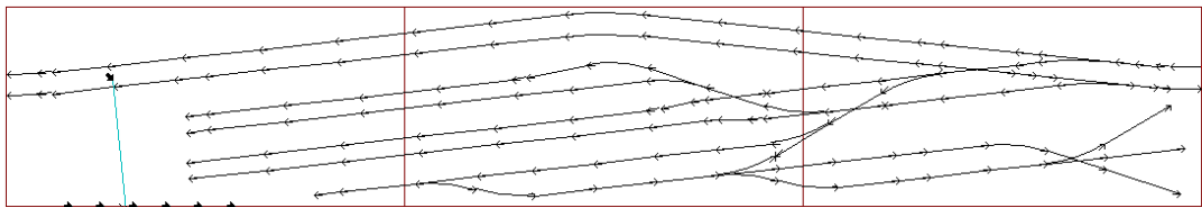


### Andrew's Musings Part 3

So there we have it . . . viaduct modules in operation (2 modules wide), along with Steve's 3 module industrial yard, Warwick and Garry's single modules, the 4 corners and Glen's 3 module long stations on the way. The year was 2008 and the first show and tell was going to be at Model X 2009. Problem is I had a sneaking suspicion that Glen may not quite be ready by then. I better have 3 modules ready just in case. I have interesting memories of building these modules in motel carparks in Taranaki while on a work project implementing GPS on our trucks. People must have wondered what this guy was up to out of the back of the Ford Mondeo station wagon.

The idea for the three modules had always been there since first purchasing the ICE starter set and subsequently meeting Peter Clapcott and being introduced to his train control software. Wouldn't it be awesome to have the ICE arriving into a station, stop and later on reverse out, being a push pull train, but all automatically! And have other trains interlaced, arriving and departing around each other. In other words how about having a terminus station, but to still fit in with the modular group, there would be two through main lines. That was the plan. Using TrainCAD again, the mainlines come in from the left below and skirt alongside the station with platforms 1 and 2, angling towards the audience (at the top of the diagram) to give more room for terminating platforms 3 – 7 to the rear of the modules (bottom of the diagram). The mainlines then curve back again past the "throat" with all the point work, such that the trains can get in and out from any platform to the corresponding inbound and outbound lines coming off the mainlines. Personally I also enjoy the look of the maze of overhead wiring above these points. To finish off the scene in terms of the track, platform 7 has a passing loop, so the loco can uncouple and then shunt through to the other end, recouple and leave on its outbound journey, or drop into the sidings (on the lower right of the diagram) for recoaling, water and housing in the engine shed (harking back to the old days of steam).



At the same time, I'll make mention of my homemade turntable (in front of the double engine shed). While it would be great to have a proper turntable, they are 360mm in diameter, which means there isn't enough room for it on the rear portion of a standard module. I decided to go homemade with a smaller diameter (and admittedly a lot less expense). I bought a revolving beacon light and promptly took it apart, joined the motor with the "bridge" and enclosed it with a circular pit. Join up some DC power and hey presto, it stuck! You suddenly appreciate the quality of models when you start trying to replicate it yourself and go freehand. My problem is trying to line up the motor exactly central with the hole in the centre of the pit, get the bridge exactly right on that centre pivot, so that the track ends don't vary in distance away from the sides of the pit, make sure it is perfectly circular, not oval and have the bridge supported all the way around, so it doesn't droop with the weight of a train on one end or the other. To do this I have two ball bearings holding the bridge up at each end. Hey it now works, it's not perfect and perhaps I should have just stuck to the properly manufactured turntables, but I do like my little one . . . it is a feature, without dominating the scene and looking like it needs a 12 berth engine shed to justify all 360mm of the usual turntable dimensions.

As for the station itself, the terminus is a fully covered station with 4 lines inside, taking trains of 1.25m in length (loco and four passenger wagons). At the end is the common area for getting from platform to platform, tickets, shops, a seating area and large windows looking out from the second story over the tree lined city street below. The two mainlines travel above the street on one of those classic old rivet welded bridges onto distant locations. Street level gives some idea of a busy city scene, with gas station, cafes, a hotel, shops and again a homemade multi-storey carpark to complement the station. One problem . . . I just need to add some people in and then it may look busy. Hey we will get there. There's lots more to say about the scenery, but before I forget, let's talk about lights. Lighting adds the magic to the modelling. Turn off our 240V 1:1 lights in our train room and shrink into our little world glowing away at 16VA. There was a Marklin Year book from about 1980 with a similar platform scene at night time and I think it too was the inspiration for this terminus station (passenger carriages as well with internal lighting), along with a calendar photo of a rather unfortunate accident, which gave me the idea for the front of the station. Certainly the oval windows and the clock tower (of which mine has two towers and will have actual operating clocks in them).



