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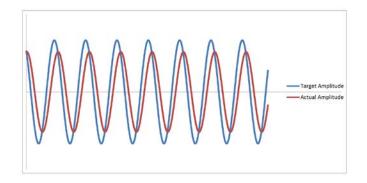
Adaptive Phase Control makes Testing and Tuning Easy

June 13, 2016, – Battle Ground, WA – **Delta Computer Systems, Inc.** announces a new feature in Delta's RMC family of motion controllers that simplifies tuning in multi-axis sinusoidal cyclic testing applications with servo hydraulics. By implementing easy-to-modify user programs within Delta's RMCTools software, a testing process can now perform adaptive phase control as well as amplitude and offset control. In cyclic testing, adaptive control solves these problems:

- Systems change after many cycles are run and the original tuning may need correction.
- Testing often involves different frequencies requiring different gains. Tuning multiple gain sets for different frequencies is often time consuming.

In cyclic testing, where the amplitude, offset and phase are more important than precisely tracking the entire waveform, adaptive control is very valuable in that it continuously adjusts the amplitude, offset and phase of the Target signal so that the actual values are where they need to be. For example, to achieve a sine wave with an actual phase delay of 30 degrees, the adaptive control may adjust the target phase to 10, and continue to adjust in order to maintain the correct actual phase.

The tuning process for adaptive control can be easier than regular tuning. Simply start the program after setting the Proportional gain to a reasonable value. For finer control of the response time, additional adjustments to the response can be made.



Target Signal continuously adjusts to achieve correct Actual Phase

"The recently added adaptive phase control strengthens Delta's position in the multi-axis cyclic testing market using our RMC servo-hydraulics motion controllers." stated Steve Nylund, Delta's CEO. Nylund added, "For multi-axis applications demanding unique phase relationships between actuators where consistent control and traceability for position, speed, pressure or force are needed, adaptive control can be very useful."

About Delta Computer Systems

For more than 32 years, Delta has been a supplier of motion controllers and other industrial products that enable OEMs and integrators to build better machines and get to market quickly. Delta's Family of RMC Motion Controllers are used for hydraulic, pneumatic and electric closed-loop control in a wide array of single and multi-axis control and testing applications. For more information contact Bill Savela, Delta Computer Systems, Inc. or email technicalsales@deltamotion.com Editor: Please indicate <u>Adaptive Control for Easy Tuning</u> for inquiry identification.