



JULY 2009 NEWSLETTER

THE NATIONS LEADER IN ESTIMATING SOFTWARE

University of Nebraska Students Learn Estimating with McCormick

McCormick Newsletter

Lighting

[17 common lighting mistakes](#)
(Buildings magazine)

[Energy efficiency's rewards](#)
(Christian Science Monitor)

[Paper on bilevel occupancy sensing](#)
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Opinion – [LEDs: Not Ready For Prime Time?](#)

Green

[About LEED Version 3](#) (U.S. Green Building Council)

[DOE muffs IT energy efficiency at 7 sites](#)

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[IBEW workers install wind turbine on Nantucket island](#)

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[Cracking the Corps of Engineers' BIM code](#)

[Estimating & social networks](#) (Stan Shook's blog)

Training Dates



Matt Firestone, chief estimator for Commonwealth Electric of the Midwest, is an alumnus of the University of Nebraska at Lincoln. So it makes sense that the school asked him to teach a course in electrical estimating to its construction students.

"It's a crash course in estimating, 15 weeks, one night a week, 2 ½ hours a night," Firestone explained. "We try to make it as 'real-world' as we can."

One way to make it real is to use electrical estimating software that electrical contractors use every day. That's why Firestone (whose company uses it) asked McCormick Systems to donate the software the students now use in their classroom work.



Education Is Educational

Firestone assembled the class based in part on his own school days and what the school was doing in a companion class in mechanical estimating. He taught it for the first time in the fall of 2008 and he and the school plan to offer the course again in fall 2009.

"We start out with a long-hand estimate, explaining the philosophy of estimating," Firestone said. "These students are used to seeing things from a general contractor's angle, so the thinking of a specialty contractor, and especially an electrical contractor, is a little bit different."



Standard training classes set for our Chandler, AZ offices are scheduled for July 29-31, Aug. 12-14, and Aug. 26-28
An Advanced class in AZ is set for July 15-17.

The next Standard class set for **Columbia, MD** will be held Oct. 7-9. The next **Advanced** class in MD will be held Aug. 12-14.

A Special Standard class is set for Sept. 9-11 in **Seattle**.

We've added [2010 training dates](#)

Training can be "suit-cased" to your facility. We can tailor our training to your needs. Ask us about customized training at your site!

Call to register for any of the above classes, including those in Maryland: 1-800-444-4890.

We've posted training dates, directions to our training facilities, and registration forms on our Web page. Click the "Education" button on our home page, or go directly to this link: [Education](#)

Essentially, the semester sees the students tackle a 25,000 sq. ft. office building over the 15 weeks. Each class consists of a relatively short (30- to 45-minutes) lecture by Firestone, followed by as much as two hours of work on estimating.

"At the end of the semester, they turn in a full bid. They have to get supplier quotes. They have to go through it all – filling out a bid form, writing a scope letter. At the very end, we actually have a bid opening!"

How did the students do with their bidding? "Well, there was a little bit bigger spread than what we probably see in the real world," Firestone laughed. "But every one of them did a good job. The errors they made were procedural."

Most interesting for Firestone is that the education has gone both ways. "I probably learned as much in that first semester as the students did," said Firestone, who has worked in the company's estimating department since 1997.

"I thought I knew all about estimating, of course. One thing I learned is that you can only teach the class as fast as the slowest student in the room. I went into the 15 weeks having it all planned out, the whole semester. But I had to adjust the plans each week, based on what we were actually able to accomplish."

"As a result," he continued, "we have adjusted our own training program at Commonwealth. We have 53 people who work with the McCormick estimating software – we use it for estimating, project management, and change orders. At our peak last year we had 750 people in the field."

"So we now have changed Commonwealth's procedures and policies for training new hires, interns, or someone who comes here from another company. I've already used the approach I used at Lincoln to train five estimator/project managers who now work here."

Why Use McCormick?

Obviously, Firestone is familiar with McCormick Systems electrical estimating software. But there were other reasons to use the software donated, he said.

