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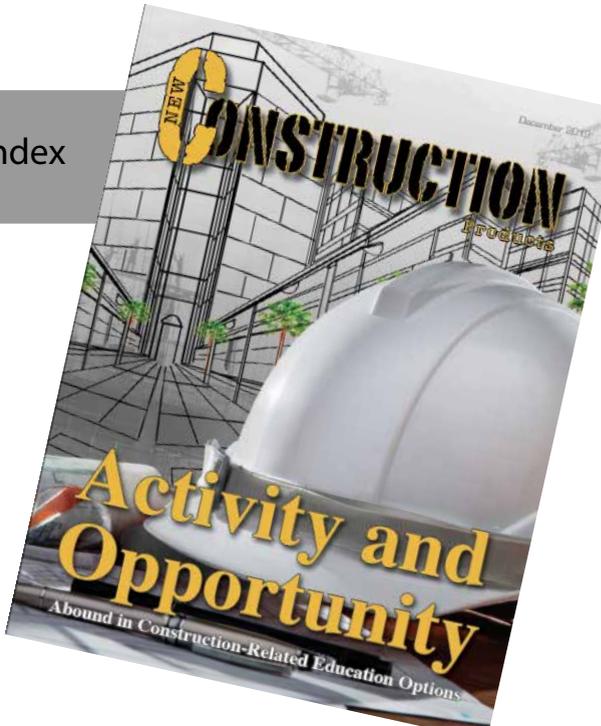
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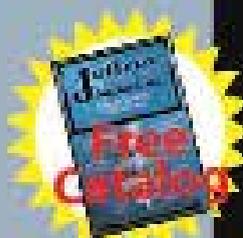
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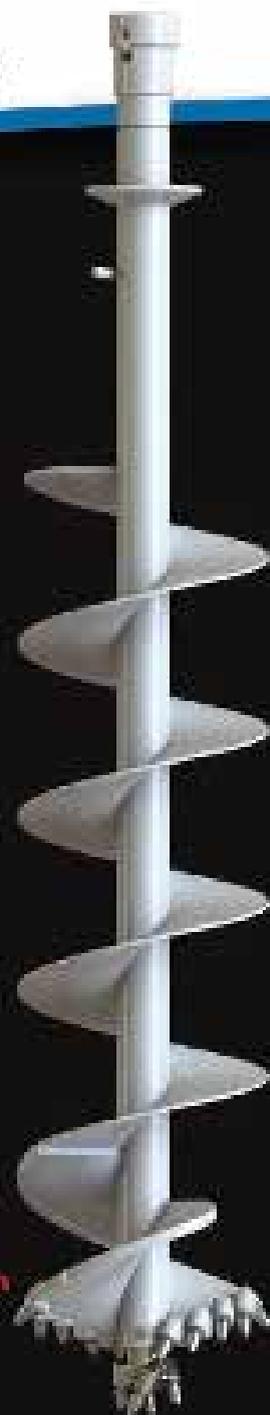
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Hioki Releases iPad App for Memory HiCorders

Wireless Application Streamlines and Enhances Analysis of Waveform Data

Test and measurement equipment leader Hioki E.E. Corporation announces the development and release of the HMR Terminal to the App Store, a free iPad-only app that empowers users of the company's Memory HiCorders to analyze waveform data on their tablets. Hioki is the first company in the industry to release a software tool capable of analyzing waveforms on a tablet PC. The app supports the MR8740 (54-channel model), MR8741 (16-channel model), and MR8847 series (with models capable of measuring up to 16 channels).

Development Background of HMR Terminal

Because Memory HiCorders are used to record multiple channels of high-resolution data over extended periods of time, they have always posed challenges in terms of how to best facilitate easy viewing of large volumes of recorded data. The volume of data generated by these devices continues to increase, with recent models capable of capturing 54 channels. At the same time, the method used to view waveforms, which typically involves moving to the location the user wishes to view on the instrument's display, is essentially unchanged. Consequently, ever-larger amounts of time and effort must be expended in order to find and analyze areas of interest in recorded waveforms.

HIOKI developed HMR Terminal based on the concept of dramatically improving the efficiency of waveform analysis by taking advantage of the manner in which tablets such as the iPad, whose popularity has exploded in recent years, are used to radically reassess how users view waveform data.

