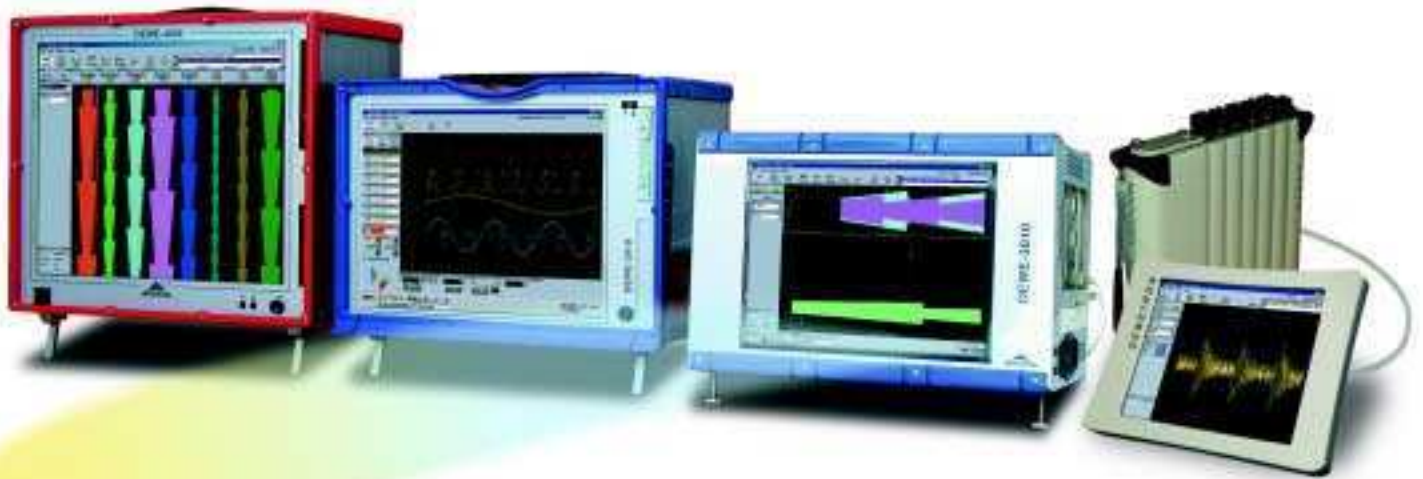




Automotive
Aerospace
Manufacturing Test
Energy & Power
Environmental
Research & Development

Complete Instrument Solutions



***With plug-in
Signal Conditioning!***



- ***Portable Data Acquisition Platforms***
- ***Built-in Open-Architecture Computer***
- ***Modular Plug-in Signal Conditioning***
- ***Turn-key Systems With DEWESoft***
- ***Runs Any Software (Windows, Excel, LabVIEW, etc.)***
- ***MIL-STD shock and vibration, ISO-9001, ISO-14001, CE Mark***
- ***Upgradable Design, Built to Last***



Complete Solutions

Instruments You Can Rely On!

You're invited to come inside and learn all about our powerful data acquisition, video recording, and transient capture products. But first, please give us a moment to show you our philosophy of what makes a good PC-based instrument—and *why*. We're confident that you'll recognize the unique approach that we take with each of the products that follow, and you'll understand why choosing a Dewetron product will be one of the best investments you'll ever make!

Open Architecture

Up to Date Now, Upgradeable Later

It all starts with a rugged, industrial grade computer platform. We keep it open-architecture, so that you can upgrade it easily in the future (think about how fast computer technology changes!). We add a bright flatpanel display visible under all lighting conditions and from all angles. Include a touchscreen option to make operation as easy as possible.

Then we plug in a high-quality A/D board from the best suppliers in the world, and enclose the entire system in an all-metal, extremely portable and lightweight enclosure. We take care that each system can be run from either AC or DC power, so that you can run it inside a vehicle, or just about anywhere.

Sounds simple, doesn't it? Well, believe it or not, most other companies build their data recording instruments products around proprietary hardware and software. But Dewetron believes strongly in letting you upgrade your system easily when the technology allows it. We believe in using COTS (commercial, off-the-shelf) computer hardware to the greatest extent possible. That's the only way we can make systems that are up to date with technology today, and can stay that way tomorrow!



That's right – you can upgrade your Dewetron system long into the future. But we're not done yet: in order to create a complete system we need to add signal conditioning and software. And here's where it doesn't pay to cut corners.

What good will the A/D board be if the analog signals you present to it are noisy? Or if the system simply can't connect to the wide variety of sensors that are commonly used? So let's look at the next step...

Your World-class, World-wide Dewetron Team

From our beginnings in Europe as a systems integrator, to our position now as a major manufacturer of PC-based instruments, signal conditioning, and portable industrial computers, Dewetron has always been about people. We attract and retain the highest quality individuals in all areas – from engineering to sales – and everything in between. We want to meet you and work with you, from any of our offices around the globe. Dewetron now has locations in America, Austria, England, China, The Czech Republic, Germany, Korea, The Netherlands, Singapore, Switzerland...and the list keeps growing.





Plug-in Modules For Every Sensor

DEWE-MODULES are low-noise, all-metal modules. Most of them have multiple ranges and filter selections, 1000 Vrms isolation, and the right connector for the sensor! Multiple ranges means that you don't have to swap modules just to change the range, like some systems. *(continued below the module...)*



Every signal, every sensor. This is our lifelong goal—to connect to them all, and bring them flawlessly into the computer for display, measurement, recording, and analysis.

Your data comes from real sensors connected to real hardware under test. The signals must be kept clean and unadulterated right up to the instant they are digitized. This is our strong area, and where most others fall down.

We're almost done creating the Dewetron PC-Instrument, but there's one more ingredient...

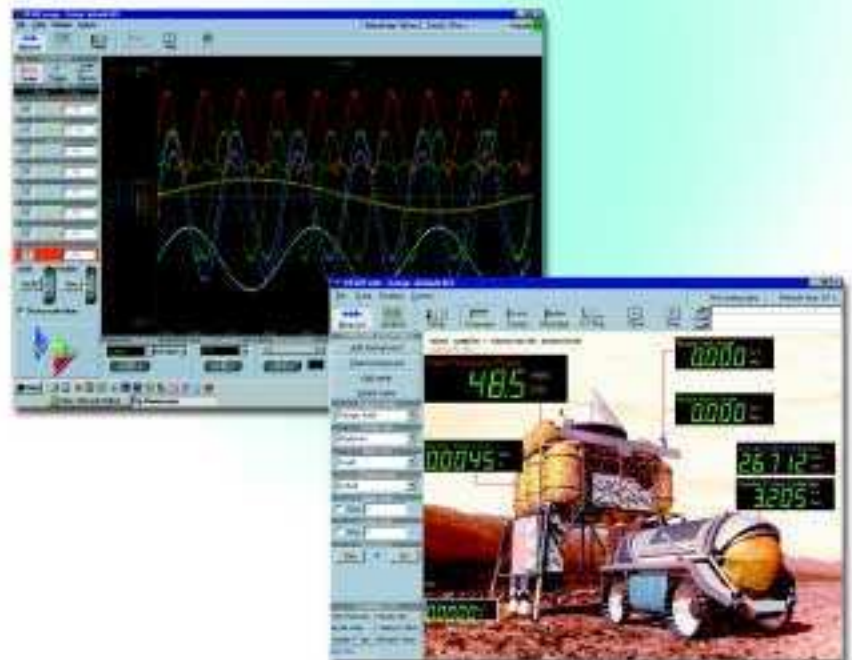
Software Choices The Best of Both Worlds

Software makes the hardware *do something*. Other systems offer either very weak turn-key applications which are easy to use but not very capable, or they give you a complex programming tool which you must first master and then make your own setups! Our open-architecture platform is a dream-come-true for integrators and developers, who can build whatever they want using great tools like LabVIEW™, DASyLab™, Visual Basic™, and more.

But most Dewetron customers are test engineers who just want to make a measurement—not *become a programmer!* For them, our DEWESoft applications are the answer. DEWESoft applications are turn-key and easy to use, but not weak or limited. They combine a clean, intuitive interface with incredible on-line data visualization capabilities, triggered or continuous acquisition to hard disk, and easy export to a wide variety of popular formats.

Available in several versions for general recording, advanced spectral work, and transient/oscilloscope applications, DEWESoft applications turn your Dewetron hardware into a *complete instrument*.

That's what you were looking for, wasn't it? A complete system, ready to go to work for you today ... but easily upgraded tomorrow? Please take a look through this catalog. We've got a lot of exciting products to show you inside. Use the weblinks to learn more about anything that you find interesting. Or call us to request an on-site demonstration. We look forward to working with you!



DEWE-600

Unique, Splash-proof Data Recorder!

The unique design of the DEWE-600 is the first thing that you notice. But it's more than just appearance: the high-impact chassis is hermetically sealed against moisture, dust, etc. An advanced cooling system conducts heat away without allowing any exchange of air with the outside, making the DEWE-600 perfect for hostile environments. Within this clever package is a Dewetron PC-based data acquisition system with 16 differential voltage inputs, running Windows and our DEWESoft acquisition package!

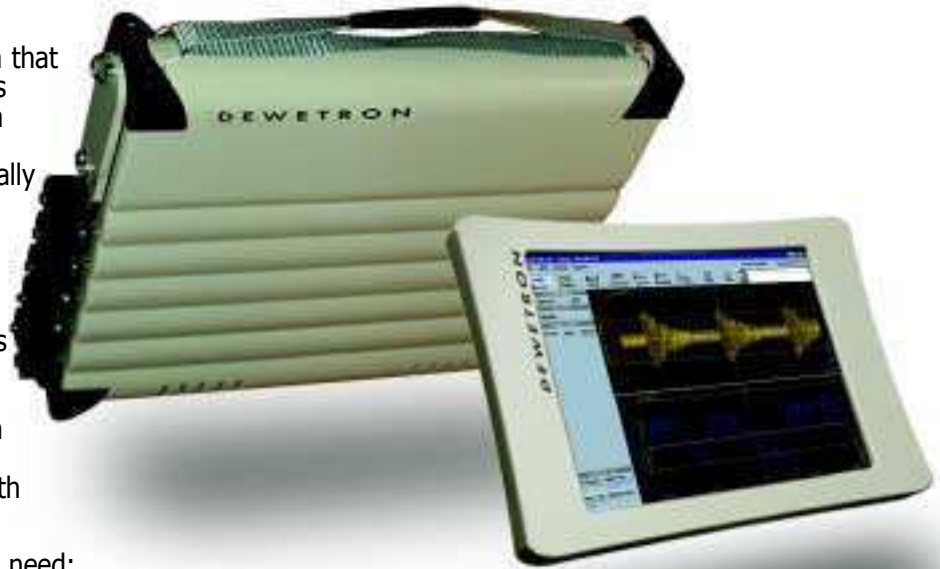
Our Smallest Model Yet But With BIG Dewetron Performance

Finally, a PC-based data acquisition system that can go almost anywhere. The DEWE-600 is about the size of a laptop computer, with a separate touchscreen that can be removed when the system is running. This is especially useful if you want to leave the system unattended, and prevent unauthorized use while you're gone.

