CAMPBELL SCIENTIFIC®
WHEN MEASUREMENTS MATTER

DECEMBER 2016
NEWSLETTER

CONTENTS

TRAINING

COURSE	DATE
Brisbane	20-24 Feb
Townsville	8-12 May
Sydney	26-30 June
Melbourne	14-18 August

To register for training, please visit our website:
http://www.campbellsci.com.au/training

FIELD OPERATORS TRAINING COURSE — 1 DAY

Our 1 day Field Operators course is geared toward installers and field operators of Campbell Scientific data loggers and equipment. The course covers an introduction to using Loggernet software, best practice for installation of a weather station and significant discussion regarding troubleshooting techniques and maintenance procedures when conducting site visits. Whether you are a new or experienced user, the course will provide you with the ability to connect to dataloggers, install and check instruments as well as what to do when troubleshooting issues.

Cost - $575.00 +GST

PROGRAMMING & SOFTWARE TRAINING COURSE — 2 DAYS

Our 2 day Programming and Software course is suitable for all users of Campbell Scientific data loggers.

The first day of the course provides a good introduction to using our software to administer, program and collect data from the new generation of data loggers. The second day will teach you the basics of customising a datalogger program to suit your sensor and data storage requirements.

Suitable for users of CR200, CR300, CR800, CR1000 or CR3000 data loggers, beginners are welcome. Bring along any sensors that you are using with the data loggers and we can help with any wiring or programming concerns.

Cost - $820.00 +GST

COMMUNICATIONS COURSE — 2 DAYS

Our 2 day communications course is aimed at intermediate to advanced users of Campbell Scientific data loggers wanting to learn how to program for and connect their data loggers to communication networks. The course covers cell phone modems, ethernet networks and spread spectrum radios, how to connect them to the data logger and how to program for these devices to provide information over services such as Email, FTP and SMS. We also cover methods for connecting to and administering a data logger via Loggernet over these communications devices.

There is some intermediate difficulty programming to be done in this course, please make sure that you have had some experience with programming the data loggers before attending or you may not gain the full value of the material. Ideally you will have previously attended the 2 Day Programming and Software Course or the 3 Day CRBasic Programming Course and had time to practice the concepts from those courses.

Cost - $820.00 +GST

MESSAGE FROM THE MD

Steve Bailey

It has been just over twelve months since my return to managing CSA and much has happened in that short period.

In late October, CSA exhibited at the Australian Hydrographer's Association (AHA) 2016 Conference in Canberra. It was a pleasure to catch up with so many old and new friends in this, our largest single market. It is refreshing to be involved in an industry where customers, non-customers and even competitors are all so friendly and accommodating. During the conference, CSA's Dr. David Hammond presented a paper on our new Altoview IoT solution and Gavin Hewitt presented a technical workshop on our new CR310 WiFi data logger.

Growth in CSA has required additional staff and we are pleased to welcome back Kahill Mitchell who has been on an extended break in Europe. We are also looking to recruit additional staff in a number of areas including marketing and R&D. Visit our webpage for more information as these positions are advertised.

As the SE Asian market continues to show strong growth, Corinne and myself headed off last week for a whirlwind tour of Malaysia, Philippines, Brunei and Indonesia. Over the space of ten days, we enjoyed meeting with our loyal distributors and customers in the region.

On the local front, our R&D group at CSA has been extremely busy over the last several months developing our new Altoview product which is detailed further in this newsletter. There has been incredible interest in this product from many industries and we are racing to deliver solutions that will have wide ranging benefits to all segments of the community. While quality data measurement is still at the very core of our business, ease-of-use and data presentation are our main focus with Altoview. Watch this space as we prepare for the commercial launch of this product in the first quarter of 2017.

Steve Bailey
Managing Director

AHA CONFERENCE

Steve Bailey, Gavin Hewitt and David Hammond recently attended the biennial Australian Hydrographers Association (AHA) Conference in Canberra. As always the AHA Conference provides a valuable opportunity to network with the hydrographer community, catch up with old contacts and discuss new topics in the water industry.