Drag-based waveform scrolling and pinch-based zooming in and out allow users to view enormous waveform spaces in an intuitive, stress-free manner just as if they were interacting with a map. Once memorized, a diverse selection of gestures such as swiping in from the right side of the screen to display the cursor and flicking between screens offer such profound advantages in terms of ease of use and convenience that users typically find themselves unable to return to their previous practice of using the Memory HiCorder or a computer to analyze data.

Principal HMR Terminal Features

1. Intuitive Waveform Manipulation Like a Map App

Just enlarging one portion of a waveform for viewing on a Memory HiCorder used to require an extremely large amount of time and effort. By empowering users to scroll freely and

zoom in and out by manipulating waveforms on the iPad's touch screen, HMR Terminal eliminates the stress of operations such as enlarging a waveform to view part of it at a high level of detail and zooming out to view the waveform in its entirety.

2. Simple Display of Measured Values by Freely Placing Measured Value Cursors

Users can easily display as many measured value cursors as they wish by swiping in from the right side of the touch screen. Cursors can be dragged around and placed freely and intuitively anywhere on the screen the user desires.

3. Simple Display of Waveform Data Calculation Values in List Form

Users can easily switch to a screen displaying a list of calculated values for the displayed waveform including maximum, minimum, and average values simply by flicking the screen. The ability to instantly switch to the screen of calculation values while viewing dozens of channels of waveform data streamlines analysis.

4. Quick, Batch Adjustment of Channel Positions

Tasks such as grouping channels and aligning their zero-positions or tweaking the display so that channels do not overlap used to involve manipulating one channel at a time, making them extremely time-consuming. HMR Terminal lets users group channels intuitively simply by connecting their zero-positions with their fingers and then change the position or zoom factor of each, all at once. Users can also quickly and easily space channels evenly and position them as desired in the waveform space.



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- Dual Lanyard Pockets for proper storage of unused twin leg energy absorber connector

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Future of Green Building in



The Top 10 Megatrends

Green building consultant, speaker & author, Jerry Yudelson shares his annual list of major green building trends that will affect the industry in 2014 and beyond.

What are the major trends likely to affect the green building industry and markets in the US in 2014? As one of the world's leading green building consultants, keynote speakers and authors, Jerry Yudelson thinks he knows the answers. In fact, his Top 10 list of green building megatrends has become an annual event.

At the top of Yudelson's 2014 list is the prediction that Green building in North America will continue its strong growth in 2014, with the ongoing expansion of commercial real estate construction together with government, university, nonprofit and school construction. "Green building is the tsunami of the future that will inundate the entire real estate industry," says Yudelson.

The second megatrend on Yudelson's list is the growing focus on energy efficiency in all kinds of buildings, including the increasing role of building automation for energy efficiency using cloud-based systems. Yudelson said, "The convergence of corporate and commercial real estate, information technology that is based in the Cloud, and energy efficiency leads my list of new green building megatrends for 2014."

The third megatrend is the design and operation of zero-net-energy buildings. Yudelson says, "We know that green building has hit the mainstream. To distinguish themselves, many building owners and developers are taking the logical next step: getting to zero net energy on an annual basis; Why? The most

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widespread reason is that more people than ever believe it's the right thing to do.

Rounding out Yudelson's top ten trends for green building in 2014 are the following:

- LEED will attract competitors as never before. Yudelson says, "It's likely that LEED's cost and complexity will open up the market to other competitors such as the Green Globes rating system offered by the Green Building Initiative." One reason: Recent Obama administration actions have now put this system on a par with LEED for federal projects.
- The focus of the green building industry will continue its switch from new building design and construction to greening existing buildings. This trend has been in place since 2010. Yudelson's green building book, *Greening Existing Buildings*, documents the strategic and tactical components of this trend. Yudelson predicts that more than 500 existing Federal buildings will seek green building ratings in 2014.



