What Time Is It?

In the last ten years, a revolution has taken place in the O gauge hobby. Back in 1994 there was no such thing as TrainMaster Command Control (TMCC) or Digital Command System (DCS). In fact, ten years ago few, if any, 3-rail hobbyists even knew what command control was. Today almost one-third of all 3-rail operators use some form of command control to run their trains. Lionel was first with its TMCC, which it launched in 1995. I had the opportunity to introduce this system to many O-gaugers first-hand in 1996, when Lionel asked me to demonstrate the new TMCC system at the national conventions of Train Collectors Association, Lionel Collectors Club of America, Toy Train Operating Society, and Lionel Operating Train Society. M.T.H. Electric Trains followed in 2000 with their DCS, bringing a second command control system to the 3-rail market.

The New Operation

Command control has ushered in a new era of realistic operations on 3-rail O gauge layouts. It notches up the realism on the operations side by allowing an engineer to directly control either a single locomotive or a group of locomotives that respond as one. Realistic multiple-unit combinations of diesels or double-headed steamers can easily be put together to handle the heaviest trains on your layout. Rear-end pusher locomotives can be added and dropped as needed, and you can even do it "on the fly" if you wish. When two engineers work together to lift a heavy train up a long grade on a 3-rail layout, they experience a little of what real railroading is like. If the rear end helper shoves a little too hard the result can be a serious derailment . . . just like the real railroad! Many O-gaugers are eager to take advantage of everything that TMCC and DCS have to offer, thus making their own operations as realistic as possible.

Today's locomotives add even more to the realism of operating 3-rail trains in the 21st century. In stark contrast to the "hot rod" locomotives of yesteryear that could easily run 200+ scale mph but had trouble running slowly, we now have locomotives that can glide effortlessly along the rails at 1 or 2 scale mph. This allows for very realistic operation in switching yards and terminals, where trains always move at slow speed. By running at prototypically slow speeds, you can prolong the enjoyment of operating your trains. When you run your locomotive at realistic speeds, it can take 30 minutes or more to switch together a single freight train. The sounds that come from newer locomotives can be so real as to be almost unbelievable! It is amazing to watch an O gauge steam locomotive move down the track at 3 or 4 scale mph, listening to the steam exhaust four times for each revolution of the drivers and watching smoke synchronized with the exhaust sound blast from the stack!

Lighting is another area in which there have been improvements in realism. In place of hot, current-hungry light bulbs, Light Emitting Diodes (LEDs) provide much of today's lighting. LEDs are available in an array of colors, generate no heat, and use a tiny fraction of the current of a light bulb. The interior lighting in a passenger train lit with LEDs is gorgeous. Trackside signals that use LEDs can be made in scale size to produce all three signal colors of red, yellow, and green . . . in a single LED!

What's Next?

Almost everywhere you look on a modern layout, the control systems, locomotives, signals, and rolling stock bring unprecedented realism to the hobby. But even with all this realism, something is missing. What about your cities and towns? What can you do with

them to make them more realistic? You can install street lights and animated signs and put lights in the buildings so they light up, but that's about it. There's not much else you can do, right? Can you tell what hour of day it is in your model cities and towns just by looking at them? Probably not.

Take a moment to think about what a small town looks like over a 24-hour period. Let's start at 5:00 AM before sunrise. The commercial buildings and houses will all be dark at this time, but as the people of the town start to get up and begin their waking lives, lights come on in their houses. In a two-story home, the upstairs lights will come on first because the people are getting dressed in upstairs bedrooms. Then the upstairs lights go off and the downstairs lights come on as folks come downstairs to have breakfast and prepare to go to work.

By 7:00 AM, the sun is up, and lights in the homes are off because they are no longer needed. Inside the workshops and factories, the noise level increases as machinery is started up and the production lines begin running again. Around 8:00 AM, the shops in town begin to wake up as doors open, window shades are pulled up, the "OPEN" sign is placed in the window, and a shopkeeper sweeps the sidewalk in front of his store. At noon, you might hear the noon whistle blow at the factory. The sounds inside the factory will quiet down for a while as the workers take their lunch break. By 3:00 PM, the shift is finished for the day, and the factory quiets again as the machinery shuts down. If it happens to be Sunday, the stores may not open, but the sound of church bells can probably be heard along Main Street.

