

THE PHILOSOPHER'S STONE

y Roger Bacon

For the last three years I have been writing this column on ModemNews, though you may not have read any and certainly not all of them as output exceeds demand! A cross between a journal and an autobiographical account, mixed liberally with fictional asides, the Philosophers Stone is written in much the same format as my personal correspondence with the exception of a specific greeting or address.

I regard my unknown readership with much the same affection as my few correspondents, assuming that they are happy to be addressed as friends in absentia and it follows therefore that I do not exclude those subjects of discussion that, it is said, a gentleman never discusses amongst which are politics and religion and of course the other subject that a gentleman really never does discuss.

My interests range over a wide variety of subjects from Archaeology to Z-80's (not to mention Z-1000's - vroom! vroom!) and Railways and Religion are but two more. Of course these go hand in hand anyway as aficionados of Thomas the Tank Engine will know only too well, indeed the list of Reverend ferro-equinologists is impressive and distinguished. This is perfectly natural for, though its not recorded, the rest of us know that on the eighth day God created the GWR and steam engines, in that order!

Dampflokotiven are, alas, rather thin on the ground in these benighted parts and my sole lifeline to sanity is an incredibly decrepit freight (mostly agricultural) service that labors nightly by with much squealing of flanges on the crumbling trackwork, though the locomotive sounds healthy enough. Fortunately this same silver thread of industrial archaeology leads to a nearby town that has a Railway Museum (a somewhat grandiose title) consisting of a small station and an eclectic collection of passenger and freight vehicles parked on a siding, in one of which I discovered a model

railway club.

Since half my weekday evenings are spent driving the offspring to the paramilitary organizations of their choice and the to-ing and fro-ing is wasteful of time and gas, it makes sense to find something to do with the intervening hour and a half, which is how come I found myself joining this club. The last time I tried this, in the halcyon days of my youth, I discovered that the only club was well populated with loonies and garrulous old farts who were extremely intolerant of young hot heads joining for the sole purpose of trying to coax their Hornby Dublo City's, pulling sixteen coaches, to exceed the Mallards speed record (some of these references will baffle most of you but what the heck, why not consult some reference books and learn something!)

Fortunately, or unfortunately depending on ones point of view, Life's grindstone (as in Nil Illegitemi Carborundum - pig Latin for Don't Let The Bastards Grind You Down) has succeeded in shaping me to a fair representation of a loony and garrulous old fart, so I can now mix in these circles with equanimity being almost indistinguishable from the rest!

It was with some relief that I noted I am not the only one forced to build trackwork from whatever comes to hand, nor am I the only that designs and builds his own control equipment thanks to the prices of the commercially available alternatives. This is a can of worms that I will go into in more depth at another time but in order not to lose the computer hobbyists among us, assuming I havent done so already, the problem is a familiar one of conflicting 'standards' a contradiction in terms if there ever was one.

What we need, software/hardware freaks, is something written for the IBM type machines (the only type that is really universal, sorry Apple and Commodore) that will allow one to design and control a layout, using a combination of program(s) and interface, utilizing agreed upon files and hardware specs.

The hardware should use the most commonly available devices and be fully specified as to send/receive unit designs and information interchange formats and both it and the software should be able to be driven by any of the clones from 286 on up.

It occurs to me that the problem is closely parallel to that of telecommunications equipment and that the 'modem' per se, could probably be an adaptation of existing circuitry with the exception of its number of outputs and power handling requirements.

Not having read any of the Railway Modelling journals for several years, it occurs to me that something like this may already have been designed and generally discussed since it's so obviously desirable. I expect to be corrected

if this is so.

Wandering around in the vast telecommunications network that we share, must be a treasure chest of information that is effectively un-catalogued and therefore unavailable to the majority many of whom may even be sharing the same BBS as the source of the particular information they require.

Wouldnt it be great if there was some kind of BBS that was nothing but a directory of information and where to find it? However 'tis done it must be easier to use than the commercial services whose exhaustive databases are more hindrance than help partly due to their size and also because of the way in which they're organized (this from someone who cant even organize or find his own files!)