One thing I have noticed though about the lighting is it is not the lights themselves shining out (which tends to startle the scene), but what the lights are shining onto, which brings the scene to life. When I come back to these modules, I will move the lights across the street to the audience side, facing away and across to light up the opposite buildings, rather than at the moment leaving them in shadow and blinding the audience instead.

Back to the busy city scene . . . I quickly discovered that buildings don't cover a lot of area, when you are talking a 3 module length of 3660mm. That's at least 20 reasonably sized buildings at say \$40 each! Which means the decision was made that my people (when they eventually arrive) will need

some park area to relax in – this saved me a fair bit of expense with the left half of the modules being a tree lined drive through to a memorial for some battle a few centuries ago. The right hand side is built up, but gas stations can take up a little extra room with a bit of grass either side, as can extra tables next to the café and second entrances under the station. Stretching the buildings (and the budget) to maximum length.

Another thing that got stretched was the patience! Here's a terminus station that is roughly 1500mm in length. With oval windows down each side at roughly 60mm intervals, that's a total of 50 half circles I needed to cut out of the 12mm plywood which makes up the walls of the station, inserting another 50 little Perspex windows in place. The concept is also to have a Faller car system running a loop around the layout at street level. This would look great, especially driving past the station under the trees and under the bridge. I haven't got there on this one (instead doing a lot more with Faller cars on some of my future modules), but I may eventually get this one going. I just may have an issue with my corners being a bit tight. That's a basic rundown on the above ground view of the modules.

Underneath is another whole world going on – the electronics! It's actually not that complex, but the idea that going digital means there is only power and ground is a total fallacy. This is especially so when starting to build in train detection with s88s and point control with k83s, so that my ICE could drift into one platform from the incoming line, stop, reverse, then go (once the points have changed) on its next journey outbound. I think I need to write a separate article about computerised train control, but admittedly unless you are also a bit nutty like me when it comes to working out logic sequences, you probably don't really want to know and instead just marvel at how our little train drivers and signal men just get on with doing it. One problem though is I also wanted the ability for manual control of the points, especially at exhibitions. This did bring some complexity and thankfully Mike van Dam was on hand. The digital k83s are great, because they will pulse your expensive point motors, but won't keep blasting current at them, potentially burning them out – great safety feature. You can control these points manually via the controller sending messages to change whatever point desired. However the controller at an exhibition may well be on the opposite side of the layout. Which comes down to one really nice way which is the classic manual control board with pointer to change the points (if trying to avoid the really manual way with the hand of God reaching onto the layout to flick the switch). Problem is k83 digital means DC power. Manual control board off a Marklin controller is AC. Blast AC across a k83 and there will be no going backwards (power wise or mistake wise) when you have one dead digital unit. Mike van Dam? Introduce the diode to ensure the AC current only goes in the one direction.. I'm glad he did it, because I would have probably got at least half of them the wrong way around. So the final result (okay Tom, yes not final, still a long way to go)? The ICE can come in and do its stuff, as can a few more push pull units that we have gathered over the years. Admittedly I would like to randomise it up so that these trains don't just follow the same sequence all the time. However that does require the computer to know exactly which train (address) is at which point on the layout, not just that there is something there, so it can send the instruction to the correct address. Uhlenbrock do have a Lissy system which I understand does some form of transponder thing, but once again I need to catch Mike and Peter about this.

If there is one gripe though, I wish Marklin didn't make so many versions of the ICE2 trains. Apart from the fact that I hate the coupling used (you don't want to keep pulling your train apart if you can help it), you can get ICEs that have sound, but drop the red tail lights, internal lighting or not, ones that need both ends joined to operate, basics, more complex etc.. My starter set is a Delta (which actually sounds like an electric engine with its motor grinding away – who needs a sound chip?). Just it's not good at coming in slowly to the platform, either stalling if too slow or going too fast. I purchased a second one years ago as well, also Delta, but more fussy on being joined together. To get the station working properly I moved up to 2 digital specimens. But guess what? No red tail lights, so you don't get the look of the train arriving with red out the back and the changeover to white before departing. Yikes if that's all I have to worry about!

Anyway, that's enough talk. Let's finish with a photo taken at an exhibition (unfortunately I don't have many – I'm too busy operating to get around to photo taking and at the moment my modules are all boxed away while we do some renovations). On that note, the first time the station went on display, one viewer did ask if these station modules were for sale. I immediately thought of the hours of work chopping out the 50+ windows and having to do that again. The answer was no – not for sale. However, I was quite chuffed that someone thought it was at least pretty reasonable.