Hermetically sealed and rated to IP65 and NEMA4 against splashing, the DEWE-600 is a real computer running Windows, and containing a PCI A/D card with 16 channels. The front-end is Dewetron's own differential signal conditioning, so you can input voltages from ± 5 V to ± 50 V, and with ± 100 V overvoltage input protection. *

The DEWE-600 has the interfaces that you need: USB, Ethernet, serial, and parallel. An optional keyboard and mouse plug into the USB interface (no reboot required).

* See the DEWE-600-DSA for a version with 8 voltage and accelerometer inputs, separate ADC's per channel, and more



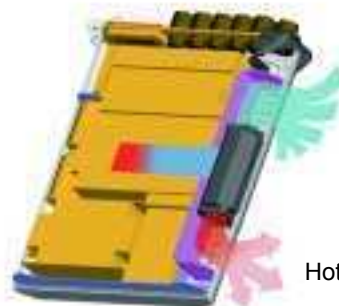
Below a sealed cover are the display, USB, Ethernet, serial, and parallel connections.

BNC inputs are also gasketed and splash-resistant – even with signal cables attached!



IP65/NEMA4 Unique Splash-proof Design

Fans pull air through gridded vents and pass it across a heat-sink that runs into the center of the DEWE-600, then push the heated air out the other side of the system. There is no exchange of air, moisture, sand, or dust between the inside and outside of the system, because the inside is hermetically sealed from the cooling channel.



Cool Air Intake

Hot air outflow



The DEWE-600's display can be carried, or it will stand on any surface during operation. You can plug or unplug it even when the unit is running. A 3-meter long cable is included with the display for your convenience.



- Field testing of all kinds • In-vehicle recording
- Factory applications • Aircraft test & measurement
- Environmental monitoring • Research & development

- Ideal Field Recorder
- IP65/NEMA4 Splash-proof
- 16 Differential Inputs
- Continuous or Triggered Recording to Disk
- Record to 30+GB Disk Drive
- USB, Ethernet, Serial, Parallel

Important Options:

- 10" 800x600 Display with 3 meter Cable
- Touchscreen for the Display
- DEWESoft Acquisition/Export Software
- DC Power (runs from Vehicle DC)
- USB Keyboard/Mouse/CD-RW
- More Signal Conditioning

The Data Recorder... That's Really Going Places!

The DEWE-600 is a new and exciting concept from Dewetron.

Imagine a space-age laptop-size recorder that you can spray water into without ill effect, which has a full-size PCI A/D card inside, differential voltage inputs with over-voltage protection, and which has a portable TFT touchscreen display!

Unlike a typical "laptop PC", however, the DEWE-600 uses a slot CPU, hard drive, and computing electronics which can be upgraded long into the future. Your investment in a DEWE-600 is a sound one.



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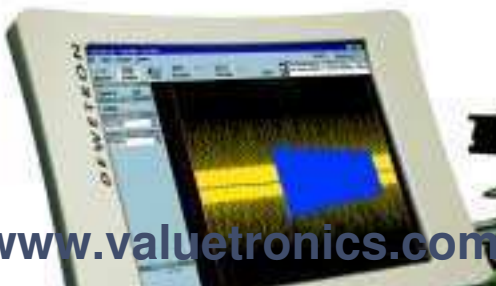
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All URL's begin with
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Above: The DEWE-600 can operate in any orientation. The 10" diagonal display is attached with a 3 meter umbilical which also includes the touchscreen connection.



DEWE-3010 Series

Portable PC Instruments

You need to take data in a car, or an airplane, or on the factory floor. Delicate lab instruments won't survive. You need signal conditioning, a recorder, a computer for analysis – and yet there isn't enough room for all that, right? Wrong. The DEWE-3010 is a complete data acquisition system that connects to any signal, any sensor – it's also a powerful computer with all the interfaces you need. Finally, in one small box you can have it all. We call it a portable PC instrument. You'll call it a great investment.



In-Vehicle Acquisition

Go Anywhere, Do Anything

Since its introduction in 1997, the DEWE-3010 has blazed a wide trail in the world of portable data acquisition. Now with three models to choose from, each made for in-vehicle and field recording applications. The basic DEWE-3010 model features 16 dynamic input channels on its PCI A/D card. The first 8 are connected to the 8 DEWE-Module slots on the left side. Connect a RACK-8-3010 expansion chassis and plug in 8 more modules. Or choose the DEWE-3010-64 model and connect up to 64 dynamic channels via more expansion racks. The economical DEWE-3010-REC doesn't use modules, but has 16 differential voltage inputs instead, for chart recorder replacement applications.

All models feature a very bright 12.1" TFT display, a small keyboard/trackball, and a vinyl carrying bag. Record your important data directly to the hard disk, for gigabytes of recording capacity. And don't worry about running out of room, transfer data via standard Ethernet, USB, serial, or parallel ports – or copy it to inexpensive CD's (requires the optional CD-WRITER option).



Plug-in Modules

Low-Noise Signal Conditioning



There are two types of plug-in modules available for your DEWE-3010: single-channel DAQ modules for dynamic signals, and multi-channel PAD modules for static (slow) signals. Mix and match them in any combination, to create the perfect system. Of course, tomorrow you might be doing something different, so just rearrange them freely, adding and subtracting modules even while the system is turned on. DEWE-Modules provide sensor power for strain gages, accelerometers, inductive sensors, and more. Most offer multiple ranges and filters for ultimate versatility.



Left: the CD-ROM can be upgraded to a CD-WRITER, DVD reader, or both!

RACK-8-3010



DEWE-3010 with Expansion

DEWE-3010-64 with RACK-8-3010 and Expansion



up to 3 x RACK-16-3010
or 1 x RACK-16-3010 + 1 x RACK-32-3010
or 1 x RACK-48-3010

RACK-8-3010



- Grab-and-Go Portable Design
- Built-in Bright TFT Display
- Record Direct to Hard Disk
- CDROM, HDD, FDD Standard
- Ethernet, USB, Serial, Parallel...
- Soundcard/mic for Voice Notes

Options:

- CD-WRITER / DVD / Both
- DC Power with UPS
- Windshield-mounting Display
- Touchscreen
- Seat-mounting Kit



Above: MOB-DISP-12 remote display option, also available with the touchscreen interface, for the ultimate in front seat control

Left: 3010-SEAT-KIT option, all-metal mounting for your DEWE-3010 mainframe and keyboard. Includes straps and keyboard tray.

Lower-Cost Recorder Replacement

If your inputs are voltage only, then the DEWE-3010-REC model might be a better value for you. With 16 differential voltage inputs with selectable ranges up to ± 50 V full-scale, this model makes the ideal chart recorder replacement. Isn't it time you upgraded to a PC-based data recorder?



Models	DEWE-3010-REC	DEWE-3010	DEWE-3010-64
Slots (Int/Ext)	N/A	8/8	8/56
Sample Rate (SR)	200 kHz	200 kHz	1.25 MHz
Optional SR	1.25 MHz	1.25 MHz	N/A

E-X-P-A-N-D-A-B-L-E To 64 Modules

Expansion chassis increase the number of DEWE-Modules that can be plugged into each system. Add a RACK-8-3010 to the standard DEWE-3010... and keep adding them to your DEWE-3010-64!



All URL's begin with www.dewamerica.com



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DEWE-2010 Series

16-Slot PC Instruments

Serious recording horsepower for serious applications, the DEWE-2010 puts it all together: 16 module slots on the rear panel (expandable to 64 modules – see the DEWE-2010-64 model), a 15" TFT display, an industry-standard A/D board inside, and powerful software to tie it all together. Run your favorite data analysis software on the same machine that you recorded it on – the DEWE-2010. And like all Dewetron Portable PC Instruments, it's a full-fledged computer.

Portable, Expandable Our Flagship Model



The DEWE-2010 is our flagship instrument. It was, after all, the original PC-based data acquisition system based on COTS technology, featuring for the first time industrial grade PC components in a highly portable package.

And it's living proof of our claims about upgradeability. We're always taking in machines that we built years ago with Pentium I processors and 32 MB of RAM, and giving them new life with quick and relatively inexpensive upgrades. Don't even bother to try that with most instruments.

The rear side contains slots for 16 of our award-winning plug-in signal conditioners. Inside is a standard 200 kHz A/D board also upgradeable at the time of ordering to a faster model, or to a 16-bit version. For even more A/D board performance, check out the DSA series of products also in this brochure.



Any Signal, Any Sensor With Plug-in Modules



DAQ and PAD series plug-in signal conditioning modules adapt your DEWE-2010 to just about any sensor, any signal. With a low-noise/high-isolation design, differential inputs, multiple ranges, and convenient connector types. Most DAQ models feature half a dozen selectable input ranges and filters, and with convenient pushbutton and software control. The local buttons can be locked out via software command. (A complete listing of modules is shown on pages 22–23.) Dewetron modules are available for strain gages, accelerometers, all voltage levels, current, thermocouples, RTD's, LVDT's potentiometric and ohmic sensors, tachometers, and many more.



Power to Spare

You can upgrade to an AC/DC power supply made for in-vehicle applications, and run your DEWE-2010 from either AC or 10–32 VDC power. Includes a built-in UPS that keeps the system running for up to 5 minutes without any power at all, and automatically recharges whenever AC or DC power is restored.



DEWE-2010 Applications. Railcar: braking and acceleration, new car acceptance. Automotive: Chassis, braking, ride-handling, engine analysis, test cell or track tests. Aircraft: turboprop bearing vibration, fuselage bend, hydraulic systems monitoring. Manufacturing: turbines, motors, and relay check, control-loop test, and more.

Left: DEWE-2010 front view. The keyboard folds up to protect the display when not in use. Unit may still be operated with the keyboard closed.

