for detecting pedestrians at intersection crossings

## **Configuration Instructions**

## **Monitor Connection**

Connect the VGA and USB connectors of MigmaMonitor to the SBC. Close both programs (two screens with yellow prints) by clicking on the exit button (X) on top of each DOS window.



There are three ways to interfacing with SBC:

- MigmaMonitor<sup>TM</sup>, a portable computer monitor with VGA connector and touch screen. This monitor can be left in the controller cabinet.
- A laptop using an Ethernet crossover cable (crossover cable is provided). You can find the remote login procedures in this guide.
- A regular desktop PC VGA monitor and USB mouse. This approach is suitable for configuration and test in the office.

## **Zone Configuration**

The configuration procedures for System1 and System2 are exactly the same. To configure the three zones for System1, please follow the steps under each Zone configuration.

On the desktop double click on the **System1\_GUI** icon to start configuring the three zones.



Now that the configuration software application has started, select the tab named **Configure Zones.** 

The camera view from System1 is shown. The default zones are in RED, YELLOW and BLUE. There are three zones which are referred to as **ZONE I**, **ZONE II** and the **AVOID ZONE**. As the name implies, objects within AVOID ZONE will be ignored. Therefore this zone should be made smaller.





## **Configuring ZONE I (Locator Tone)**

ZONE I is the zone in which the pedestrian will first enter. This zone will trigger the locator tone of APS button. It should be drawn to cover as much of the sidewalk as possible.

#### Step 1: Click on the ZONE I button.





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## **Configuration Instructions**

**Step 2:** Click on **Clear Zone** and then click on **Draw Zone** buttons.



**Step 3:** Now using the stylus or mouse touch the upper left corner of the desired zone to start drawing.



**Step 4:** Next touch the upper right corner of the zone with the stylus or mouse. This will connect the two points and there will be one red line drawn.



**Step 5:** Next touch the lower right corner of the zone and this will connect the three points. There will be two red lines drawn.



**Step 6:** Finally touch the lower left corner with the stylus or mouse and this will complete the zone by connecting all four points.

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Camera View Configure Zones Configure Parameters Configure Network	rator
Upper Left First & Clockwise	Configure Zones
Port in	Clear Zone
Likh	Draw Zone
	Save

**Step 7:** After completing the zone configuration, click on the **Save** button. This will save the newly configured ZONE I to the system. This is the zone that will be used to detect pedestrians unless it is changed.



## **Configuring Zone II (Ped Call)**

**Step 1:** Click on the **ZONE II** button to start configuration.



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**Step 2:** Click on the **Clear Zone** button to clear the default zone and then click the **Draw Zone** button. Configuring the zone will be identical to **ZONE I** except that **ZONE II** will be smaller. This is the zone where the pedestrian will be detected after standing inside for about 4~5 seconds and the system will place the ped call automatically.

Samera View Configure Zones Configu	Intersection Configure 1	onfigurator Network
Upper Left First &	Clockwise	Configure Zones
-1 B	A.	Clear Zone
11 -	> \	Draw Zene
t		
Internet	0	Save

**Step 3:** Use the stylus or mouse and touch the upper left corner of the desired zone.



**Step 4:** Now touch the upper right corner with the stylus or mouse. This will connect the two points and there will be one yellow line drawn.



**Step 5:** Touch the lower right corner with the stylus or mouse. This will connect the three points and there will be two yellow lines drawn.

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Camera View Configure Zeness Configure Parameters Configure Network	rator
Epper Left First & Clockwise	Configure Zones
1 the state	Clear Zone
han	Draw Zene
	Save

**Step 6:** Finally touch the lower left corner of the zone and this will complete the small zone.



Step 7: Click on Save to save the zone configuration.





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## **Configuring AVOID ZONE**

The **AVOID ZONE** can cover a small area in which the objects will be ignored.