Around 5:00 in the afternoon, shopkeepers close their doors, pull the front window blinds down, and change the "OPEN" sign to "CLOSED." They may have a timer set to turn on their outdoor sign at sunset and keep it on until around midnight. In many small towns, a shopkeeper may have his store on the first floor and live on the second floor of the same building. As night falls, the streetlights come on and lights randomly appear in the windows of homes and in the second floor windows of the commercial buildings. Around 11:00 PM, the lighting pattern in the homes changes as people leave their living rooms and head off to bed. Living room lights go off, and bedroom lights come on for a short while before all the lights go out for the night. By midnight, almost all the lights in

3:00 PM

Sunset

6:30 PM

10:00 PM

town are off except the streetlights, which burn all night. This is a typical scene played out every day in almost every small town, but it is almost impossible to do on a model railroad . . . until now!
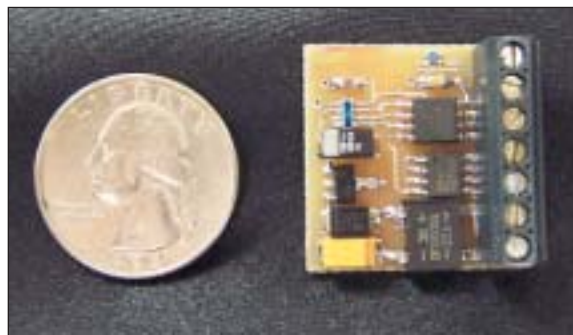
Time Line Command

Time Line Command, a joint venture between OGR Publishing, Inc., and Creative Trains Company can make everything I just described, and more, happen in your

Above and Below: the *Time Line Command Building Module*.

Above: *t*he *Time Line Command Clock*.

towns and cities! Neil Young, well known musician and inventor of the Lionel TMCC system, and Lou Kovach, creator of the now famous IC Controls product line, have teamed up to form a new company called Creative Trains Company that has developed an entirely new technological concept for our model railroads called *Time Line Command*. This stone-simple command system uses only two wires, and adds the missing link that has always been absent from our train layouts . . . the concept of *TIME OF DAY*. It does not matter whether you have a little town with a handful of buildings or a huge masterpiece like Bill Bramlage's Tower City, you can use *Time Line Command* to make your towns and cities come alive!

Time Line Command is designed to be as simple or as complex as you want. Buildings equipped with the *Time Line Command Building Module* will put on a show all by themselves. But the real fun begins when you add the *Time Line Command Clock* (TLCCM) to your system. Think of this module as the "director" of the scenes that will play out in your town. The TLCCM contains an electronic clock that runs at whatever speed you tell it to. Your street lights, building lights, signs, animated buildings, accessories – even your trains – can all be synchronized by the TLCCM so they

all work together to complete a wonderful illusion of reality and the passage of time. You can allow the TLCCM to handle the scene staging work all by itself, or you can customize your scenes so that certain lights on your layout go on and off at specific times.

If you want to set up your own scenes using the TLCCM, you'll need the *Time Line Command Director* (not shown). This easy-to-use, push-button control lets you direct the way scenes will play on your railroad. You set the times, using the Director, so that various things happen on the layout, and from then on those scenes will play. Using *Time Line Command*-equipped buildings and accessories, you determine when various lights will turn on and off, when certain sounds will play, when your accessories operate, etc. You literally become the "Director" of the scene that will play out on your railroad.

This system introduces another digital standard to the O gauge hobby, with one huge difference. We've seen how Lionel's TMCC and MTH's DCS developed along separate technological paths, with no common

With *Time Line Command,* the possibilities to make your layout come alive are limitless.

standards and only limited compatibility between the two systems. The standards and programming language we have developed to support *Time Line Command* will be made available to any railroad enthusiast or manufacturer who wants to use, make, and/or sell products using this technology. It is part of our Mission Statement that we will share the standards and source code with everyone, so that all of us who use or make products using *Time Line Command* will be using the same standards, thus ensuring compatibility. A new web site containing discussions and technical specifications for *Time Line Command* will be set up as part of the *OGR On-Line Forum* (www. ogaugerr.com). Railroad enthusiasts and manufacturers alike will have a choice of purchasing ready-built *Time Line Command* modules from us to incorporate in their products, or of obtaining both a royalty-free license for commercial use of the *Time Line Command* technology and the electronic information they need to build their own modules. Our goal is for the O gauge industry to achieve a level of compatibility and standardization it has never before seen. If all manufacturers agree to use these standards, which we've already developed, it will mean that when you buy an accessory equipped with *Time Line Command,* it won't matter who made it; it will work with any the other *Time Line Command* products you have!

I've covered a lot of ground in this first taste of *Time Line Command,* but there's even more to talk about! Let's meet here again in the February issue, and I'll tell you more.