The conference was the first time CSA has exhibited our new logger, the CR300/310 and also our Internet of Things (IoT) platform Altoview. Attendees were exited to learn more about both products and it was great to discuss many new applications that could utilise a small powerful logger or an IoT solution.

During the conference many presentations discussed the IoT, its history, emerging technologies and how an IoT solution could be used in hydrological applications. David Hammond presented an overview of CSA's IoT solution, AltoView and how it is being used to provide an IoT network in Townsville.

AHA also introduced Technical Workshops which gave exhibitors an opportunity to showcase products, services or a unique application. Gavin Hewitt introduced the CR300 & CR310 dataloggers for CSA. The workshop provided attendees with the CR300 specification, advantages over existing loggers and ideas for future applications. The WiFi option was also a highlight with many attendees visiting the CSA booth to discuss applications where the CR300 and WIFI could be utilized. The technical workshops were a great addition to the conference and CSA will be looking forward to the next AHA in 2018.

DEALS FOR THIS QUARTER!

With the success of our end-of-year stocktake sale which took place in June 2016, we have decided to continue offering our overstocked or discontinued items at a heavily discounted rate. You will now find this section in every newsletter, where we will be advertising "Star Newsletter Products" to which our newsletter readers will be granted a special additional discount on our already discounted product for the duration of the quarter. Each newsletter will showcase a new set of "Star Newsletter Products".

This quarter's Star Newsletter Products are the following:

ITEM	DESCRIPTION	CONDITION	QTY	SPECIAL NEWSLETTER ADDITIONAL DISCOUNT
CC5MPX (ex-Loan Unit)	CAMERA DIGITAL, -40 TO 60°C OPERATING RANGE, NO SD CARD	**Like new**	**1**	**15%**
CC5MPXPWRCBL-L20m (ex-Loan Unit)	CC5MPX POWER AND SERIAL I/O CABLE W/20m	**Like new**	**1**	**15%**
CC5MPXPWRCBL-L5m	CC5MPX POWER AND SERIAL I/O CABLE W/5m	**Brand new**	**1**	**15%**
C2652 (ex-Loan Unit)	CC5MPX SD MEMORY CARD 4GB	**Brand new**	**1**	**10%**
C2653	CC5MPX SD MEMORY CARD 8GB	**Brand new**	**3**	**10%**
RJ45ENVCBL-L10m	CC5MPX RJ45 ENVIRONMENTAL ETHERNET CABLE W/10M	**Brand new**	**1**	**10%**
RJ45ENVCBL-L25m	CC5MPX RJ45 ENVIRONMENTAL ETHERNET CABLE W/25M	**Brand new**	**1**	**10%**
RJ45ENVCBL-L15m (ex-Loan Unit)	CC5MPX RJ45 ENVIRONMENTAL ETHERNET CABLE W/15M	**Brand new**	**1**	**10%**
SDMX50	50 OHM COAXIAL MULTIPLEXER W/10X12" ENCLOSURE, NO CABLE	**Brand new**	**1**	**20%**
RF450	SPREAD SPECTRUM BASE RADIO MODULE 1W, 900MHZ	**Like new**	**1**	**20%**
TDR100 (ex-Loan unit)	TIME DOMAIN REFLECTOMETER	**Like new**	**1**	**10%**
TDR100	TIME DOMAIN REFLECTOMETER	**Brand new**	**2**	**10%**

To access these very special offers, email our friendly staff at info@campbellsci.com.au and request pricing on your selected Star Newsletter Product and mention the special code: **SNPQ3**

For a full list of our discounted overstocked new or used items, please see the following link:
Hardware Sale (https://www.campbellsci.com.au/hardware-sale)

ALTOVIEW SMART SENSOR PLATFORM

Campbell Scientific Australia is excited to announce that our new Altoview smart sensor platform will be launching in 2017 with the release of an Altoview temperature sensor to provide smart refrigeration monitoring solutions for the catering and healthcare industry. Altoview is the Internet of Things (IoT) sensor platform that users have been waiting for, delivering a unique end-to-end solution to provide users with the data they need wherever they want it, whenever they want it and how they want it.

