

Xenometric

Web Reporting

User Guide

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1 Introduction

The Xenometric web reporting software can be installed on your private server or you can use the Xenometric Cloud serve (XenoCloud). The web reporting software is identical, regardless of whether you are using a local installation, your hosted server or Xenometric’s cloud.

Local installations have the advantage of privacy and security. All of your data remains within your network and there is no need for any connection to the Internet. At your discretion, Xenometric and your people counter supplier can be given remote access to provide support and upgrades.

Cloud customers do not need any computing hardware. Your people counters will deliver data directly to Xenometric’s server, so there’s no need for a server and there are less software components to support. You can view your reports securely (HTTPS) over the internet and receive emails with PDF reports.

This user guide describes all the functionality of the web reporting system. Many reporting options are not applicable for all customers. You will find that your web reporting system contains only the reports that are relevant to your people-counting system.

The data that you can see in your reports has been applied to your user account. Users can see different levels of information, based on their role. For example, a store manager may see data for their store, but a regional manager may see data for multiple stores.

1.1 Locations

Xenometric use a hierarchy of location types to describe the relationship between the positions of people counting units.

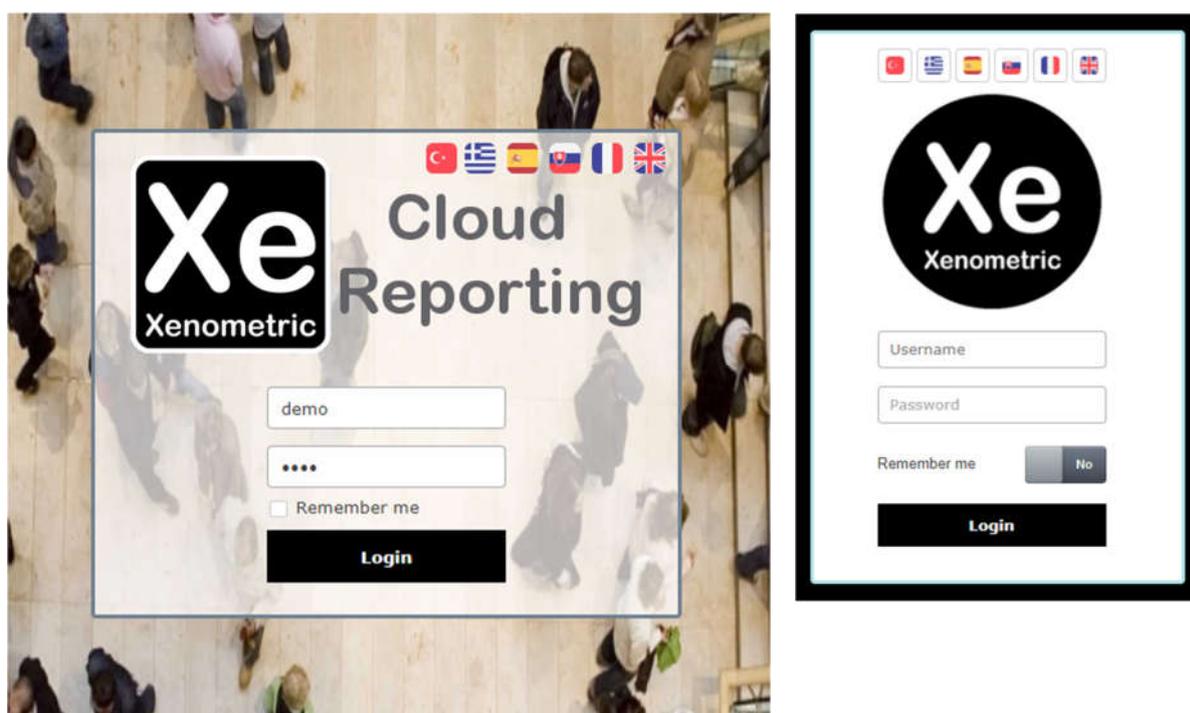
Location Type	Description
Groups	This is a collection of separate buildings. For example, all of the customer’s stores or just the stores in a region. You can create as many groups as you need to contain collections of buildings.
Sites	Sites are buildings. This could be a retail store, shopping mall, casino or transport hub.
Zones	Within a site there can be multiple zones. For example, a store might have 3 levels (floors), where each level is a zone. A small store will only have one zone, which covers the entire site. Zones require there to be people counters at the boundaries (entrances) of each zone.
Entrances	Entrances are the thresholds between zones. The most common entrance is the boundary between the store and the outside world. Any entrance that borders the outside world is called an external entrance. An entrance that is within the building and borders two zones (e.g. the boundary between level 1 and level 2) is an internal entrance.

2 Login

The login screen is reached from a URL that will be provided. For example, <http://yourservername:9090> or <https://www.xenometric.com:7443>. This URL could be sent to you in an email or stored as a shortcut.

On a computer, you can use any browser to connect, e.g. Chrome, Firefox, Edge, IE, Opera and others. On a mobile device you can use any browser that is supported by your device.

Computer browsers will see the left login screen, whilst mobile users will see the simpler login screen on the right.



Along the top edge you can choose the login screen's language. Each user can choose their own language. If your language has not already been set, you can change this by referencing the User Settings section of this document.

Enter your username and password. Then click the Login button or hit the enter key on your keyboard.

If you select the 'Remember me' checkbox, a cookie will be used to store your username. Next time you visit the login page, your username will be automatically completed. See Appendix A for a list of cookies that we use.

You can create a shortcut URL with your username and password if you want to speed-up the login process. This URL is not secure, so should only be used on private networks. Here is an example of the URL for the username demo and the password demo, [https://www.xenometric.com:7443/\\$/start/?user=demo&pass=demo](https://www.xenometric.com:7443/$/start/?user=demo&pass=demo). For a private installation it could be [https://servername:9090/\\$/start/?user=myusername&pass=mypassword](https://servername:9090/$/start/?user=myusername&pass=mypassword). Simply replace the myusername and mypassword with your username and password.

3 Report Selector

The report selector allows you to create reports for your locations and any time periods.

The screenshot shows the Xenometric Reporting interface. At the top left is the logo. To its right is a dropdown menu currently set to 'Store 1'. Below this are several tabs for time periods: 'Day', 'Week' (which is selected), 'Month', 'Year', and 'Range'. To the right of these tabs are icons for a menu, download, user profile, and power. Below the time period tabs is a 'Week 12' label, a date input field containing '2021/03/22', and a 'Go' button. Below the date field are 'Comparison' options: 'None' (selected), 'Previous Week', 'Previous Year', and 'Custom'. At the bottom are 'Directions' options: 'In', 'Out', and 'Both' (selected). To the right of these are 'Group locations by' options: 'Group', 'Site' (selected), 'Zone', and 'Entrance'.

3.1 Basic Options

For the majority of reports, you only need to choose the location and time period. The reporting software will automatically select the best report parameters for your report. For example, a year report will default to showing you each month of the year, although you can select to see each day of the year. A location group report will default to showing you each site in the group, but you can choose to view all sites and entrances.

3.1.1 Location

In the location dropdown there are separate lists for Groups and Sites. See section 1.1 for a description of location types. Choose the location which you would like to see in the report.

The screenshot shows a dropdown menu with 'Store 1' at the top. Below it, there are two sections: 'Groups' and 'Sites'. Under 'Groups', there is one option: 'Demo Group'. Under 'Sites', there are five options: 'Store 1', 'Store 2', 'Store 3', 'Store 4', and 'Store 5'.

3.1.2 Time period

There are 5 different time period types; day, week, month, year and range. There are some options for each period type that you can select.

Day-by-hour. If you choose a Day time period, the report will show your chosen day broken down by hour. You can choose which hours to show, as you may not want to see the periods of the day when your building is empty. The reporting will remember your choice of start and end hours for each location. The start and end hours represent the start of each hourly period, so 23:00 represents the period 23:00 – 00:00. You can choose the report day from the calendar by clicking on it or typing a date.

The screenshot shows a control panel for the 'Day' time period. At the top left is a dropdown menu for 'Store 1'. To its right are five buttons: 'Day' (highlighted in blue), 'Week', 'Month', 'Year', and 'Range'. Further right are three icons: a vertical ellipsis, a download icon, and a user icon. Below these buttons are three input fields: the first contains '00:00', the second contains '23:00', and the third contains '2021/03/23'. To the right of these fields is a blue 'Go' button.