"Most college students know how to use Excel and MS Project, and, if you think about it, McCormick's software really resembles these products," he said. "It's similar to these applications and, as a result, the learning curve is a short one for the students. Once they start working with it, they come to quickly understand how the software works, and they get right into manipulating the data."

One thing Firestone did not expect was that McCormick's "donation" went beyond putting the software in an envelope and mailing it to the school. "The great thing is that they made sure we knew we could use their technical support people if we ran into problems with our computers."

"It's easy to make a donation and be done with it," Firestone said. "But the McCormick people continued to support us. We had some issues with the computers in our lab, and they helped us to fix them. Needless to say, the University wasn't paying any maintenance!"

Why did McCormick make the donation and provide the follow-up support? "Obviously, we've bought into the electrical contracting industry," President Todd McCormick answered. "We listen to our customers and we know the importance of getting new talent into this industry."



McCormick Systems Version 9.1 has been released!
According to tech support this has been the smoothest upgrade yet!

Some of the enhancements are as follows:

- Added ability to attach PDF files to Job and System Documents
- Ability to create and save custom Bid Summary report layouts.
- PowerLink interface to Autodesk SubContractor
- Interfaces with OnScreen Estimating
- 64-bit O.S. Compatible

Database Fact Sheet

Many McCormick Systems users customize the databases in their company systems. It's not hard to do and it proves valuable. A special assembly you create for Job A might well prove handy months later, when you're working up the numbers for Job X.

But McCormick doesn't tell you what to customize (we just try to make it easy for you to do what you want to do).

Let's focus for a second on the databases that "come with" your electrical estimating software – the "standard" info that's built into your system:

- a. There are two databases. One is system wide. The other is stored within each job.
- b. Each database has two components:

- Improved Power Probe stability.
- Lots of clean-up behind the scenes.

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1. The Items database.
 2. The Assembly database.
- c. You can have as many as 254 byproducts (Items) in each Assembly database.
 - d. The “standard” system database for the Win 6000, 8000, and 12000 systems consists of 40,000+ items that can be expanded and 20,000+ assemblies that can be expanded.
 - e. Each job database consists of 300+ items and 300+ assemblies, both of which are expandable.
 - f. What’s in the databases?
 - ELECTRICAL: 40,000+ electrical and automated building systems parts.
 - ABS: 20,000+ automated building system parts.
 - CANADIAN: 40,000+ electrical and automated building systems parts.
 - MECHANICAL: 40,000+ mechanical and plumbing parts.
 - g. Obviously, material price information is vital to finalizing an estimate.
 - McCormick Systems used third-column prices from Tra-Ser to update the prices.
 - Your suppliers can provide prices (using the UPC code for each item).
 - And, of course, you (the contractor/estimator/user) can update prices within a job using NetPricer or by just typing them into the Edit Extension.



Database sampling

Let’s take a quick tour of what’s in the database for specific job types. In each case, there is a Job Fixture List that is easy for you to modify (use Control/Insert). Both the Assembly and Item name can be changed (by you) – quickly and easily.

Commercial – for commercial jobs, the database contains copper and aluminum wire, and the fittings and terminations needed; conduit and MC cable; grounding and Cadweld parts needed; cable tray, Panduit, and Wiremold wireway; nuts, bolts, and hardware, lighting controls (dimmers and occupancy sensors); a wide range of fittings and hanger Items and Assemblies (including Caddy); and much, much more.

Industrial – you’ll find switchgear and panels for quotes; disconnect switches, fuses, and equipment connections; industrial and commercial receptacles and plugs (including twist-locks); motor mounting and connections, and motor starters, controls, and relays; and still more.

Residential – Home, Apartment, and Condo assemblies can be built quickly and easily from the database (using the existing fixtures, devices, and conduit assemblies already in there). You’ll also find things like load centers, disconnect switches, equipment connections, and all HVAC items and controls; appliance connections (including assemblies with NMC cable); smoke and CO2 alarms; structure wiring and systems by Square D and Leviton; chimes, fans, and intercoms from Nutone; special brackets from Arlington; and much more.