Some features of the Altoview smart sensor platform include:

- Low cost and simple to deploy sensor nodes
- Inbuilt power (AA batteries) and communications (LoRa LPWAN, WiFi)
- Long battery life (3+ years with LoRa devices)
- High quality, application specific measurements
- Remote authentication with Altoview cloud platform
- Low monthly costs
- Intuitive web interface and smart phone app
- Fully encrypted data
- Supports large scale networks

To register your interest in Altoview products and services and to be kept informed of product updates, contact info@altoview.com. You can also like our Altoview Facebook page (@altoviewaustralia) to ensure you're kept up to date with this exciting new product offering from Campbell Scientific.

weather.campbellsci.com.au/met200 to see live data from Campbell Scientific Australia's MET200 weather station located in Townsville, North Queensland.

The Altoview platform has been developed to address the need for real time data management across a broad range of industries and our smart temperature sensor is the first Altoview sensor node to be launched. Designed in Australia by Campbell Scientific, users can expect high quality, simple, cost effective data capture and retrieval solutions from a company with global experience in providing quality measurement solutions.

RV50 MODEM

Campbell Scientific Australia are proud to announce the release of the RV50 modem kit. Prominently featured is a built-in, subscription free dynamic DNS service. This allows users to access their modems over the Internet despite limitations imposed by Telstra's 3G and 4G services. It is also available in a model that supports Telstra's 4GX for maximum data transfer speeds.

Modem kits are available to suit CS I/O, Control Port pairs, Ethernet, CPI and RS-232 and can function with all current data loggers as well as the older Edlog loggers such as the CR10X.

Device profile templates are available from CSA to allow quick and easy configuration of a modem to suit any application and each modem shipped is configured by CSA to suit individual applications, allowing users to easily add 3G communications to new or existing systems.

Campbell Scientific Australia understands reliability is of utmost importance for our customers and the RV50 has proved to be a strong product in this regard with a near-zero failure rate. Contact one of our Application Engineers on 07 4401 7700, email info@campbellsci.com.au or visit helpdesk.campbellsci.com.au for more information on our telemetry offerings including the RV50 modem kit.

CASE STUDY

MALAYSIA

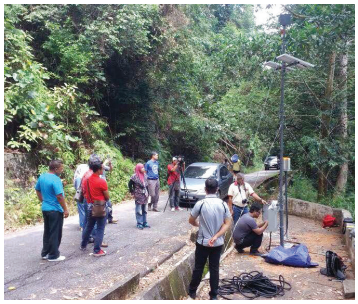
This quarter's case study comes to us from our friends in South East Asia. Our Malaysian distributor, Surechem Sdn. Bhd., recently developed a flood warning system for a joint project with the Johor Forestry Department and Associate Professor Ir. Dr. Azman bin Kassim and his team from the University of Technology Malaysia.

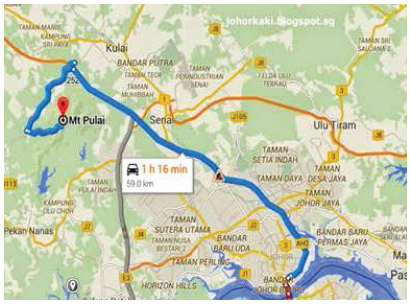
The Gunung Pulai 1 Forest Eco Park is a recreational area located 50km from Johor within the lower level area of Gunung Pulai. Initial studies showed that the recreational area to be potentially exposed to slope failure and landslides. On the 27th December 2001, a significant landslide occurred in the area causing not only loss of life but also significant damage to properties and infrastructure. A government appointed technical committee was formed by the State Government of Johor with the purpose of investigating and studying the main triggering factors contributing to the 2001 landslide. This Technical Committee recommended the Gunung Pulai 1 Forest Eco Park be closed to the public and visitors until conservation and mitigation works had been carried out.

