

PC-Posi

...the 100% software
positioning controller
and PLC

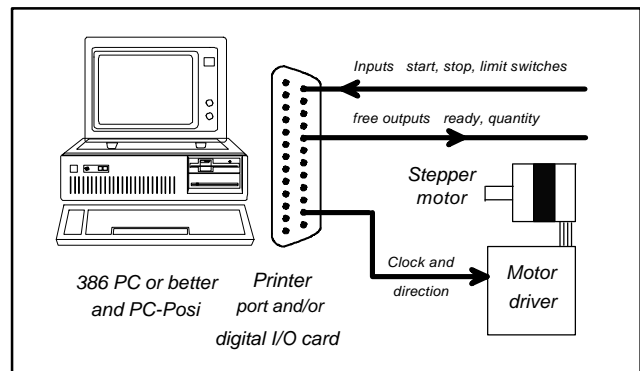
PC-Posi, the new type of software controller, brings the functional scope of an industrial positioning controller to your personal computer. There's no need for you to have any additional hardware, because the required timing and direction signals can be supplied directly to up to 4 stepper motors of any power level. Consequently, neither an intelligent processor plug-in card nor an external controller are necessary. *PC-Posi* removes all the obstacles which might otherwise prevent you from implementing your handling and robot applications, feed movements, metering tasks, format adjustments and many more.

An overview of *PC-Posi*...

- Straightforward, intuitive operation with drop-down menus, windows interface, shortcut keys and on-line help function
- Runs on all personal computers from 386 upwards
- Stepping frequencies up to 20 kHz
- Ramp times adjustable from 0 - 1000 ms
- Interpolated movement of all axes
- Plain text program input with integrated editor, no complicated G-codes
- Each program record contains distances for all axes, speeds, repetition counter, dwell time, programmable outputs and other additional functions
- Any combinations of absolute positions and relative distances
- Subroutine system
- PLC programming similar to Step5 with over 50 instructions and up to 256 I/Os
- Conditional program jumps, record and program selection using input and/or PLC
- Jog mode exact to the step using keyboard control, with display of current positions
- Reference movement for all or single axes
- Easy-to-use teach-in function
- Complete external operation possible via inputs, without keyboard and monitor
- Quantity counter can be programmed in numerous configurations
- Cycle times in the millisecond range
- Automatic processing in single, cycle and continuous operation

No additional hardware required

PC-Posi controls up to 4 stepper motor axes directly using the required clock and direction signals. Not only parallel printer ports but also any required digital I/O boards can be used.



Synchronisation with external systems takes place via additional inputs and outputs which can be freely configured. The following items can be controlled, for example: *start, stop, limit and reference switches* or digital inputs for the PLC.

The following outputs are available: *ready, automatic, active, end of quantity* and others.

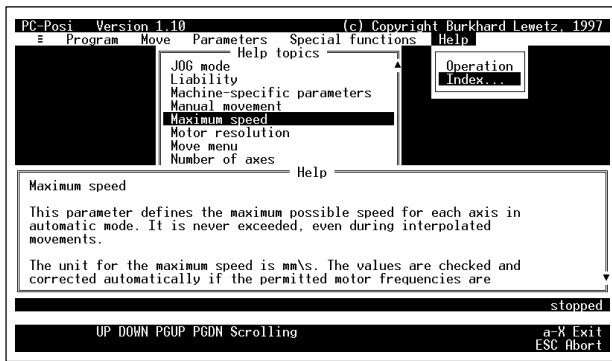
Furthermore, 8 outputs can be switched in each program record.

Easy to use

The use of *PC-Posi* is oriented towards the usual standards. In addition to drop-down menus, a



window system and shortcut keys, there is also an extremely extensive on-line help function which provides assistance and valuable hints at any point.



PC-Posi is easy to learn and can be reliably mastered during day-to-day work.

Writing and executing programs

PC-Posi controls movement programs and the corresponding parameters. Each program consists of one or more records which are processed one after the other in automatic mode.

A record may contain...

- Absolute or relative distances for each axis
- Speed in % of the maximum frequency
- Repetition counter for record and block repeats
- Jump instruction and subroutine call
- Dwell time at the end of the record
- 8 user-programmable outputs as machine functions
- PLC flags for conditional execution or for start synchronisation
- Additional switches such as *program stop*, *zero counter*, *move machine to zero reference point*, *set quantity counter*

Programs are written using a high-performance integrated editor which has been optimised for rapid, easy-to-use operation. All parameters are stored together with the program and are automatically loaded when the program is used again subsequently.



This dispenses with complicated readjustment work.

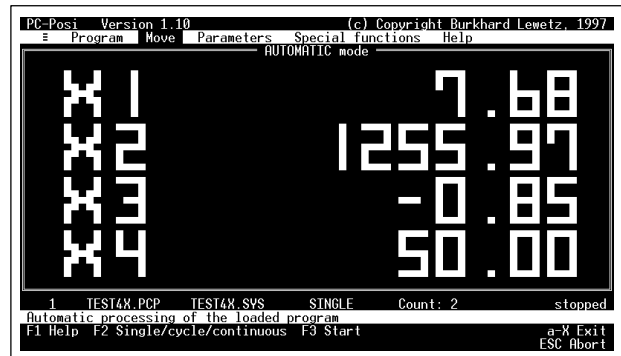
PLC functions

PC-Posi is capable of executing a PLC program in parallel to performing positioning operations. The language employed is largely based on Step5 and offers more than 50 instructions with

full arithmetical functions, 256 inputs and outputs, 256 flags, 16 timers and counters. Synchronisation with the movement program is performed using a wide range of mechanisms. It is also possible to display plain text signals via the PLC.

Automatic mode

Once programs have been written, they can be executed automatically in either single, cycle or continuous operation, i.e. a start instruction initiates execution of either only one record or the entire program, or else the program is performed in an endless loop. When performing positioning operations and working with the PLC, *PC-Posi* achieves cycle times of only a few milliseconds.



When the specified quantity is reached, the freely configurable quantity counter either switches off only one output or halts any further program execution as well.

External operation

After the application has been programmed and set up, *PC-Posi* can be operated entirely using external inputs without a keyboard.

This fulfils all the conditions for installation on industrial or small compact PCs and for incorporation into complex production systems.

In summary

PC-Posi possesses all the functions of an industrial positioning controller although it is a purely PC-based program. It provides a straightforward, uncomplicated and inexpensive means of undertaking diverse control tasks in an extremely broad range of applications.

