The modelling section : metre gauge modules : module 2

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Objekttyp: **Article**

Zeitschrift: **Swiss express : the Swiss Railways Society journal**

Band (Jahr): **6 (2000-2002)**

Heft 9

PDF erstellt am: **10.07.2024**

Persistenter Link: https://doi.org/10.5169/seals-854954

THE MODELLING SECTION

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METRE GAUGE MODULES
Module 2

David continues his article on modules in the US from the last edition

SCENERY

We agreed upon a track ballast and ground cover to be used at the ends of the modules, to provide some consistency in the look of the modules where they join. We use a neutral grey paint on the module sides.

MODULE TYPES

Controlling the trains required a decision on running style. We did not wish to use DCC because we wanted to run all our locomotives unmodified, including the little switchers. With a small number of modules it may have been possible to have one module be the power source for all track. However, with a large number of modules, control would quickly get difficult. Therefore, we decided to use the concept of sections of power, isolated from each other.

The modules, which are naturally suited to have power packs, are those with sidings. The "station" module is a point of control for an area, pulling in trains from neighbouring modules and sending trains outbound to other modules. The station's power pack is used for running switch motors and signals as well as moving the trains themselves.

In order to provide electrical separation between station modules, the modules, which just have the single mainline track, are used as separator modules. We call these the "scenery" modules, as we hope to have them well decorated for visual interest. Every scenery module has both rails isolated somewhere in the middle of the module. A double pole switch on the module allows for the two halves of the rails to be joined or to stay isolated. That way, if three scenery modules are placed in a row, only the middle one needs to have its halves isolated, and the other modules conduct all the way through.

The station module controls power out to the middle of the neighboring scenery module that has the electrical break. This allows a station module to pull a train out onto the mainline past the turnout, and then come back in on a parallel track.

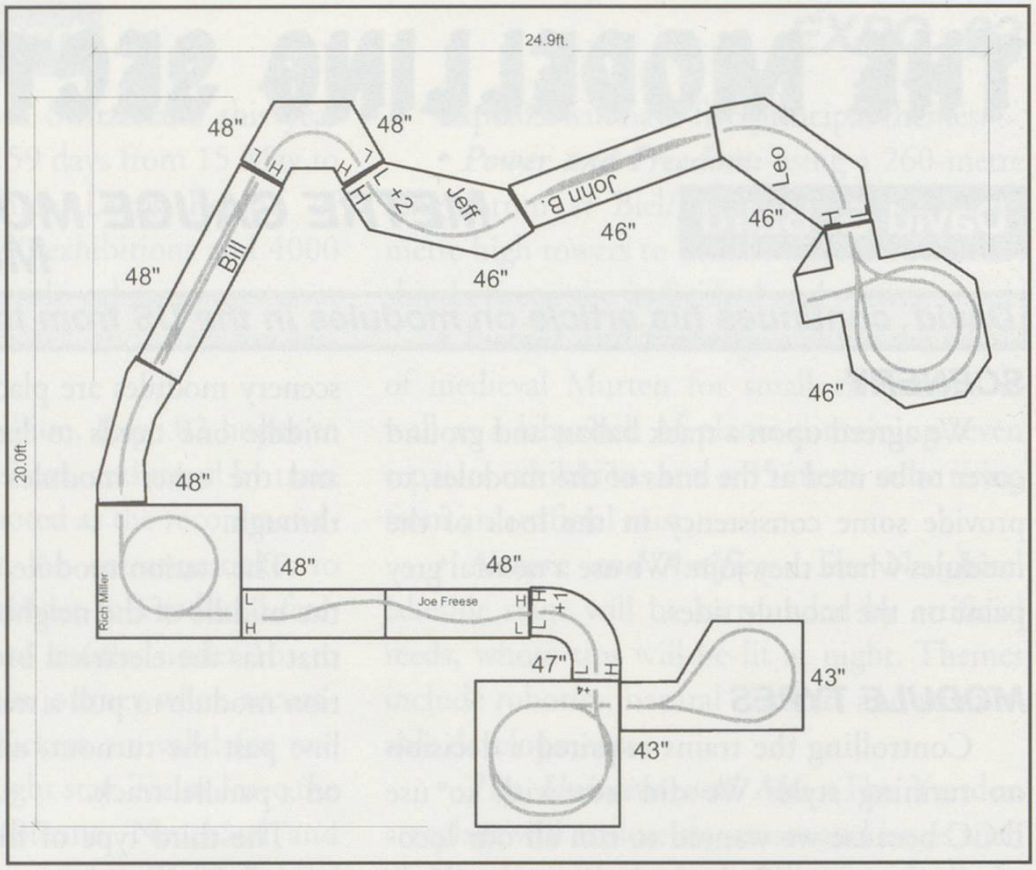
The third type of module is the reversing loop. Point to point running is fun, but with only a few modules, it's nice to be able to keep a train running back and forth across the modules for a little while. With a reversing loop module at both ends of the set-up, this is easily achieved. A reversing loop module is a kind of station module in that it needs a power pack to at least run the reversing section and the turnout. It can also control the single entry/exit track.

RUNNING TRAINS

Modules, which set up a loop, are easily controlled. One power pack per loop can run the train indefinitely. The Fremo style point to point running requires a lot more attention. The single track mainline means trains will go in both directions at different times. On top of that, with our sections of power, we must coordinate between power sections when a train is crossing the boundary. Occasionally we get the polarity of the receiving section wrong, and the locomotive halts at the transition, wiggling back and forth till we get the receiving section's polarity matched.

Voltage mismatches between power packs also can cause a speed jitter when crossing the

boundary. One important thing to remember is that some passenger cars have lighting kits, so their bogies are electrically live. With metal contacts against the axles, both axles are electrically tied together. If one power section reverses polarity after the engine has passed the boundary, the bogie will cause a short when one axle is in one section and the other axle of the bogie is in the other section. The answer is simply to wait until the entire train has passed the boundary before polarity is changed.



The diagram on the left gives one some idea of the potential with the modular system. Note the size of the completed layout. One of the great advantages is that the individual modeller does not require an enormous amount of space to be part of a large layout. At eh same time one can work at home and the layout does not need an enormous storage area. Perhaps a possibility for us in the UK. Anyone interested?

As mentioned before, the electrical isolation requires us to put scenery modules between station modules. Ideally we would have many more scenery modules. In practice, we have about a 1:1 ratio. We could also use more scenery modules that transition from A to B end profiles, so that we have more variety in the ways we set up the modules and still align the B profiles together.

WHAT'S NEXT

We have modules that work mechanically and electrically, but some are scenically challenged. We continue to add basic scenery such as landforms, trees and groundcover. Station kits and little buildings and people add a lot to the scenery. Most tricky of all will be installing the catenary. We run with pantographs down now, since some modules have catenary but most do not.

We can definitely use a large yard. In any modular set-up, yard space is at a premium. It takes a lot of distance for turnouts to diverge, so yard modules are always large. Most of us are limited in the size of the modules that our vehicles can transport.

Finally, we may include some of the steeper C profile modules to add dramatic terrain for our trains to run through.

CONCLUSION

New modular train groups always have a large amount work before them. They must agree on a basic set of design parameters and then actually go build them, and get together to run them. Our group has succeeded and we run trains several times a year. If you have a group of enthusiastic and dedicated modellers, you too can be part of a successful modular group.