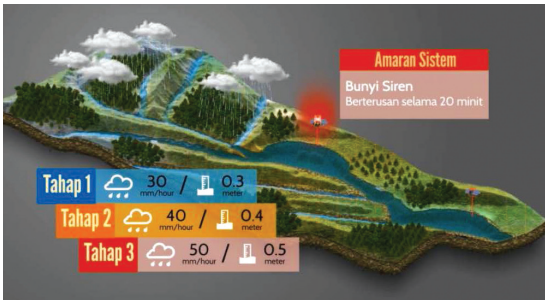
In the current development, the Gunung Pulai 1 Forest Eco Park Administrator requested a reassessment study to be conducted prior to the Gunung Pulai 1 Forest Eco Park reopening. The reassessment study strongly recommended that a flood warning system be installed in the Gunung Pulai 1 Forest Eco Park. This early warning system would provide adequate time for the Gunung Pulai 1 Forest Eco Park Administrator to warn the public and visitors of any imminent danger.

The warning system consists of three (3) CR300 measurement systems that measure the Rainfall and Water Level using a Rimco 8050 Tipping Bucket Rain Gauge and a MJK 7070 Level Transmitter, respectively. Each station has communications that are handled by an RS485 link and also warning sirens that are activated to alert the nearby population when required. The system autonomously monitors rainfall and water level and, in the event these parameters exceed a set threshold, will trigger a siren with a "yelp" tone. Another threshold is set at a maximum threshold, where the siren commences a steady warning tone indicating imminent danger.

Data collected thus far has been extensively analysed with land slip monitoring software to ascertain the required thresholds for both the initial warning and imminent sirens. The collected data is also providing valuable information being used for research into rainfall induced landslides throughout Malaysia.

