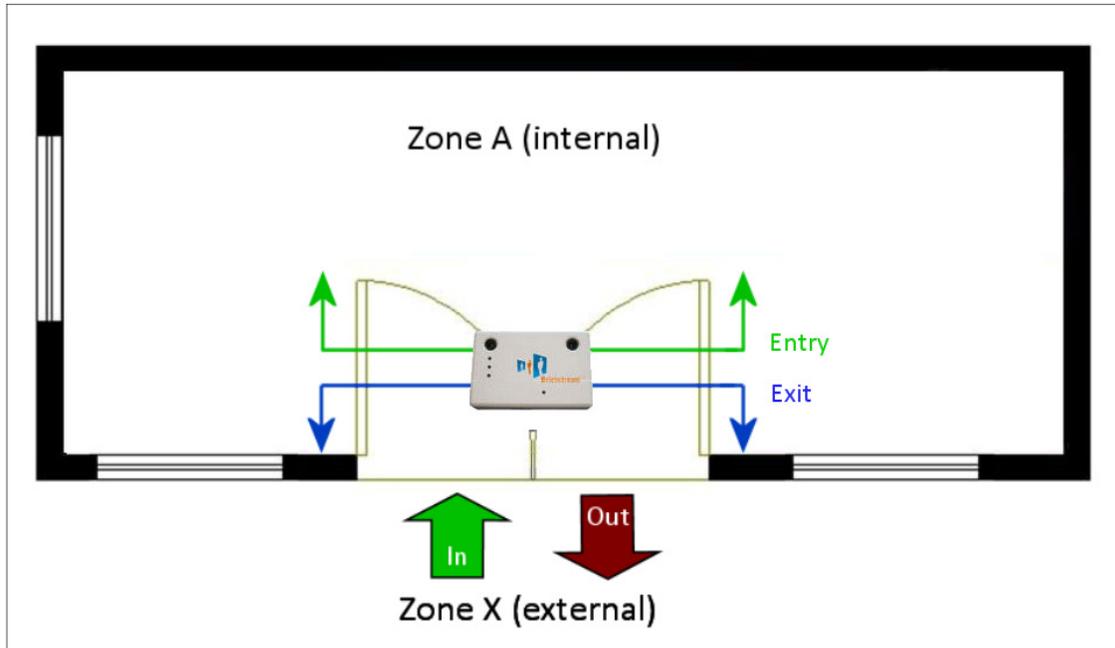


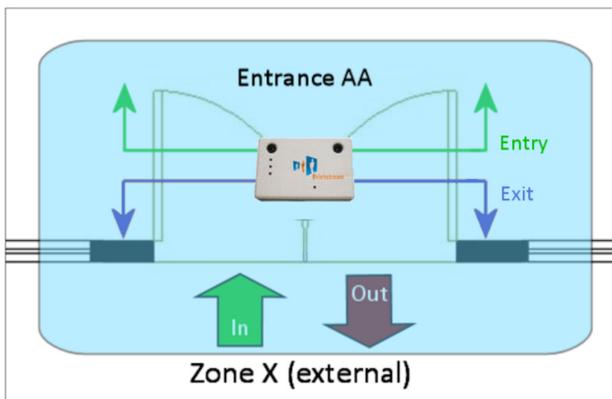
Configuring a Brickstream Counter for Delivery to Xenometric's X-Server

Simple 1 Brickstream Counter Per entrance¹

The example below shows a simple retail store with one Brickstream Counter. The counter has been configured with two lines (**Entry** and **Exit**). The pedestrians entering the store are recorded by the **Entry** line, whilst the pedestrians exiting the store are captured by the **Exit** line. Pedestrians outside the store are labelled as being in Zone X, whilst pedestrians inside the store are labelled as being in Zone A. In all systems Zone X represents the outside world.



In order to represent this scenario we will need to program the Brickstream counter with the correct IDs for each pair of lines. To do this we will allocate a 2-character ID to the entrance. Both lines belong to the same entrance, as one counts the *In* direction and the other the *Out* direction.



The entrance shown has an ID of AA.

The entrance forms a boundary between zones A and X. We can write this as a Zone ID of AX. The first letter of the Zone ID always relates to the destination of the Entry line. The second letter represents the destination of the Exit line.

