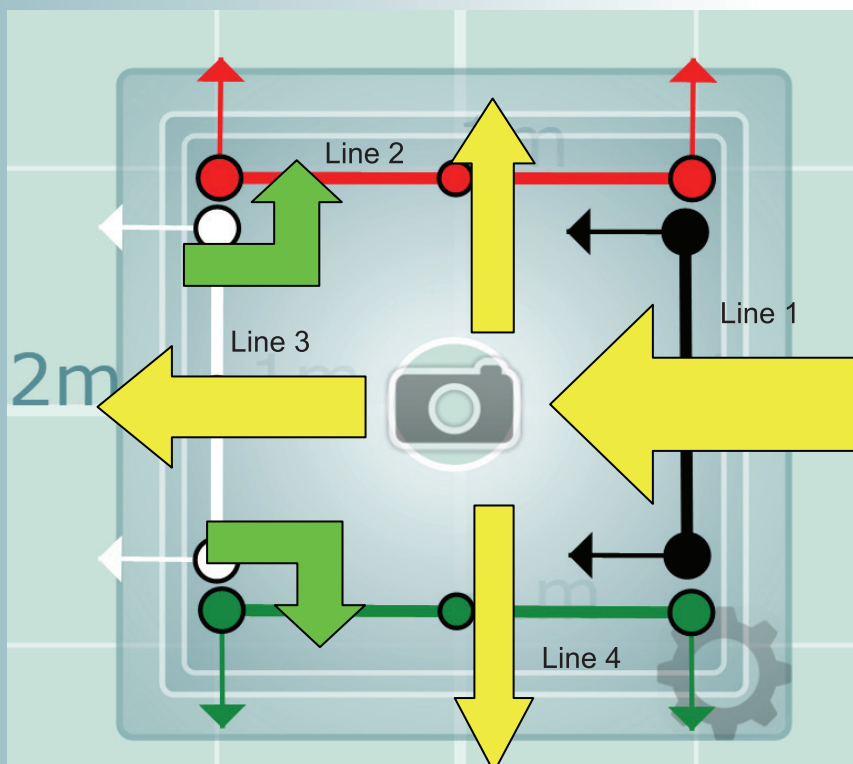
Counter1=

'Line 1 then Line 2'

Counter 2=

'Counter 0 - Counter 1'

So, Counter 2 is the calculated total out-count, minus the contribution from the staff exit.



**Count-Line Logic**

**Example 2:**

Crossing Point:

Assign Counters:

Counter 0 =

'Line 1 then Line 2'

Counter1=

'Line 1 then Line3'

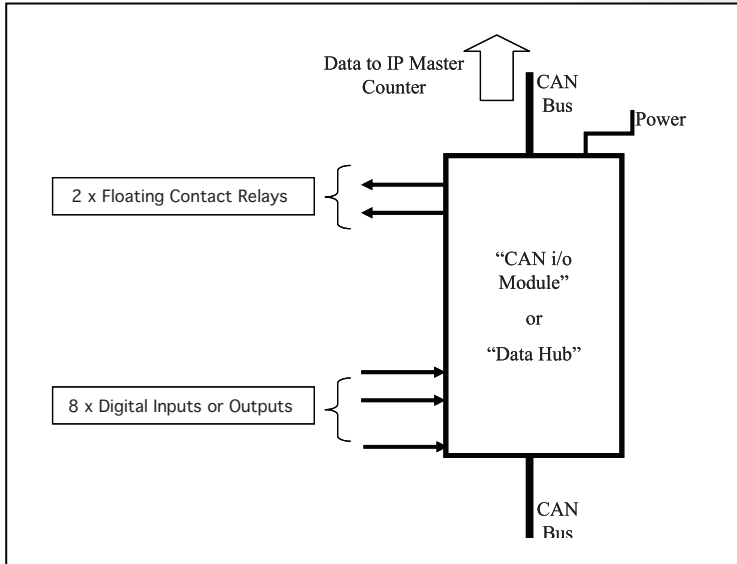
Counter 2=

'Line 1 then Line4'

So, Counter 0 is the number of people entering across Line 1 and exiting over Line 2 (other Line 2 count contributions e.g. green arrows are ignored).

## Accessories

### CAN i/o Module (March 2012)



Data Hub allows connection of external pulsing devices into the IP camera data structure.

IP Master unit becomes collector for external data that is stored in time-stamped data table.

Simple beam break devices or car counting loops can be connected.

Additional relay output also provided.