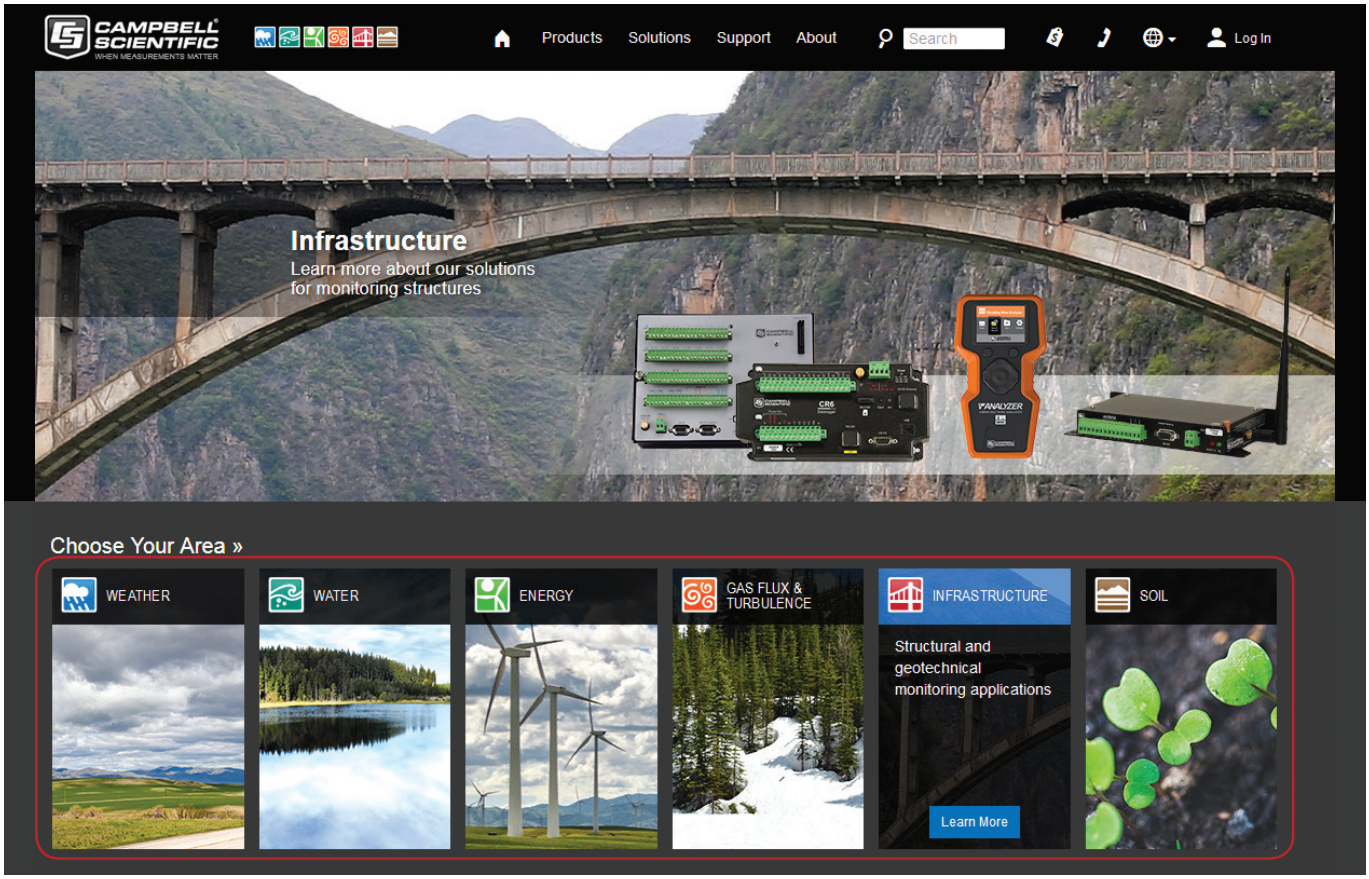






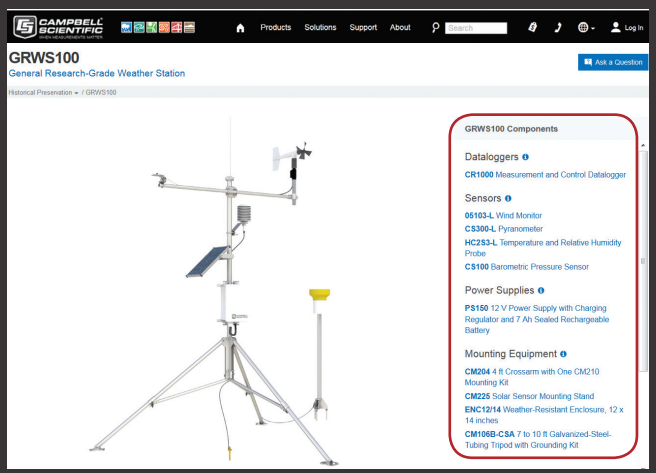
CS WEBSITE UPDATE 2016

We have done a major revamp on our website to make your navigation to the right information easier. We have upgraded our home page, area pages, solution pages, and system pages to make it attractive and more efficient.

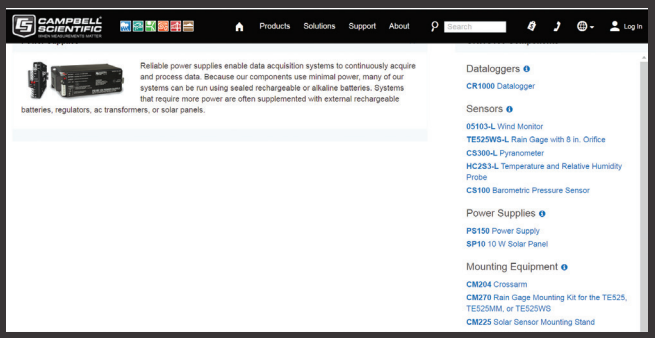


The number 1 goal of the area pages is to get you to a solution page where you can see products that you might be looking for.

