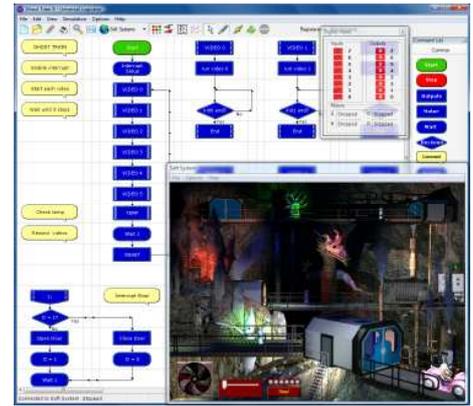


## Control freak that keeps getting better - Logicator

Chris Drage welcomes a new version of an old friend – **Logicator** : a trusty program for control technology

In the dim, heady days of the BBC Micro in education, **Logicator** made its mark when software author Mike Bostock wrote this gem of a control program. Now, more than over 20 years and seven generations later it is still inspirational as control software.

For those not in the know, **Logicator** is an excellent tool for any teacher involved in control technology. It provides a graphical environment for designing, testing, editing and downloading control algorithms in the form of a stylised flowchart.



A flowchart can be run as a program to control electrical circuits, robots and model systems via an interface, or simulated on-screen systems. "Wait on," I hear you say, "isn't this just *Flowol* and *Flowol Mimics* under a different guise?" Well not quite. It is true that both *Flowol* and **Logicator** underwent two separate yet parallel forms of development over the years but I think it is true to say that the latter program always offered so much extra.

Today, **Universal Logicator** proves that point. A control and monitoring system does tasks automatically and uses sensors to check what is happening. Programming using **Universal Logicator** can take either a top-down (system-level design) approach or a bottom-up (experimental) approach. The ease with which sections of tested code can be moved to form procedures, or sub-programs, supports these approaches. It's extremely flexible and versatile control software.

### 'Works with virtually every control interface in schools'

It really has earned its "Universal" title as **Logicator** works with any control interface a school could possibly throw at it including: Economatics Smart Box and Control Station, Lego RCX and NXT, Deltronics, Commotion, Data Harvest, Fischertechnik and even my ancient but trusty 8-in-8-out Barnet Box!

The whole process of constructing a control program has been made so much simpler and intuitive with the latest version of **Logicator**: you simply drag commands on to the screen and draw lines between them. Command instructions are simply set at the click of a mouse and students see the results immediately as their program runs; they can quickly develop their ideas because it's so easy to edit.

**Universal Logicator V7** comes with 14 Soft Systems, providing a series of control problems based on real-life systems. These are incremental with increasing levels of sophistication. Also included is Soft System Studio that allows you to create your own Soft Systems from any kind of digital image.

The jewel in the crown for most students will undoubtedly be the inclusion of the new Ghost Train (*image above*), a 3D Soft System Animation which makes use of high-resolution 3D graphical animations. An on-screen car can be programmed to move around a virtual three-dimensional stage in a repeated cycle. There are a number of different control problems to solve (sequential and parallel programming, digital and analogue control) and the end result is a games-quality, animated scene. This uses Media Control, where AVI files can be started by one command and the end of the video monitored by another – a most relevant resource for the new ICT Framework, the iMedia course and the Creative and Media Diploma. A visit to [www.logicator.net](http://www.logicator.net) will find the latest **Logicator User Guide** which provides a good reference for earlier versions of **Logicator** as well as version 7.

Control provides children with experience of higher-order thinking in developing, for example, complex systems that simulate the world around them. It's creative, focuses on logical thinking skills, can encourage team work and collaborative learning and, above all, if it's taught with a hands-on approach, pupils of all ages simply love it.

**Universal Logicator v7** provides them with an excellent vehicle for developing and refining their control systems. Thoroughly recommended.

### Ratings (out of 5)

Fitness for purpose	5
Ease of use	5
Features	5
Quality	5
Value for money	5