DMC Weighs in on Precision and Accuracy

Control Design for Machine Builders asked DMC Engineers for Their Input

CHICAGO, IL (April 23, 2014) – DMC, Inc. (<u>www.dmcinfo.com</u>), a project-based engineering and software development firm, was mentioned in the article "How to Get High Precision and Accuracy for OEMs and System Integrators" (<u>www.controldesign.com/articles/2014/how-to-get-high-precision-and-accuracy-with-oem-systems/)</u> on the website *Control Design for Machine Builders* (<u>www.controldesign.com/</u>).

The article's author, Dan Herbert, used the expert advice of Technical Director at DMC Ken Brey and Project Manager at DMC Jesse Batsche to investigate just what *precision* and *accuracy* really mean in an engineering context.

Brey offered a very definitive explanation for the above terms. "Accuracy" he said "is the degree to which a measurement agrees with an established reference value...precision [on the other hand] is the degree to which a measurement system's results agree with its own repeated measurements."

Herbert went on to showcase a project in which "accuracy was a crucial specification" for the DMC engineers on staff. Jesse, the project's lead engineer, "needed an isolated voltage source accurate enough to simulate the battery cell outputs of an automated battery management system (BMS) tester." However, such a source was not commercially available, and so Jesse "implement[ed] a control loop that measured the real voltage output." Using "a high precision, high-accuracy voltmeter," Jesse was able solve the clients problem.

Herbert noted another instance, in which Ken was called on to "fix an existing automated test system responsible for measuring compression force." With the help of National Instruments hardware, Ken calibrated the test system for precise measurements and once again DMC had a happy client.

DMC was happy to be able to offer the knowledge and expertise of our engineers for Dan Herbert's article. Thank you to Dan and *Control Design for Machine Builders* for featuring DMC in your April article.

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