On system pages, users can access additional information about different components without leaving the main page:



Clicking the information icon next to any category provides available options and further information:



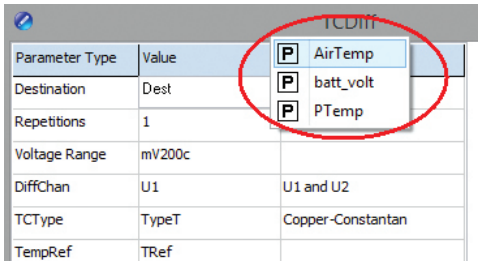
We hope that the update provides a better user experience. If you have any comments or suggestions, please feel free to contact info@campbellsci.com.au

TECH TIP:

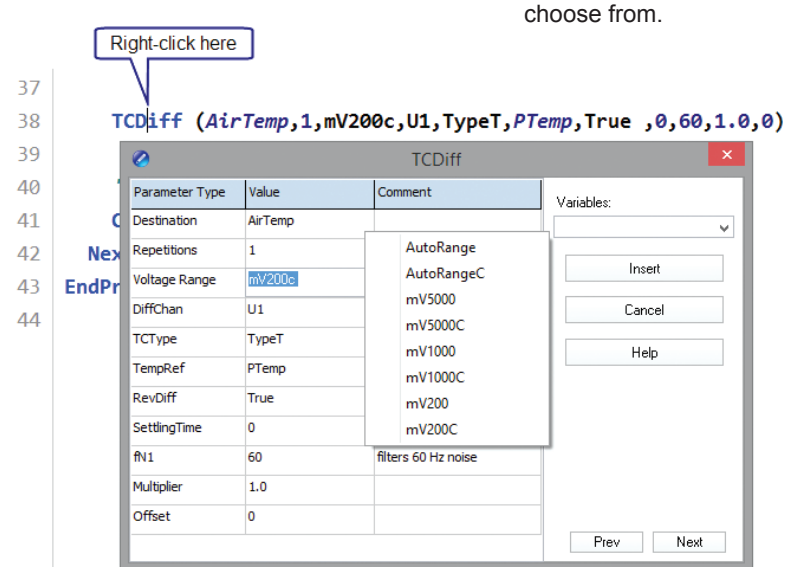
RIGHT CLICK

Campbell Scientific software makes use of the right-click throughout. It often brings up context-sensitive choices or help; that's help specific to your cursor's location. Pressing F2 is sometimes an alternative to using a right-click.

In ***CRBasic***, as an instruction from the instruction panel is inserted, its parameter dialog box appears. Right-click on the destination, and you'll see the list of declared constants and variables. You can select the variable from this list, saving typing time and errors.



That same instruction parameter dialog box can also be brought up by right-clicking on an already-inserted instruction. Right-clicking on parameters, besides the destination, brings up help about that parameter or a list of pre-defined options to choose from.



You can see this tip in action by watching from about 1:40 to 3:00 in our "CRBasic | Features" video.

Throughout, LoggerNet uses the right-click to uncover options. This "LoggerNet Software | Changing Variables" video shows how to use a right-click in the **Table Monitor** and **Numeric Displays** of the *Connect Screen*.

Exercise your right (click) to make things easier.

MEET OUR STAFF:

JORDAN MARANO

Growing up on a sugar cane farm in the Burdekin, Jordan made the short move to JCU Townsville to complete a degree in Electronic and Electrical Engineering. While at university Jordan found vacation work at Campbell Scientific Australia and has been working full time since graduating 4 years ago.

Jordan is typically tasked with the complex programming jobs as this was an area he excelled in at university. This has led to him being the subject matter expert in warning systems such as ALERT, Flood Warning, Lightning Warning and Land Slip Detection.

While not at work Jordan can be found in the pool playing Under Water Hockey (UWH), as well as many other social sports or rebuilding a 1961 Willys CJ5 Jeep.