

The Process-Pascal programming language

Process-Pascal, which is used to program Controllers from PROCES-DATA, is a high level programming language based on Standard Pascal.

Process-Pascal is an extension of Standard Pascal, with a number of facilities that make it possible to execute several programmes simultaneously in one computer. This is called multi-tasking.

Process-Pascal has been specially developed for use in connection with P-NET, which is a local area network (fieldbus) for transmission of data throughout distributed data acquisition and process control plants. Data, which are distributed in modules on the P-NET fieldbus, can be defined as variables in Process-Pascal.

Process-Pascal permits automatic reports of alarms in the event of error in the controller or in the interface modules.

Furthermore, it is possible to automatically test all components within the plant during the starting phase.

Process-Pascal includes standard routines for interactive screen dialogue. Thus it is possible to define that a particular variable must be shown on the screen and be continuously updated. Data can be keyed into a variable by pointing at it using the screen cursor.

Process-Pascal programmes can be written using any general-purpose editor, which uses ASCII or ANSI files, or the editor included in the Process-Pascal compiler suite can be used.

Process-Pascal programmes operate with several types of variables. The compiler automatically performs typecasting during compilation. This makes programmes safer and easier to develop. The Process-Pascal program suite includes a debugger, which is a very powerful tool that significantly speeds up the overall process of application development. Process-Pascal programmes are compiled using a cross-compiler running on a PC under the Microsoft Windows operating systems. The compiler generates code, P-code that is stored in the controller in FLASH or RAM memory. The operating system in the controller interprets the P-codes and executes a piece of machine code for each P-code. The Process-Pascal program suite is an integrated part of the VIGO installation package (VIGO version 5.4 and newer), and is therefore available for the user when VIGO is installed. No separate licence fees are required for using the Process-Pascal tools.