Below: DEWE-2010 rear side showing 16 module slots



- MIL-STD Shock and Vibration
- High-resolution 15" TFT Display
- Continuous or Triggered Recording to 40+ GB Disk
- CD-ROM, HDD, FDD Standard
- USB, Ethernet, Serial, Parallel interfaces

Important Options:

- Touchscreen for the Display
- CD-WRITER / DVD / Both
- AC/DC/UPS Power Input
- Seat Mounting Kit

Road Warrior Built to Travel



The optional 2010-SEAT-KIT turns your DEWE-2010 into a real road warrior. It's built to last, with all-metal construction, and cinches to hold it fast to the vehicle seat, even under rapid steering conditions.

The AC/DC power supply (see facing page) is also important for in-vehicle applications. Adding a touchscreen to the DEWE-2010's brilliant display is yet another wise investment. When testing takes you to the road, bring the DEWE-2010 along with you. He feels right at home there!

Two Models 16 to 64 Dynamic Inputs

Models	DEWE-2010	DEWE-2010-64
Slots (Int/Ext)	16	16/48
Sample Rate (SR)	200 kHz	1.25 MHz
Optional SR	1.25 MHz	N/A

EXPANDABILITY to 64 Modules!

DEWE-2010 (16 slots) plus RACK-48-2010, or 3 x RACK-16-2010, or RACK-32-2010 + RACK-16-2010



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DEWE-4000 Series

Portable/Rack-Mounting Models

The DEWE-4000 is our biggest, most expandable and extensible machine. Starting with a huge 18" TFT display (optionally available as a touchscreen!), this model is ideal for applications where on-line visibility is critical. Like the DEWE-2010, it has 16 slots on the rear side for any combination of DAQ/PAD plug-in signal conditioners, and even more room inside for additional PCI cards.



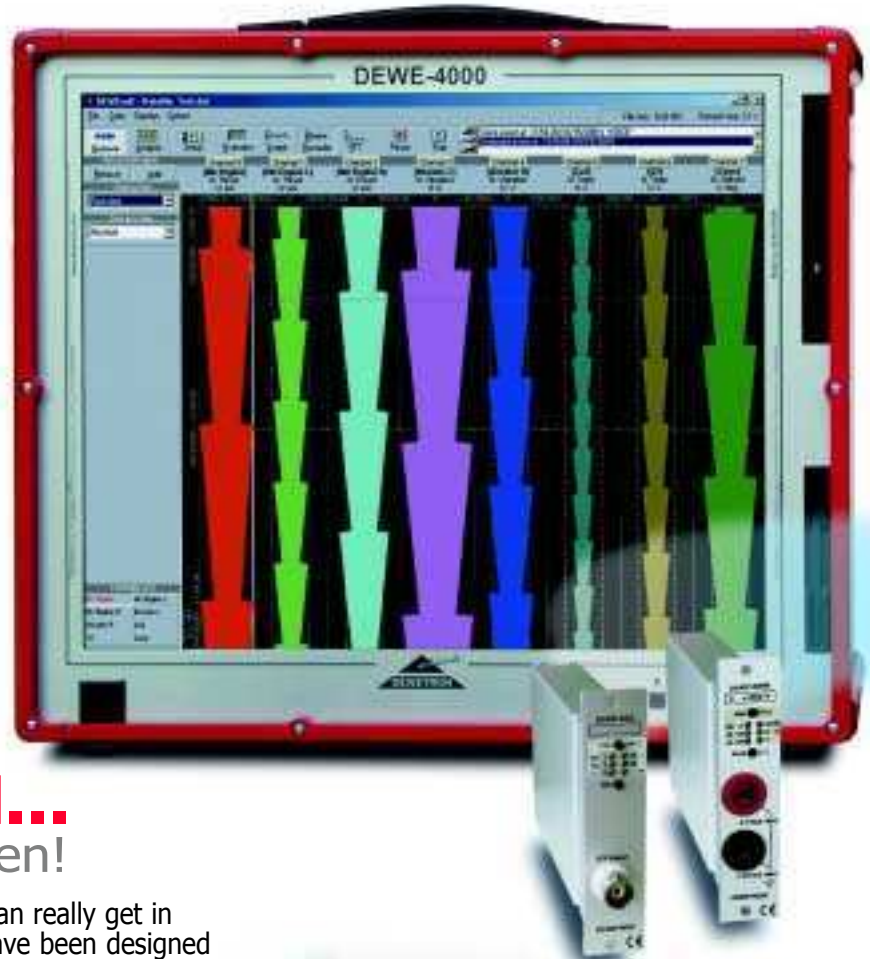
Big, Bold, Beautiful...

Our Powerhouse Instrument

The DEWE-4000 picks up where the DEWE-2010 leaves off. This machine is meant to give you more of everything: a larger display, and more PCI slots inside on the ATX motherboard for no-compromise system expansion. Aerospace engineers enjoy the ability to plug in their 1553 cards, IRIG/GPS, and just about everything else they can think of, and still have a fully functional data acquisition system, with signal conditioning, an A/D board (or two!), and more.

All of the computer interfaces that you want are included as standard, including 10/100 base Ethernet, USB, serial, parallel, PS/2, and an SVGA output for connecting an external monitor or projector. And you can still upgrade the system with SCSI, Firewire, Flash Media, and whatever else comes onto the COTS market.

The rear side contains slots for 16 of our plug-in signal conditioners. A 64-channel model is also available. Check out the DTRS-4000 version, configured specifically for flight test telemetry applications!



Just Reach Out And...

...Touch the Screen!

Finally, a big bright display you can really get in touch with. DEWESoft screens have been designed with your fingertips in mind – the buttons are just the right size.

Touchscreen is a popular option with all Dewetron PC instruments, because it puts you closer to the data, and eliminates hunting around for the mouse for most routine operations.

So when the manual says to "press the button on the screen," you really can! Works with all Windows software.






Tele



- Portable and Rack-mounting Versions Available
- Huge 18" TFT Display 1280x1024
- Accepts Additional PCI Cards
- Continuous or Triggered Recording to 40+ GB Hard Disk
- CDROM, HDD, FDD Standard
- USB, Ethernet, Serial, Parallel

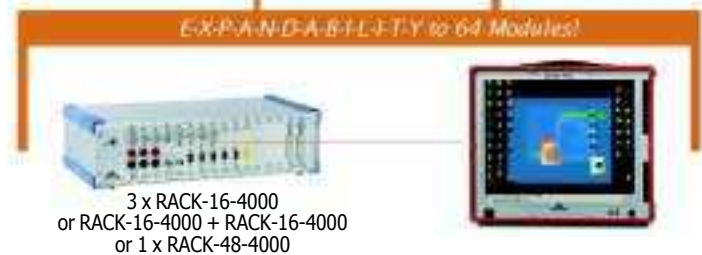
Important Options:

- CD-WRITER / DVD / Both
- Touchscreen for the Display
- Rack-mounting Kit

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16 to 64 Dynamic Inputs
Available Models

Models	DEWE-4000	DEWE-4000-64	DTRS-4000
Slots (Int/Ext)	16	16/48	16/32/64
Sample Rate (SR)	200 kHz	1.25 MHz	1.25 MHz
Optional SR	1.25 MHz	N/A	100 kHz/ch



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 www.dewamerica.com/products

Telemetry Recording System
DTRS-4000 Model

The DEWE-4000 is also available in a special configuration specifically made for aerospace telemetry monitoring and recording. The all-new Dewatron Telemetry Recording System (DTRS-4000) is hard at work right now at some of the most prestigious telemetry ground stations in the world, including those recording launches for the International Space Station, the Space Shuttle, and countless satellites each year.

With features like rack-mounting, vertical traces (strip chart emulation), IRIG/GPS time code, easy data "look back" during recording, networking, and analog or digital inputs on our all-COTS platform, the DTRS-4000 is second to none. Call for an on-site demonstration at your site today! The count-down has begun...



DEWESoft

Graphical Data Acquisition Software



/software/dewesoft

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Want to Program All Day? (We Didn't Think So)

DEWESoft is a turn-key package for even the toughest data acquisition challenges. It's easy to learn – you'll be up and running in minutes. Scale your inputs to any unit of measure, graphically – the best way. Compatible with all Dewetron supplied hardware, including A/D boards (from National Instruments, Data Translation, and others), DAQ, and PAD series signal conditioners, and more. Your entire system is configured and controlled from within DEWESoft. Save unlimited numbers of setups. Document your data before you record with user-definable headers and storage paths. And during recording, document your data with event marks, text notices, and even voice annotations! Nothing could be easier, and yet as powerful.

You've already got a job, so why do other companies want to turn you into a programmer, too? Our customers just want to make a measurement, not a career change. Sure, Dewetron's open-architecture design means you can load up nice tools like LabVIEW and DASyLab for making custom applications. But with DEWESoft, your Dewetron system is ready to go to work on day one.