Week-by-day. If you choose a week time period, the report will show your chosen week broken down into 7 days. The calendar picker will show the week numbers alongside the month view and the week number is also shown in a blue box. You can select any date in the picker and the software will work out the week you have chosen depending on your calendar choice of week-starting Monday or Sunday. See Appendix B for calendar information.

The screenshot shows a control panel for the 'Week' time period. It features a 'Store 1' dropdown, buttons for 'Day', 'Week' (highlighted), 'Month', 'Year', and 'Range', and three icons. Below the buttons, there is a 'Week 12' button and an input field containing '2021/03/23'. A blue 'Go' button is on the far right.

Month-by-day. If you choose a month time period, the report will show your chosen month broken down by day. To select a month, choose from one of the twelve month buttons. J represents January, F is February, M is March etc. The letters on each button will reflect your chosen language. You can also select the year using the up/down control.

The screenshot shows a control panel for the 'Month' time period. It includes a 'Store 1' dropdown, buttons for 'Day', 'Week', 'Month' (highlighted), 'Year', and 'Range', and three icons. Below the buttons is a row of twelve month buttons labeled 'J', 'F', 'M' (highlighted), 'A', 'M', 'J', 'J', 'A', 'S', 'O', 'N', 'D'. To the right of these is a year selector showing '2021' with up and down arrows. A blue 'Go' button is on the far right.

Year-by-month and Year-by-day. Year reports can be broken down by month or day. A year report broken down by month will have 12 points on the chart, whereas a year report broken down by day will have 365 or 366 points. You can choose the year by use of the up/down control.

The screenshot shows a control panel for the 'Year' time period. It features a 'Store 1' dropdown, buttons for 'Day', 'Week', 'Month', 'Year' (highlighted), and 'Range', and three icons. Below the buttons are two buttons: 'by Day' and 'by Month' (highlighted). To the right is a year selector showing '2021' with up and down arrows. A blue 'Go' button is on the far right.

Range-by-day. The Range button allows you to manually choose a start and end date for the report. You can select a range of up to 62 days.

Store 1 [v] Day Week Month Year Range [⋮] [Download] [User] [Power]

Start Date: 2021/03/23 End Date: 2021/03/23 [Go]

3.2 Location groupings

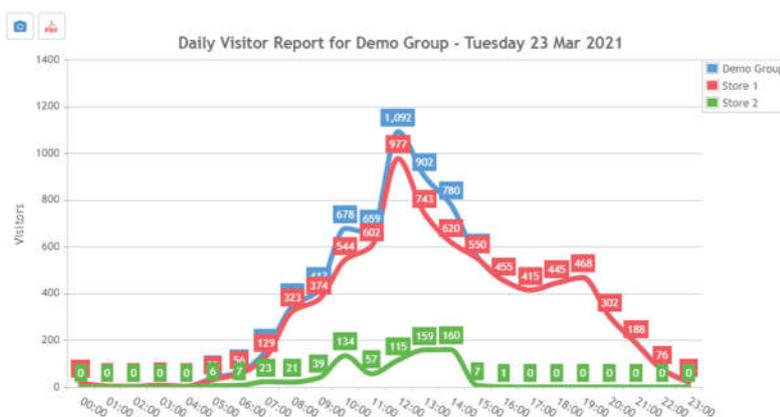
The reporting software will automatically choose the location grouping that is most sensible for the location type that you have selected. For example, if you select a group called 'My stores' the software will automatically group the results to show a list of stores. Alternatively, if you select a store that has two entrances, the software will show you the site total and the two individual entrances.

Sometimes you may want to group the results by a different set of location types. To do this you will need to expand the selector area. Click the button with 3 dots to reveal the extra selector options.

[⋮] [Download] [User] [Power] Group locations by Group Site Zone Entrance

The default grouping for a Group is to only show the sites that belong to the group. However, you may wish to show the group total as well as the individual site. To do this, select the grouping as Group and Site.

Demo Group [v] Group locations by Group Site Zone Entrance



The report now has a series for the group, Demo Group, and a series for each of the locations in the group, Store 1 and Store 2.

We could have chosen to show the zones and entrances of each store, but this would add a lot of complexity to the chart.

If we choose a site as the location type, we may want to group the results by site and entrance. The site data will show the visitors to the building, whilst the entrance data will show the visitors entering each entrance

Store 2

Group locations by

Group

Site

Zone

Entrance

	10:00	11:00	12:00	13:00	14:00	15:00	Total
Store 2	134	57	115	159	160	7	729
Cross Traffic	0	3	5	0	2	0	14
Entrance	1	1	5	1	5	4	19
Entrance East	124	44	107	101	153	0	587
Entrance South	7	7	2	55	0	0	107
Entry Left	0	1	0	1	0	0	2
Entry Right	2	4	1	1	2	3	14
Location 3	46	96	182	137	116	92	1,864

Please note that the site total for Store 2 is less than the sum of all entrances. This is due to two of the entrances being internal. The internal entrances do not measure people entering the building from the outside world, so they do not contribute to the building total. The entrances shown in an orange font are internal entrances.

3.3 Comparisons

The ability to compare your selected time period against a previous time period is supported for one comparison period. Xenometric plans to release an upgrade to support a second comparison period.

The comparison period is dependent upon the report period type selected, but is highly flexible. For example, a day-by-hour report for a selected date can be compared to yesterday, the same day from last week, last month, last year or a date of your choice.

Day

Week

Month

Year

Range

Comparison

None

Yesterday

Previous Week

Previous Month

Previous Year

Custom

If you choose a year-by-month report, the default comparison periods are adjusted to show only the relevant comparison periods.

Day

Week

Month

Year

Range

Comparison

None

Previous Year

Custom

Here is an example of a year-by-month report for 2020 compared to the year of 2019.



The table shows the totals and the year-on-year variance.

	Jan	Feb	Mar	Apr	May	Jun	Total
Store 1	349,574	294,975	225,960	94,763	159,846	218,296	2,945,356
2019	335,935	306,838	347,453	327,955	307,109	270,937	3,812,024
Variance	+4.1%	-3.9%	-35.0%	-71.1%	-48.0%	-19.4%	-22.7%

3.3.1 Custom Comparisons

It is possible to create more complicated comparisons. Select the Custom button in the comparisons options to show the comparison panel.

Comparison None Previous Week Previous Year Custom

Current date range
Week 13 2020 - Monday 23 Mar 2020 (7 days)

Comparison date range
Week 12 2020 - Monday 16 Mar 2020 (7 days)

Comparison Period

Enabled

Previous Week
Previous Month
Previous Year
Custom

Weeks ago

OK
Cancel

The top part of the comparisons dialog will show the current report period and the proposed comparison period.

Current date range
Week 13 2020 - Monday 23 Mar 2020 (7 days)
Comparison date range
Week 12 2020 - Monday 16 Mar 2020 (7 days)

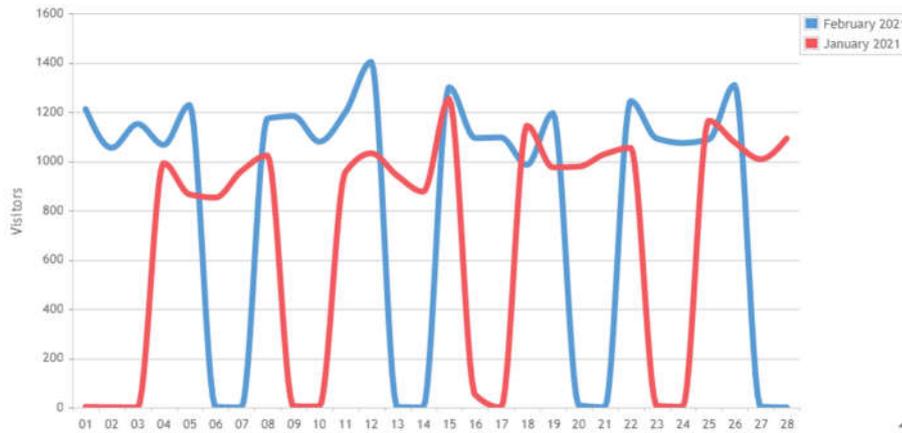
The period length, e.g. 7 days, will always be the same for both the current and comparison ranges.
The Comparison Period can be selected using the controls shown below.