#### Step 1: Click on the AVOID ZONE button.

unera view Conf	gure Zones Config	ure Parameters   Config	ure Permork	
C.C.	2.2	-t-	Cont	igure Zones
- more	[0041]	Thi	ZON	EI (Detection)
A	T	L	ZON	E II (Direction)
	V m			OID ZONE

**Step 2:** Click **Clear** and then **Draw** to draw a new zone. Use the stylus or mouse to touch the upper left corner of the desire zone. Remember this zone will only cover a small section to avoid false detections.



**Step 3:** Touch the upper right corner of the zone, this will connect the two points and there will be one blue line drawn.

mera view Configure	Zones   Configure Parameters   Configure Netw	rork
Coppe	r Left First & Clockwise	Configure Zones
trans for		Clear Zone
P	La	Draw Zone
		Save

**Step 4:** Now touch the lower right corner of the zone. This will connect the three points and you will have two blue lines drawn.



**Step 5:** Finally touch the lower left corner to complete the zone. Now you will see the zone complete in blue.





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## **Configuration Instructions**

**Step 6:** Click on the **Save** button to save newly configured zone.



You have completed the System1 zone configuration. Now you need to configure the zones for System2 by following the same procedures for System1.

#### **Parameters Configuration**

One can configure the delay time (*i.e. how long the pedestrian must be in the zone before being detected*) and the hold time (*i.e. how long ped call will be held by the system*). The default delay time for ZONE I (Locator Tone) is 1 second, meaning the pedestrian will be detected almost instantaneously. The default delay time for ZONE II (Ped Call) is 5 seconds, meaning the pedestrian will be detected only after he or she is in the zone for about 5 seconds. The default hold time for ZONE I is 90 seconds and for ZONE II is 3 seconds. You can use all of the default values.

The Actuation Locator Tone feature which is located in the ZONE I (Locator Tone) box allows the user to configure the locator tone. This will let the user control the locator tone whether it will sound all the time or only when a person walks in the detecting zone. If the box is checked the locator tone will sound only when a pedestrian walks into Zone I (Locator Tone). To have the locator tone on at all times, simply uncheck the box.

To configure Delay Time, Hold Time and Actuation Locator Tone, select the **Configure Parameters** tab to start the configuration. The screen is shown below.

Camera View   Configure Zenes   Configure Parameters	Configure Network
Zone I (Locator Tone)	Zone II (Ped Call)
DelayTime 1 secs	DelayTime 5
Hold Time 30 = secs	Hold Time 3 secs
Actuate Locator Tone	
Config Cancel	Config Cancel

For each zone please click on the **Config** button to make the appropriate changes. Once you have configured the Delay Time and Hold Time, you can check the Actuate Locator Tone check box if desired. Click **Save** once the time configurations are complete.

mera View Configure Zones Configure Para	neters Canfirure Network
and the conquerment conquerme	Considered and the property
Zone I (Locator Tone)	Zone II (Ped Call)
DelayTime 1 secs	DelayTime secs
Hold Time 30 - secs	Hold Time 3 secs
Actuate Locator Tone	-
Save Cancel	Config Cancel

## **Network Configuration**

To configure the system to save images and count data locally and or remotely, click on the **Configure Network** tab.

era View   Configure Zones   Configure Parameters   C	Configure Network
Zone I (Locator Tone)	Zone II (Ped Call)
DelayTime 1 secs	DelayTime 5 secs
Hold Time 30 secs	Hold Time 3 secs
Actuate Locator Tone	
Config Cancel	Config Cancel



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## **Configuration Instructions**

### **Unit Location Configuration**

Enter the location information that will be used to organize the locator tone counts and ped call counts and associated images saved both locally and remotely. Entry lines have a space limit of 20 characters.

Click on the **Config** button to enter the information for State, City, Intersection and Corner. Please click on the **Save** button to save the location information entered.



#### **Data Saving Configuration**

On the right hand side of the screen there are options for counts and image saving. Data can be saved locally in an external USB drive, and/or remotely using the MigmaServer<sup>TM</sup>.

era View Configure Zones Configure Parameters	Configure Network
Unit Location Configuration	Counting Configuration
Please enter the system location information:	Do you want to save the counts? If yes, please enter the location information on the left.
State	● Yes 🔷 No 🖌 Save Image
MA	Do you want to save the counts locally?
City	(A local disk such as thumb drive is required.)
Walpole	🖲 Yes 🕓 No
Interaction	Do you want to save the counts at a server?
Pt 1 8 Old Part	(Network and server IP address are required.)
ALT & Old Pest	Yes ON0
Corner	Diease enter the remote server ID address:
C-scotts	Please encer the remote server iP address.

