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EDITED BY BRUCE GREENLAW



DeWalt Mobile Pro Construction Calculator App

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When I saw an ad for the DeWalt Mobile Pro construction-calculator app in the July *JLC*, I couldn't resist scanning its embedded QR code with my iPod to check it out. That zipped me to the iTunes App Store, where I learned that the app is compatible with iOS devices and is copyrighted by DeWalt, Cengage Learning, and Infinity Softworks. Cengage Learning develops teaching, learning, and research solutions, while Infinity Softworks created the PowerOne line of calculator apps, which include spreadsheet-like templates geared to specific occupations.

After downloading and exploring a freebie that includes a calculator and several templates, I bought all eight currently available add-on packs, which cost 99 cents to \$4.99 each or \$19.99 for the complete Master Pack. The packs bundle templates dedicated to busi-

ness, construction math, site work, concrete and masonry, carpentry, electrical, finish materials, and landscaping. The carpentry pack includes a trim-carpentry add-on that's also sold separately. Most buyers would be far more selective, but I wanted to tour the complete package to get a feel for the interface and see if I could spot some obvious strengths and weaknesses. After spending hours tapping, flicking, and typing, I think the pros far outweigh the cons.

FEATURES

The more I use the free construction calculator, the more I like it. It includes three keypads that collectively offer standard math and trig functions, and it allows you to enter feet or inches with fractions or decimals (but not metric units). Users are also able to

toggle between units in the view window. The precision is adjustable, and inches can be accurate down to $\frac{1}{64}$. What's more, you can calculate entire algebraic expressions by entering a single string of numbers and commands. Two types of storage are included: "History" displays a log of your entries and results, and "Memory" can store up to 10 numbers or equations, which can then be recalled to the calculator.

You also get nine free templates for calculating areas and volumes; converting between length, area, and volume units; and estimating slab concrete, drywall, paint, and studs. To use a template, you select it from a list, enter the required data, and view the results below. For help, you simply tap the "Overview" and "Examples" tabs up top. Each template automatically saves a history of your calculations, which you can view, name, annotate, delete, email, or recall to the template for further computation. You can also use the calculator while entering data into a template. On the iPhone and iPod Touch, calculated results can be entered directly into the templates.

I think the template format is great. Other virtual construction calculators I've seen mimic traditional ones, requiring you to use keystrokes in various combinations to enter data and view results. BuildCalc (buildcalc.com) is one impressive competitor that includes templates, but they're still tied to a keypad. The DeWalt Mobile Pro app isn't limited by this constraint.

ADD-ONS

The trade-specific add-on packs dropped a mind-boggling 129 new templates into the app (they're listed at dewalt.cengage.com/mobilepro). Thankfully, the app makes it easy to find a template without scrolling through the entire list.

The business pack includes more than two dozen tools for small and large businesses, addressing everything from auto loans and leases to marketing ROI and bid for profit. The concrete and masonry pack also goes impressively deep, estimating everything from the concrete, rebar, and rebar chairs required for foot-

ings to the yards or bags of concrete required to fill post holes (factoring in the post voids). It even estimates the masonry materials you need to build a brick house.

The site-work and landscaping packs collectively address fence materials, cut/fill, soil-compaction loss, pavers, and more. One template allows you to estimate the height of a tree by plugging in your height, the length of your shadow, and the length of the tree's shadow. The math add-on is mostly conversion templates that I will seldom use. The electrical pack is definitely geared toward pro electricians, but includes fundamental templates like Box Fill, Minimum Burial Depth, and Residential Service. The finish-materials pack costs a dollar, a low price for estimating tile, flooring, and countertops.

I have mixed feelings about the carpentry packs, though. On the one hand, you get detailed templates devoted to notching and drilling joists and studs and a stair template that factors in landings. On the other, some key templates are surprisingly lean. For instance, the template on baluster spacing calculates horizontal layouts but not stair-rail layouts. The baluster and stair templates are accurate to 1/16 inch. I wish they were accu-

rate to at least 1/32 inch to avoid accumulated error (though you can easily adjust your actual layout where necessary). As for roof framing, you can calculate the lengths of regular hip and valley rafters, cripples, and ridge boards, but that's it. Deck footings are calculated for covered decks only. I'm told that existing templates will be modified regularly as needed to improve their performance or keep them up to date, and that new templates and template packs are forthcoming. Once you buy a template pack, all of its upgrades are free.

THE BOTTOM LINE

I love the app's free construction calculator. It's versatile and convenient, and it includes trig functions that stair builders and roof framers will appreciate. I also like the easy-to-use templates. Because the calculator comes with free ones, you can take a test drive before buying any of the trade-specific add-on template packs. I see room for improvement, but this is a useful app that promises to evolve on the fly in response to customer feedback. An Android version is reportedly under discussion.

Bruce Greenlaw is a contributing editor to JLC.

