ACUTROL3000 Control System Update

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The ACUTROL3000 motion controller was introduced in spring of 2004 and customer acceptance is confirmed by the delivery of about 250 axes of control on new and refurbished systems.

ACUTROL3000 Inside: powerful precision

Model 1135-TCG: Centrifuge with Temperature Chamber

There are more than a dozen HWIL systems currently operating with ACUTROL3000 instrumentation using versatile reflective memory networks for both system initialization and real-time control. Over the past 18 months we have enhanced the ACUTROL3000 with numerous new features based on customer feedback. Following are some of the major new features recently added or soon-to-be added.

ACUTROL3000 PA

ACUTRONIC is currently shipping controllers with integral power amplifier(s) for one- or two-axis systems requiring modest dynamic performance. The power supplies are 48 or 96 volts and up to 15 Amps of current can be delivered to either brush or three phase brushless motors. Regenerative energy dissipation allows this controller configuration to be used with large inertia axes.

Optical Encoders

The ACUTROL3000 is now capable of interfacing to optical encoders including incremental AquadB, Synchronous Serial (SSI) absolute, and various configurations of analog optical (sin/cos) devices.

Data Playback

A future software update (Q2'06) will provide motion playback capability using either synthesized or recorded data files, targeted for vibration analysis and transient testing.

AcuFuge

A future option (Q2'06) will be offered to provide precise control and observation of centrifuge systems (picture above). New commands and user interface controls will allow motion control in gravitational units and control of operating states such as G(max), G-onset and boom length.

Freeze Pulse

A future software update (Q1'06) will provide the ability to synchronize axis position measurements with an external signal. Motion data are time skew adjusted relative to the external signal and the corrected motion states are read using non real-time ACUTRONIC Command Language (ACL).

SRAMNet GT

A future option (Q1'06) will be offered for the new Curtiss-Wright/Systran SCRAMNet GT reflective memory interface.]