The complete Device ID for this pair of lines is AAAX. This is essentially the Entrance ID of AA and the Zone ID of AX.

1. For locations where more than one Brickstream counter is used to monitor a single entrance there is another ID scheme that can be used. This scheme is not described in this manual.

Configuring the X-Server for Brickstream

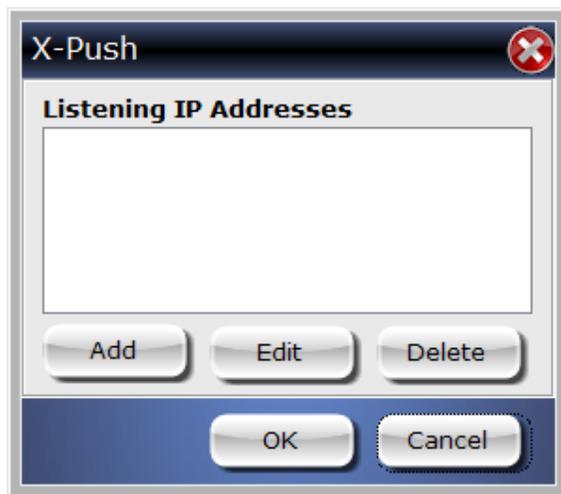
In order for the X-Server to communicate with a Brickstream counter the X-Server must listen on a specified port. The Brickstream counter will then open a conversation to the X-Server on that port.

This is configured in the X-Server within the X-Push functionality (the Brickstream unit is pushing data into the X-Server).

Click on the X-Push button on the main form.



The following form will be shown.



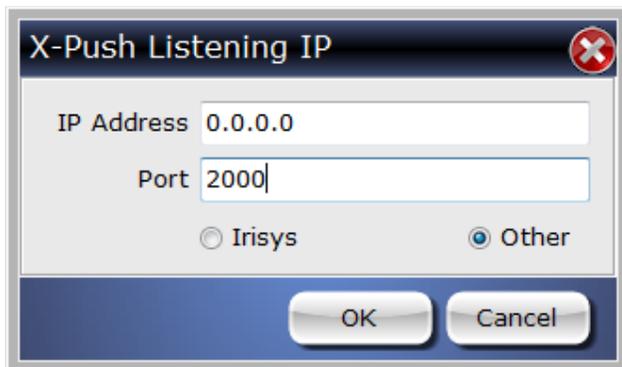
Click on the Add button to tell the X-Server what IP address and port to listen on. The following form will be shown.



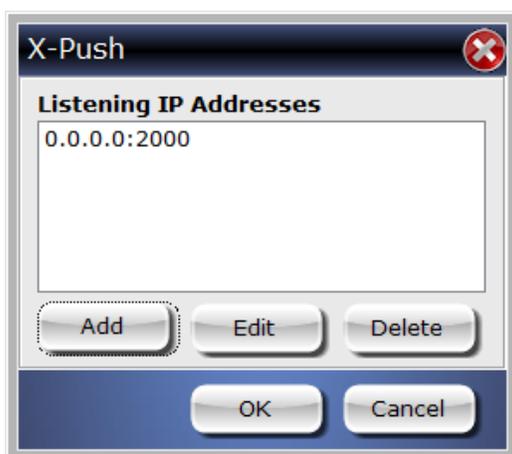
In the IP address field you can either type the exact IP address of the server that the X-Server software is installed on (the server may have more than one IP address) or you can enter 0.0.0.0, which allows the X-Server to listen on all local IP addresses.

The Port can be any value (1 – 65,535), but should be chosen carefully so that it does not conflict with any other software. For example, do not use port 80 as this is used for http traffic. In this example I use port 2000, which isn't used by anything on my network. You can always take advice from the network admin. Commonly used ports are listed here https://en.wikipedia.org/wiki/List_of_TCP_and_UDP_port_numbers.

Make sure that the 'Other' radio button is selected'.



Click OK to save this listening multiple IP address/port pairing.



The X-Server can listen on multiple IP address/port pairings.

Once the listening pairings have all been specified the X-Push service will need to be restarted.

For more information see the X-Control manual.

Configuring the Brickstream Counter

The following steps should be performed in order to configure a Brickstream counter to talk to Xenometric's server.

