

## Monitor - ISSN 1472-0221

The Newsletter for PC-Based Data Acquisition and Control  
Issue 236, April 2018

Welcome to Monitor, the data acquisition newsletter. This month, impact force testing via an Apple MacBook Pro, GDPR and downloading free measurement software. Any comments or questions email [monitor@windmillsoft.com](mailto:monitor@windmillsoft.com).

You can download this issue as a pdf file from  
<http://www.windmill.co.uk/monitor/monitor236.pdf>.



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### Impact Testing for Drug Delivery Device

Web link: [windmill.co.uk/nasal-device-testing.html](http://windmill.co.uk/nasal-device-testing.html)

Seattle-based biotechnology company, Impel Neuropharma, is developing intranasal drug treatments for central nervous system (CNS) disorders.

Traditional methods for delivering compounds to the CNS are typically invasive. For example a pump implanted in the skull.

Impel Neuropharma aims to develop efficient devices that can send treatments to the upper nasal cavity for direct nose-to-brain delivery.

As part of their research they used impaction force testing to compare several nozzle and dose chamber configurations in their nasal drug delivery system.

The impaction force measurements used a Mettler Toledo XS 64 with data output at 10 samples per second. The Mettler Toledo was coupled to an Apple MacBook Pro via an RS232-to-USB cable. They used Windmill Logger software in a Windows Vista virtual machine environment for data acquisition. Data collected by Logger were imported directly into Microsoft Excel for graphical processing and analysis.

### Windmill Software

The full version of Windmill Software is now freely available to Monitor subscribers, but without any technical support. E-mail [monitor@windmillsoft.com](mailto:monitor@windmillsoft.com) for details.

### The new European General Data Protection Regulation

Web link: [Cookies, Privacy and GDPR Policies](#)

Websites that collect data on European citizens will need to comply with strict new rules around protecting data by May 25. The General Data Protection Regulation (GDPR) is a new, EU-wide law that gives greater power to regulators to penalise companies who mishandle personal data or are not transparent about how their business uses it.



In regards to our Monitor newsletter mailing list, all email subscribers have to have given us provable opt-in consent or be actively engaged email recipients (opening several newsletters). All our subscribers have opted-in, but as we've been sending the newsletter since 1998 we are going to email everyone who hasn't opened a copy of Monitor recently to check that they still want to subscribe. Anyone not replying in the affirmative will be removed from the mailing list.

We have deleted all records of unsubscribed emails, and those that signed up but never confirmed.

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## Your Data Acquisition Questions Answered

### Question

*"I'm writing to ask if there is possibility to obtain a comDebug software licence for University (for 15 stands to teach students about RS-232 during classes) without a fee"*

### Answer

comDebug is free so you don't need a licence. You can download it from <http://www.windmill.co.uk/comDebug/comdebug.zip>! If you need help using it click the program's Help button or see this [web page](#).

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## 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](#).

### Pioneering technology to make Manchester a smart city

The CityVerve project is developing Internet of Things (IoT) technologies to deliver new businesses and jobs; better healthcare, transport and environment; and more engaged and empowered citizens.

Source: Retail Sensing

<https://www.retailsensing.com/>



### **Tiny Frequency Combs Are Reliable Measurement Tools**

The miniaturization of optical frequency synthesizers to make them portable and suited to high-volume fabrication should boost fields such as timekeeping, communications, trace gas monitoring and astronomy.  
Source: NIST

<https://www.nist.gov/>

### **Infrasound sensors detect volcanic eruptions**

The extra channel of data provides very useful information for improving volcano monitoring.

Source: University of California, Santa Barbara

<http://www.news.ucsb.edu/>

### **What does blockchain actually mean for manufacturers?**

It's the new buzzword on the block. But what does blockchain actually mean for manufacturers?

Source: The Engineer

<https://www.theengineer.co.uk/>

### **Waggle-dancing robot tells bees where to look for food**

A robotic bee can tell real bees the best places to forage, and at least some of the time they seem to get the message.

Source: New Scientist

<https://www.newscientist.com/>

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