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- Green Buildings will increasingly be designed and managed by innovative information technologies that are based in the “Cloud.” In fact, Yudelson calls 2014, “The Year of the Cloud,” for how quickly this trend will become fully established.
- Green Building Performance Disclosure will continue as a major trend, highlighted by disclosure requirements enacted in 2013 by more than 30 major cities around the country, laws that require commercial building owners to disclose actual green building performance. Yudelson says he expects this trend to spread rapidly as the easiest way to monitor reductions in carbon emissions from commercial and governmental buildings.
- Healthy Building Products, Product Disclosure Declarations, along with various “Red Lists” of chemicals of concern, will become increasingly contentious, as manifested through such tools as Health Product Declarations. Yudelson predicts, “Building product manufacturers increasingly try to gain or maintain market share based on open disclosure of chemicals of concerns.” We also foresee that industry-developed disclosure systems will compete with systems offered by dozens of third-party rating agencies.
- Solar power use in buildings will continue to grow. Yudelson expects that third-party financing offerings will continue to grow and provide capital for larger rooftop systems on low-rise commercial buildings, parking garages, warehouses and retail stores, as well as

on homes.

- Yudelson says, “Awareness of the coming crisis in fresh water supply, both globally and in the U.S., will increase, as global climate change affects rainfall and water supply systems worldwide.” Yudelson’s 2010 recent water conservation book, *Dry Run: Preventing the Next Urban Water Crisis*, shows how this is being done in green buildings all over the developed world.

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The image shows a screenshot of a web browser displaying the website for New Construction Products. The browser's address bar shows the URL <http://newconstructionproducts.com/>. The website features a yellow header with the company logo, contact information for HIOKI and Minimizer, and a navigation menu. Below the header, there are six product category tiles: 'THE MAGAZINE', 'KNOWLEDGE CENTER', 'MARKETPLACE', 'SAFETY SEAL', 'CARNIE CAP', and 'SOLUTION SYSTEM'. At the bottom of the page, a large black banner contains the text 'Visit us online at www.newconstructionproducts.com'.

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Masonry Education Foundation & National Concrete Masonry Association Partner in Landmark Residential Energy Study

Beginning in late-2012, the Florida's Masonry Education Foundation, in joint cooperation with the National Concrete Masonry Association contracted with Pacific Northwest National Laboratory to study the effects of various wall systems on the yearly energy used by one and two story residential homes in all climate zones throughout the United States.

The object of the study was to obtain a direct comparison of the actual energy and dollars expended using different types of walls in a typical residential home while keeping all other aspects of the house exactly the same. The basic output from the research is the total "whole house" yearly energy use.

In all, 607 different wall systems were modeled for both one and two story prototypes in 18 different Florida and national climate zones. A total of 21,852 separate analyses were made.

The results of this important research confirms the superior performance of thermal mass in masonry construction and pointedly shows the diminishing returns of over-insulation. A full technical report from PNNL will be available in January 2014.

AFC First's Green Energy Training Academy Home Performance 101 Online Course Recognized for Building Performance Institute (BPI) Continuing Education Credits