1. Use a web browser to connect to the Brickstream counter.

Brickstream 2200 Basic Configuration

Use this page to configure initial settings for the Brickstream 2200. All fields are required.

IP Settings

DHCP Enabled? Yes No

IP Address: Enter IP Address

Network Mask: Enter Network Mask

Default Gateway: Enter Default Gateway

DNS Server: Enter DNS Server

Http Server Settings

Http Port: Enter port number

Identification

Site ID: Enter Site ID

Site Name: Enter Site Name

Division ID: Enter Division ID (optional)

Device ID: Enter Device ID

Device Name: Enter Device Name

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I will assume that the IP settings are already configured, since you have managed to connect to the unit over http.

The Identification section is the important are of this page, as it allows us to configure the Xenometric IDs that will be used when the Brickstream counter talks to the X-Server.

The **Site ID** is an identifier that represents an entire building or system. The Site ID might represent a single store or a large shopping centre (mall). The important thing is to make sure that the Site ID is unique. All Brickstream counters in the building will share the same Site ID. Typically Site IDs have between 6 and 12 (max 20) characters. The characters can be numbers or letters of the Roman alphabet (A-Z, 0-9). It is best to keep all letters in upper case. A valid Site ID might be USA00001. This could represent the first site you installed in the USA. Any combination is letters and numbers is fine.

The **Site Name** is the name which will appear on reports for the building (store, shopping centre, casino etc.). This field can contain non-Roman characters (Unicode) up to a maximum of 50 characters. A mixture of upper and lower characters from any alphabet is fine.

The **Division ID** is not used by Xenometric.

The **Device ID** describes the entrance and zone boundary of the Brickstream counter. Page 1 of this document describes how to generate a valid Device ID. Device IDs are always comprised of Roman characters (A-Z, 0-9) and are typically written in upper case. The example on page 1 uses a Device ID of AAAX. More complex IDs are created for bigger systems with many entrances and multiple zones. Each Entrance must have a unique ID, e.g. AA, AB, AC etc. Each Zone must have a unique ID, e.g. A, B, C etc. The only exception is the special zone X, which represents the outside world. This zone is common to all counters that border the outside world.

The **Device Name** will become the Entrance Name in Xenometric reports. This field can contain non-Roman characters (Unicode) up to a maximum of 50 characters. A mixture of upper and lower characters from any alphabet is fine.

— **Identification** —

Site ID	<input type="text" value="USA00001"/>	<i>Enter Site ID</i>
Site Name	<input type="text" value="Mega Mall"/>	<i>Enter Site Name</i>
Division ID	<input type="text"/>	<i>Enter Division ID (optional)</i>
Device ID	<input type="text" value="AAAX"/>	<i>Enter Device ID</i>
Device Name	<input type="text" value="Main Entrance"/>	<i>Enter Device Name</i>

The example above represents a large shopping mall in the USA. The Site ID is unique for this mall. The Brickstream counter is located over the main entrance (ID = AA) and border the outside world (X) and the internal zone (A).

Save the settings once you have applied them.

2. Navigate to the Date and Time Info page

This page allows you to specify how the Brickstream counter corrects its internal clock.

Date and Time Info

Date 07/18/2013
Time 17:00:31
Time Zone (GMT) Greenwich Mean Time : Dublin, Edi *Select time zone*
Time Server Protocol Brickstream 2200 *Select the protocol used to sync*
Time Server 192.168.0.10 *What time server would you like to synch with?*
Port 2000 *Enter port number*

Select the correct time zone for the location of the counter and then select 'Brickstream 2200' as the Time Server Protocol. The Time Server field should contain the IP address of the X-Server. The Port should contain a port number that the X-Server is listening on.

3. Navigate to the Data Delivery page

We need to enable Batch Data Streaming. These settings instruct the counter to deliver data to the X-Server.