First, select the period type from Previous Day, Previous Week, Previous Month, Previous Year and Custom. Only the relevant options will be shown.

Secondly, choose the date that you want to use for your comparison. In the example above we have chosen February 2020, but we could have chosen a different period type and date. For example, you can choose to compare to a previous week. Similar options exist for previous days, months and years.

For some comparisons there is an option to 'Match day of the week'. For example, when you choose a day report, you may not want to compare to the same date last year, e.g. comparing 1st May 2021 with 1st May 2020. The 1st May 2021 is a Saturday, so it might be better to compare this day with the 2nd May 2020, which is also a Saturday.

Here's an example of comparing February 2021 to January 2021, where the 1st February is compared to 1st January. You can see that this store is closed at the weekend, so there is a regular pattern. It's difficult to see visualise the comparison, as the weekends do not match within each month.



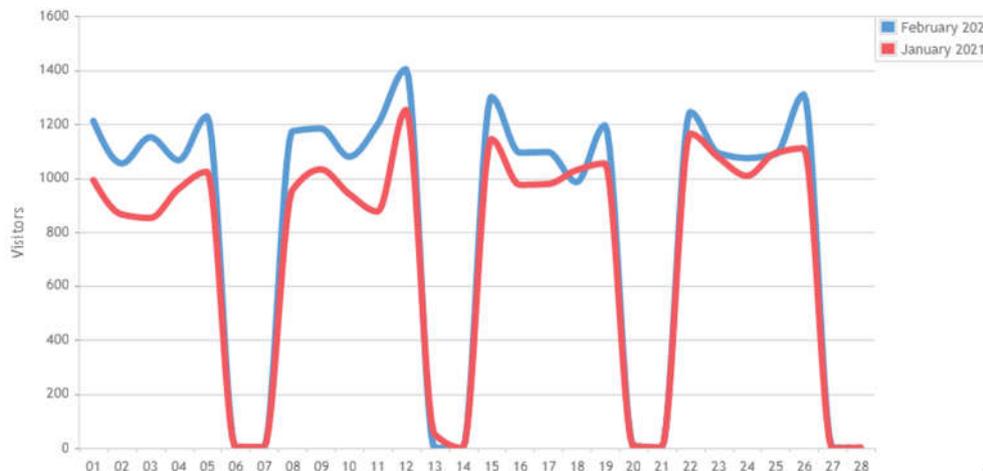
By choosing the same comparison period, but adding 'Match day of the week', we can bring these series into alignment.

Current date range
Monday 01 Feb 2021 (28 days)
Comparison date range
Monday 04 Jan 2021 (28 days)

Comparison Period

Enabled ON Match day of the week ON

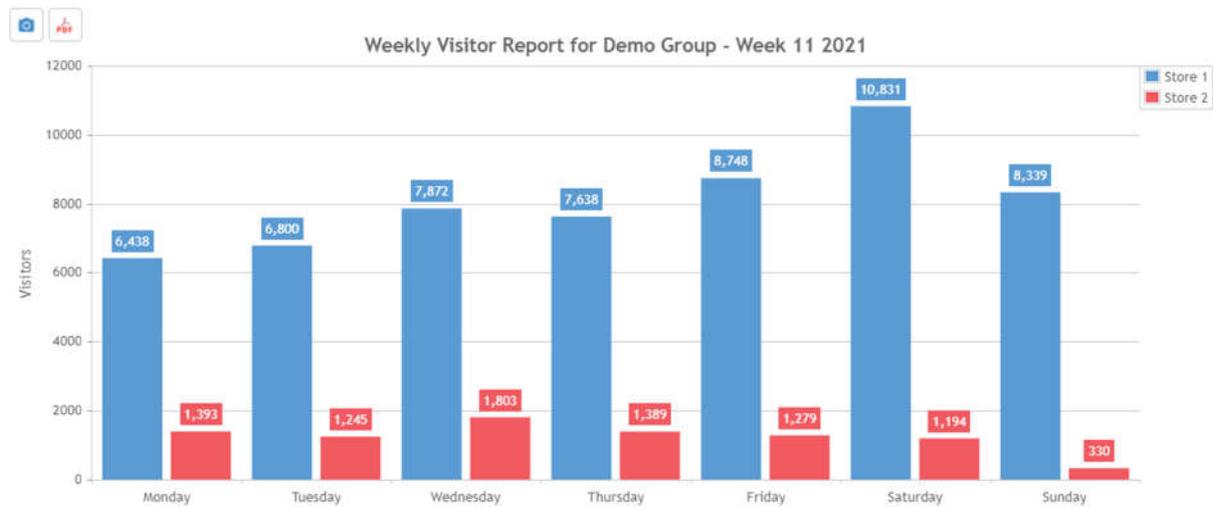
The comparison is now set to match the 1st February with the 4th January. The comparison now looks clearer.



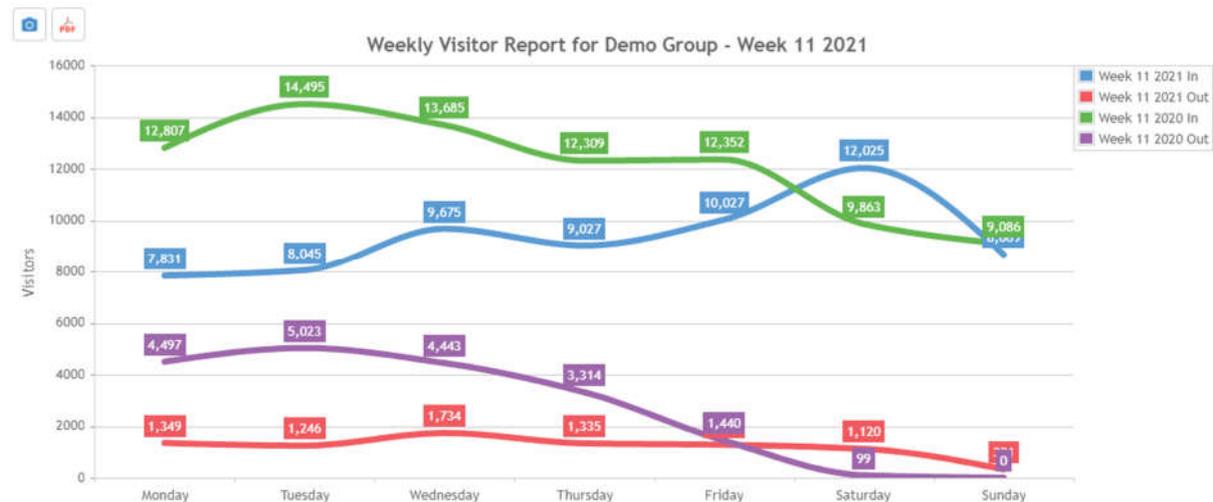
4 Visitor Report

The Visitor report has several components: the visitor chart, highlights, table, location contribution stacked chart and location contribution pie chart. Not all components will be shown for all report options. There is also an option to create a PDF of the visitor report or to export the report data to Excel.