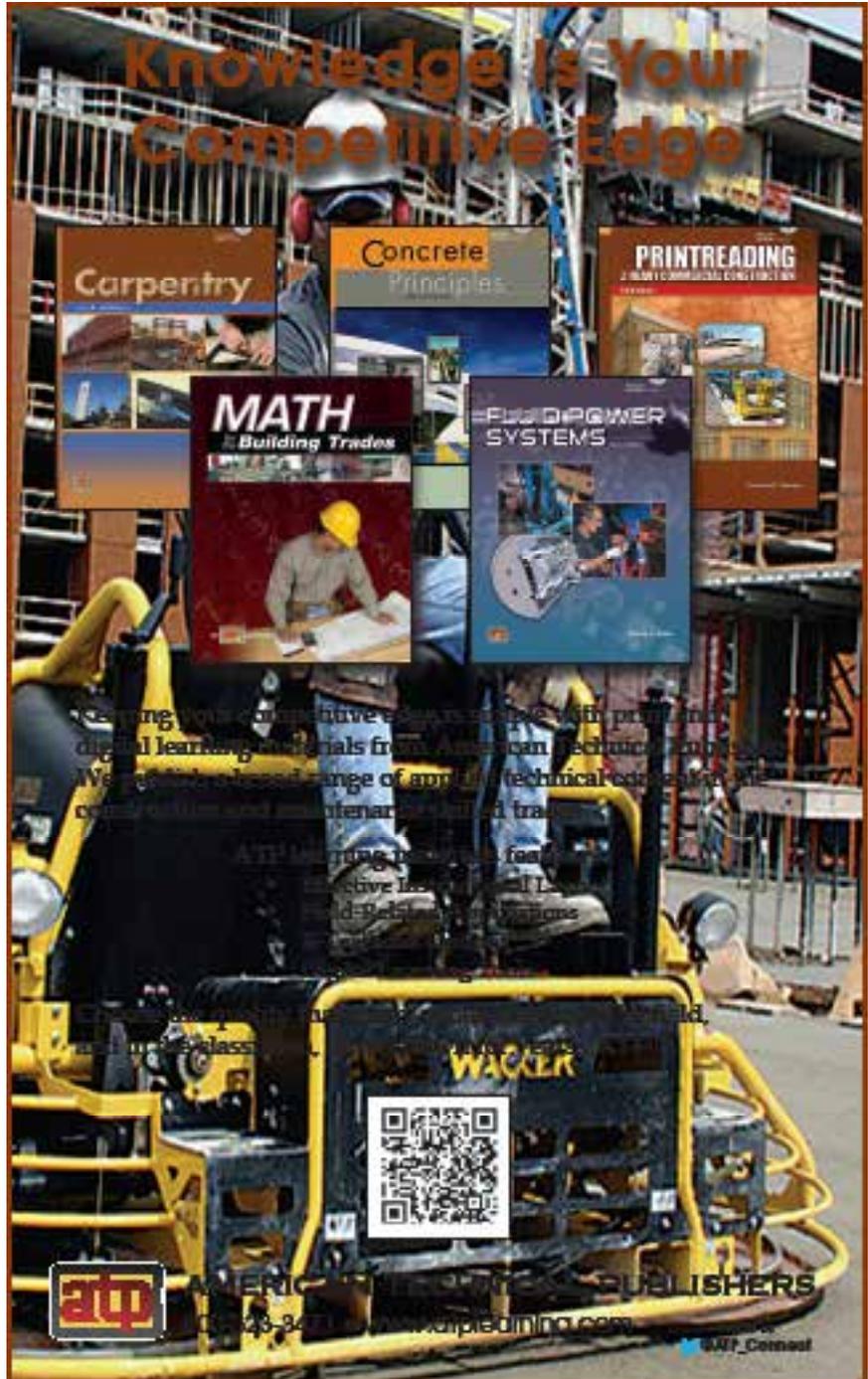
Home Performance 101, an innovative online contractor training course provided by The Green Energy Training Academy, powered by AFC First, has been recognized for Continuing Education Credits by the Building Performance Institute (BPI). Home Performance 101 was initially developed as part of the award-winning Keystone HELP® contractor training and certification process under the auspices of the Pennsylvania Treasury and Department of Environmental Protection.