### Power Injector Modules

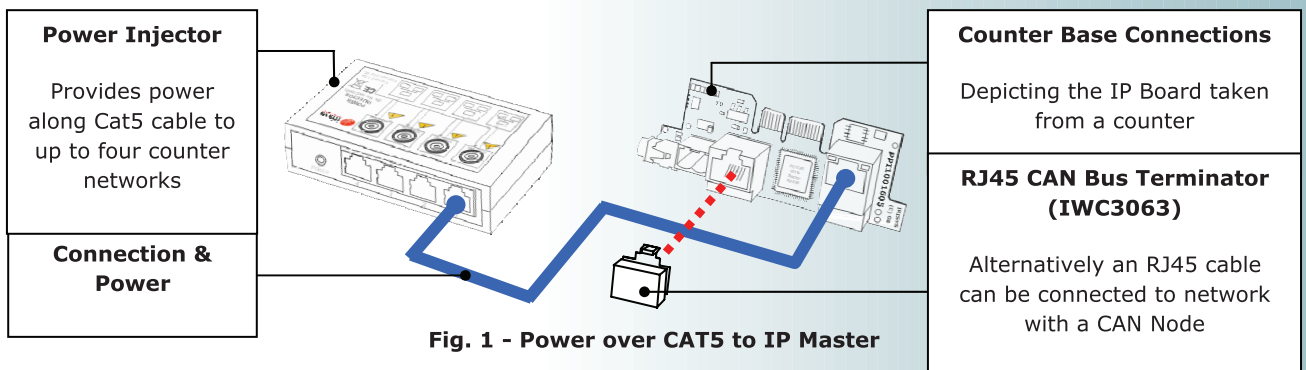





Fig. 1 - Power over CAT5 to IP Master

Quad (IWC3060) or Single Channel (IWC3065) power injectors are available



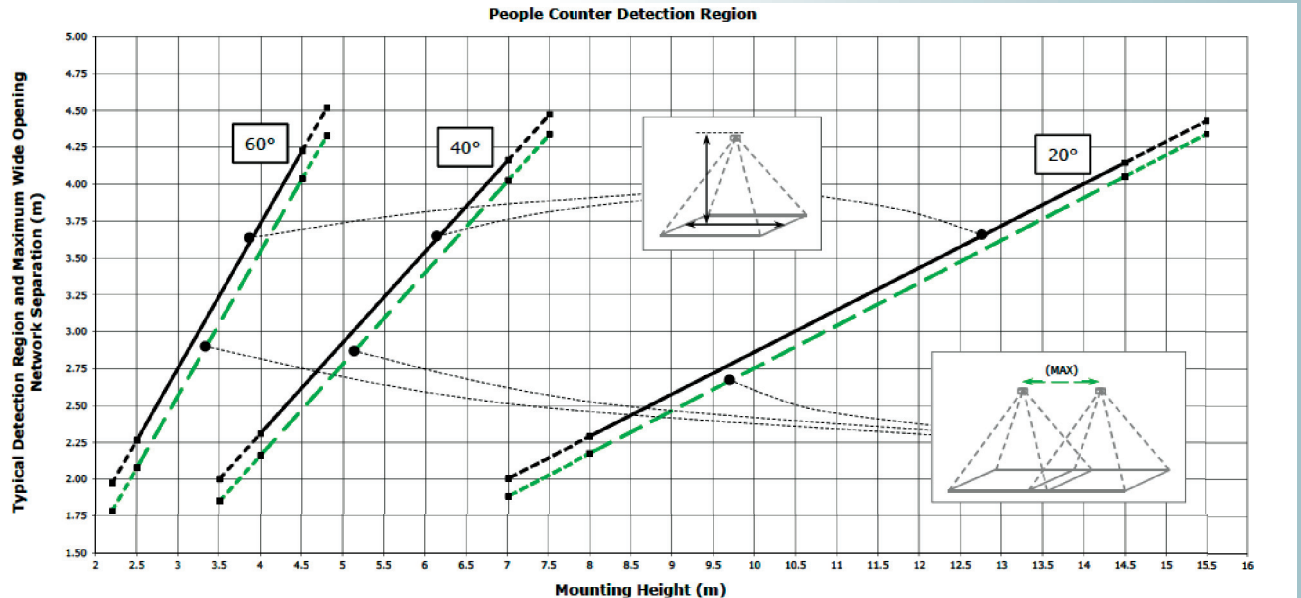
**People Counter Set-up tools**

	Unit Part Number	<b>IRC3010</b>	<b>IRC3020</b>	<b>IRC3110</b>	<b>IRC3120</b>
	Unit Type	IP Indoor	Relay Indoor	IP Outdoor	Relay Outdoor
<b>IWC3062</b>		✓		✓	✓
<b>IWC3052</b>			✓		
<b>IWC3059</b>		✓	✓		

**Counter Selection Matrix**

Device Type	Mounting Height Range	Indoor or Outdoor Housing	Part Number
Basic Relay	60 degree (2.2-4.5m)	Indoor	IRC3020
		Outdoor	IRC3120
	40 degree (4.0-7.5m)	Indoor	IRC3021
		Outdoor	IRC3121
	20 degree (7.0-15.5m)	Outdoor	IRC3123
IP Master	60 degree (2.2-4.5m)	Indoor	IRC3010
		Outdoor	IRC3110
	40 degree (4.0-7.5m)	Indoor	IRC3011
		Outdoor	IRC3111
	20 degree (7.0-15.5m)	Outdoor	IRC3113
Node for IP Master	60 degree (2.2-4.5m)	Indoor	IRC3000
		Outdoor	IRC3100
	40 degree (4.0-7.5m)	Indoor	IRC3001
		Outdoor	IRC3101
	20 degree (7.0-15.5m)	Outdoor	IRC3103
Dual View IP	60 degree (2.2-4.5m)	Indoor	IRC3030
	40 degree (4.0-7.5m)	Indoor	IRC3031

## Mounting Height Graph



## Quality Statement

**High reliability: MTBF > 25 years**

**ISO9000 manufacturing process**

**All products CE approved**

**120,000+ People Counting units manufactured since 2005**

**Manufacturing outsourced to global partner: Plexus (3000 Series)**

**Customs Classification**

**HMRC Classification 902750000 approved**

**Zero duty in EC**

**Zero duty on import to US**

**Other territories duty at discretion of local customs authorities**



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