Recorder Screen



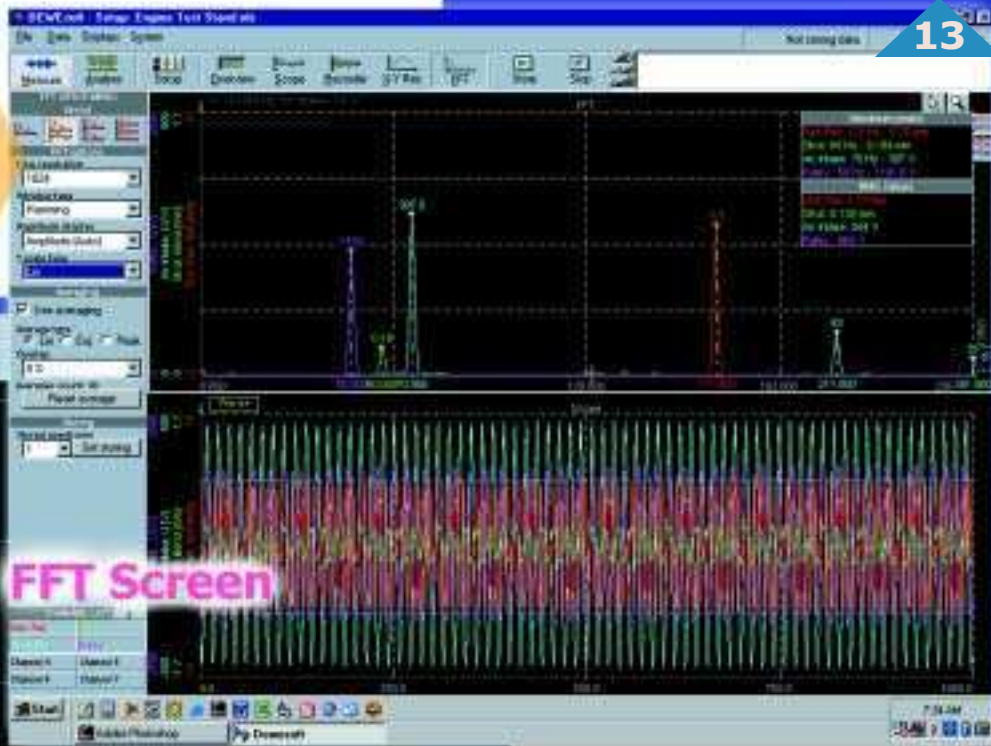
Scope Screen



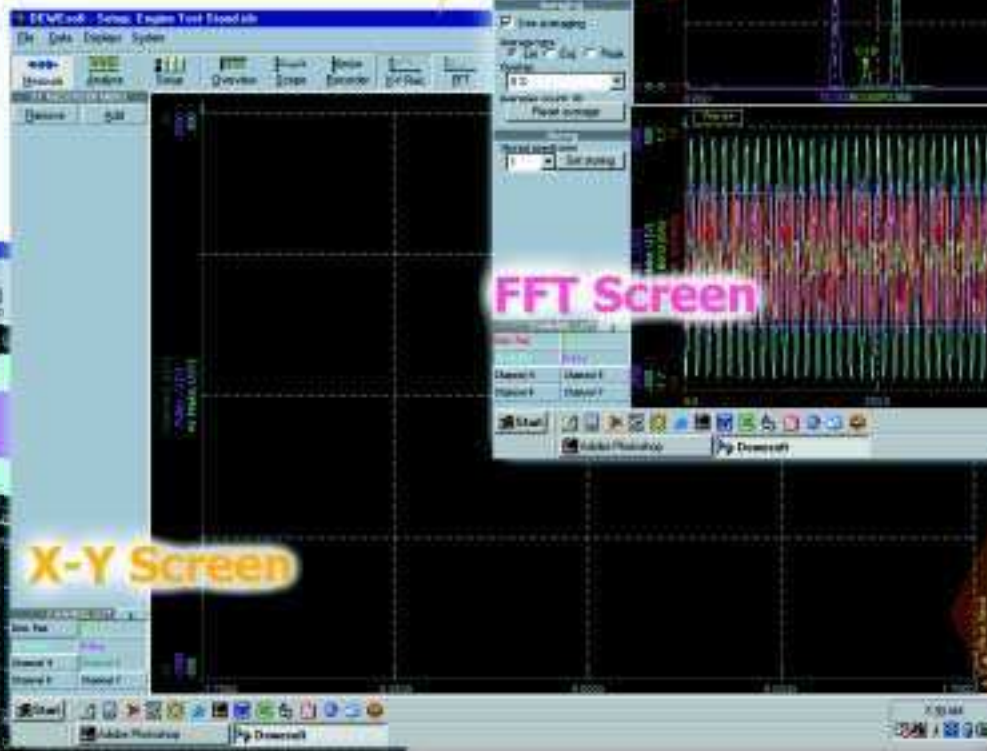
Overview Screen

- Place any graphic in the background, from a file, digital camera, etc.
- Draggable meters and user-scalable gauges
- Meters can be individually set with colored alarm levels
- Display data values as actual, RMS, AC RMS, average, min, max...

- Up to 12 FFT's at once
- Clickable peaks show Hertz and Magnitude
- On-line calculations (max freq, rms)
- Selectable spectral lines and overlapping
- Selectable FFT windowing type
- Averaging function for repetitive tests



FFT Screen



X-Y Screen

- Up to 4 graphs, each with X-Y, X-YY, or X-YYY (any combination of channels)
- Independent scaling per graph
- Excellent visualization tool

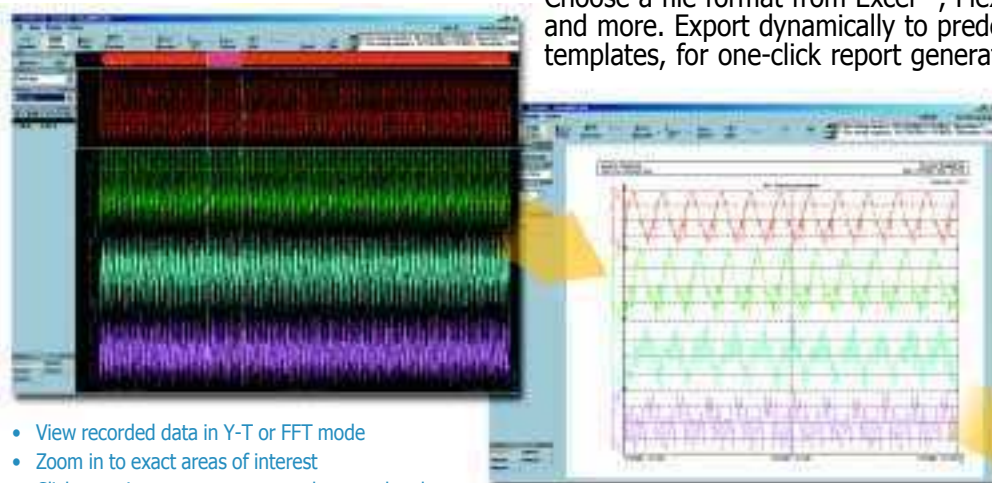
- Up to 4 graphs, each with any 4 channels
- Each recorder graph can display data in Real, RMS, or Average mode

Zoom, Export, Print

Get Your Data Out Fast and Easy

Done recording? Press ANALYZE and load your data onto the screen. Re-scale if you want to, zoom in and out with a mouse-click, take absolute and delta measurements with the cursors. See an on-screen preview, then print in full color. Exporting is just as easy: select any or all of the data with the cursors and click EXPORT. Choose a file format from Excel™, FlexPro™, I-DEAS™, Matlab™, and more. Export dynamically to predefined FlexPro and Excel templates, for one-click report generation!

- Up to 4 graphs, each with any 4 channels
- Each scope runs in free mode, auto mode, or manual mode
- Capture to disk based on scope triggers



- View recorded data in Y-T or FFT mode
- Zoom in to exact areas of interest
- Click on voice, text, or event marks to replay them
- Re-scale the amplitude axis – even after recording

- On-screen preview (Y/T & FFT)
- Add text comments to be printed
- Print in full color to any Windows printer
- No special paper or thermal media required



DEWE-DSA Series

Dynamic Signal Analyzers

Buying a dynamic signal analyzer just got a lot easier. With other systems, just a few channels costs a fortune, and operation is overly complicated by arcane features that you'll probably never use. Dewetron DSA Dynamic Signal Analyzers cut right to the core of what you want to do. They have the rock solid inputs that you need, including signal conditioning for voltage and constant current type accelerometers. And the software is easy to use, DEWESoft+Plus adds orbit, 3rd octave, and FRF screens for shaker table or impulse hammer work.



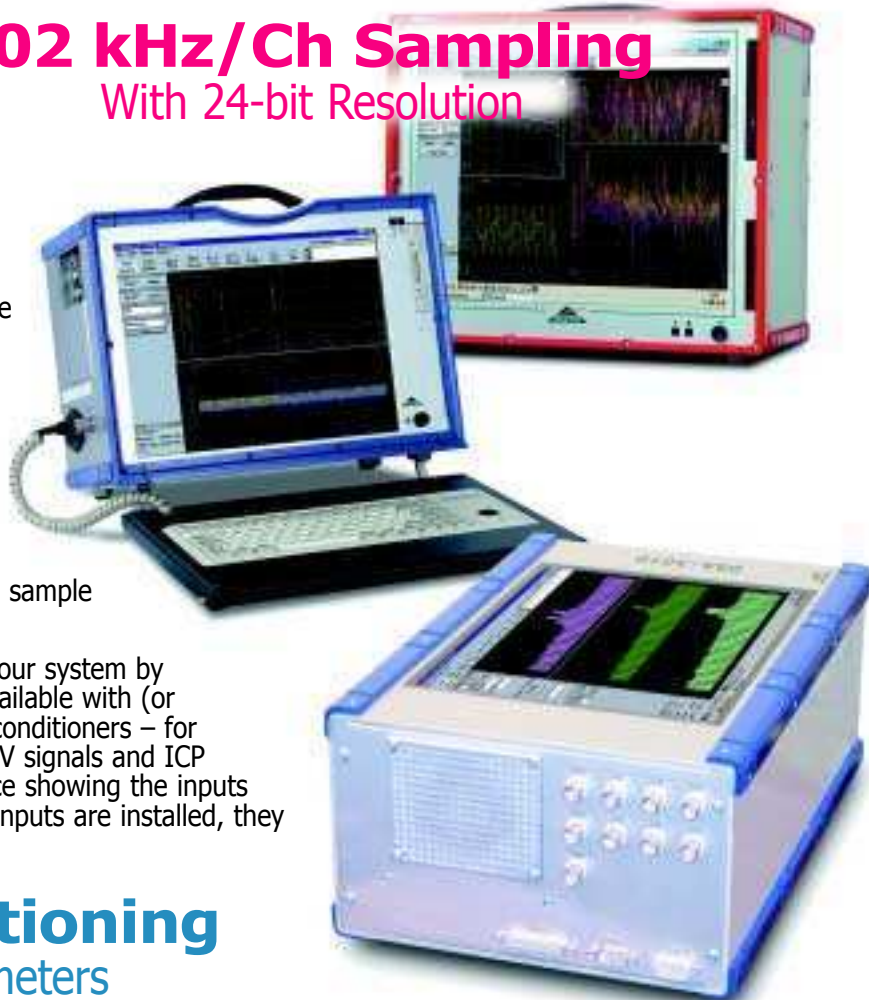
102 kHz/Ch Sampling

With 24-bit Resolution

The DSA Series from Dewetron is a bold new step in Dynamic Signal Analysis. With beautiful, bright on-line displays and a robust front-end. Each input has built-in ICP™ and voltage signal conditioning. Select your sample rate up to 102.4 kHz/channel, and powerful anti-aliasing filters adjust automatically, providing a 45 kHz alias-free bandwidth, and a 120 dB dynamic range. All inputs are sampled simultaneously, preventing time-skew between channels.

