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BASCOM
Programming of
Microcontrollers with Ease

An Introduction
by Program Examples

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Preface

The microcontroller market knows some well introduced 8-bit microcontroller families like Intel's 8051 with its many derivatives from different manufacturers, Motorola's 6805 and 68HC11, Microchip's PICmicros and Atmel's AVR.

The 8051 microcontroller family has been well-known over many years. The development of new derivatives is not finished yet. From time to time new powerful derivatives are announced.

You will find derivatives from Philips, Dallas, Analog Devices and Cygnal and others with the known 8051 core but enhanced clock and peripherals. For example, complete analog-to-digital and digital-to-analog subsystems were integrated in some chips.

Atmel developed the AVR microcontroller family which is well suited for high-level language programming and in-system programming.

For all those microcontrollers there is development software ranging from simple assemblers for DOS to integrated development environments for Windows95/98/NT on the market.

Apart from programming environments as they are offered, for example, by KEIL, IAR or E-LAB Computer for professional applications, also the more economical and nonetheless sufficiently equipped development environments can maintain ground.

BASCOM-8051 and BASCOM-AVR are development environments built around a powerful BASIC compiler which is suited for project handling and program development for the 8051 family and its derivatives as well as for the AVR microcontrollers from Atmel.

The programming of microcontrollers using BASCOM-8051 (version 2.0.4.0) and BASCOM-AVR (version 1.11.3.0) will be described in this book.

Some applications help understand the usage of BASCOM-8051 and BASCOM-AVR.

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- Christer Johansson of High Tech Horizon, who supports safe communication of microcontrollers and PC by the development and free distribution of the S.N.A.P. protocol and the necessary tools effectively and
- Lars Wictorsson of LAWICEL for the development of the CANDIPs, microcontroller modules with CAN interface.

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