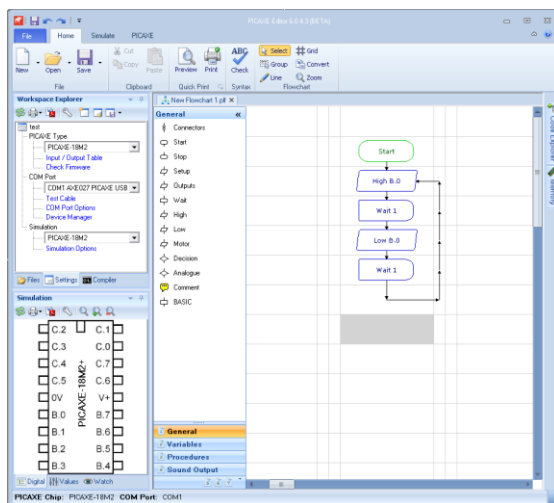# Appendix C – Upgrading
What are the main differences between PE6 and 'Logicator for PICAXE v3' (LfP)?

Free Software
PE6 is free. There is no charge for use – free for schools/colleges, free for commerical companies and free for individuals at home. PE6 supports both BASIC code and flowcharts. Naturally all LfP flowchart files open in PE6.
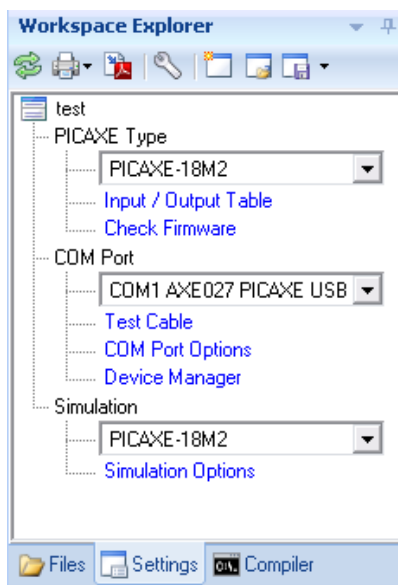
Modern Ribbon Interface
PE6 can use the new modern ribbon interface or the traditional toolbar interface as desired.

PICAXE Selection
It is now easier to select PICAXE type, COM port etc. via the Workspace Explorer panel.
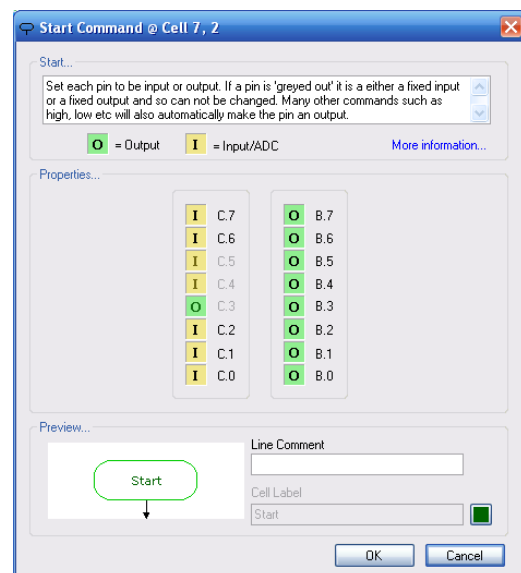

Floating/Docking Panels
All panels (e.g. Simulation Panel) can be setup as docking or floating as required. They no longer overlay other applications.

Easier Line Drawing
Lines are now drawn by click and drag, which students find a more intuitive way of drawing. Blocks of commands can now also be selected via the new group select tool.

Pin Configuration
All current PICAXE chips (all sizes) can now be configured – so you can choose which pins are outputs and which pins are inputs. This is achieved via double clicking on the first Start command in the flowchart.

