

NEWSLETTER

1st issue 1996 edition

Welcome

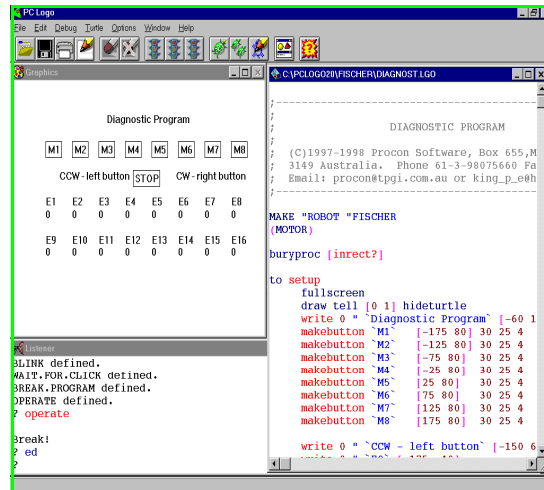
Hello and welcome to the new look fischer-technik newsletter - Australian edition.

In this issue we look at the new non-computer controlled kits from fischertechnik. We also look at the new software that's available and we will discuss some of the problems encountered. We will also look at how to expand the number of inputs and outputs on the fischertechnik interface unit and how you can start controlling things around the home!

New Kits!

1995 saw a number of new kits released. First into stock was 'I'M WALKING' (30493) a new bionics kit with amusing high-tech walking models. A total of six creatures, two quadrupeds, one biped and three six-legged creatures. The kit contains one motor and gearbox, a 9V battery holder and reversible switch. We suggest you use only alkaline or rechargeable batteries with this kit. Although it is recommended for kids from 9 years of age, younger kids will enjoy playing with these models with adult supervision. This applies to almost all of the fischertechnik products - as my 3 year-old daughter loves all the kits, after I've put them together!

Just received is the new pneumatics kit (30494) with a mini-compressor (motorized), cylinders and operating valves and equipped for six model variants. It's ideal for boys and girls from ten years of age.



Finally, for all the adult enthusiasts, Artur Fischer has designed a classic 1920's steam roller in celebration of their 30th anniversary. This kit (30100) provides fantastic detail with chain tack steering, tar wipers and drop-down road surface breaker. It's motorized (by motor, gearbox and 9V battery holder), with steam cylinder, pistons, crankshaft and flywheel to simulate the drive function. The kit comes with a heavy wooden base for display purposes and only a limited number is being produced. So hurry, get yours today!

New software!

Yes, we now have software to suit everyone! On the top of your 1996 list should be the new PC-LOGO for Windows software from Harvard Associates (shown illustrated). Using a 'turtle', Logo makes it easy to break a big project into small parts and then solve each part individually. It's an ideal first programming language which responds immediately to simple commands you create. The version 2 software

now comes with special robotic commands to control the fischertechnik interface and example programs for the PROFI computing kit (30330).

The DOS Lucky Logic software (30521) has been upgraded with new drive software for the C language and the QBASIC language. All of the programs for the PROFI kit have been converted from TurboPascal to QBASIC. This upgrade is now available, to registered users, at 50% off the list price! Just released, also, is a driver for Windows with example programs in VisualBASIC.

The Programmable Logic Control (PLC) language from Procon Technology has been upgraded to version 3. This version allows you to program up to 16 inputs, 16 outputs, 16 timers, 16 counters and a host of other new functions. With PLC you can control your model in background whilst other programs, such as Windows, operate in foreground on the computer! The software is now available at the low price of \$49 and comes with example programs for the computing kit (30554) and the PROFI kit (30330).

I/O, I/O ...

It's off to work we go! Page 19 of the new interface manual describes how eight lamps may be connected to the one interface unit. However, other low current devices - such as relays, piezo buzzers and CMOS logic gates - may be connected in this way. Should you wish to control things around the home, we now have a large number of

relay units available (30075) that will switch up to 1 Amp at 40 Volts DC. Ideal for controlling a train set, operating motors for opening and closing curtains or, perhaps, operating the solenoids of a sprinkler system plus many other possibilities. Procon Technology also manufactures its own range of real-world control boards (expandable to 128 inputs and 120 outputs) for computer control applications. Call us for further details.

Expand.i..n...g

Many fischertechnik enthusiasts may be unaware of the I/O (Input and Output) expansion possibilities of the interface unit. Simply remove the cover of one interface unit and plug a second into the 20 pin plug provided. This expands the number of I/O to eight motor outputs (or 16 lamp/relay outputs) and 16 inputs. Note, the analogue inputs (EX and EY) cannot be used on the second interface unit! You'll need new software to drive this number of I/O - any of the new software packages, mentioned in this issue, will allow two interface units to be controlled.

Another new feature of the Lucky Logic software drivers for the C and QBASIC languages, is that it's possible to use more than one printer port. You could have up to eight interface units controlled from four printer ports - expanding the digital inputs to 64, the motor outputs to 32 and the analogue inputs to eight!

De Bugs

Before running de project's program, it's best to run the diagnostic program and check your inputs and outputs. Remember that, after faulty connections, the problem is most likely to be as

simple as reversing the connections to de motor.

Should you have trouble 'matching Lucky Logic to the computer' it is suggested that you connect a 5,000 ohm resistor to EY, run the computer at normal speed, delete the FISCHER.DAT file and then run your program and follow the instructions. This procedure ensures that the correct range of values are obtained when using the EX and EY inputs. Note, if you don't have a 5,000 ohm resistor, the temperature sensor may do the job.

Most of the computer software for the IBM-PC has been updated this year. If you have earlier software and are experiencing problems running it on that new Pentium machine then why not upgrade the software?

Pendemonium

After many months of searching the office supply companies catalogues and selves for the Pelikan marker pen used by fischertechnik, I discovered a suitable alternative - in the local toy shop!

The most suitable replacement is the children's marker pens that you see in the stationary section of your local chain store. These pens fit the fischertechnik holder perfectly and come in a range of colours in packs of 12 or 24. In fact, I've found that these pens are often better because many don't run or smudge like the Pelikan does. They also come in various tip sizes - depending on the make of pen.

Spare Parts

Procon Technology has a large range of spare parts available. Many new and used parts are available - some at significant

discount. A new catalogue of parts is available, call us if you'd like a copy!

References

One of the best references for ROBOTICS is called 'The robot book' by Richard Pawson. It is out of print now but you might be able to get your hands on a copy at your library. It contains some interesting chapters on the history of robots and how to make robots using leggo and fischertechnik. Of course, fischertechnik is the preferred construction medium and they explain why in the book!

I've searched high and low for other good references but most are too theoretical or too technical and, often, out-of-date. If you can recommend a suitable reference please let me know - a free fischertechnik voltmeter will be sent to you as a gift.

Windows

The new Windows software, PC-LOGO and just-released VisualBASIC, opens up all sorts of functions that can be incorporated into your projects. For example, I've been playing around with a sound card which would allow the voice control of models - using a program called VOICE ASSIST. It seems that things which could only be dreamed of ten years ago are now available off-the-shelf!

Why not write to me, Peter King, and tell me what you'd like to see in this newsletter. If you'd like a full colour 95/96 catalogue please send 4 x 45c stamps to cover costs.

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