4.1 Visitor Chart



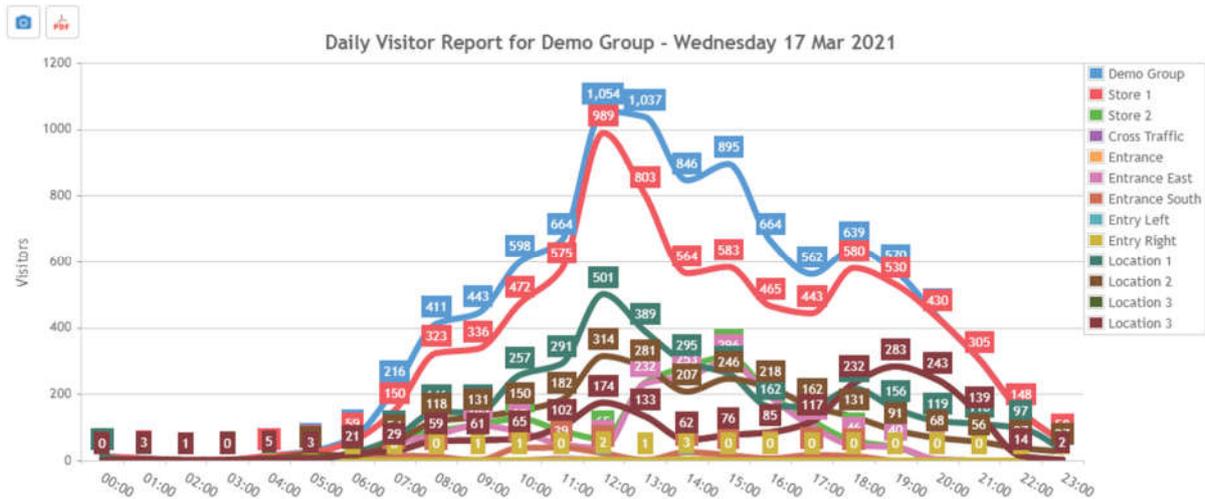
If comparisons are chosen, they can be shown on the visitor chart if the number of locations (chart series) is small. For example, you can view a site with a location-grouping of site, so that only the site's total is shown (entrances are not shown). This will allow the comparison data to be shown. This limitation is to keep the chart from being swamped with too many series. The chart below shows a single location (Demo Group) with the comparison data for the previous year. The In and Out counts are shown for this location.



Here is an example of many locations on one chart. For a group location, we can select to show the group's total, the sites within the group and the entrances within each site.

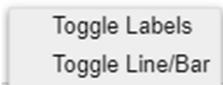


This produces 13 series, which is fine to show in the table, but can be confusing on the chart.



If you have groups with lots of sites, it is probably clearer to create sub-groups if you want to view the sites on one chart.

The chart will be displayed as a bar chart if there are only a few series, or a line chart if many series are present. You can change the bar/line format and turn the number labels on/off by right clicking on the chart and toggling the labels and chart type.



You can take an image snapshot of the chart by clicking on the camera button  and then saving the image.

You can create a PDF of the chart by clicking on the PDF button 

4.2 Highlights

Total Visitors	Busiest Time	Busiest Location	Average Visitors
9,675	1,054 12:00	7,872 Store 1	403

The highlights give a very quick view of four headline metrics.

Total Visitors. This is the sum of visitors for the building(s). It is not the sum of all locations shown. You may show a site (building) and the entrances in your report. The site counts already contain the entrance counts, so summing the site and entrances would give you double the number of true visitors. The counts from internal entrances are also not included, as their counts do not contribute to the building (they are the counts of people moving within a building).

	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	Total
Store 1	465	443	580	530	430	305	148	58	7,872
Store 2	199	119	59	40	3	0	0	0	1,803
Cross Traffic	1	0	0	0	0	0	0	0	13
Entrance	1	0	0	0	0	0	0	0	8
Entrance East	192	103	46	40	3	0	0	0	1,584

In the example above you can see the two sites' (Store 1 and Store 2) totals are 7872 and 1803. The sum of these two numbers is 9675, which is what is shown in the Total Visitors Highlight box. The counts from the internal entrance, Cross Traffic, are not used and the counts from the two external entrances, Entrance and Entrance East, are not used, as their counts are already included in Store 1 or Store 2.

Busiest Time. This is the time at which the most people visited the top-level location. For our example you can see that 12:00 was busiest with 1054 visitors. Store 1 (989) + Store 2 (65).

10:00	11:00	12:00	13:00	14:00
472	575	989	803	564
126	89	65	234	282

Busiest Location. This is the location with the highest total count for the report period. This metric is only relevant if all of the locations are of the same type. If you have a report with a group and some entrances, it is obvious that the group will be the busiest location, as a group consists of multiple sites and each site has one or more entrances.

If you group by just one location type, e.g. Entrance, the Busiest Location metric will be valid.

Group locations by

Group	Site	Zone	Entrance
-------	------	------	-----------------

Average Visitors. This metric is only useful if you are comparing locations of the same type. It is not reasonable to find an average from a mixture of groups, sites and entrances. It is valid to use the average if all the locations are sites or all are entrances. The average is the counts per time period.

	Monday 15 Mar 2021	Tuesday 16 Mar 2021	Wednesday 17 Mar 2021	Thursday 18 Mar 2021	Friday 19 Mar 2021	Saturday 20 Mar 2021	Sunday 21 Mar 2021	Total
Location 1	2,664	3,091	3,444	3,457	3,593	4,206	3,075	23,532
Location 2	2,161	2,061	2,519	2,263	2,710	3,126	2,646	17,488
Location 3	1,613	1,640	1,909	1,918	2,445	3,495	2,618	15,646
Total	6,438	6,800	7,872	7,638	8,748	10,831	8,339	56,666

In the example above, the sum of the totals for the 3 entrances is 56666. If we divide this number by the number of days in the report (7), we get $56666/7 = 8095$. So, 8095 is the average number of visitors per day across all 3 sites.

4.3 Visitor Table

The visitor table contains the densest and richest data set. Unlike the visitor chart, which has limits on the comparison data that can be shown, the visitor table will show all of the data for the locations, time period and comparisons.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Demo Group	306,486	225,922	220,016	0	0	0	0	0	0	752,424
Store 1	287,205	196,385	192,494	0	0	0	0	0	0	676,084
Store 2	19,281	29,537	27,522	0	0	0	0	0	0	76,340
Flow	85,114	59,521	53,745	0	0	0	0	0	0	198,380
Cross Traffic	5	35	203	0	0	0	0	0	0	243
Entrance	2	1	207	0	0	0	0	0	0	210
Entrance East	16,022	24,957	22,614	0	0	0	0	0	0	63,593



Clicking on the key button shows the location colour scheme. Groups are shown in purple, sites in blue, zones in green, external entrances in teal and internal entrances in orange.

There is a total row shown when it is valid to do so. In the example above, there is a mixture of location types (groups, sites, zones, entrances), so a total for each column would be meaningless and possibly misleading. A totals row is also not shown if internal entrances are present. If we summed a mixture of external and internal entrances, we would not get a useful number. However, a sum of just external entrances is a useful number, as it represents the visitors to a building, so the total row will be shown.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Location 1	129,645	113,374	86,812	27,705	53,714	70,063	106,044	103,273	103,098	111,556	95,631	118,236	1,119,111
Location 2	152,210	125,060	89,882	27,718	52,547	77,197	92,557	86,600	84,446	92,146	81,726	97,578	1,059,667
Location 3	67,719	96,541	49,266	39,340	53,585	71,036	77,995	69,062	65,265	66,741	67,889	82,139	766,578
Total	349,574	294,975	225,960	94,763	159,846	218,296	276,596	258,935	252,769	270,443	245,246	297,953	2,945,356

The example above only shows external entrances; so, it is valid to show a totals row.

The visitor table can show the current and comparison data with a variance percentage. Here is an example of a reports for 3 entrances for 2020 by month, compared to 2019.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Location 1	129,645	113,374	86,812	27,705	53,714	70,063	106,044	103,273	103,058	111,556	95,631	118,236	1,119,111
2019	128,618	126,564	138,375	142,733	113,063	100,101	114,306	123,954	115,376	124,123	117,419	128,190	1,472,802
Variance	+0.8%	-10.4%	-37.3%	-80.6%	-52.5%	-30.0%	-7.2%	-16.7%	-10.7%	-10.1%	-18.6%	-7.8%	-24.0%
Location 2	152,210	125,060	89,882	27,718	52,547	77,197	92,557	86,600	84,446	92,146	81,726	97,578	1,059,667
2019	146,366	127,418	145,549	123,770	125,574	106,355	132,509	125,358	114,602	129,785	130,668	137,916	1,546,010
Variance	+4.0%	-1.9%	-38.2%	-77.6%	-58.2%	-27.4%	-30.2%	-30.9%	-26.4%	-29.0%	-37.4%	-29.2%	-31.5%
Location 3	67,719	56,541	49,266	39,340	53,585	71,036	77,995	69,062	65,265	66,741	67,889	82,139	766,578
2019	60,951	52,856	63,529	61,452	68,472	64,461	68,873	72,889	70,993	72,321	65,304	71,091	793,212
Variance	+11.1%	+7.0%	-22.5%	-36.0%	-21.7%	+10.2%	+13.2%	-5.3%	-6.1%	-7.7%	+4.0%	+15.5%	-3.4%
Total	349,574	294,975	225,960	94,763	159,846	218,296	276,996	258,935	252,769	270,443	245,246	297,963	2,945,356
2019	339,935	306,836	347,453	327,955	307,109	270,937	315,688	322,101	301,171	325,229	313,331	337,197	3,812,024
Variance	+4.1%	-3.9%	-35.0%	-71.1%	-48.0%	-19.4%	-12.4%	-19.6%	-16.1%	-17.1%	-21.7%	-11.6%	-22.7%

When the comparison period is not obvious, the date or time of the comparison will be show as well as the current period's date or time.