You can enable or disable data saving. The default is already YES. If you prefer not to save the counts simply click NO. If YES, you will also need to specify if the detection images need to be saved.



If you would like to save the counts and detection images locally click yes and insert a local disk such as a thumb drive.

💰 Higmaintersection	
Camera View Configure Zones Configure Parameters	configurator
Unit Location Configuration Please enter the system location information:	Counting Configuration Do you want to save the counts? If yes, please enter the location information on the left.
State MA City Wiapole	Yes No Zave Image Do you want to save the counts locally? (A local disk such as thumb drive is required.)     Yes No
Intersection Rt1 & Old Pest	Do you want to save the counts at a server? (Network and server IP address are required.)
Control Contro	Please enter the remote server IP address: 192.168.4.107 Config Save

If you prefer to save the counts and images remotely, please enter the remote server IP address. Migma server application must be installed at this remote server in order to receive the data from clients and save the data appropriately. Click on the **Config** button to add the IP address and click on the **Save** button once you are done.

aera View   Configure Zones   Configure Parameters	Configure Network
Unit Location Configuration	Counting Configuration
Please enter the system location information:	Do you want to save the counts? If yes, please enter the location information on the left.
State	● Yes 🔷 No 🕑 Save Image
MA	Do you want to save the counts locally?
City	(A local disk such as thumb drive is required.)
Walpole	Yes O No
Intersection	Do you want to save the counts at a server?
Rt1 & Old Pest	(Network and server IP address are required.)
Corner	⊛ Yes ◯ No
Corrier	Please enter the remote server IP address:

You now have completed the System1 parameter configuration. You will need to configure System2 by following the same procedure for the System1 configuration.



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## **Configuration Instructions**

## **Time Period Configuration**

The user can select specific time periods in which the locater tone will be controlled by the ped detector and data is streamed to the server. There are two time periods the user can configure. For example, one time period could be from 8am until 12pm and then 4pm until 8pm. The locator tone will only be controlled by the system during those time periods ONLY. If two separate time periods are not needed only one should be enabled by checking the box and then configured.

To use this feature the *actuate locator tone* in *Configure Parameters* MUST be checked.



Click on the tab named Time Periods.



In the *Locator Tone* box you will need to check the box for Time Period A, this will enable the time selection fields. Using the drop down box in the enabled time selection, select the hour in which you would like to control locator tone, hours are listed as 0 to 23 (midnight until 11pm).



Once the time periods for controlling the locator tone have been configured you will need to click the *Save* button. The save button will be in red color until it is clicked, and then it will go back to the default black color. This is to let you know that the configurations have been saved.

MigmaIntersec	tion Configurator
liew Configure Zones Configure Parameters	Configure Network Time Periods
There are two time periods during wh by the ped detector and data are stre	ich the locator tone will be controlled named to the server, respectively.
Locator Tone	Data Streaming
Time Period A (24-hour time)	Time Period A (24-hour time)
From: 8 💌 To: 12 💌	From: 9 👻 To: 12 💌
✓ Time Period B (24-hour time)	Time Period B (24-hour time)
From: 14 v To: 17 v	From: 14 💌 To: 17 💌
Save	Save Cancel

To configure the time periods for streaming data to the server you will follow the same steps as the locator tone. Again, time periods selected will stream data to the server ONLY for the time periods configured. Under Data Streaming you will need to check the box for the Time Period A to enable the fields. Using the drop down boxes you can then select the hours for your desired time periods.