State of the art 24-bit delta-sigma modulating ADC's (analog-to-digital converters) are used on each input. Fixed analog filters roll off the signal beyond the A/D range, then digital filters adjust automatically to half the sample rate, stopping aliasing dead in its tracks.

All DSA models come with 8 inputs by default. Expand your system by adding more 8-channel cards. DEWE-DSA models are available with (or without) a built-in RACK for additional Dewetron signal conditioners – for applications where you need to connect more than ±10 V signals and ICP accelerometers. See the chart below for a cross-reference showing the inputs each DEWE-DSA model supports. No matter how many inputs are installed, they are all locked together for simultaneous sampling.



Built-in Signal Conditioning

For Constant Current Accelerometers

All DSA Series models have built-in voltage and ICP™ signal conditioning on each channel, freely selectable on the setup screen. If you have other types of inputs to incorporate (strain gages, LVDT's, F/V, charge, etc.), then DSA models are available with either internal or external slots for Dewetron's plug-in DAQ modules. There is a DAQ module available for virtually every sensor type.



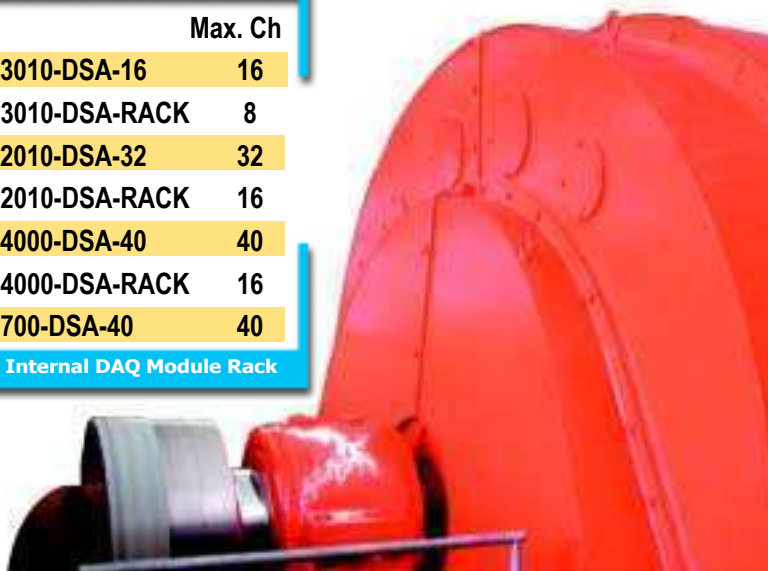
Photo © 2002 Kistler Instrument Corporation

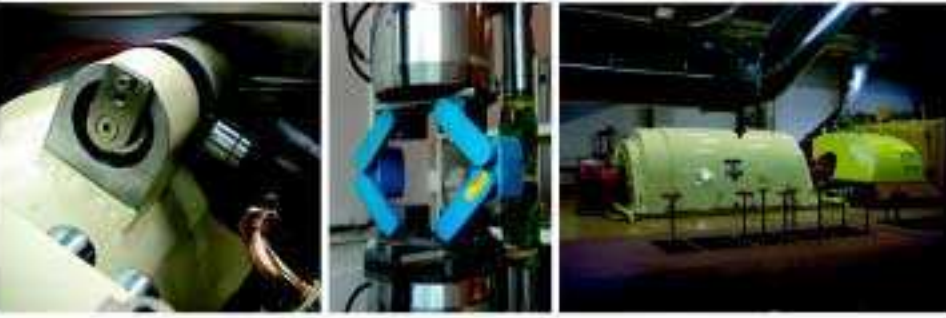
ICP is a trademark of PCB Piezotronics
All trademarks acknowledged as the property of their owners

AVAILABLE DSA SERIES MODELS

Model	Max. Ch
DEWE-3010-DSA-16	16
DEWE-3010-DSA-RACK	8
DEWE-2010-DSA-32	32
DEWE-2010-DSA-RACK	16
DEWE-4000-DSA-40	40
DEWE-4000-DSA-RACK	16
DEWE-700-DSA-40	40

RACK = Internal DAQ Module Rack

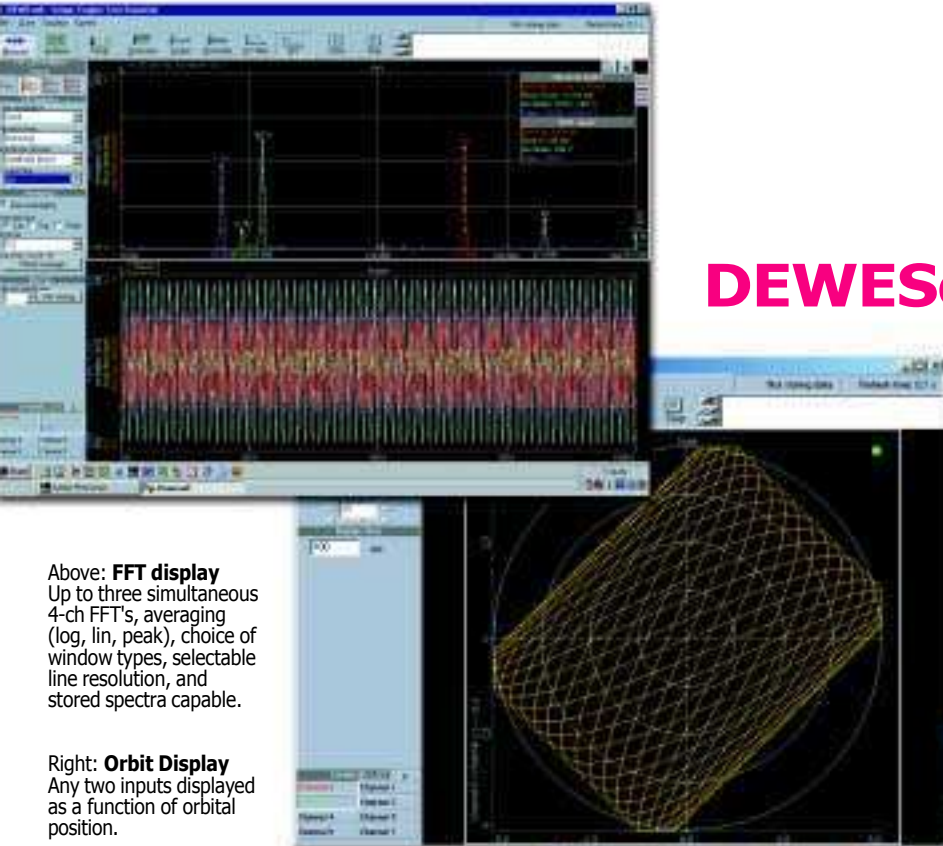




- Portable & Multi-channel
- Simultaneous Sampling ADC's
- Built-in Bright TFT Display
- Includes DEWESoft+Plus
- FFT, FRF, Orbit, 3rd Octave, Scope, XY On-line Displays
- Save to UFF, IDEAS, ATI, Matlab...

Important Options:

- CD-WRITER / DVD / Both
- Additional Signal Conditioning



Above: **FFT display**
Up to three simultaneous 4-ch FFT's, averaging (log, lin, peak), choice of window types, selectable line resolution, and stored spectra capable.

Right: **Orbit Display**
Any two inputs displayed as a function of orbital position.

Right: **FRF - Frequency Response Function**
Shaker table and impact hammer modes, spectral capabilities per the FFT mode shown above. Easy triggering set up and operation.

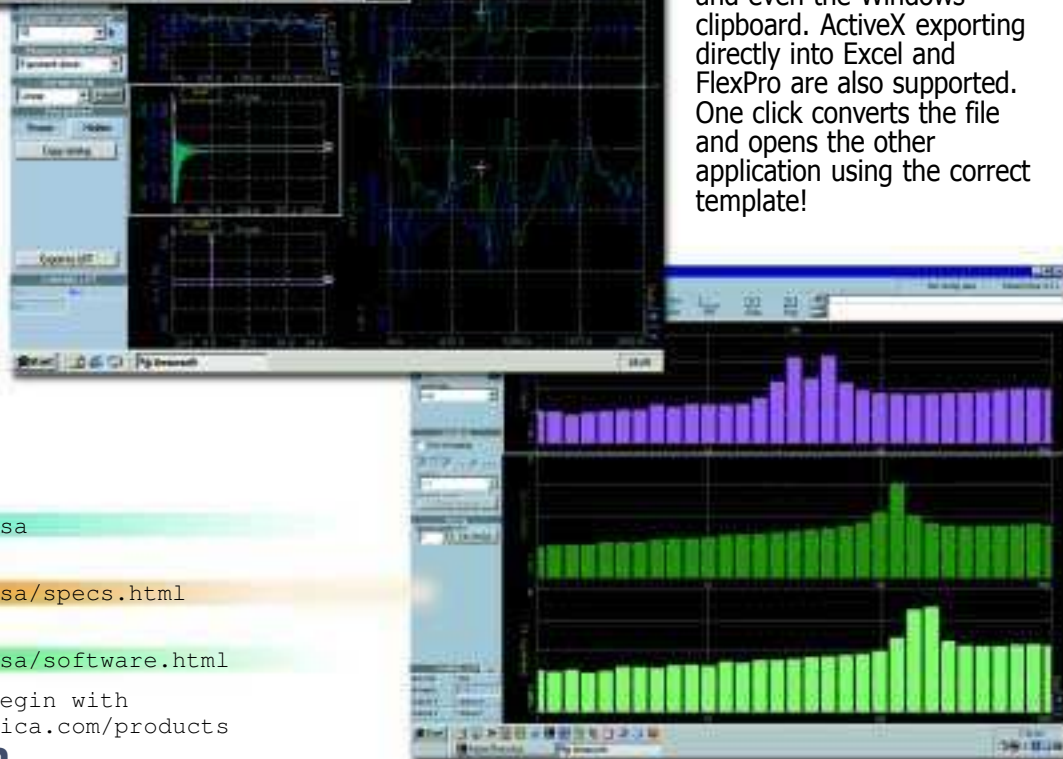
Windows and Excel are registered trademarks of Microsoft Corporation
I-DEAS is a registered trademark of Structural Dynamics Research Corporation
MatLab is a registered trademark of The MathWorks

DEWESoft+Plus

Advanced Software Toolset

DEWESoft+Plus picks up where the basic package leaves off, adding to the FFT, scope, recorder, and X-Y capabilities. Our new FRF (Frequency Response Function) works for both shaker table and impulse hammer applications. The orbit view is a useful tool for plotting vibration as a function of the position of a gear or rotating part around its orbit of travel. Our third-octave display can also be set to 1/6, 1/12, or even 1/24 octave modes.