	Monday 09 Mar 2020	Tuesday 10 Mar 2020	Wednesday 11 Mar 2020	Thursday 12 Mar 2020	Friday 13 Mar 2020	Saturday 14 Mar 2020	Sunday 15 Mar 2020	Total
Store 2 In	4,500	4,890	4,578	3,346	1,475	97	0	18,886
Week 10 2020	02 Mar 2020 4,977	03 Mar 2020 5,364	04 Mar 2020 5,828	05 Mar 2020 4,158	06 Mar 2020 3,402	07 Mar 2020 2,675	08 Mar 2020 2,754	29,158
Variance	-9.6%	-8.8%	-21.4%	-19.5%	-56.6%	-96.4%	-100.0%	-35.2%
Store 2 Out	4,497	5,023	4,443	3,314	1,440	99	0	18,816
Week 10 2020	02 Mar 2020 4,939	03 Mar 2020 5,429	04 Mar 2020 5,690	05 Mar 2020 4,030	06 Mar 2020 3,404	07 Mar 2020 2,540	08 Mar 2020 2,720	28,752
Variance	-8.9%	-7.5%	-21.9%	-17.8%	-57.7%	-96.1%	-100.0%	-34.6%



You can export the table as an image by clicking on the camera button, or export all the numbers to Excel by clicking on the Excel button. The key button will show the location types key.

4.4 Location Contribution Stacked Chart

The Location Contribution Stacked Chart is only shown for reports with multiple locations of the same type, e.g. multiple sites or multiple entrances. This chart will not be shown on mobile devices.

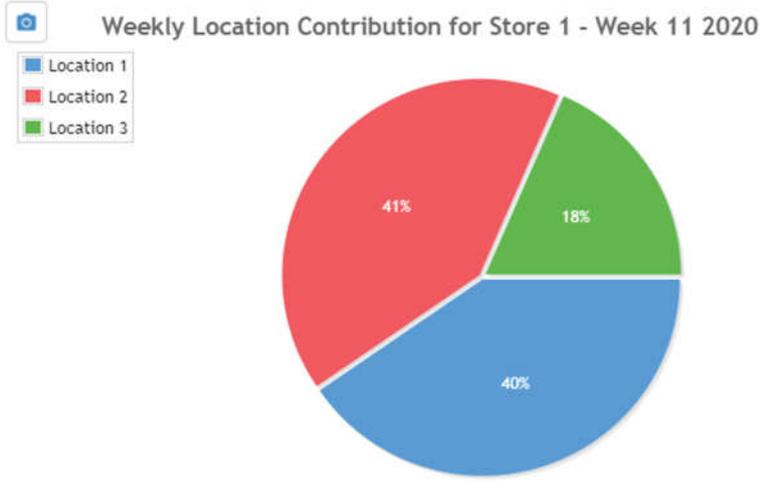
The chart shows a breakdown of the days of the week and percentage of the counts each location within each day.



4.5 Location Contribution Pie Chart

The Location Contribution Pie Chart is only shown for reports with multiple locations of the same type, e.g. multiple sites or multiple entrances. This chart will not be shown on mobile devices.

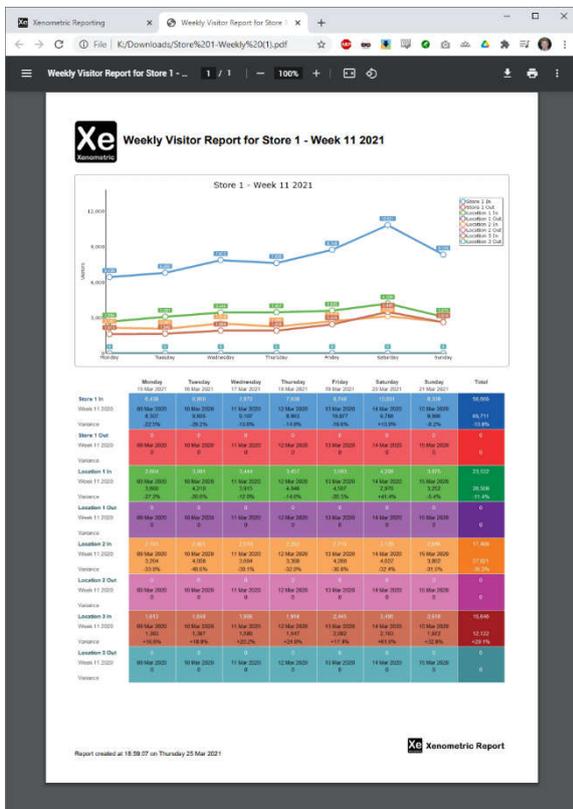
This chart shows the percentage of the total counts for the entire report period for each location.



4.6 Visitor PDF

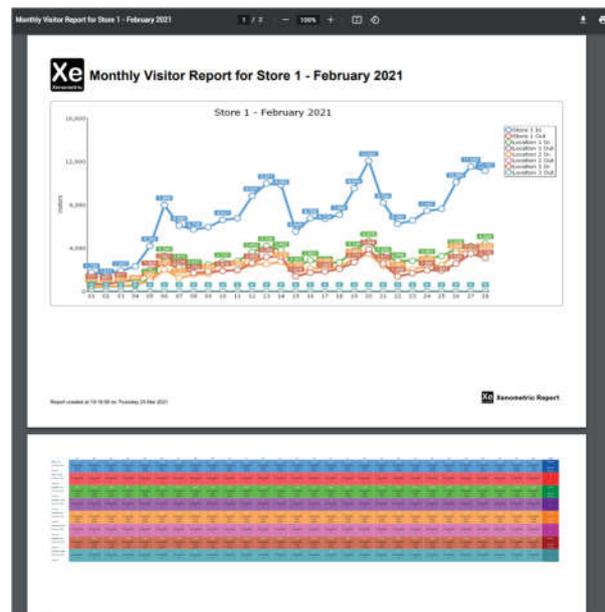


Click on the PDF Report button to download a PDF file of the current report.



This PDF report can also be scheduled to be emailed to you every day, week or month.

The report will switch to landscape for wide data sets, such as month-by-day reports.



4.7 Hourly Data CSV



Click on the Hourly Data button to download the counts that are currently shown in the visitor report. A CSV file will be downloaded, which you can open in Excel or any other spreadsheet application.