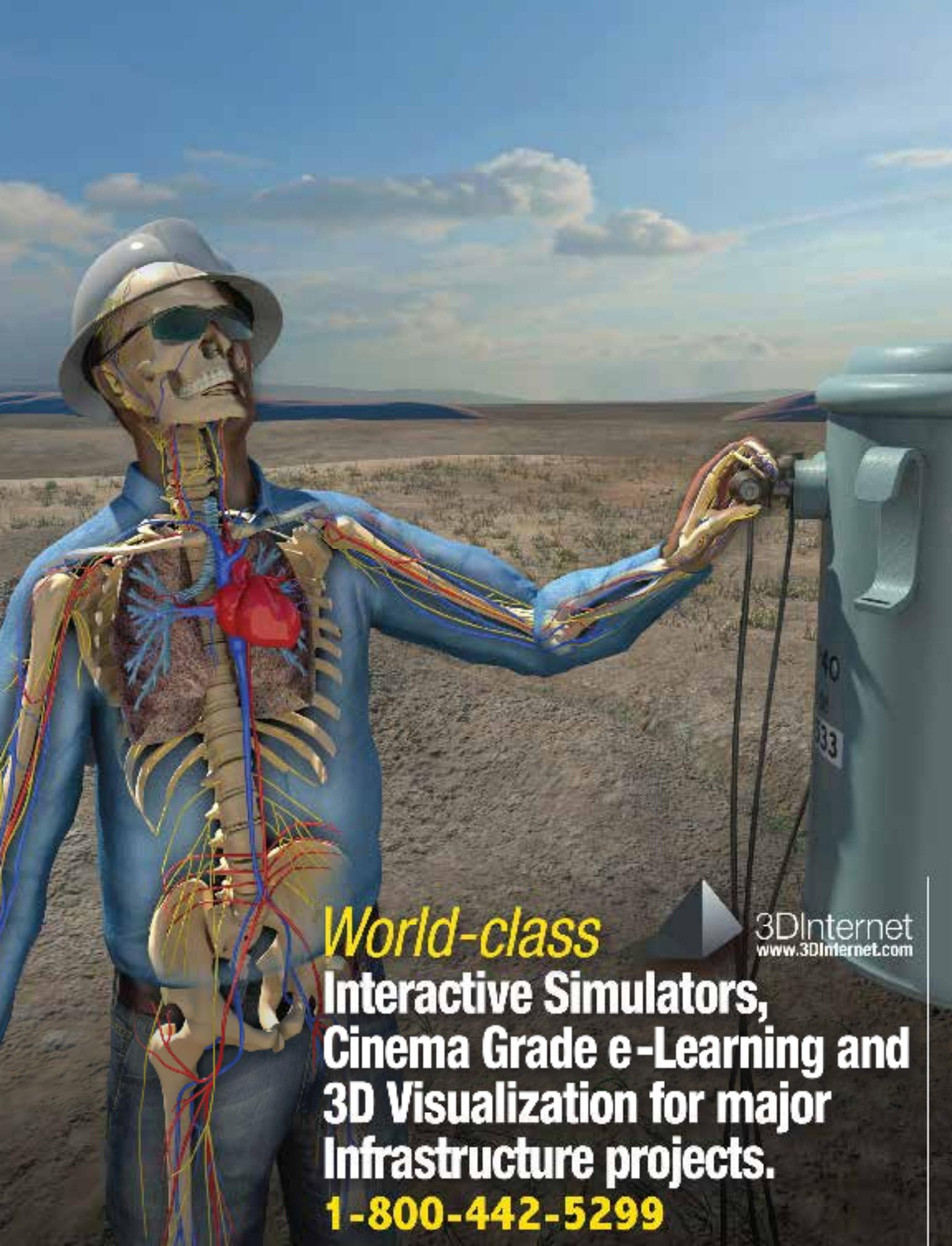
Already one of AFC First's most popular classroom courses, the convenient online version of Home Performance 101 is designed as an introductory overview which educates contractors and other energy efficiency professionals about energy use in the home, the "house as a system" approach to energy conservation and energy efficiency, market forces affecting homeowners, basic building science, state and federal incentives and how to integrate the "house as a system" approach into their business model.

BPI is the nationally recognized credentialing body for accreditation of contracting companies and individuals involved in home performance energy efficiency contracting. Strict technical standards mean that BPI certified

professionals are in demand – from homeowners, state and utility energy efficiency incentive programs and weatherization assistance programs. Over 130 such programs nationwide specify BPI credentials as a program requirement. BPI-Certified contractors can enroll in Home Performance 101 and earn valuable continuing education credits (CEUs) toward their next certification renewal, which is required every three years.

The course, with an affordable tuition of \$99, is also an excellent introductory resource for contractors and individuals not currently BPI-Certified. Contractors engaged in heating and cooling, insulation, renewable energy and other related improvements are seeing greater consumer demand for increased comfort and energy efficiency that is best presented using a more comprehensive "whole house" approach (Home Performance with ENERGY





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STAR®), rather than a focus on just equipment or single measures. The course is ideal for contractors, business owners, sales people, technicians, auditors, realtors, homeowners and people interested in getting involved in this growing “green” business.

SMACNA Members To See More Lean Construction Educational Programs

The Sheet Metal and Air Conditioning Contractors’ National Association (SMACNA) announced that it recently signed a mutual agreement—a memorandum of understanding—with the Lean Construction Institute (LCI) of Arlington, Va.

As a result of the agreement, SMACNA members will benefit from the latest research and educational programs on lean construction thanks in part to the sharing of resources by LCI. As part of the agreement, members will have access to the extensive research, analysis, and

educational materials compiled by LCI through SMACNA’s various business education programs. Contractors who adopt lean construction practices into their businesses benefit greatly from the elimination of waste and improvement of schedules and processes.