So you are no longer limited to a maximum of 8 inputs or 8 outputs, although you can naturally choose the same configuration as PfL for existing project boards.
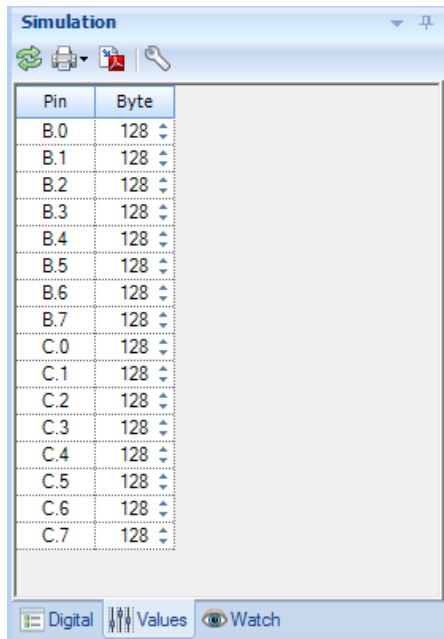
Up to 8 Parallel Tasks
You can use up to 8 parallel tasks (starts) on chips that support them.

More Variables (RAM) and EEPROM
PE6 supports more variables and they are now labelled varA, varB etc. for clarity. Advanced users may also use word variables if they choose.
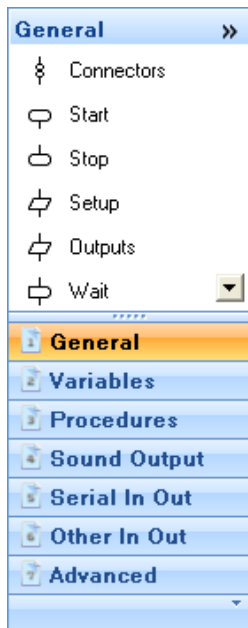
More Analogue inputs

LfP was limited to 4 analogue inputs. PE6 supports all ADC that are available in the chip.

Toolbox

The toolbox has been improved to allow end user configuration (e.g. to hide/show commands and sections as desired). The icons are also now smaller to enable more commands to be displayed at the same time.
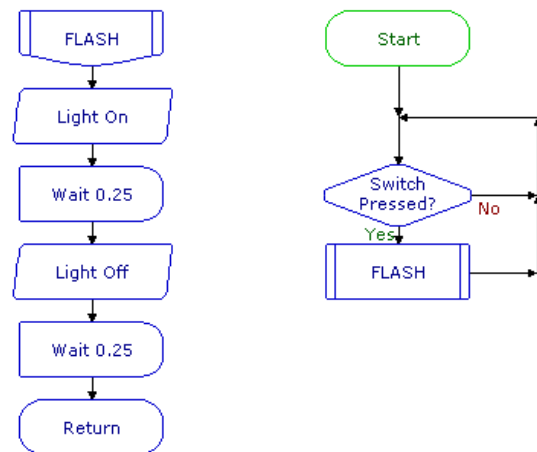

Connectors

New flowchart connectors allow lines to be joint at different locations in the flowchart.

Multiple Flowchart Support

Multiple flowcharts can now be opened at the same time. This makes it much easier to cut and paste sections of commands between flowcharts.
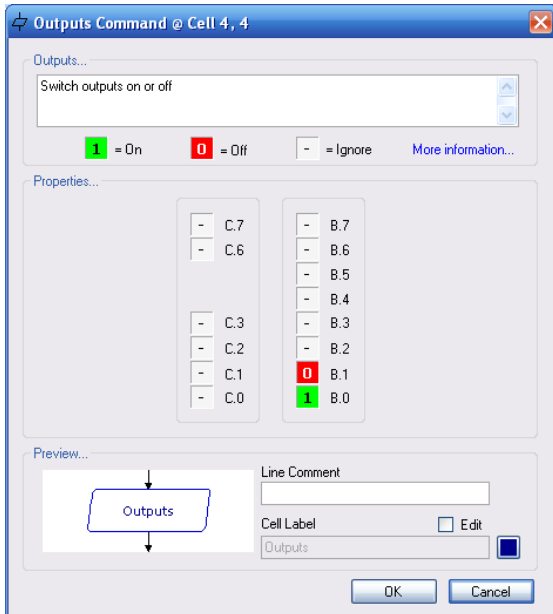
Modern Colour Scheme