The screenshot shows an Excel spreadsheet titled "Store1-monthly-20210201.csv - Excel". The ribbon is set to "Home". The spreadsheet data is as follows:

	A	B	C	D	E	F	G	H	I
1		Store 1 In	Store 1 Ou	Location 1	Location 1	Location 2	Location 2	Location 3	Location 3 Out
2	01/02/2020 00:00	82	0	53	0	26	0	3	0
3	01/02/2020 01:00	66	0	31	0	28	0	7	0
4	01/02/2020 02:00	14	0	7	0	7	0	0	0
5	01/02/2020 03:00	12	0	4	0	8	0	0	0
6	01/02/2020 04:00	7	0	3	0	4	0	0	0
7	01/02/2020 05:00	25	0	3	0	16	0	6	0
8	01/02/2020 06:00	31	0	17	0	7	0	7	0
9	01/02/2020 07:00	101	0	37	0	36	0	28	0

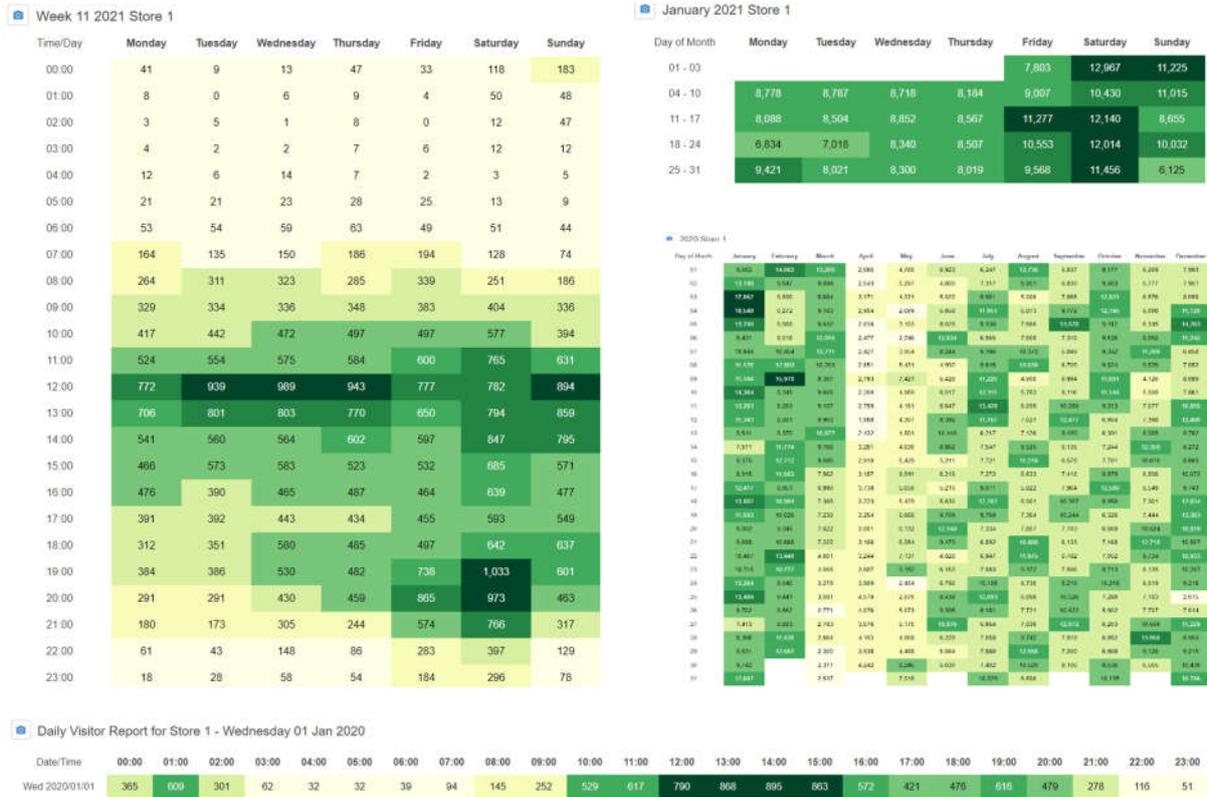
You can also switch to time as columns by changing your preference on the Data Export form (see section 8).

	A	B	C	D	E	F	G	H	I	J	K
1		01/02/2021	02/02/2021	03/02/2021	04/02/2021	05/02/2021	06/02/2021	07/02/2021	08/02/2021	09/02/2021	10/02/2021
2	Store 1 In	1734	1617	1937	2334	4204	7986	6098	5736	5961	6637
3	Store 1 Ou	0	0	0	0	0	0	0	0	0	0
4	Location 1	443	452	509	583	1231	3294	2613	2407	2485	2737
5	Location 1	0	0	0	0	0	0	0	0	0	0
6	Location 2	520	478	511	669	980	2051	1271	1577	1642	1984
7	Location 2	0	0	0	0	0	0	0	0	0	0
8	Location 3	771	687	917	1082	1993	2641	2214	1752	1834	1916

5 Visitor Density

The Visitor Density tables let you see busy and quiet periods at a glance.

The Visitor Density page is automatically populated when the visitor report is run.



If a day report is run, the density table will show each hour of the day.

If a week report is run, the density table will show each hour of the day for each day of the week.

If a month report is run, the density table will show each day for each day of the week.

If a year report is run, the density table will show each day for each month.

6 Occupancy

Occupancy is defined as the number of people in a zone, such as a store, food court or shopping centre/mall. It usually isn't the number of people dwelling within the view of a single camera, as this is more likely to be a queue. Occupancy can be calculated from a single people-counter or from multiple counters bordering a zone. Unlike visitor counting through an entrance, occupancy can produce some very unexpected and potentially embarrassing results. To understand how occupancy is calculated and why accuracy can be a problem, please refer to this article <https://www.xenometric.com/index.php/2019/11/11/occupancy/>.

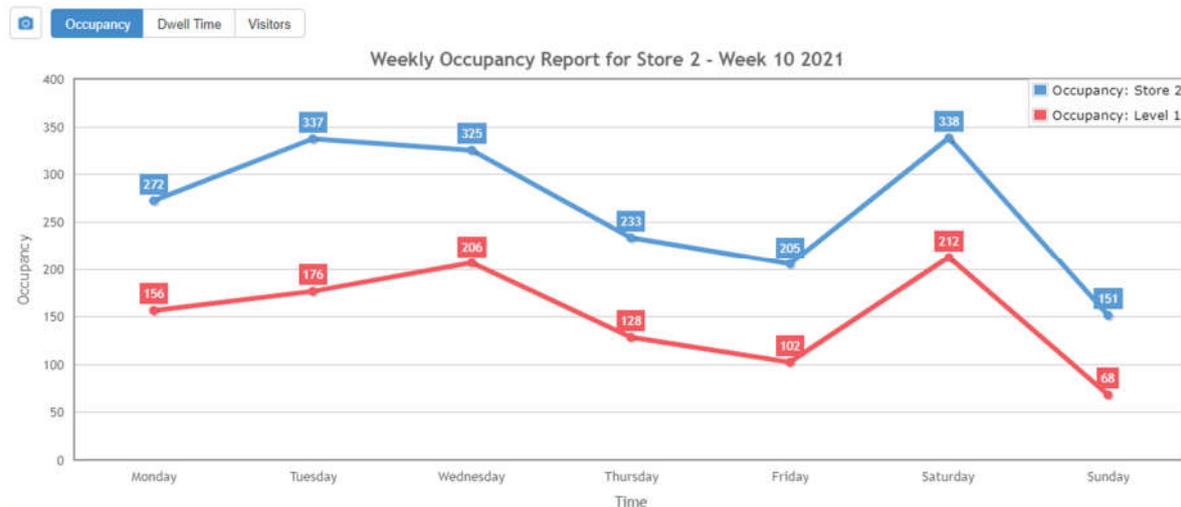
The occupancy page is not a default report in the Xenometric web reporting, so you may not see this page in your system.

The report works on the same principle as Visitor reports. The location and time period is selected from the top controls.

A day-by-hour reports shows the occupancy at each hour of the day.