Automated Building Systems – the database provided includes Cablofil, Snake Tray, and Caddy cable tray; Panduit and Wiremold wireway; B-Line, Caddy, and Arlington cable

supports; generic voice, data, and fiber products, as well as branded items from Amp, Avaya, Belden, Corning, Krone, and Panduit; special systems (fire alarm, hospital, sound, CCTV, and security); and more still.

In truth, this exercise is almost futile; there are 40,000+ parts and 20,000+ assemblies in our supplied databases. Of course, you won't be able to take the time to examine all of these items. Basically, if you're looking for it, chances are that it's in there!

Your questions about the databases on your system are most welcome! Call us at 800-444-4890.

Tempe Mission Palms is situated in downtown Tempe.

This is one of the favorite Locations of our conference attendees and their guests.

If you haven't had the chance to visit the Mission Palms, click below for a video tour!

DATES HAVE BEEN SET!

User's Conference

March 17th-20th, 2010

at the

Tempe Mission Palms

MCCORMICK EDUCATION

2010 Registration Form

perspective

Items posted to www.eleblog.com

92 Members of Congress at Electrical JATCs



Senator Sam Brownback (R-KS), a strong advocate for increased use of renewable energy technologies, thanked the contractors for sharing their

expertise with legislators. "You help make sure we get things right in the legislation," he said. "Congress isn't the expert on safe electrical installation – [NECA] members are."

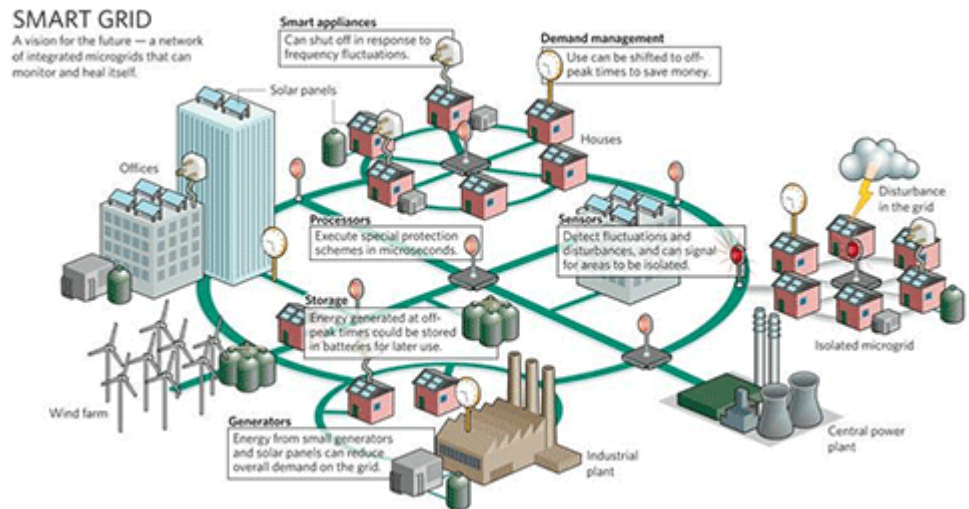
(posted 6/8) -- A 5/29 NECA release notes that [92 members of Congress](#) showed up at local NECA-IBEW JATCs to look at the unionized electrical construction industry's "green" training.

I'm not sure if that number includes Senators or not. If it does, it's 92 out of 535, which is a pretty good result. If it's just counting people from the House of Representatives, it's 92 out of 435.

Now, I know, I know -- NECA-IBEW is union. I work for NECA-IBEW. This whole thing is awful, I'm prejudiced, blahblahblah.

That's not the point here. It's good for the elected folks (in Washington or anywhere else) to get out and rub shoulders with people in the electrical construction industry. This is a good thing for the country, as well as a good thing for the industry

A Smart Grid Vision



(posted 6/15) -- I've written about the Smart Grid, but I still find -- still am fascinated by -- the various visions and versions of this thing. Here's a slice of a [Q+A](#) with the president of the Institute for Energy and Environmental Research (I added the bolding)

We're living in an age with a grid model that is sort of the equivalent of a mainframe computer with punch cards. It was really brilliant in its time, but its time is past.