Once captured, data can be exported to a wide variety of formats, including UFF58, Matlab™, I-DEAS™, I-DEAS-ATI, Excel™, delimited ASCII, and even the Windows™ clipboard. ActiveX exporting directly into Excel and FlexPro are also supported. One click converts the file and opens the other application using the correct template!



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TRANS Series

High-Speed Acquisition Systems

We've combined the best features of the popular oscilloscope with a modern transient capture recorder, and created a whole new kind of instrument – the PC-based DEWE-TRANS series from Dewetron. Capture transient events with resolution up to 16-bits, and short or long record lengths according to the application. You can even stream to disk when necessary. With on-screen controls that are as intuitive and straight-forward as we have ever seen. Please take a look at the entire product range, and use the weblinks to get more details about whatever interests you.

Fast Set-up & Acquisition

Ready to Rock When You Are

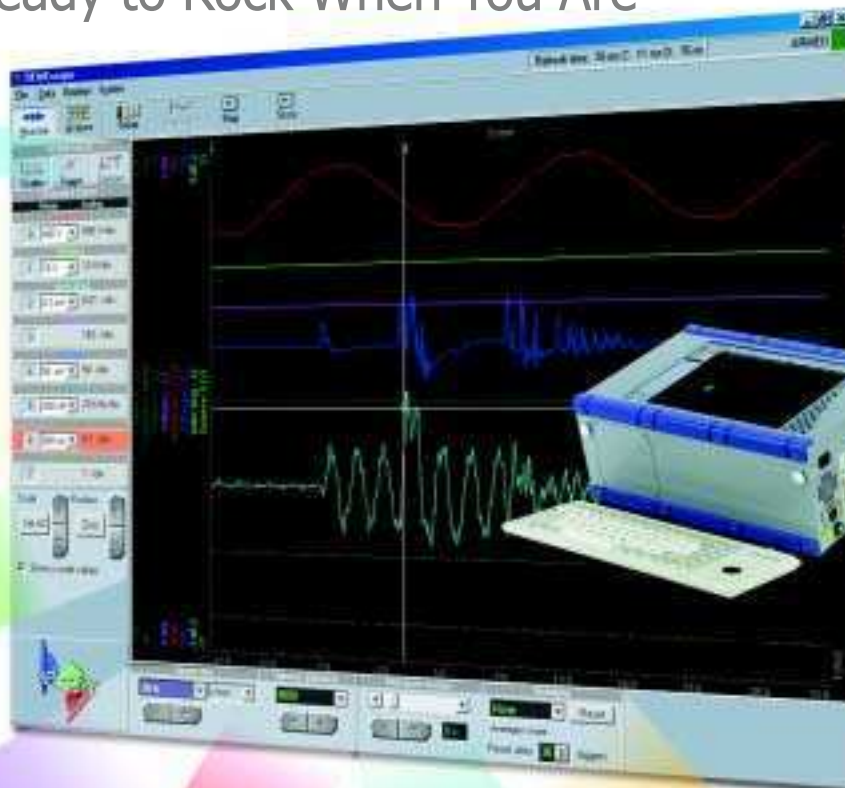
Select from among scaling, triggers, and cursor set-up



Set the input range independently for each channel



Quickly scale and position each channel on the screen. Or simply "grab" any channel's centerline and drag it into position!



DEWE-3010

- A/D Card Slots
- DAQ Module Slots
- BNC Inputs (max)



Set the sample rate with a click or two



Set the memory length in samples



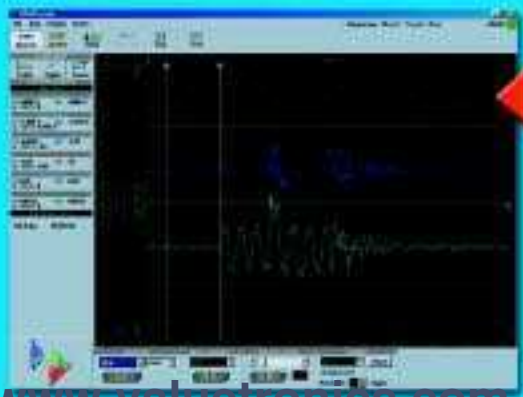
Zoom in/out, set the overall position



Use the averaging mode for higher resolution

Software
DEWESoft-SCOPE
Ties it All Together

ON-LINE MEASUREMENTS



Easy on-screen cursor measurement, and print out at any time, in full-color, to any Windows compatible printer. Also, capture to the Windows clipboard for pasting into many applications.

PLAYBACK and ZOOM

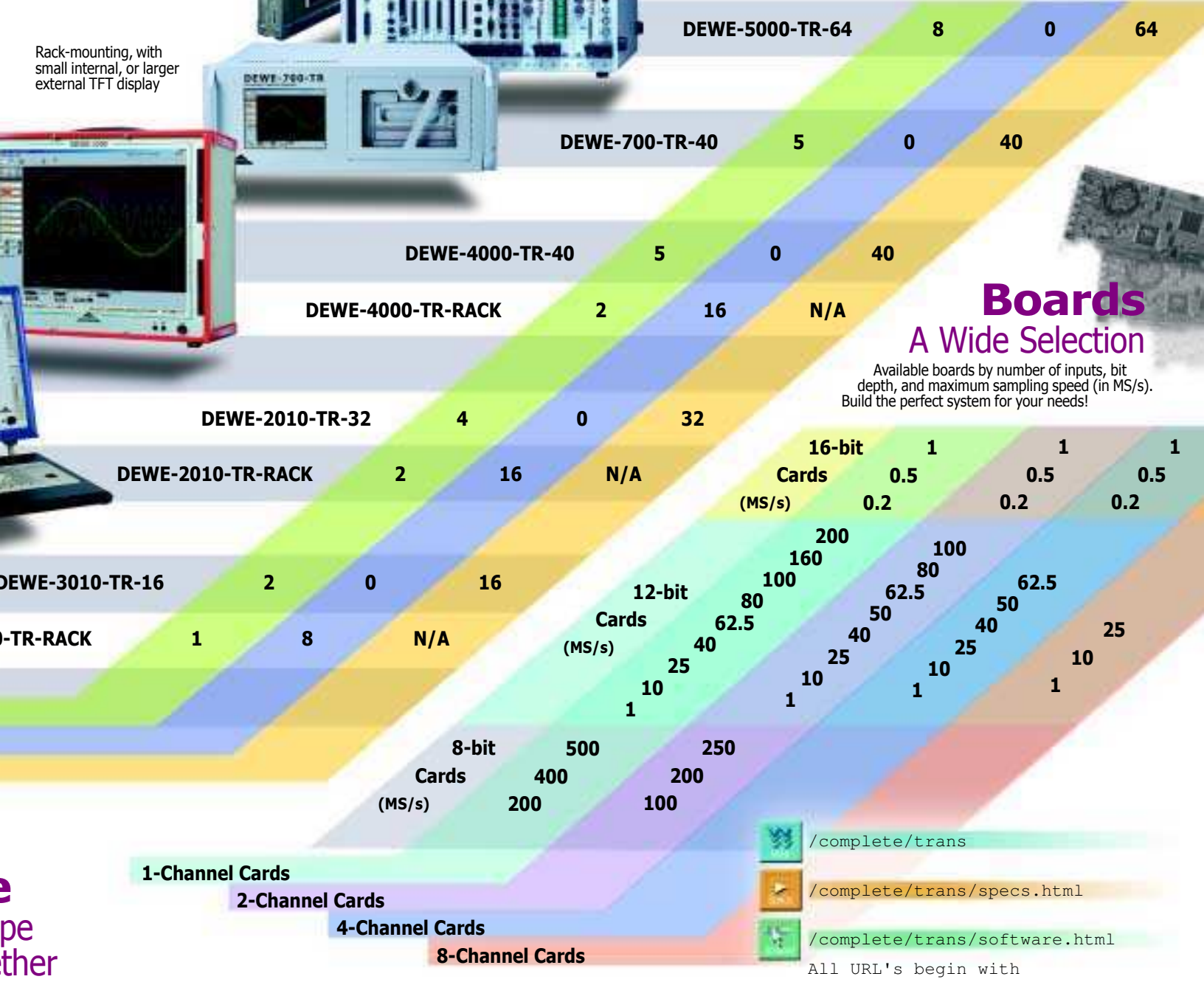
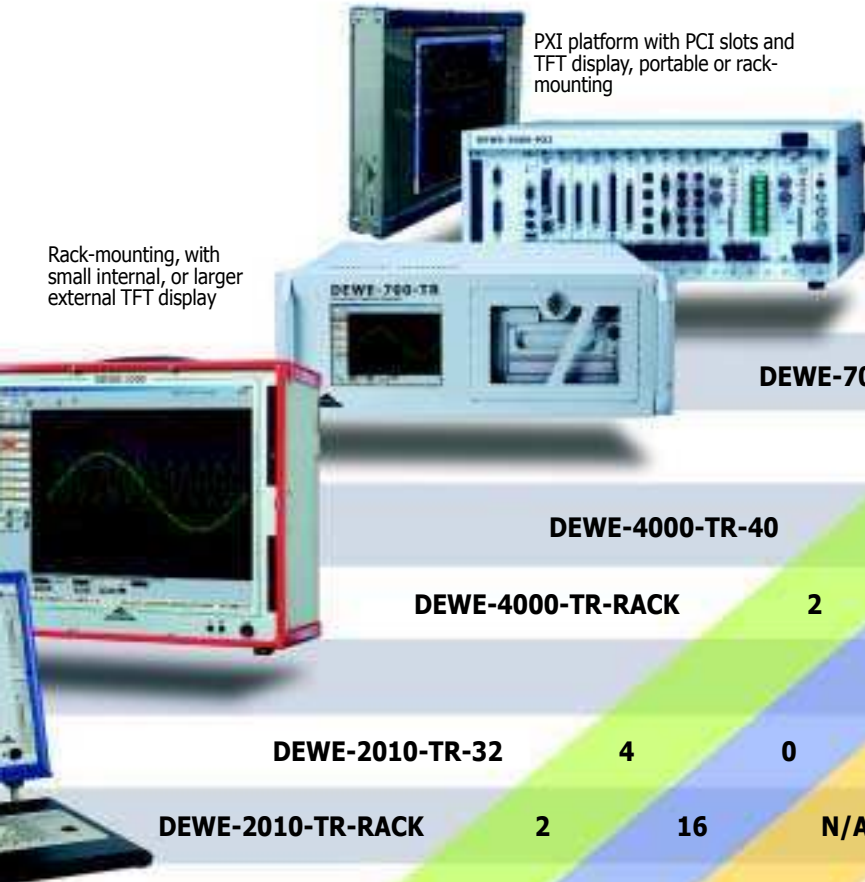


Read-back Megabytes of stored data within milliseconds—zoom in/out and scroll to the areas of interest. Export the data in a variety of formats.

