

PICDEM™ System Management Kit

Quick Start Guide: 5 Simple Steps

Software Installation

- ◆ Confirm your Windows® PC has a USB port and CD-ROM drive
- ◆ Insert CD labeled “PICDEM System Management Kit.”
- ◆ Run the installation software. (*D:\Setup\setup.exe*)

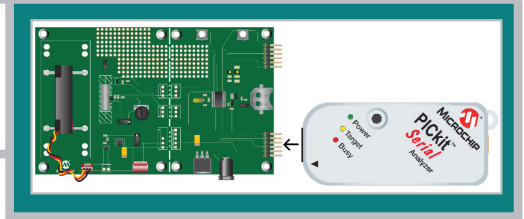


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Board Setup

- ◆ Connect the +12V power supply
- ◆ Connect the PICKit™ Serial Analyzer to the PC and to the 6-pin header on the PICDEM System Management Board



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Run the System Management GUI

(Start < Programs < Microchip System Management Board)

- ◆ The tabbed interface allows control and monitoring of each System Management function implemented on the microcontroller
- ◆ For more detailed information, refer to the PICDEM System Management User's Guide found on the PICDEM System Management Kit CD-ROM

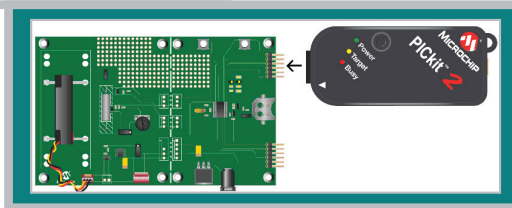
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Explore the Resources Included on the CD-ROM

- ◆ Open the *index.htm* file located in the root directory of the CD-ROM drive.
- ◆ The CD-ROM contents include: The PICDEM System Management User's Guide, Demonstration Firmware, a System Management Workshop Slideshow Presentation and a Hands-on Lab Manual

Modify Firmware and Reprogram the PIC16F886 Microcontroller

- ◆ Demonstration firmware is provided and can be modified using Microchip's MPLAB® IDE Integrated Development Environment
- ◆ The PICKit 2 Programmer interfaces to MPLAB IDE as well as the PICKit 2 Programming software included on the CD-ROM labeled “PICKit 2 Starter Kit”
- ◆ Connect the PICKit Programmer to the 6-pin header labeled “ICSP™” and use either the MPLAB IDE or PICKit 2 software to reprogram the microcontroller
- ◆ Now you are ready to start your design!



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Highlights of the PICDEM™ System Management Kit



This kit (Part # SPSYSMGT), sold exclusively through Newark and Farnell, includes several tools that demonstrate and aid in the development of system management applications. The PICDEM System Management Board shows how microcontrollers can add flexibility, integrate tasks and reduce costs. The PICkit™ Serial Analyzer and PICkit 2 Programmer are development tools that allow system designers to efficiently create and debug application firmware.

PICDEM System Management Board

The PICDEM System Management Board demonstrates how microcontrollers can add flexibility, integrate tasks, and reduce cost in system management applications. The board is populated with a PIC16F886 Flash microcontroller that implements an I²C™ real-time clock calendar, serial EEPROM, serial analog-to-digital converter, and thermal management controller. The PICkit Serial Analyzer is used in conjunction with the PICDEM System Management Board to individually manage and monitor each of the four functions implemented on the PIC® microcontroller. A PC graphical user interface (included on CD) has been developed that demonstrates the functionality of each of the devices. The tabbed GUI provides thermal management status, analog-to-digital converter status, serial EEPROM data status and modification, real-time clock data and basic I²C communications.



PICkit™ Serial Analyzer

Included with the kit is Microchip's new PICkit Serial Analyzer. The PICkit Serial Analyzer is a serial communications interface to USB. The development tool can manage and analyze several industry standard serial communications protocols including I²C, SPI, and USART. The PICkit Serial Analyzer connects to serial communications lines via a 6-pin header. The PICkit Serial Analyzer GUI allows analysis and generation of serial communications. Simple messages can be generated in the GUI and complex messages can be generated as well using scripts and software templates. This development tool aids in any application where the test and debug of serial communications is required.



PICkit™ 2 Programmer

The PICkit 2 Programmer is a low-cost USB in-circuit programmer. It is capable of programming most of Microchip's Flash microcontrollers. The 6-pin programming connector connects to the In-Circuit Serial Programming™ (ICSP™) pins of the microcontroller. The PICkit 2 programming software allows the writing of both program memory and data EEPROM memory. The PICkit 2 Programmer is useful for programming during development of PIC microcontrollers.



PIC16F690, PIC16F886, PIC16F887 Samples

The microcontroller samples included in this kit are ideal for system management applications. Each has a large variety of integrated peripherals that can implement functions such as: real-time clock, chassis intrusion detection, thermal management, serial EEPROM, analog-to-digital conversion and power-up sequencing. Moreover, in system management applications utilizing I²C communications, each of these microcontrollers has a Synchronous Serial Port Module (MSSP or SSP) with an address masking feature, which allows the microcontroller to address multiple I²C slave address. This can allow many I²C devices on a bus to be integrated into a single microcontroller.



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