MORE TRAIN STUFF Some years ago, a confident young engineer friend of mine upon hearing of my train control woes, offered to bring his intellect to bear upon the problem. After a few minutes soldering he produced a transistor controller and after a few minutes of operations, it burned up. This went on for a while, each successive modification lasting a little bit longer and the furrows in his brow deepening the while. After a while, the "I'll soon fix that!" response became noticeably muted and eventually he disappeared to reappear later with two even more high powered friends and a battery of test equipment. There was much oohing and aaahing and several impressively fat short circuits before the concensus opinion was delivered thusly:- "Er, um, theres a lot of spikes on the line, er, um, its a really dirty, noisy environment and we'll have to think about this. We'll get back to you" I havent heard from them since, on the subject of transformer/controllers and you will be surprised to hear, I've been too tactful and kind to bring it up. The only reason I mention it at all is in case anyone is about to commit words to processor in a hurried reply of the "you silly ass.." variety, so that I can spare them the effort. It wouldnt be so bad if anyone agreed on what was required or the equipment itself had similar demands upon its power supply. Hey, you can laugh all you want pal, if you think power supplies are so simple to design you should go work for Commodore, they obviously think so too and look at the results! A model railway is a horrible environment for any electronic equipment and the basic rule is that short circuits, spikes, surges, drops and other horrible events are commonplace and that the amperage required is in large numbers BEFORE the decimal point! Engines may be rated as only drawing a quarter to a half amp but I'm telling you that a power supply ought to be capable of providing a steady five to ten amps at 15 volts DC and everything else should be able to take the odd ten amp surge or be adequately protected by something that can handle it. The best controller I ever owned was a massive variac transformer with a short warning in the form of a lightbulb and buzzer that got brighter/louder as it got worse or flickered and burped as metal wheels rolled over metal switches sparking merrily as was their wont. Train motors may have burned out, switch motors

frequently did but at least that power supply hung in there cranking! These damn delicate twiddly little hooch-a-ma-jiggers and digital widgets go up in a puff of smoke if you so much as look at them funny! So no untested micro-circuits please! Get yourself a test track of old rail from a second hand store or flea market, preferably at least two different types of manufacture, oil it liberally with used sump oil and wipe off the excess, then dump it in the vacuum cleaner bag and wipe off the crud with coarse sandpaper. Dont tighten the rail joiners, if they're sloppy and get your hands on some knackered old dog of a loco with several years in kindergarten to its credit. The wheels should have a layer of black crud upon them but you may use a Brillo pad to clean them up with a bit. You now have a fair approximation of the average model railways electrical conditions except that I've been kind to you and not insisted that you have a few switches as well. Your controller must power a loco at a snails pace under these conditions and should meet the criteria that I call the three W's in the event of a short. These are Warn, Weld or Waporize (or if you prefer, the three V's, Vorn, Veld or Vaporize!) It should not even get warm in the process. If a stalled loco's motor can't draw enough current for the worm drive to strip all the teeth off its pinion, its not trying hard enough and I'm only half joking! The controller must also know when to quit, using some kind of self limiting feedback loop such as measuring the back EMF so that it doesnt try and do the three W's to unsuspecting track maintenance workers, small children and animals which can be a bit distressing at public events. The unit should be made in an idiot proof steel box that can be dropped on the floor without ill effect, should have one control lever for inertia throttle and one button for brakes plus the aforesaid bright overload lamp - no LED's please, we want to see the red glow from across the room as well as hear the obnoxiously loud klaxon that accompanies it! I dont want anything other than a 15V DC controlled output, no auxiliaries, as we dont want the transformer getting distracted from the job in hand. •

AUNT AMIGA

ell loveys has this been a year?
You betcha and if 92 doesn't
improve itself and we can expect
more of these kind of problems
I think I'll opt for cryogenics
and go directly to the year 2000,
do not pass go.

It looks as though the ninety's
will be the decade of man's
inhumanity to man, woman,
and animals.

We won a war but lost the peace, we had to watch Anita make a farce of a real problem, we had to watch President Bush call "a hero and a gentleman" a person who boffed everything in the country except telephone poles and now surprise! has a fatal disease, and of course there was the Kennedy Awards for Willy of the Year. Dahmler was allowed to drag an Asian boy back into his apartment and kill him because the cops didn't believe the Black woman who called to report him. And we have all been mugged by the economy. Apparently the only thing we can count on is Liz getting married and taxes.

It wasn't a pretty year. It's been an asthmatic anemic paltry excuse for a year. Few people have any holiday spirit. As Husband says, "let's just get this dammed thing over with." And as for Aunty who has always been all three Christmas spirits she's just a hair's breadth away from settling down with her Glen Livet for a long winters coma.

This pestilencial year has been reflected in the software, not much new, spartan selections in stores of titles for the most part that hang around like a mother-in-laws fruitcake.

So we'll let the Devil have 1991 and from Husband, Puck and Aunt Amiga we wish you a heart felt BETTER LUCK NEXT TIME.

Jan 1992 - Dorothy Hall •