5 Platforms To Build Your System On

PXI platform with PCI slots and TFT display, portable or rack-mounting

Rack-mounting, with small internal, or larger external TFT display



Boards A Wide Selection

Available boards by number of inputs, bit depth, and maximum sampling speed (in MS/s). Build the perfect system for your needs!

1-Channel Cards

2-Channel Cards

4-Channel Cards

8-Channel Cards



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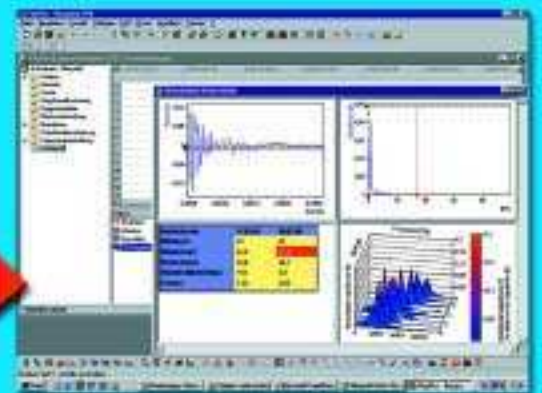
MULTI-FILE REVIEW



Browse through data stored in multi-file format as easily as clicking the small icon for each acquisition! The same ease of use applies here, too

Load billions of data points into FlexPro, our optional analysis software toolset with a user interface as familiar and intuitive as Microsoft's popular Excel.

EXPORT and ANALYZE



DEWE-ViDEO

Synchronized Video + Data Acquisition

It's the next step up in data acquisition – adding a layer of video to the data. It's how we humans best and most easily perceive data anyway, isn't it? But what has made it impractical before now is that there was no easy way to synchronize your data with the video (or vice-versa). Dewetron has solved that problem completely by using the clock from the A/D card to directly drive the video camera. Run your data acquisition at full speed – there are no limitations imposed by the video, which will be synched to every nth sample. DEWE-ViDEO supports a growing list of cameras, monochrome and color.



Data + Video Acquisition Measure and See Your Test Data!

It starts with a familiar and easy to operate DEWE-2010 or DEWE-4000 platform, with the same convenient plug-in DAQ and PAD modules for signal conditioning, a PCI A/D converter, and DEWESoft software to tie the entire system together and turn it into a turnkey instrument. Now imagine that you can plug in a Firewire video camera, and capture video data – continuously or based on triggering – right along with your data. Think of the kinds of tests that you do today, and which of them would be enhanced with video.

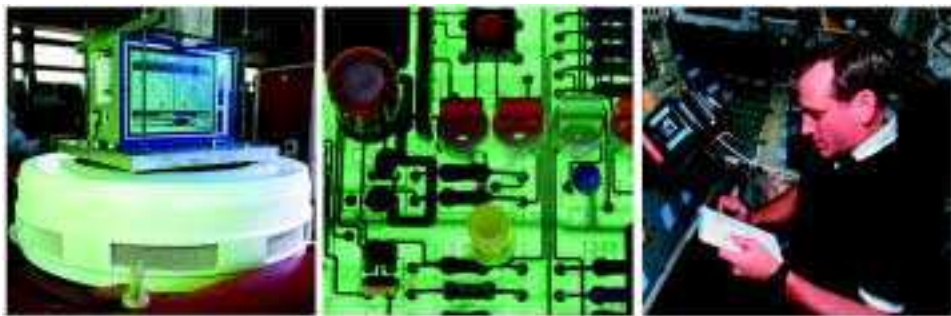
Whether you are testing cars, turbines, aircraft engines, circuit breakers, or monitoring patients in a recovery room, there is a limitless assortment of applications where video adds tremendous insight into your data. And unlike other systems, where video and data are recorded separately, DEWE-ViDEO systems drive the Firewire (IEEE-1394) video camera from the same fast clock that controls the analog sample rate of the A/D card. The result is *frame-accurate* synchronization between the video data and sensor data!



Camera Choices Firewire or USB

Using our IEEE-1394 cameras, DEWE-ViDEO systems achieve their best performance. There are two models: one for black and white, and another for color video applications. With these Firewire cameras, your system will have frame-accurate video/data synchronization, and be able to record continuously or in triggered "burst mode" at rates up to 60 fps for the DV-C60 series, 500 fps for the DV-C500 series...and even higher in the near future.

For less-demanding work, we can provide the DV-Cwc USB camera. This "webcam" cannot provide the resolution, accuracy, speed, or come anywhere near the data/video synchronization of our IEEE-1394 cameras, but it is an inexpensive alternative for "quick look" video acquisition applications.



- High Resolution TFT Display
- Record Direct to Hard Disk
- Synchronized Video & Data
- Continuous or Triggered Recording
- Several Firewire Cameras
- Also works with USB webcam

Important Options:

- CD-WRITER / DVD / Both
- Touchscreen
- Cameras




Far Left: DEWE-2010-VIDEO front view, with standard 15" flat display

Above: DEWE-4000-VIDEO with its giant 18" display

Left: Rear side shows both models feature 16 slots for plug-in signal conditioners

Easy Hookup With Plug-in Modules

Dewetron plug-in signal conditioners adapt your system to just about every signal and every sensor. We don't make compromises with your data - DAQP modules typically provide 1000 Vrms of isolation (channel-to-channel and channel-to-ground), and handle all kinds of dynamic signals. PAD modules provide up to 8 channels each, with inter-channel isolation, and are ideal for adding lots of static (slow) channels to any Dewetron system. DAQ and PAD series modules are interchangeable, and hot-swappable while the system is turned on. See pages 22-23 for more details.

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Camera	Interface	Type	Max Speed	Synchronization
DV-C60m	IEEE-1394	Mono	60 fps	1 frame
DV-C60c	IEEE-1394	Color	60 fps	1 frame
DV-C500m	IEEE-1394	Mono	500 fps	1 frame
DV-C500c	IEEE-1394	Color	500 fps	1 frame
DV-Cwc	USB	Color	~30 fps	N/A

DEWE-VIDEO Applications:

- Shaker table work
- Circuit board test
- Control loop applications
- Auto test tracks & dynos
- Auto chassis, brake, ride tests
- Engine test cells
- Amusement park ride tests
- Patient monitoring

www.valuetronics.com

Model	Module Slots	Screen Size	Resolution
DEWE-2010-VIDEO	16	15"	1024x768
DEWE-4000-VIDEO	16	18"	1280x1024



Choose the platform that best suits your requirements!

DEWE-2010-VIDEO offers a 15" TFT
DEWE-4000-VIDEO offers an 18" TFT

Both have 16 rear-panel slots for plug-in signal conditioners

Special Purpose

Dewetron Systems and Solutions

DEWE-2010-CA / -4000-CA Portable Combustion Analyzer

Dewetron CA Series combustion analyzers are the first affordable and portable system for the tuning of modern engines' electronic control unit (ECU). Proper ECU tuning is critical for the prevention of knocking, and for fuel efficient engine operation.

CA software displays engine data graphically, with extremely smooth screen updates, in several useful ways, including:

- A crank angle based pressure diagram
- A pressure/volume display
- Integrated pressure signal
- On-line knocking recognition diagram
- First derivative of the pressure signal (advanced knocking detection)
- Knocking intensity diagram for any/all cylinders

The CA Series have integrated charge amplifiers, allowing direct connection of popular sensors, particularly Kistler combustion sensors. The system also accepts crankshaft tach signals with tremendous precision, both from the standard crankshaft tach output (60-2), or a special high-resolution 0.1° crank angle sensor. If only the built-in crankshaft sensor



is available, the CA Series have a unique capability to interpolate greater resolution from the sensor in real-time. All inputs are referenced to the timing of the crankshaft, which is critical.

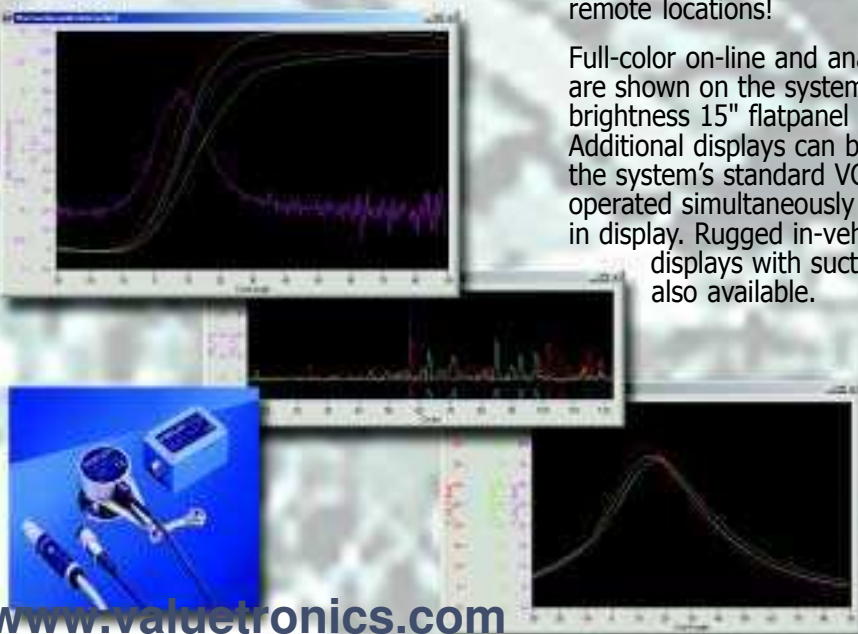
The system can be set up quickly and reliably for engines with varying numbers of cylinders. And it's portable enough to be carried easily by one person, allowing advanced combustion analysis to be done inexpensively at remote locations!