Lean theory, principles, and techniques, taken together, provide the foundation for a new form of project management. From roots in production management, lean construction produces significant improvements, particularly on complex, uncertain, and quick projects.

Lean production management has caused a revolution in manufacturing design, supply, and assembly. Applied to project design and delivery, lean changes the way work is done throughout the delivery process. Lean construction extends from the objectives

of a lean production system—to maximize value and minimize waste—to specific techniques, and applies them in a new project delivery process.

Coalition of Construction Industry Companies, Not-for-Profit Agencies, and ComEd Announce the Construction Jobs Educational Pilot Program

Companies and agencies working together to provide equal employment opportunities for construction jobs in Illinois

Ten construction industry employers, three Chicago-area not-for-profit organizations, and ComEd joined forces today to announce a new Construction Jobs Educational Pilot Program to provide candidates interested in construction fields with the training, information and guidance needed to compete for good-paying, entry-level jobs in construction-related fields.

The pilot is designed to address the construction industry’s overall need to increase the pool of qualified minority candidates for construction jobs in Illinois. The pilot aims to provide 30 participants with career guidance, life skills training, and practical education about the construction industry, as well as the requirements for entering this industry. Each of the participating companies will also provide multi-day job shadowing experiences.

While completion of the pilot does not guarantee a job, individuals who complete the program successfully are expected to be more qualified, knowledgeable, and ready to compete for construction jobs in Illinois.



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CertainTeed Teams Up with Penn State University to Drive Training in Contemporary Solar Roofing Technologies



CertainTeed Corporation has partnered with Penn State University in the construction of a solar power training facility. The project is the second phase of the groundbreaking, new smart energy campus GridSTAR Center at The Navy Yard in Philadelphia. Functionally designed with input from CertainTeed, the building will showcase the manufacturer's line of innovative solar roofing products and provide an outlet for training students and building professionals in contemporary solar roofing system installation.

“This facility will provide real-life solar installation training on a variety of solar products including our Apollo II and Solstice

systems,” says Mark Stancroff, director of CertainTeed Solar. “And, since it’s located right in our back yard, it offers us an opportunity to display our photovoltaic roofing products to potential customers while helping increase the awareness and acceptance of solar energy in the residential building field. We are delighted to be a part of this project.”

The steep-slope portion of the facility’s roof will feature a 2-kilowatt Apollo II™ solar roofing system integrated among Landmark Solaris™ Gold premium designer shingles in Max Def Weathered Wood and a 2-kilowatt Solstice® rack-mounted solar roofing system. The GridSTAR Center also features a



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net zero energy demonstration home with Landmark Solaris shingles and a host of other exterior and interior CertainTeed building products.

Solar Grid Storage, a developer of solar energy storage technology for backup power also partnering with Penn State on the project applauds the forward-thinking contributions of materials and technical expertise from CertainTeed and other manufacturer partners.

“This project really is a great partnership between industry, new technology and academia,” says Don Bradley, senior vice president of business development at Solar Grid Storage. “It’s through these efforts that contemporary technologies deployed at the GridSTAR Center will eventually become mainstream.”

