4-20-1987

An 8052AH-Basic Development System for Industrial Control

Rex A. Swank
Indiana University - Purdue University Fort Wayne

AN 8052AH-BASIC DEVELOPMENT SYSTEM FOR INDUSTRIAL CONTROL

by

Rex A. Swank

April 20, 1987

TABLE OF CONTENTS

TABLE OF CONTENTS (cont.)

LIST OF FIGURES

LIST OF TABLES

ABSTRACT
OF

AN 8052AH-BASIC DEVELOPMENT SYSTEM
FOR INDUSTRIAL CONTROL

by
Rex A. Swank

This paper describes a project on the design and construction of a development system based on the 8052AH-BASIC microcontroller. The project will allow a designer to write software in a version of BASIC that has been enhanced for use in control systems. Users can operate the system from any asynchronous serial terminal using ASCII characters. Any baud rate up to 9600 baud is supported. No settings of baud rate are needed on the development system, as it will detect and synchronize to whatever rate the terminal is running at. Programs are written and edited in the 32K bytes of RAM on the system board. Any program may be saved to an EPROM with the on board EPROM programmer for later recall. A special feature of the system is the ability to be configured for automatic running of a program when the system is powered up. The system is constructed on a printed circuit board for added reliability and is mounted for easy access to all system components. Access to the system bus lines is provided through dual row header pins for use with ribbon cables. Hardware under development can be attached to these lines to provide a total prototype evaluation environment.