Migmaintersect	ion Configurator
ra View   Configure Zones   Configure Parameters	Configure Network Time Periods
There are two time periods during which the locator tone will be controlled by the ped detector and data are streamed to the server, respectively.	
Locator Tone	Data Streaming
Time Period A (24-hour time)	Time Period A (24-hour time)
From: 8 💌 To: 12 💌	From: 8 💌 To: 12 💌
🕑 Time Period B (24-hour time)	🕑 Time Period B (24-hour time)
From: 14 💌 To: 17 💌	From: 14 v To: 17 v
Sare	Sare Cancel



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## **Configuration Instructions**

Once the time periods have been configured, click the *Save* button. Again, once you click *Save* the button will go back to the default black color.

wiiginaintersec	tion Conligu	rator	
mera View   Configure Zones   Configure Parameters	Configure Network	Time Periods	
There are two time periods during which the locator tone will be controlled by the ped detector and data are streamed to the server, respectively.			
Locator Tone	D	ata Streamin	e e
✓ Time Period A (24-hour time)	💌 Time P	eriod A (24-hour	time)
From: 8 💌 To: 12 💌	From: 8	▼ To	12 💌
Time Period B (24-hour time)	🗹 Time P	eriod B (24-hour	time)
From: 14 💌 To: 17 💌	From: 14	▼ To	17 💌
Save	Sare		Cancel

Now that you have finished all configurations and ready to have the system operational, you MUST save all configuration data to the disk inside SBC.



To do this, on the desktop screen,

Double Click on the Save icon

The system will then save the data and automatically reboot. The system will use the new configuration data for detecting pedestrians at intersection crossings.

REMEMBER: Whenever you configure the system, you must click on the *Save* icon to save the configuration and reboot the system. Otherwise your configuration changes <u>will NOT</u> be saved.



Once the system has restarted, you may unplug the monitor and close the cabinet door. The system is ready for use.

#### Recommendation for ZONE I size

Make sure this zone is large enough. A pedestrian will be detected only after he or she walks about 2-3 steps inside the zone at normal walking speed.

#### **Recommendation for ZONE II size**

This zone should be relatively small and cover the waiting area. In order to have pushbutton actuated automatically, pedestrians must stay in this zone for 4-5 seconds.

#### Recommendation for AVOID ZONE size

This zone should be relatively small and cover an area where you don't want to detect any objects.

#### **Remote Login Configuration**

Before logging into SBC remotely, you should configure your laptop you will use to connect to SBC with crossover Ethernet cable.

• Open Properties of Local Area Connection in Network Connections in Control Panel



• Open Properties of Internet Protocol version 4 (TCP/IPv4)

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## **Configuration Instructions**

Internet Protocol Version 4 (TCP/IPv4)	Properties ?
General	
You can get IP settings assigned autor this capability. Otherwise, you need to for the appropriate IP settings.	matically if your network supports o ask your network administrator
Obtain an IP address automatical	ly
O Use the following IP address:	
IP address:	192.168.0.2
Subnet mask:	255 . 255 . 255 . 0
Default gateway:	192.168.0.1
Obtain DNS server address autor	natically
Output the following DNS server add	resses:
Preferred DNS server:	192.168.0.1
Alternate DNS server:	· · ·
	Advanced
L	OK Cancel

- Select **Use the following IP address** and enter the following network information:
  - IP address: 192.168.0.2
  - o Subnet mask: 255.255.255.0
  - o Default gateway: 192.168.0.1
- Select Use the following DNS server addresses: • Preferred DNS server: 192.168.0.1
- Click on **OK** button to finish configuration of local area connection.

#### **Remote Access**

- Open **Remote Desktop Connection** in Windows
- Enter 192.168.0.1 in Computer
- Click Connect button

触 Remote D	esktop Connection	- • ×
9	Remote Desktop Connection	
Computer:	192.168.0.1	
User name:	OEM-FBW01ANCQN3\administrator	
You will be as	sked for credentials when you connect.	
	Connect Cancel Help	Options >>

A remote desktop login window appears. Enter the following information:

- Username: administrator
- **Password:** migmasys

Click on **OK** button to access the SBC.

Log On to Windows
Windows Embedded
User name: admitstator Besover:  CK Carcel: Qatores >>

