

I hope you are safe and well during these difficult times. You can download a pdf copy of this newsletter [here](#).



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Coronavirus concerns cause building capacity cuts: how to monitor and display occupancy

In these days of the pandemic, many places have imposed a limit on the number of occupants. Lots of these businesses are using people counting systems to help them comply with capacity constraints.

The systems count all incoming and outgoing people, and calculate the current occupancy. The information is displayed in a number of ways, and alerts sent when getting near to, or exceeding, capacity.

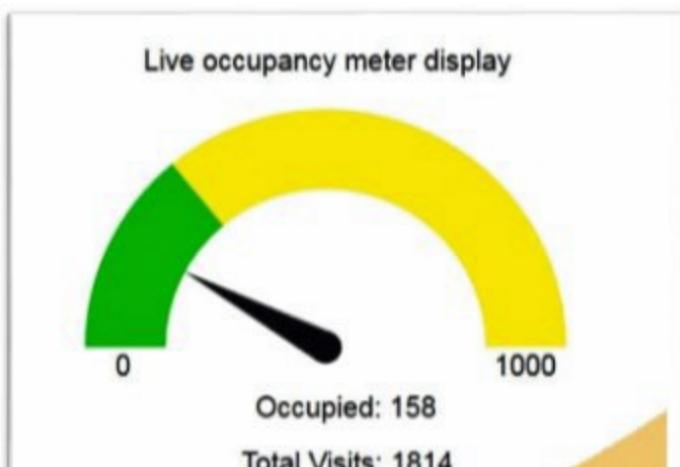
How a Video Occupancy Counter Works

Computer vision acts as an occupancy sensor. Cameras positioned over all entrances connect to people counting devices. These devices analyse the images, detect people and record counts in and out. The occupancy data can be stored in the cloud and made available over the Internet-of-Things to authorised applications. Alternatively, communications like Ethernet, WiFi or RS422 are used.

The occupancy numbers are logged to provide a record of compliance with capacity restrictions. In better times they also provide valuable marketing information - showing how many people entered and left every hour or every day, for example, over the past weeks or months.

Displaying Occupancy

A virtual occupancy meter shows the current occupancy via **smartphone or computer**

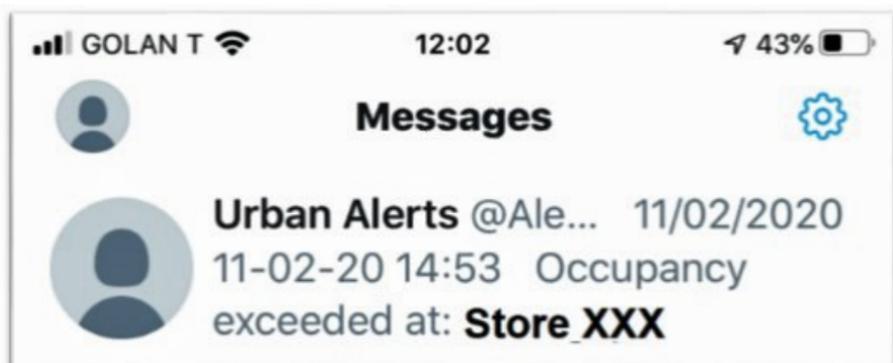


An **LED display** on the premises shows the number of occupants and flashes an alert when nearing the maximum



This physical meter supplied by [Retail Sensing Ltd](#) shows the current occupant count. As the maximum capacity is approached, the count flashes. When the limit is breached, the display flashes 8888 in between the counts.

Systems can also **send texts** when occupancy approaches or passes its threshold.



Example of a text alert

Your Data Acquisition Questions Answered: Laboratory Balances

Question

I have a set of laboratory balances (scales) with RS232 output functions, which output an 8 bit ASCII code (plus start and stop bits). Can the subject software timestamp and record this information (I would use an RS232 to USB adapter)?

Answer

Yes. Instructions for connecting various balances (and other instruments) are at https://www.windmill.co.uk/serial_driver.html. The Windmill Logger software timestamps all readings and saves them to file. For continuous logging applications you can choose to periodically close the logged file and open a new one every hour, day or week. Free copies of the software are available to our subscribers, email monitor@windmillsoft.com for yours.

DAQ News Round-up

Welcome to our round-up of the data acquisition and control news. If you would like to receive more timely DAQ news updates then follow us on [Twitter](#) - [@DataAcquisition](#) - or grab our [rss feed](#).

Submersible sensors rapidly detect bacterial pollution in water

Fluorescence-based devices can alert authorities to contamination after a storm by looking for an improbable marker: tryptophan.

Source: San Diego State University

<https://www.eurekalert.org/>

New sensor could help prevent food waste

Monitoring the plant hormone ethylene could reveal when fruits and vegetables are about to spoil.

Source: MIT

<http://news.mit.edu/>

Internet of Underwater Things uses the power of light

New system simultaneously transmits light and energy to underwater energy devices connected to an IoT. This allows self-powered devices to harvest energy and decode information transferred by light beams.

Source: SCUBA News

<https://news.scubatravel.co.uk/>



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<https://www.windmill.co.uk/monitorindex.html>

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