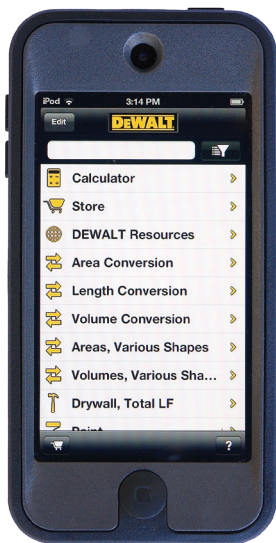


RETHINKING AMP-HOURS

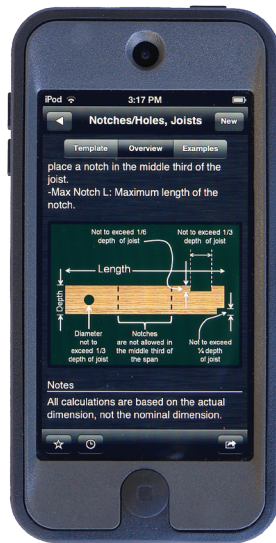
According to conventional wisdom, the amp-hour rating of a cordless-tool battery is strictly a measure of its capacity. For example, powering the same drill/driver under identical testing conditions, a new 4 amp-hour battery will bore about twice as many holes per charge as a new 2 amp-hour one. After all, the 4 amp-hour pack contains twice as many 3.6-volt cells as the smaller pack and therefore has double the storage capacity.

Some of our recent tool testers, however, swear that higher amp-hour batteries not only have more runtime than their compact counterparts but can also be noticeably more powerful. Reinforcing this opinion, Bosch recommends using its new MXH180 18-volt oscillating multi-tool with its 4 amp-hour pack rather than 2 amp-hour pack for maximum power and runtime.

That's surprising, so we called Jason Feldner, Bosch product manager for cordless tools, for an explanation. In a nutshell, he said the cell configuration creates less resistance in 4 amp-hour packs than in 2 amp-hour packs, allowing larger packs to deliver more power. How much more? "A powerful tool like a recip saw might see a 20% performance boost," Feldner says, "but that percentage can vary by pack and drops with less demanding tools and applications." —B.G.



Search for a specific template, or simply select it from the filterable list.



Tap the Overview button in any template for a concise explanation.



Template fields accept input, and use built-in formulas to calculate and display results.



Heat Wave

Milwaukee introduced its first M12 cordless heated jacket in its signature red color in late 2010. Powered by Milwaukee's 12-volt Red Lithium battery, it resists water and wind, has three heating zones and heat settings, and delivers up to six hours of continuous heat per charge. Milwaukee now offers other options, including a new line of heated hoodies. The jackets, but not the hoodies, can also be powered by M18 18-volt battery packs.

Now Bosch and DeWalt have entered the

conversation. The new Bosch 12V Max heated jacket comes in black only, and also has three heat zones and settings. DeWalt's new line can be powered by 12V MAX or 20V MAX batteries, and includes jackets with and without removable or fixed hoods. Unlike the competition, DeWalt also has heated collars.

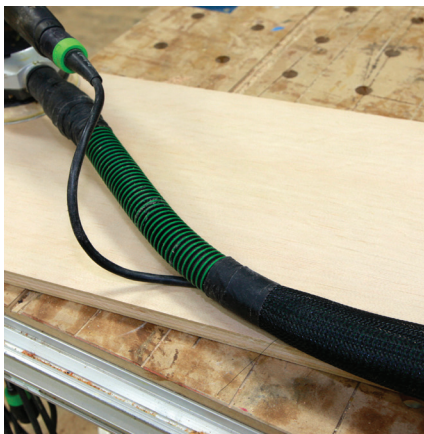
Overall, prices range from as low as \$100 for Milwaukee's bare heated hoodies (no batteries or chargers included) to about \$200 and up for jacket kits. —B.G.

Left to right: Bosch 12V Max Heated Jacket, Milwaukee M12 Cordless Heated Hoodie, DeWalt 20V/12V MAX Camo Heated Jacket.

SHOULDERING THE BURDEN

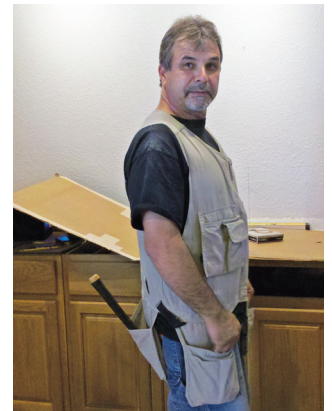
I've never liked wearing a toolbelt. The weight of the bags and tools always seems to put a strain on my back and hips. I wear a tool vest instead because it distributes the weight on my shoulders. My current favorite is the Blaklader cotton-canvas Bantam Kangaroo vest (#3120, blaklader.com). It has several deep-hanging pockets that hold my tape, Speed Square, chalk box, and other tools, plus hanging chest pockets with extra compartments for a cell phone and a pencil. It also has a hammer loop, but I don't use it because an exposed hammer head and a swinging handle can damage finish work. Instead, I drop my hammer into one of the two rear pockets head-first, which works well. The vest can expand to fit over a jacket, but I seldom use that feature because I normally work in comfortable interiors. Unless you expand the vest, the zipper hides behind a flap, so it won't scrape your work. The vest costs a reasonable \$55 online.

—Frank Caputo is a finish carpentry contractor in Cool, Calif., and presents the Exterior Living Designed to Last clinic at JLC Live New England.



FRIENDLIER VACUUM HOSES

Gary Katz, who presents the Trim Carpentry clinic at JLC Live, runs the vacuum hoses for his power tools through Flexo PET sleeves. Made by Techflex (techflex.com) from braided PET yarn in various sizes and colors, the nonabrasive sleeves prevent hoses from snagging and damaging work. Katz has also sleeved a hose and detachable Festool cord together, which keeps the cord out of the way and can be quickly transferred to a companion tool. Flexo PET sleeves expand up to 150%, but Katz prefers a loose fit that easily slips over hoses and cords. He then secures the sleeves with gaffers tape. —B.G.



Photos: bottom left, Gary Katz; right, Lina Mooney