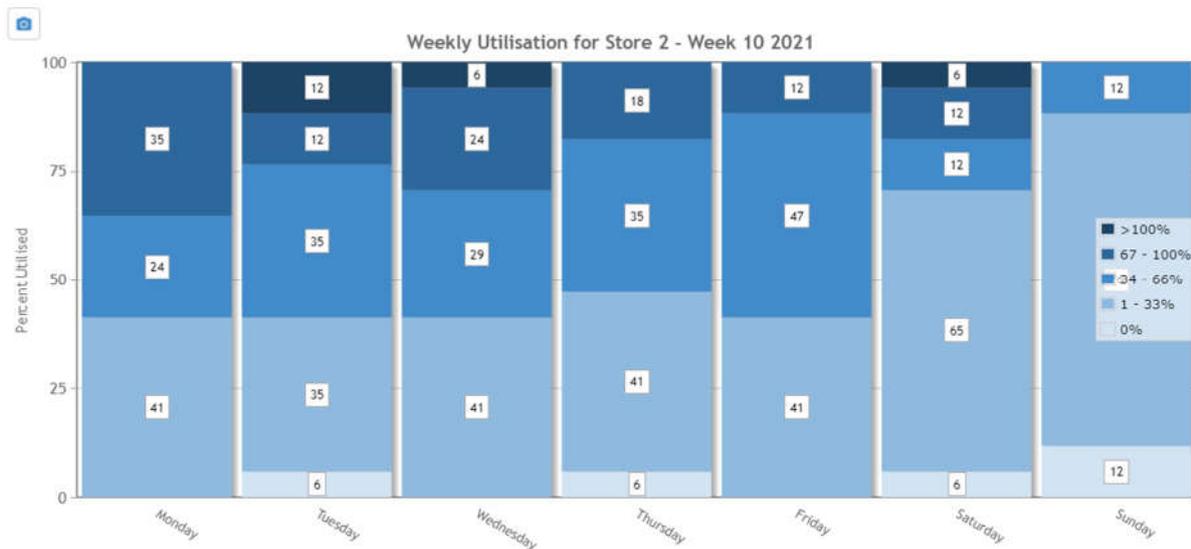
A week-by-day report, or any other report by day, shows the peak occupancy for each day.



The highlights boxes show the peak occupancy for the period, the time at which the peak occupancy occurred and the location that recorded the peak occupancy.

Peak Occupancy	Peak Time	Peak Location
338	Sat 13 Mar 2021	Store 2

If an occupancy limit has been set, the Xenometric software will work out the location's opening hours and then determine the percentage of the occupancy against the limit. The calculation will be made for each fraction of the day. We can then show the percent of each day that the occupancy is in each capacity band. For example, in the chart below the occupancy limit was exceeded (>100%) on Tuesday for 12% of the day.



The occupancy data is also shown in a table. This table can be exported to Excel or saved as an image.

Weekly Occupancy Report for Store 2 - Week 10 2021

	Monday 08 Mar 2021	Tuesday 09 Mar 2021	Wednesday 10 Mar 2021	Thursday 11 Mar 2021	Friday 12 Mar 2021	Saturday 13 Mar 2021	Sunday 14 Mar 2021
Store 2 Occ	272	337	325	233	205	338	151
Level 1 Occ	156	176	206	128	102	212	68

6.1 Dwell Time

The dwell time is a measure of how long an average person spends in the site or zone. This metric is only an estimate and can be inaccurate due to the occupancy error and pedestrian behaviour. Here is an example of the average dwell time for each hour of a day.



In the example above, there is a dip in average dwell time at 12:00. If we look at the In and Out counts for this location, we can see that the number of people arriving at 12:00 has decreased and the number of people departing has increased. This will create a lower occupancy and in this instance was caused by the people who arrived at 12:00 leaving soon after their arrival. This could be lunchtime shoppers who make a quick visit to the store.



7 Live Data

Some people counters are capable of sending data in real-time. This data can be displayed in Xenometric's Live page.

The Live data table contains a row for each location. The locations are colour coded by location type. Click on the key button to view the location type colour coding key. There are 4 columns that can be populated. Column 1 is the location name, column 2 is the visitor count, column 3 is the occupancy for a site or zone, and column 4 is the occupancy limit for the site or zone. An occupancy cell will be red if the occupancy value equals or exceeds the occupancy limit.

Location	Visitors	Occupancy	Limit
Store 1	10,697	10,697	10,000
Store 2	258	96	100
Flow	2,959		
Internal	10,697		
Level 1	258	96	80
Level 2	7	0	
Cross Traffic	7		
Entrance	10		
Entrance East	233		
Entrance South	0		
Entry Left	3		
Entry Right	12		
Location 1	4,442		
Location 2	3,296		
Location 3	2,959		
Location 3	2,959		

Last activity: 17:07:53 Fri 26 Mar 2021

You can click on the number in the Limit column to change the occupancy limit for this site or zone.

Occupancy Limit

Set Occupancy Limit 100

Ok Cancel

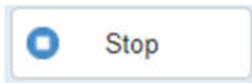
The locations are colour coded by location type.

Location Key

- Group
- Site
- Zone
- External Entrance
- Internal Entrance

Ok

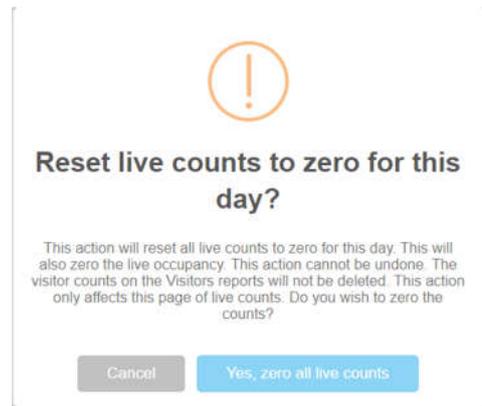
The date of the most recent update is shown underneath the table. This date and time should update regularly, else the screen should be refreshed.



You can stop/start the automated collection of new data by use of the Stop/Start button.

The table can be manually refreshed by clicking the Refresh button.

The Reset button will zero all of the real-time counts for the current day. You have to confirm this action, as it cannot be undone.



8 Entry Control

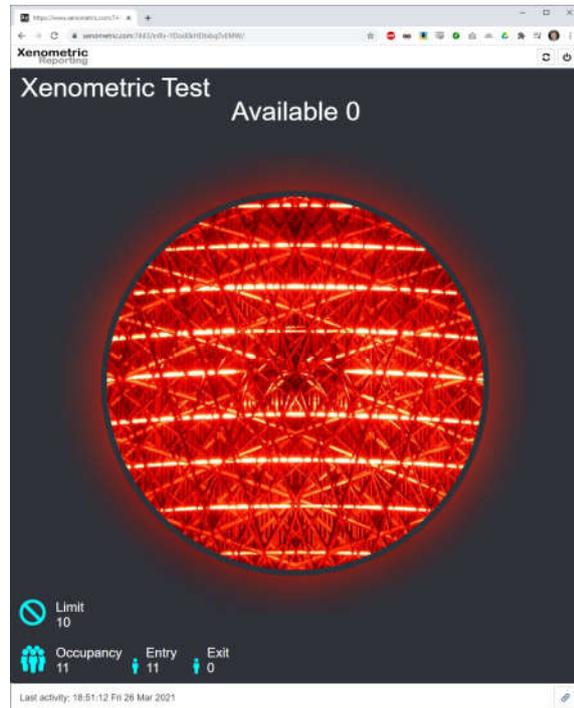
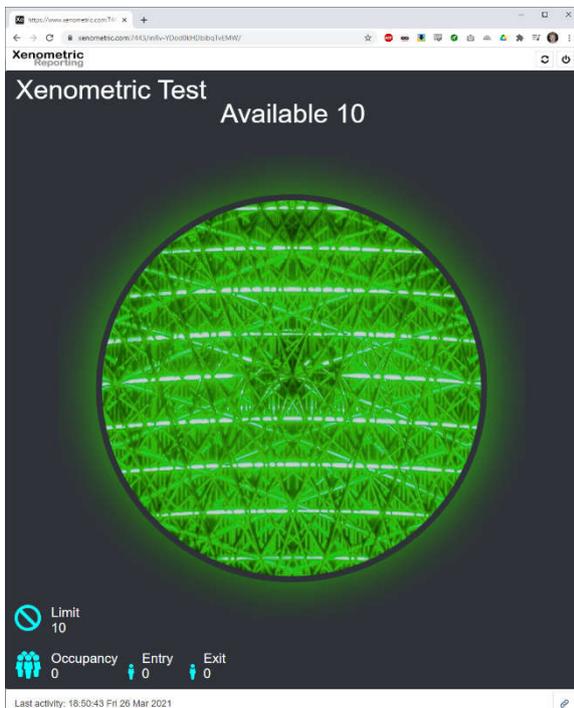
The Entry Control screen is accessed directly from a URL or from the Live page.

Clicking on the occupancy number in the Live page for any site or zone will take you to the Entry Control page.

Live Report for Xenometric Test

Location	Visitors	Occupancy	Limit
Xenometric Test In	11	11	10
Xenometric Test Out	0		

The Entry Control screen shows a traffic light image, which changes colour when the occupancy value reaches or exceeds the occupancy limit.