Today's grid has no communication between the consumer and consuming device and producing devices, other than the flip of a switch. You flip the switch, the electrons always have to be there, the generating machines always have to be ready. It's very inefficient and wasteful. For example, you have to install a large amount of excess capacity that is just waiting for the peak of the summer when, for a few hundred hours of the year's 8,760, all the air conditioners are on at the same time and people also start switching on TVs when they come home. This is a dumb grid. It's a wasteful grid.

Instead of that, for instance, **we could have a machine that makes ice when the wind blows.** You have wind turbines, the wind blows at night, you need air conditioning in the daytime. You make ice when the wind blows and you get your air conditioning from the coldness stored in the ice.

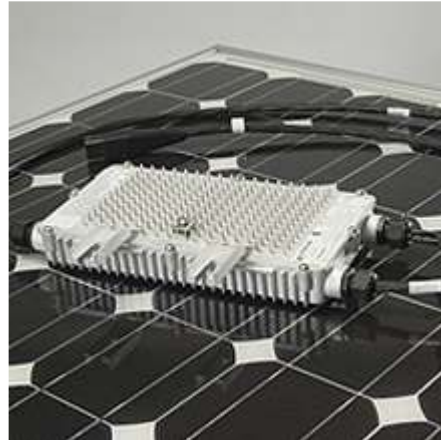
And this machine is now commercially available. Companies are willing to work with utilities. This is a way in which you could essentially eliminate the peak load in the summers and shift it to the times when renewable energy is available.

But to do it, you need the air conditioning and ice making machines **to be able to talk to the**

meteorological tower near the wind turbine. That takes a smart meter. It takes a control point at the user's end and it takes a control point at the generating end and the two need to be connected. That is the promise of a smart grid - software, electronics, the Internet.

Once you have a smart grid, you're in a different universe than the one with 1,000 megawatt machines that are always waiting on you hand and foot.

Solar's Electrical Problem



Several companies are starting to develop micro inverters that can be installed at each solar panel so that if one panel has problems, the rest aren't affected.

(posted 6/13) -- For cheaper solar, fix the inverters -- that's the headline on a 6/5 post to [a Technology Review blog](#). Some raw meat (results of a study) --

. . . poorly designed or faulty inverters . . . can dramatically lower net power output. In one case, the inverters consumed hundreds of watts at night, decreasing overall power output by 40 percent. High temperatures caused inverter faults, and because the inverters had to be reset manually, about half the time when the sun was shining the array was producing no power.

Smarts Homes & Electrical Contractors



(posted 6/8) -- The Electrical Contractors Association's Dave Staefanowicz has written about "Electrical Contractors and Smart Homes Today." No, not NECA, and not any other association in the U.S. [This is from the UK](#). Here are an interesting coupla paragraphs:

Due to the increased popularity of the smart home market, the Electrical Contractors

Association's (ECA) technology team has increased the amount of guidance on audiovisual systems available to members. The ECA has also teamed up with AMX, and will be running advisory seminars in AMX's London showroom for their members. In addition, the ECA offers its members a company qualification scheme that involves onsite inspection of work, and a six-year warranty scheme, guaranteeing client confidence and satisfaction.

The European Electrical Contractors' Association (AIE) and the European Telecommunication Services Association (ETSA) will shortly be announcing the launch of its 'European Smart Home Installers Scheme,' aimed at helping clients to identify companies who design, install, maintain and service smart home installations. Their system introduces the world's first system for grading smart home systems in terms of smartness and energy efficiency.

Things, obviously, are different in the Old World.

Come see whats new while your in town!



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149 W Boston
Chandler, AZ 85225
Toll Free (800) 444-4890
Phone (480) 831-8914 Fax (480) 820-2422