

Technical Corner

The Plethora of Profiles

One of the most powerful elements of the LONMARK Open System is the functional profile. Profiles standardize functions, not products, giving industry groups universal shorthand in which to describe common units of functional behavior. This shorthand eases the specification process and enhances interoperability, without compromising the need for unique capabilities or a manufacturer's ability to differentiate their product from the competition.

A product can be based on one or more LONMARK functional profiles. Over 70 profiles have been completed, and many more are under development. I take this opportunity to give you some insight as to what the teams have been doing:

The "Sunblinds / Weather" vertical-industry task group has made great strides of interoperability in their newly approved Sunblind Actuator and Sunblind Controller profiles. These profiles allow for the control of nearly every type of sunblind imaginable; controlling the raising and lowering of blinds, of course but also the angle of the slats – all in a way that is identical from manufacturer to manufacturer. In doing so, there are provisions for absolute positioning (e.g., "go to 20% open with an outward-facing taper of 10 degrees"), as well as a relative positioning (e.g., "open the blind until I say 'stop'").

The "Transportation" task group has been focusing on the booming subway and light-rail industry leading-off with their recently approved Rail-Audio Controller and Rail-Audio

Sensor profiles for in-car and inter-car communications. The Sensor allows for requesting access to an audio channel by way of button press (for intercom functions), or by an event (like the doors opening or the train nearing the next station). Many more profiles are in development, and activity is expected to increase in this area as rail properties begin to specify devices certified by LONMARK International.

The "Whitegoods" task group, focusing on domestic appliances, has produced a Domestic Clothes Washer profile that incorporates the ability to handle a wash/dryer combination machine, in addition to a wash-only machine. The task group intends this to be the first in a series of many profiles. Other profiles will be based on the coming home-appliance specifications of CECED (the European appliance-manufacturers association), which should allow certified LONMARK profile-based devices a multi-country distribution opportunity.

Though I spoke about the "Heating, Ventilating, and Air Conditioning (HVAC)" task group having produced nearly every low-level device profile they need (see LONMARK magazine, Edition 2, 2005), they continue to fill each tiny space that remains. They have created the Valve Positioner for HVAC Applications profile. This work encompasses the functions for a device that controls fluid flow through a control valve. This complex task can be done in several ways so the profile makes use of the Profile-Specific Flag of the Standard Program Identifier (SPID) to allow for fully defined variants of the profile to handle programmed actuator characteristics as well as calculated actuator characteristics – each with or without emergency-mode handling.

The "Home / Utility" task group, with great contribution on the part of the Swedish LonUsers group, presents the newly approved Utility

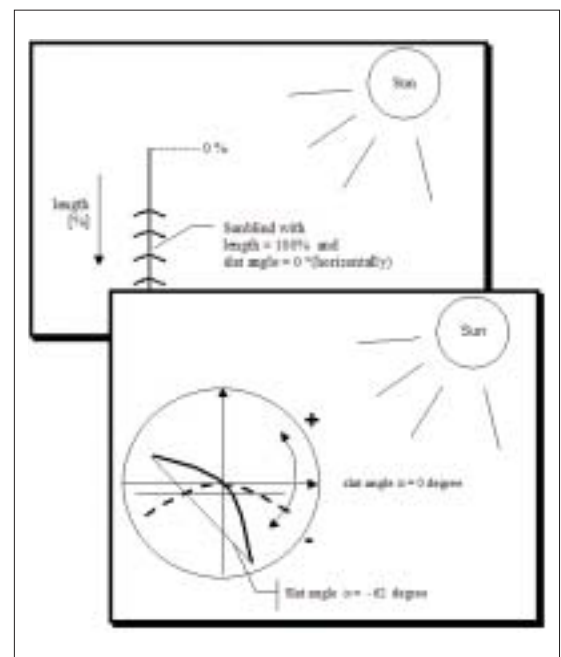
Meter profile. This effort was also featured in the second edition of the LONMARK magazine.

And, to round-off the new offerings, the "Security / Access / Notifiers" task group has nearly completed (expected to be fully approved by the time you read this article) the Security Sensor profile. This wide-ranging profile will allow for the detection and handling of a variety of events; from intrusion detection to fire detection, assault "panic" buttons to manual environmental/medical alerts. Look for this profile, and all profiles, on the LONMARK website.

For information about participation in profile developments already underway, contact the appropriate task group in the Member Forum. If you are interested in proposing an entirely new profile to solve an industry need of interoperability, please contact a task group leader or LONMARK technical staff.

*I wish you all Happy Profiling,
Jeremy Roberts*

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The LONMARK Sunblinds/Weather Task Group recently approved sunblind actuator and sunblind controller profiles.