Full-color on-line and analysis displays are shown on the system's built-in high-brightness 15" flatpanel display. Additional displays can be attached to the system's standard VGA output and operated simultaneously with the built-in display. Rugged in-vehicle rated flat displays with suction mounts are also available.

Key CA Series functions:

- Flexible sampling rate per RPM
- 0.1° resolution with crank angle encoder. Also works with the car's own built-in sensor utilizing advanced crank angle interpolation algorithm
- On-line math and statistics
- Fast on-line displays - pressure diagram, P/V diagram, etc.
- Powerful knocking recognition capability
- Zero point correction to account for charge sensor drift
- Standard interfaces for test-beds - 10/100 Ethernet, serial RS232, analog outputs...

Finally, an advanced combustion analyzer with knocking detection has reached the price and size where it can be used in the field!



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[/complete/ca](http://www.dewamerica.com/products/complete/ca)

[/complete/ca/specs.html](http://www.dewamerica.com/products/complete/ca/specs.html)

[/complete/ca/software.html](http://www.dewamerica.com/products/complete/ca/software.html)

RCTS-3010

Dewetron Rail Car Test System



The RCTS-3010 was designed and developed in conjunction with today's leading rail car makers, for the express purpose of reducing the costs associated with new car inspection and R&D. It starts with a portable, MIL-STD 3010-IPC platform as the "brain," and incorporates a RACK-16 or RACK-32 chassis for signal conditioning. All your important car signals, plus several types of speedometer signals (even today's modern optical sensors) can be input into the high-isolation front-end. The system accepts all signals and sensors, and provides easy on-screen setup and calibration. Enter your key test parameters, and place the waveforms at any position on the screen – now you're ready to record data!

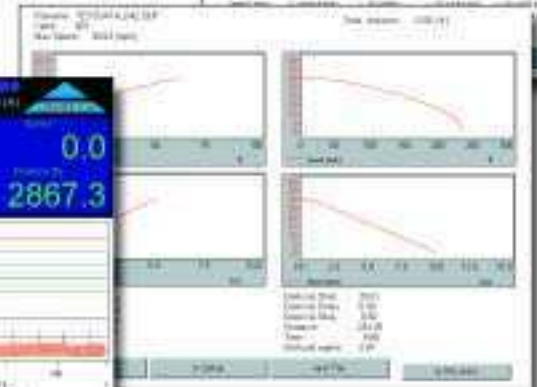
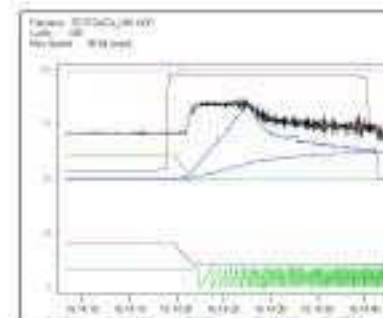
Test functions and calculations for car acceleration, deceleration, and general braking tests are built into the RCTS software. Define the accel/decel speeds, and arm the system. Now start rolling – the system starts recording automatically at the correct speed, and stops later when the speed drops to zero again. An instant later, charts are created and displayed showing accel and decel vs. time and distance. Connect a standard color printer and make hard copies, or print the entire run in a strip chart format. Burn data to CD right inside the RCTS system for a permanent record.

Why use a strip chart recorder when the RCTS does so much more? And it's even easier to use. The software can also plot performance curves vs. your specs, which can be entered into a table, so you can print out the results graphically and numerically for each mile-per-hour.

Options and Upgrades:

- DC Power with UPS
- Flat display attaches to glass
- Remote speed displays for either end of the train (up to 11 cars long)
- CD-WRITER / DVD / Both
- Color printers

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DEWE-Modules

Plug-in Signal Conditioners



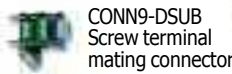
There's a plug-in DEWE-Module for just about every signal and every sensor. From microvolts to kilovolts, AC and DC strain gages, all kinds of accelerometers, LVDT's, string pots, thermocouples, inductive sensors...the list goes on and on. Single channel DAQ series modules are for dynamic (AC) signals, and have a conditioned analog output that goes to a corresponding input on the system's A/D board. PAD modules are for static (DC/ slow) signals, and provide up to 8 channels each. PAD modules output via RS-232, so they do not require inputs on your A/D board! Mix and match these modules freely within any Dewetron system, to create just the right combination for your requirements.

DAQ Modules

Single-channel, dynamic signals, analog output

DAQP-V	Medium Voltage & Current	$\pm 0.01, 0.1, 1, 5$ and ± 50 V
DAQP-DMM	High-Voltage	$\pm 10, 40, 100, 200, 400$ and ± 1000 V
DAQP- μ V	Micro-voltage	$\pm 0.5, 1, 2.5, 5, 10$ and ± 25 mV
DAQP-BRIDGE2	Strain Gage/DC Bridge	$\pm 0.1, 0.2, 0.5, 1, 2,$ and 5 mV/V
DAQP-CHARGE2	Charge and ICP® Accel	$\pm 5, 50, 500$ and 5000 mV/pC
DAQP-ACC	ICP®/Constant Current Accel	$\pm 50, 166.67, 500, 1666.67, 5000$ mV
DAQP-TRQ	LVDT & AC Carrier Bridge	1 mV/V to 640 mV/V
DAQP-FREQ	Frequency-to-Voltage	$0.1, 1, 5, 10, 100$ and 200 kHz
DAQN-POT	Potentiometric	100 to $10k\Omega$
DAQN-OHM	Ohmic Sensors	100 to $10k\Omega$
DAQN-THERM	Thermocouple (isolated)	J, K, T available
DAQN-AIN	1:1 Input (no isolation)	± 100 mV to ± 10 V max.
DAQ-V-OUT	1:1 Output (with isolation)	± 10 V max. output *

DAQ Module Options



CONN9-DSUB
Screw terminal
mating connector



DAQ-SHUNT for
DAQP-V



CONN9-BNC 9-pin
to BNC adapter

PAD Modules

Multi-channel, static/slow signals, RS232 digital output

PAD-TH8-P	8-ch Thermocouple	24-bit ADC's, J, K, T (please specify)
PAD-V8-P	8-ch Voltage / mA Signals	$\pm 0.1, 0.15, 0.5, 1, 2.5, 5, 10$ & 50 V
PAD-CNT2	2-ch Counter / F/V	Two independent 32-bit counters
PAD-DI8	8-ch Digital Input	0 to 1 V or 3.5 to 30 VDC inputs
PAD-DO7	7-ch Relay Output	Dry contact relay outputs

PAD Module Options



PAD-CB8-BNC
break-out box
(for PAD-V8-P)



PAD-CB8-B
break-out box
(for PAD-V8-P)



PAD-CB8-J / K / T
break-out box
(for PAD-TH8-P)

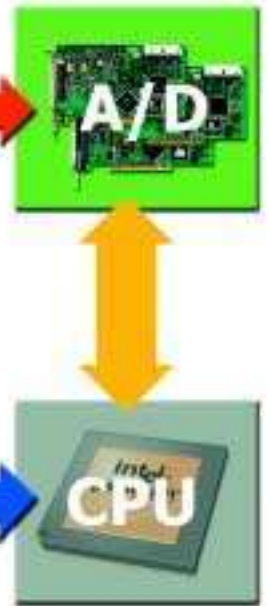


CONN-DSUB-25
Screw terminal
mating connector

DIGITAL MODULE CONTROL


ANALOG CHANNELS


DIGITAL MODULE DATA






More Options In Signal Conditioning

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 /software/index.html

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DEWE-RACK Series Signal Conditioning Front-ends



Need a versatile signal conditioning front-end, compatible with all National Instruments A/D boards (plus a few other brands), with all the power and convenience of Dewetron's plug-in signal conditioners? Then we've got a DEWE-RACK for you. Available in several models from 4 to 64 slots each! Single cable connection to any A/D card, plus optional BNC analog outputs for connecting to just about anything.



Shown above: DEWE-RACK-16



Left: Low-noise cable connects your DEWE-RACK to your A/D card (any type PCI, PC-Card (PCM-CIA), ISA, PXI, etc.). Standard cables available for all National Instruments cards, and several other brands. BNC outputs also available.

Available Models:
DEWE-RACK-4, DEWE-RACK-8, DEWE-RACK-16, DEWE-RACK-32,
DEWE-RACK-48, DEWE-RACK-64

Options:
RACK-SERIAL (RS232), RACK-OUT-5 ($\pm 5V$ BNC outputs from DAQ modules), RACK-OUT-10 ($\pm 10V$ BNC outputs from DAQ modules), RACK-MK (rack-mounting kit for certain models), RACK-CABLE (low-noise connection to your A/D board), and more!

DEWE-BOOK Series Signal Conditioning + USB A/D!

The DEWE-BOOK is basically a DEWE-RACK except with a built-in A/D converter! Plug in any combination of DAQ and PAD series modules to create the perfect front-end for your sensors. Then connect your computer via USB and start recording.

USB
UNIVERSAL SERIAL BUS



Available Models:
DEWE-BOOK-8, DEWE-BOOK-16, DEWE-BOOK-NI
Options:
BOOK-SERIAL (RS232), BOOK-OUT-5 ($\pm 5V$ BNC outputs from DAQ modules), BOOK-OUT-10 ($\pm 10V$ BNC outputs from DAQ modules), and more!

More Quality Dewetron Solutions In Power Quality & Portable Computing



Power Quality

Analyze Your Power With Our Power

From the ultra-small, splashproof (IP65/NEMA4) PNA-600 (above), the PNA-550 (right), and even larger portable and rack-mounting models, Dewetron has a power quality analyzer for you. Simultaneous power quality, transient, flicker, THD, scope, and other measurements. Record for hours, days, weeks, or months at a time. With networked wired/wireless acquisition from multiple systems at once.

Learn more at www.dewamerica.com/power



Portable Industrial Computers

For Countless Applications

Dewetron's portable, MIL-STD platforms are also available simply as computers. The DEWE-600-IPC is our latest model (based on the PNA-600 shown above). Perennial favorites DEWE-3010-IPC (right), and DEWE-2010-IPC have also been joined by the DEWE-4000-IPC. And there's a PXI platform on the way! Aerospace users like the DEWE-2010-IPC platform, because it offers a good combination of portability, 15" screen size, 4 or more PCI slots, and options like removable hard drive, CD-RW/DVD, dual processors, and more. Please contact us with your requirements, whether you are an end-user or an OEM, we can help you.

Learn more at www.dewamerica.com/ipc



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