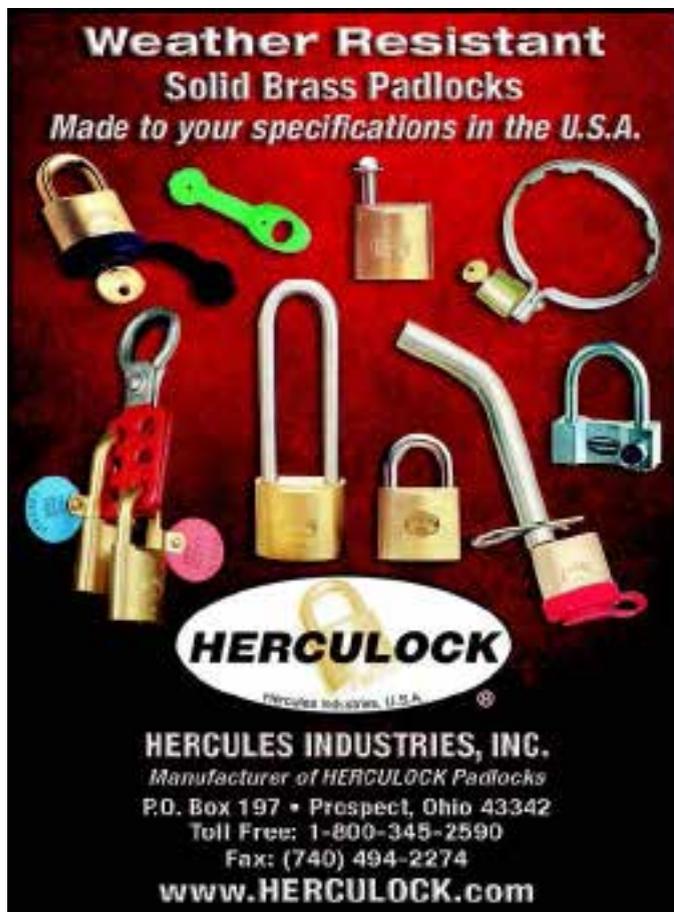
Expected to be completed by the end of this summer, the GridSTAR Center will serve as a valuable hub for workforce training, building performance testing, energy management research and “smart” microgrid modernization deployments. For more information, visit www.gridstarcenter.org.

The Apollo II system features high-performance 54-watt monocrystalline photovoltaic panels designed to integrate discreetly into standard shingled roofs, unlike rack-mounted

solar roofing systems. The panels are lightweight, durable, resistant to wind uplift, and can easily be integrated into either an existing roof or installed as part of a new roof. Apollo II’s low-profile design does not require structural reinforcement or evaluation, and the sleek black frame, cells and backsheet visually blend with surrounding shingles. The system also features an open space under the modules to allow for easier electrical wiring. Features such as water channels and raised fastener locations further improve roof deck integrity.

Solstice is a rack-mounted solar roofing system featuring highly efficient, monocrystalline photovoltaic panels. The system’s modules are attractive, durable, and can easily be installed onto either a low-slope or steep-slope roof. Solstice is also backed by CertainTeed’s electricity output and installation workmanship warranty – one of the most comprehensive in the industry. The system showcases an aesthetically pleasing style with black cells laminated to a black back sheet and a black mounting frame and is available in AC and DC versions.

All CertainTeed solar roofing systems are eligible for state rebates and incentives listed at www.dsireusa.org. Additional incentives may also be available through local utility providers. For more information, visit www.certainteedsolar.com.



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Trojan Battery Ships New 2-Volt Industrial Line Batteries

New Battery Design Enhances Transport and Installation

Trojan Battery Co., the world's leading manufacturer of deep-cycle batteries, is now shipping its new 2-volt Industrial batteries. The latest deep-cycle battery additions for renewable energy and backup power applications include two new sizes, and feature a unique design making transport and installation of the batteries easier for a variety of solar applications.

"As installations of off-grid solar applications for applications such as off-grid telecom networks, micro grids, island and rural electrification and backup power increase worldwide, so will the need for reliable, deep-cycle batteries for energy storage," said Bryan Godber, Trojan executive vice president of renewable energy. "To address this demand, Trojan continues to put its more than 85 years of battery expertise to work developing innovative battery technologies to effectively meet the growing need for reliable access to power around the world."

The new Industrial batteries include the IND27-2V model featuring a 1457Ah capacity at C20, and the IND33-2V version that offers a 1794 Ah capacity at C20. Trojan also includes a 4/0 cable and hardware with each of its Industrial batteries for series connections. These Industrial battery cables provide the link between the batteries, equipment and charging system.

To enhance safety, the new Industrial batteries also feature customizable terminal protectors which increase protection against shock or short circuiting and terminal corrosion. The protectors feature perforated cut-outs along the sides and top enabling them to be customized to fit the specific cable configuration required by customer.

The Industrial line supports large daily loads where the batteries are cycled regularly in a range of photovoltaic systems, including off-grid and unstable grid situations. Specifically designed for deep-cycle use, Trojan's Industrial line is optimized for deep discharge and recharge cycles characteristic of renewable energy

systems. It is engineered for high-energy requirements delivering 1,500 cycles at 80 Trojan Battery Ships New 2-volt Industrial Line Batteries percent depth-of-discharge, and features advanced battery technologies that provide optimum performance. The Industrial line features the following unique design elements.