The software now defaults to a modern colour scheme, however the old Logicator colour scheme is still available if desired (right click over the flowchart and select Colour Scheme).
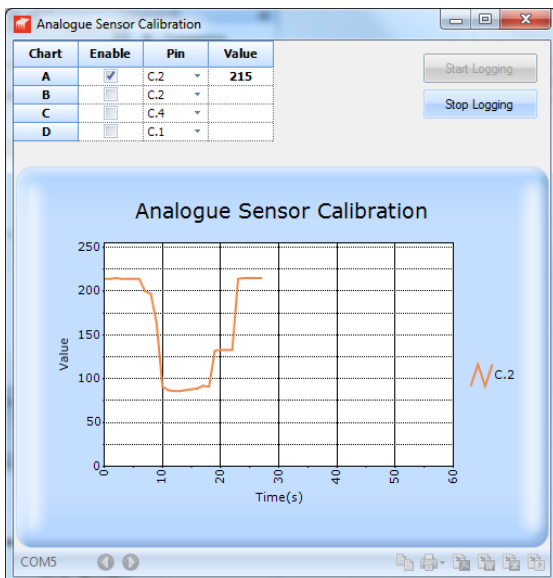
Command Edit Dialog

The command edit dialogs have all been modernised and now include a preview of the command.
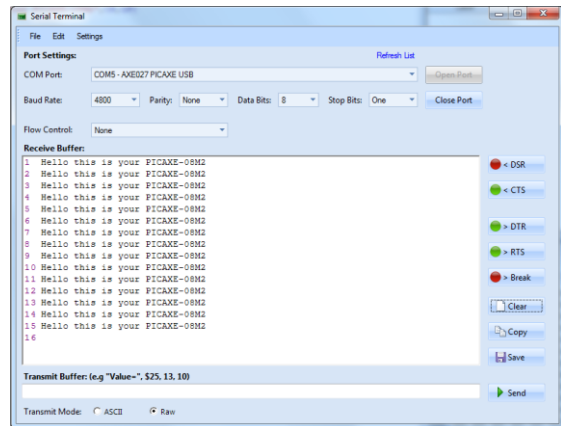

Analogue Sensor Calibration Wizard

Calibration of analogue sensors is now much simpler, with a detailed graph of the values in the real time experiment.
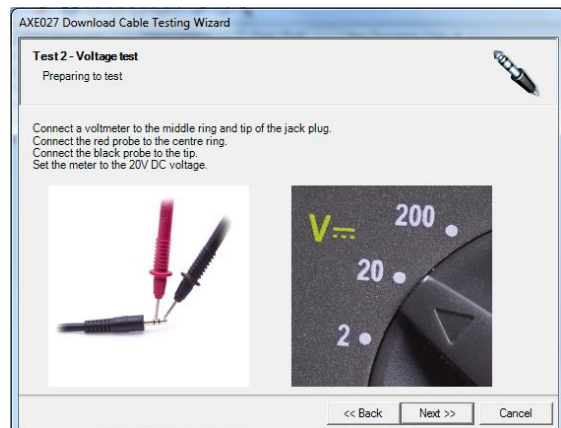

Serial Terminal

An advanced Serial Terminal, for use with the serin/serout commands, is now available.
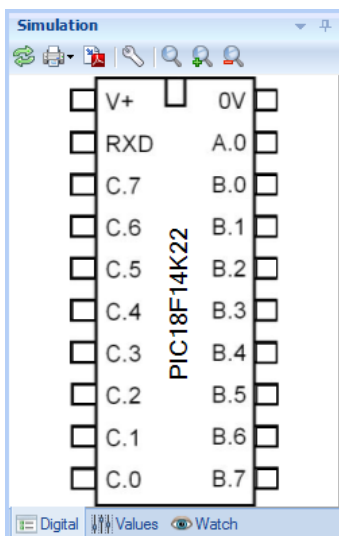

Trouble Shooting Wizards

Many additional wizards, e.g. testing an AXE027 download cable, are now included.

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Improved Simulation

All commands, including generic BASIC cells, are now fully simulated. New custom commands can also be added by the end user.

Many PICAXE project kit simulations can now also be used within the simulation panel (as well as the default chip shape).
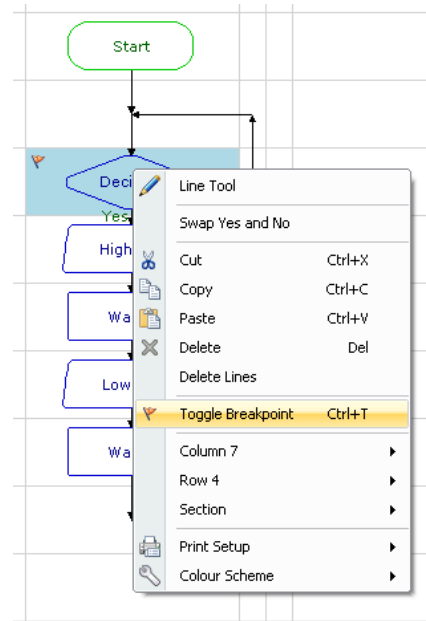