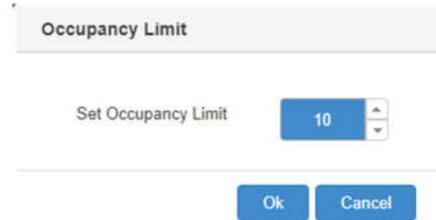


At the top of the screen, you can see the Available number. This is the number of people that can enter the building before the occupancy limit is reached.

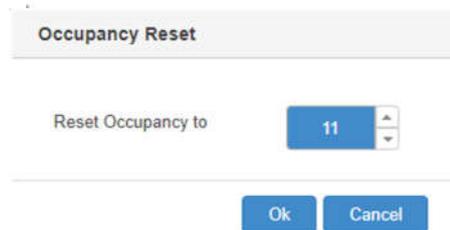


The current occupancy, limit, entry count and exit count are all shown in the bottom-left corner.

To change the occupancy limit, click on the limit icon or text and then change the limit in the Occupancy Limit dialog.



To reset the occupancy to any value, click on the Occupancy icon or text. This will launch the Occupancy Reset dialog.



The bottom bar on the Entry Control screen shows the last update time. This date should continuously update. You can manually refresh by clicking on the Refresh button at any time.

Last activity: 19:16:35 Fri 26 Mar 2021

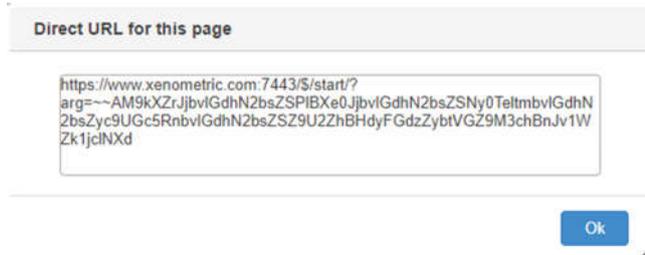


You can logoff by clicking on this button.



This button lets you create a URL for this page. You can then use this URL to return to this page without having to login or navigate via the Live page.

Copy the text from the dialog and then use this as a link or shortcut to return to this page.



9 Status

The Status page lets you view all of your people counters' current status in a single table.

There are columns to identify the counter by name, location ID, type and physical ID, such as MAC address. If the most recent connection from the camera is within a few hours, the Last Connection column will have a white background. If the counter has not communicated for some time, the background will be red.

Site Name	Device Name	Site ID	Device ID	Last connection	Counter Type	Physical ID
MQTT Demo	OPTEXMQTT-Entrance	OPTEXMQTT	AAAAAX	27 Mar 2021 13:05:04	Optex AIO	OPTEXMQTTAA
MQTT Demo	OPTEXMQTT-Entrance 2	OPTEXMQTT	ABABBX	27 Mar 2021 13:05:06	Optex AIO	OPTEXMQTTBA

Here is an example of a counter that has not connected for a long time.

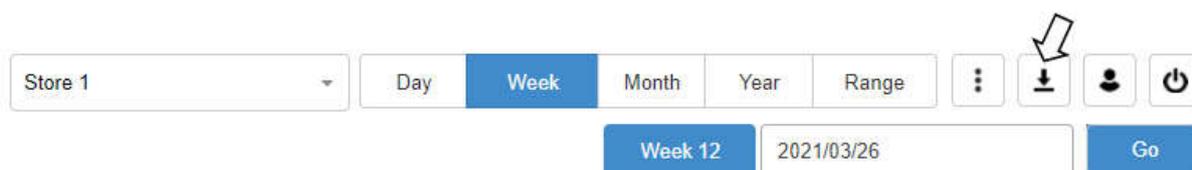
Site Name	Device Name	Site ID	Device ID	Last connection	Counter Type	Physical ID
Xenometric Test	XENO_TEST-Main Entrance 2 - 2	XENO_TEST	AA	15 Dec 2020 19:44:34	Brickstream Clarity	00:B0:9D:9B:F4:25



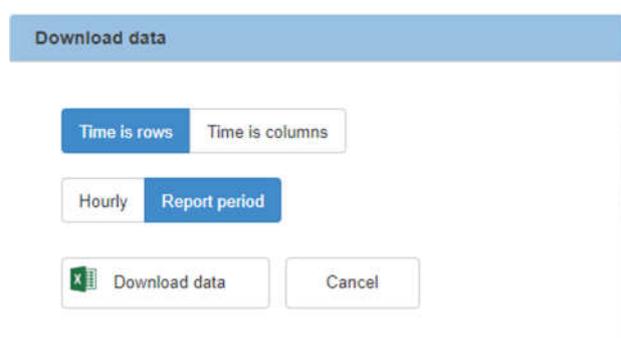
Clicking on the Refresh button updates the table.

10 Exporting Data

You can bulk export data by selecting the location and date range from the selector.



Click on the download button, which will launch the Download data dialog.



You can choose to have the time periods as rows or columns. The locations will be the other dimension.

Data can be downloaded as hourly data or you can choose to have the data downloaded in the report period. For example, a month-by-day report would have a report period of daily. A year-by-month report would have a report period of monthly.

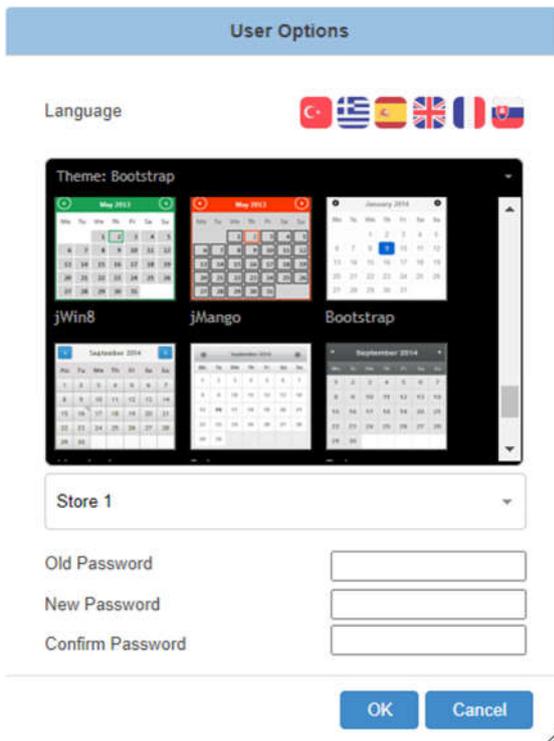
Click the Download data button to save a CSV file to your device. You can open this file in Excel or any other spreadsheet.

11 User Settings

Click on the User button to launch the User Options dialog.



The User Options dialog allows you to change your language and reset your password. You can also change the theme, but this is not advised.



Your default location is the location shown in the report when you first login to the reporting. The location can be changed on this dialog.

Appendix A – Cookies

We do not use any tracking cookies or any cookies that would infringe your privacy. Here is an example of the cookies we use.

Name	Value	Domain	Path	Expires / M...	Size
IW_XenometricWebServer	wd1tldgHDK~-Xz7bZ15-Ua_17	www.xenometri...	/wd1...	Session	47
cookieagree	Y	www.xenometri...	/	2047-11-0...	12
downloadoptinterval	period	www.xenometri...	/	2048-08-0...	25
downloadoptrowcol	timeisrow	www.xenometri...	/	2048-08-1...	26
jquery-ui-theme	bootstrap	www.xenometri...	/	2048-08-1...	24
language	en	www.xenometri...	/	2048-07-3...	10
reportingdirection	both	www.xenometri...	/	2047-12-2...	22
username		www.xenometri...	/	2047-12-0...	16

The top cookie only exists for your current session, the other cookies persist indefinitely. They store your username, so you don't need to type it each time you visit the login page, your language choice, and a few settings that you would want the browser to remember for you.

Appendix B – Calendars

We support two calendars. The first is the standard ISO 8601 date format (https://en.wikipedia.org/wiki/ISO_8601). This calendar has the week start on a Monday and has week numbers starting from the week with the first Thursday of the year. This calendar is popular worldwide and is the default calendar.

The second calendar is identical to the first, but has the start of each week on a Sunday. This calendar is popular in the USA.