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Extra PDF Attachment:

New Ad Campaign for OPTO 22

Have a look at our Web Specials www.mastec.co.nz

Web Introducing Qihong Ke Advanced Mathematician

On a recent LabVIEW training day, one of the attendees, asked Qihong to come down and visit during the course. We heard his story. (His CV is available from MasTec)

I am introducing him to you as an advanced mathematician, who won a USA Aviation Math award recently but is living in New Zealand as a new immigrant from China, **with NO employment**.

I am hoping that one of the industries in New Zealand or Australia will offer this man a chance to prove his worth. Please contact me to discuss any opportunity you see for QiHong (rob.maskell@mastec.co.nz or 64 9 273 4200)

Auckland LabVIEW Training Early December

This may be the last LabVIEW course for this year.

This course is set for early December. MasTec is offering to do any or all of these courses **LabVIEW Basic I or Basic II and LabVIEW DAQ.**

This course is arranged for all those who were unable to attend a course during this year, especially ACADEMICS.

If you have an interest, please let MasTec know by return email or phone call.

You will be able to work with NI E Series DAQ, SCXI, also SWS and ADAM Serial devices and other DAQ devices.

2002 has been a good year for LabVIEW training with a total of 65 engineers/programmers trained to date.

There is also time for more private in house courses.

Quatech PCI Serial Comms Boards Dual Voltage Low Profile

The new slim computes require special low profile boards and be able to run on 3.3 or 5 VDC.

Quatech was first to market with this type of Serial Comms Making low profile comms card so they will run on either 3.3 or 5.0 volts, is essential now for Thin Clients, Desktop and 2U High Servers on the market with both voltages.

Having low profile RS-232, 422, 485 makes the use of these new desktops and Rack PCs in IT, ISP, Internet, Instrumentation and Automation systems possible.

They are available with up to 8 ports and you can mix the port types also, (RS-232, 422 or 485 across the ports). The RS-422 and 485 boards have auto switching transmitters.

Baud rates up to 921KB, with drivers for Windows up to XP, also Linux and for any of the finance systems using OS2.

However if you think this is too hard, that is, opening a case and putting in a board, then you have other choices.

Try either USB boxes with up to 16 ports or if you need real performance and dynamic allocation of resources the new Ethernet Comms servers will do the trick.

Quatech is one of the only company that makes 8 port Breakout Boxes for comms boards that can be mounted in 19" racks. Essential for clean and rapid installations.

ISA slots Do you need them?

Do you still need ISA Slots.?

Is your investment in ISA DAQ and/or Control cards so high you can't afford to throw them away.?

If Yes, do not fret, MasTec has heard the sobbing and nashing of teeth as you think about throwing them away.

How about a high spec ATX motherboard with a nice and very fast > 1GHZ CPU with 3 ISA slots and 3 PCI slots.

This is a difficult ATX board to find now, so this is special product for people who need ISA slots and can't get them any more. We can also build a complete PC for you.

Z World Micros:- New Low Cost Bundles of Software and Hardware

Z World has changed the way to get started building Rabbit Micro Systems :- and you save lots of money!

In the past, a new customer had to buy three components for a SBC development system (SBC Board + ToolKit + C Compiler). From now on a customer will only need to buy a (SBC Board + Tool Kit that now includes a Dynamic SE C Compiler). This has lowered the cost of initial entry by 30% and still provides the customer with a complete system.

MasTec is looking for programmers to do LabVIEW and Z World Dynamic contract work!

Email your interest to projects@mastec.co.nz

www.mastec.co.nz

Visit our Web Site at



Your One Stop for Technology

AC and DC Power Control and Monitoring OPTO 22 Systems

Last month we looked at MOXA's IT Room Power Control System, that allowed remote power down and up of services in an IT Facility, using internet, ethernet and phone in.

That prompted some interest in general AC and DC power control and additionally monitoring power usage and several questions on environmentals and other signals.

OPTO 22 is a world leader in this power control field. In the 1970's they invented **Optically Isolated AC and DC Solid State Relay Modules** (4000 V isolation). They expanded on this original idea by adding **Optically Isolated AC and DC Input modules**, i.e these can look at a 230 V AC circuit and tell if there is voltage there or not, (also all DC voltages).

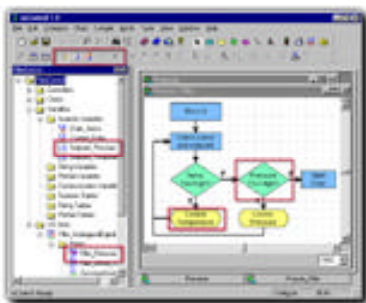


They lifted the SSR Modules and Input Modules into the field by inventing computer controlled distributed I/O systems that allowed placing modules on a network.

You can now control and monitor dozens, hundreds, thousands of AC and DC power circuit using this method and they can be scattered all over NZ or the world.

OPTO 22 also have a range of AC (RMS) and DC Voltage and Current Input modules for measuring power usage.

For environmental measurement or other signals, there are a wide range of modules available to complete the jig saw. In short you can build what ever you require.



Add a very nice flowchart program development system called ioControl and you are in business.

Last week we mentioned that we had installed an IT Room monitoring and alarm-

ing system for the NZ government. We monitored, temperature, for flooding, the UPS status and general status of the service, sending out alarms and SNMP messages.

We used of course OPTO 22's new Ultimate I/O System.

Application Notes on the Web Dataforth

MasTec has just added to their website under **Dataforth** :- **Signal Conditioning**, a series of downloadable PDFs on a variety of subjects.

There is a very good 24 page booklet on Signal Conditioning, another on Thermocouples, another on RTDs, Strain gauges etc.

Please avail yourselves of these, they are very educational.

UPS Sale 3rd Month

Even Lower prices now!

Just an update on the UPS Sale.

Please tell the IT people in your company about this sale, there are big savings to be made on UPSs.

We have special prices on all PK UPSs.

BOB 10E 600VA at most computer outlets \$465

Our new low price is \$299



The PK BOB 12E, is a line interactive 1200 VA UPS, power a large server or two computer backups or large instrumentation control systems or similar.

There are thousands of PK UPSs running in NZ and they have an excellent service record.

For those wanting more power, the US 9003 and US 9001 Redundant

Units are perfect, as they truly are redundant and scaleable, hot swappable etc.

The US9001 is pure sine on-line with 1000VA module steps, the 9003 grows in 400VA module steps. These systems can grow to 12KVA or more.



Buy modules as your power needs grow. If a module fails it doesn't take the UPS down, the UPS continues with the modules working until a new module replaces the failed one.

To be feel real safe add one more module than you require and you now have what is called in UPS speak, Y+1 redundancy.

For very large UPS systems, PK make the PR3 that expand in 3KA step, to allow UPSs to scale to 100KVA and larger.

Buy all your Lead Acid Batteries from MasTec

Panasonic and GNB

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