Batch Data Streaming

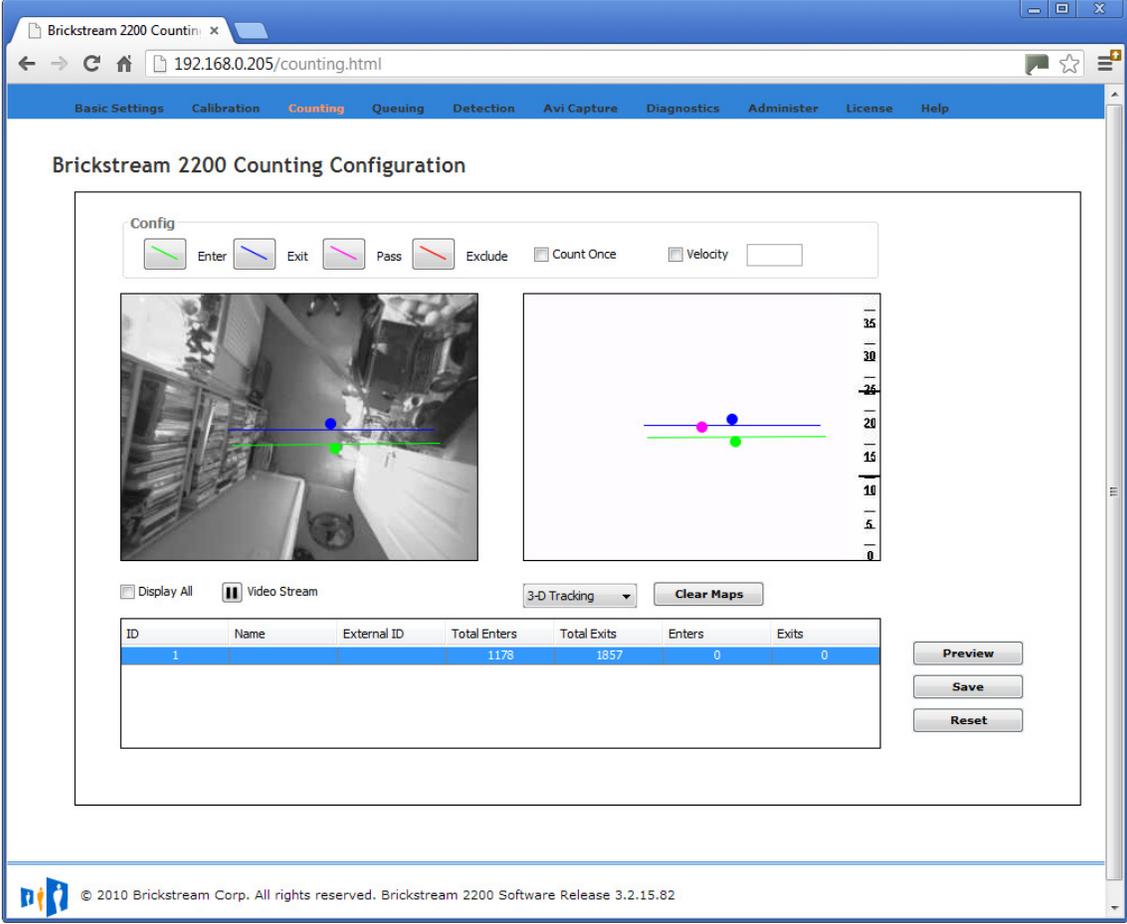
Enable Batch Data Streaming
IP Address 192.168.0.10 *Enter IP address (0.0.0.0)*
Port 2000 *Enter port number*
Aggregation Level 15 mins *Specify delivery interval*

The example above assumes that the X-Server is installed on a server with IP address 192.168.0.10 and is listening on port 2000. Every 15 minutes the Brickstream counter will connect to the X-Server and delivery counts for the previous 15 minute period. This interval can be reduced or increased to suite the level of detail required. Click on Save to store any changes.

4. Configuring the Counting page

The counting page will contain a single count zone (for this example), which contains an entry and an exit line. This manual does not discuss how to configure the count zone and lines.

The count zone has two fields that can be edited; the Name and External ID. Both of these fields should be kept blank. If they are used they override the Device Name and Device ID specified on the Basic Settings page.



ID	Name	External ID	Total Enters	Total Exits	Enters	Exits
1			1178	1857	0	0

Troubleshooting

- Ensure that there is an Internet connection. Can you ping the counter from the X-Server machine?
- Make sure that there is not a firewall set to block outbound communication from the counter to the X-Server.
- Make sure that the configuration in the counter is correct. The Site ID and Device ID strings must match one of Xenometric's formats.