Rugged Construction & Intelligent Design

The 2-volt cells of the new Industrial line additions are assembled in a rugged polypropylene housing designed to protect the internal plates from damage that may occur during transport and installation. The cells are enclosed in a larger polyethylene outer case that protects against damage caused by harsh environmental conditions such as moisture and dirt buildup, as well as safeguards against potential acid leaks. For added protection the thick-walled case features a lattice-design that reinforces the outer case's structural integrity. This dual container construction provides added protection against extreme temperatures.

Trojan Advanced Battery Technologies

Engineered for high-energy requirements, the Industrial line features the following advanced battery technologies that provide optimum performance.

Alpha Plus® Paste with T2 Technology™ & DuraGrid™ Design

Trojan's Alpha Plus Paste is a proprietary, high-density paste formulation precisely engineered to deliver outstanding battery performance. This high-density paste optimizes porosity development in the active material utilizing the active material more effectively resulting in sustained battery performance over a longer period of time. Trojan's T2 Technology features a patent-pending T2 metal agent which is incorporated into Trojan's Alpha Plus Paste further strengthening the electrochemical processing capabilities of the paste. Together the Alpha Plus Paste with T2 Technology increase both sustained

capacity and total overall ampere-hours resulting in more operating power.

Combined with the innovative DuraGrid design, which provides a thick grid structure that resists corrosion, the Alpha Plus Paste with T2 technology increases overall battery life. The Industrial line's low-profile grid configuration also optimizes current flow throughout the grid network and maximizes the amount of electrolyte that can be added resulting in longer intervals between watering.

Reinforced Protection Wrap

Trojan's Industrial batteries are engineered with a robust positive plate construction that enhances overall performance. Trojan's DuraGrid technology combined with Alpha Plus paste securely locks the active materials to the grid creating an exceptionally strong positive plate. The Industrial line includes a five component wrapping and insulating system comprised of a stranded vertical slyver, which are filaments of glass wrapped around the positive plate's active mass surface, a 20 mil backing bat and a secondary 20 mil horizontal compression mat. The entire mat is wrapped with edge-protecting Koroseal that is heat bonded as well as bonded to the plastic boot to protect the bottom of the plate and to keep the Koroseal in place. The advanced plate construction protects against shedding and assures the electrochemical performance of the battery's active materials.

Trojan Battery Adds New Models to Industrial Line Maxguard® XL Separator

Exclusively available in Trojan's Industrial and Premium line batteries is the Maxguard XL separator. Featuring a wide-channel design, the Maxguard XL separator increases acid flow for optimum battery performance. Thirty percent thicker than our standard flooded battery separators, the Maxguard XL provides even greater resistance to stratification which is a typical mode of failure in batteries used in renewable energy systems.

Trojan's Industrial product line is available worldwide. To order Trojan's Industrial line, please visit www.trojanbatteryRE.com/order.

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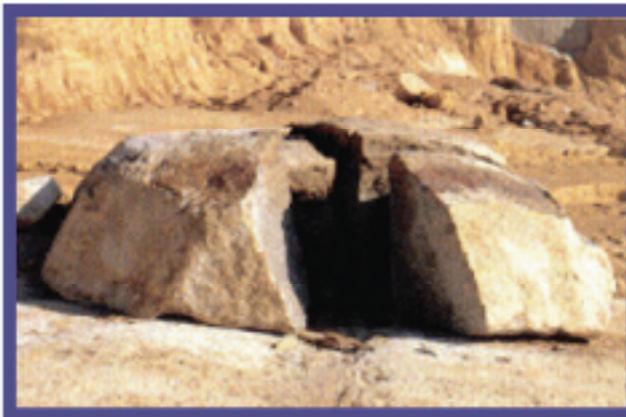
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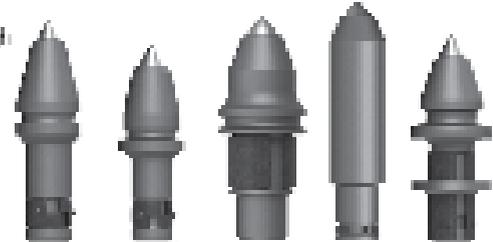
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