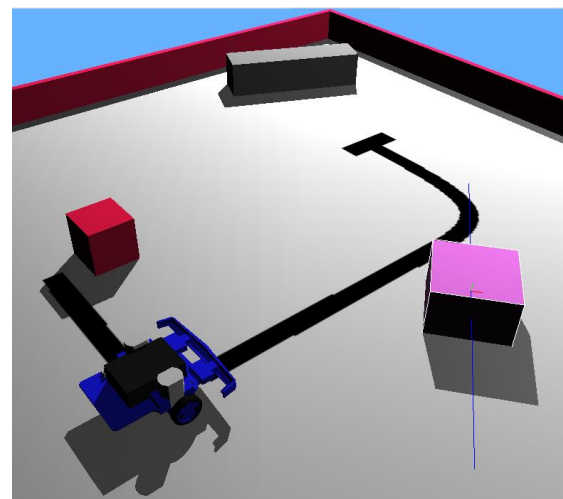Many of the internal panels e.g. LCD are now also much more realistic.

Breakpoints

Breakpoints can now be added to any cell, so that the flowchart simulation can be automatically paused at that point.
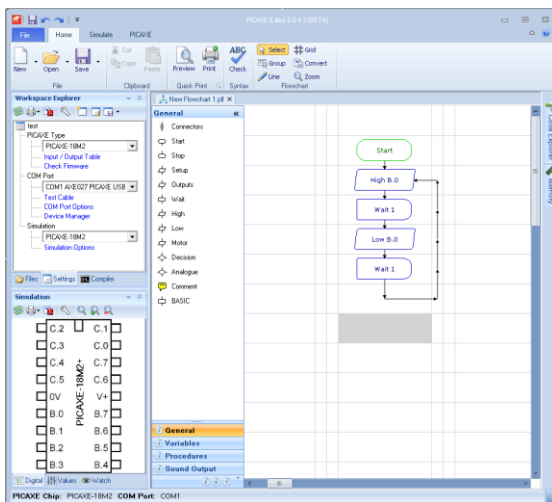

3rd Party Simulators

Simulation links to other 3rd party circuit and 3D model simulators is now also supported e.g. this is a 3D simulation of the BOT120 PICAXE-20X2 microbot in 'Webots'. The robot moves as the flowchart simulated and the two software applications are fully synchronised.
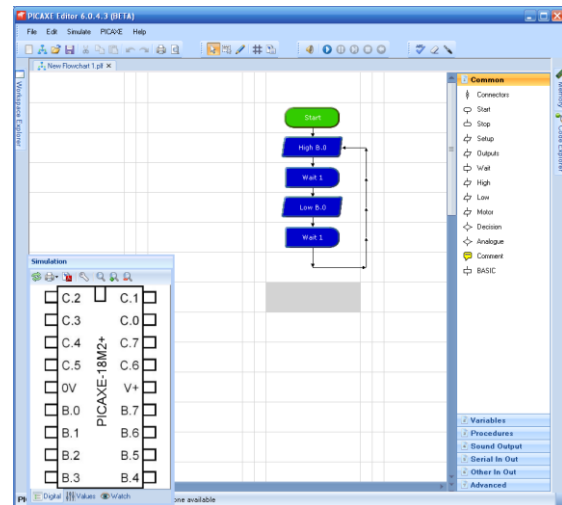
How do I make PE6 look like Logicator?

We expect most people to enjoy using PE6 with the default settings as above (e.g. with the new ribbon interface and modern colour scheme). However if you wish to make PE6 look more like LfP:

1) Select 'Legacy Toolbar' mode in File>Options
2) Hide the Workspace Explorer Panel and drag out the Simulation Panel so that it is now floating (it can also be resized as you choose).
3) Right click over the flowchart and select the Logicator colour scheme
4) Right click over the toolbox and toggle the toolbox docking side.

PE6 (modified layout) view:

Logicator for PICAXE v3 view: