

35 Years on the Sacramento Central

Presented by Dick Witzens

History

When modular railroading started about 35 years ago, some Sacramento area people tried it, liked it, and have never looked back. First, there was "Rails and Railettes," a small modular group. This soon became the Sacramento Modular Railroaders (SMR), which operates the Sacramento Central Railroad as a California central valley regional line (saccentral.railfan.net).

Pluses and Minuses

There are some minuses with a modular group. It can be some extra work (as can any model railroad activity). There are some track work limits to accommodate club standards, and some operational limits such as no staging yards on our layouts. We find that we don't need one.

There are also pluses. If you don't have room for a home layout, or even if you have just a small layout, a modular group allows you to run trains on a large layout. If you're new to the hobby or short on skills, chances are good that other members can help. Building one small module allows you try out new techniques and methods without spending a lot of time and money. Also, there are new friendships that come along with everything else. Public shows are a lot of fun. We do several public shows a year, besides our operating sessions.

Does SMR do things "the right way?" As many in the hobby say, "It's your railroad. Run it the way you see fit." The way SMR does it works well for us. We're always trying to improve things. All or part of what SMR does may work well for you.

Organization

SMR has a typical group of officers, with some extras, such as a module coordinator. The club owns the key parts of the layout, such as the Digitrax© control system, yard, corners, and end modules. All the club-owned items go into a club-owned trailer with custom built racks for holding the equipment. Several members have vehicles capable of towing the trailer. Before we got the trailer, club-owned items were stored in a rented mini-warehouse. This was inconvenient and led to a lot of damage to the club owned items. Our operating sessions are held in a rented social hall.

Finances

Our dues are \$20.00 per year. Our main operating budget comes from sponsoring International Railfair (internationalrailfair.com) with three other area clubs. The show fills an area county fairground. The sponsors share all the work, risks, and expenses, and share any money left after expenses. IRF's 35th year will be November 12 and 13, 2011. We feel that it is the West's premier model railroad show.

“Module” vs. “Section”

Many people use the terms “module” and “section” to mean the same thing, similar to the usage of “scale” and “gauge,” even though the terms have different meanings. A “module” is a part of a portable model railroad, built to specific standards, which can be placed in any position in the layout among other modules. A “section” is a part of a portable model railroad that must always be placed in the same position among other sections.

Operating

Many model railroaders think it’s too hard to do operations on a modular layout which changes at each operating session. SMR doesn’t!

Since the 1980s, SMR has held routine operating sessions. Switch lists are prepared, used to make up trains, and dispatch the trains to switch cars at specific industries. There were three keys to being able to operate in a prototypical fashion on a modular railroad.

Key 1: DC Electrical Blocks/ DCC Power Districts

The first key to operations was to set up electrical blocks. A block boundary can be put between any two modules by using drop-in rail sections with isolating rail joiners on one end, and not plugging together the bus wires at that point. Another way is to use a special (club-owned) module that combines the block isolation boundary with a double crossover between the mainline tracks. The track feed from the control panel or power booster to a block can be plugged in between any two modules in that block. When we were using DC control, we used a control panel with a dispatcher to send power from any of four walk-around throttles to any of ten blocks, with walk-along-throttle plug-in stations spread along the modules. When we changed to DCC (Digital Command Control) these electrical blocks became DCC power districts, each with its own booster. We still use a dispatcher to control train movements.

Key 2: Cut the Oval

The second key to operations was to “cut” the usual non-prototypical oval layout. SMR’s usual operating layout has our switchyard in the middle, with a “tee” leading to a leg of modules out to each side of the yard. Each leg ends in a reverse loop. Each leg can be any length and even go around corners or double back on itself. With crossovers between the two mainline tracks, when a train ties up one main with switching, the other main can be used for a passing siding. It’s possible for a train to leave the yard on one of the two main line tracks, go around to a reverse loop, onto the other mainline track, all the way to the other reverse loop at the other end of the railroad, and back to the yard again. This effectively doubles a train’s run without being on the same rails twice.

Key 3: Car Forwarding

The third key to operations was car forwarding. Available car forwarding systems assume the layout and cars don't change between operating sessions. With SMR, the layout and cars change at every session. So, SMR members wrote our own switch list program. All of our modules (towns) are entered into the program, along with the industry spots and the number and kinds of cars each spot takes. During setup at an operating session, we enter the towns that are there that day and which switching district the town is in. The computer generates switch lists which can be reviewed and accepted or rejected before printing. The printed switch lists go to the yard, where trains are made up by a yard engineer. When a road crew is called, their train's switch list goes with them. Cars are spotted where the switch list directs. A car on that spot is picked up. Get a free copy of the software at lee-solomon.web.officelive.com/default.aspx.

Light Weight Modules

Since about 1997, SMR has been building lightweight modules. A typical two foot by four foot module weighs about fifteen to twenty pounds. These modules have folding and self-storing legs, with feet that can be adjusted for height without tools. Unfolding the legs and setting each module on its feet takes only a few seconds. Our previous modules weighed thirty to forty pounds or more. Most had separate legs that had to be bolted in place. Setting these up took several minutes each.

The light weight of our current modules comes from a frame using 1/4 inch plywood with a one inch foam top, and 1x2 inch legs. When enough members want new modules, the club holds a series of work sessions. Modules are assembled with jigs and fixtures for accuracy. We can semi-customize module frames to fit such things as river valleys. The module frames include self-storing folding legs with adjustable feet, the main bus wiring, a pre-painted sky backboard, and the roadbed for the mainline tracks. The member pays only for the cost of materials, and then adds the track work, structures, and scenery.

For wiring, SMR uses 12 gauge wire for the main buses, and six conductor telephone cord for the DCC signal bus. The main bus wires are in color-coded pairs, with one pair for each of the two main line tracks, one pair for the optional branch line track, and one pair for the 18 volt AC accessory line. Each of the main bus wires has a jumper wire to a terminal strip mounted under the module. The terminal strip provides the connection points for any track feeds and accessory power. We use Johnson Power Pole® connectors. The Power Poles have been used for many years by ham radio operators, and are inexpensive and very reliable. These plugs have outer shells available in different colors, for color coding. The shells can also be ganged together in different configurations and combinations to make up unique plugs for different purposes. The club provides 18 volts AC power for accessories like structure lighting and switch machines. Also, at least one DCC throttle plug-in panel is on each module or module set.

Versatile Layout

SMR's layouts are very versatile. Layouts are often 25 by 60 feet or more, but a variety of shapes and sizes is not unusual for us. We've run trains over 140 cars long, around multiple

curves. We can usually set up any layout in about 1 ½ to 2 hours and tear it down in about 45 minutes to one hour. (The larger the layout, the more members that bring modules and therefore, the more help we have.) The club owns four corner modules that can be either inside or outside corners, two 180-degree end modules, and two reverse loop modules, and a few other special parts. These allow a large degree of freedom in setting up layouts to fit a variety of spaces.

Our switch yard can be either 30 or 36 feet long, and can be set up as either a through yard or as a stub end yard off a ðteeö. The yard has both steam and diesel servicing facilities, and a car repair shop. The yard wiring is routed through special plugs on the module ends. These connect as the yard modules are set in place and clamped together, thus saving a lot of time. All our modules, club-owned and member-owned, have folding and self-storing legs to make setup quicker and easier. (Also, the legs canø be forgotten at home.) The only tools we need in setting up a layout are a gauge stick to use in adjusting the module height, spring clamps to hold the modules together, and dental picks for sliding rail joiners into place on the shorts lengths of ödrop-inö tracks between modules.

Show Appearance

For a good appearance during public shows, we use cloth skirting on the sides of the modules to hide the inevitable clutter. The fronts and backs of the modules and the skirting have hook and loop fasteners such as Velcro®. Weøve found these to be the quickest with set up, and the most reliable to stay in place during a show. The hook and loop fasteners can also be used to hold informational signs and club logos. The hook and loop fasteners are also useful at operating sessions for holding track and industry diagrams, throttles, and the clip boards we use for holding our switch lists. We also use clamp on trays to keep items like papers, tools, and beverages off the scenery. For public shows in dimly lit venues, we use portable, clamp-on lighting.

Conclusion

We hope that youøve found this information interesting and useful. Even though weøve been at it for about 35 years, weøre not ready to quit or even slow down. As they say, östay tuned for further developments.ö

For more information, see:

Sacramento Modular Railroaders: saccentral.railfan.net

International Railfair: www.internationalrailfair.com