PROTEUS VSM
The Complete Electronics Design System
Virtual System Modelling

All the VSM micro-processor simulation products listed below are inclusive of ISIS Professional Schematic Capture, ProSPICE Basic Simulation, and the Proteus VSM Peripheral Models Library

PROTEUS VSM for ARM/LPC2000 ………………………………………………………….………….……. **$649**
Microprocessors models for ARM7 – Please see last page for a list of supported parts.

PROTEUS VSM for PIC 10/12 ……………………………………………………………………………… **$479**
Microprocessors models for PIC10/12 – Please see last page for a list of supported parts.

PROTEUS VSM for PIC 16 …………………………………………………………………………….…….. **$479**
Microprocessors models for PIC16 – Please see last page for a list of supported parts.

PROTEUS VSM FOR PIC 16/18 Starter Kit …………………………………………………………………. **$249**
CPU models PIC16 series: 16F84A, 16F877, and 18F452 only.

PROTEUS VSM for PIC 18 …………………………………………………………………………………… **$479**
Microprocessors models for PIC18 – Please see last page for a list of supported parts.

PROTEUS VSM for PIC 24 ……………………………………………………………….…...……………… **$649**
Microprocessors models for PIC24 – Please see last page for a list of supported parts.

PROTEUS VSM for dsPIC 33 …………………………………………………………….…..……………… **$649**
Microprocessors models for dsPIC33 – Please see last page for a list of supported parts.

PROTEUS VSM for Microchip PIC Bundle ………………………………………................................ **$999**
CPU model libraries for the PIC 10, PIC 12, PIC16, and PIC18 families

PROTEUS VSM for Microchip PIC Bundle / w PIC24 and dsPIC33 ………….……………...…… **$1599**
CPU model libraries for the PIC 10, PIC 12, PIC16, PIC18 and PIC24 families

PROTEUS VSM for MCS51/52 …………………………………………………………………………… **$479**
Microprocessors models for MCS51/52 – Please see last page for a list of supported parts.

PROTEUS VSM for MCS51 Starter Kit …………………………………………………………..…… **$249**
The Starter version contains only the generic 80C51 processor model

PROTEUS VSM for HC11 …………………………………………………………………………….…… **$479**
CPU models for the MC68HC11A8 and MC68HC11E9 micro-controllers.

PROTEUS VSM for Atmel AVR ……………………………………………………………………….… **$479**
Microprocessors models for AVR – Please see last page for a list of supported parts.

PROTEUS VSM for Atmel AVR Starter Kit ……………………………………………………….…… **$249**
The Starter version contains only the AT90S8535 processor model.

PROTEUS VSM for TI MSP430 NEW ….……………………………………………………. **$479**
Microprocessors models for MSP430 – Please see last page for a list of supported parts.

PROTEUS VSM for BASIC Stamp ……………………………………………………………………..…. **$319**
The Complete version contains models for the complete series of BASIC Stamp devices from Parallax:
BS1, BS2, BS2e, BS2sx, BS2p24, BS2p40, BS2pe (Stamp works is free to down-load)

PROTEUS VSM for BASIC Stamp Starter Kit ………………………………………………………...……. **$159**
The Starter version contains a model for only the popular BS2 BASIC Stamp device.

Proteus VSM USB Simulation ……………………………………………………………………………….. **$319**

The worlds first schematic based USB Device Simulation tool. Initially this is implemented on the PIC18 Full Speed USB variants (above) but will be extended across other families (Atmel, ARM, etc.) in future releases.

Advanced Simulation Features ……………………………………………………………...……… **$319**
It enhances the standard simulation by allowing you to perform over a dozen graph based analyses on your designs.

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PROTEUS PCB Design (Level 1, Level 1+) ……………………………………..…………… **$479/$649**

Entry level for Proteus PCB design, limited in terms of both functionality and pin count.
- Full feature schematic capture with support for hierarchical design, bus pins, configurable bill of materials and more.
- Netlist based PCB layout with support of up to 16 copper layers, 10nm resolution, any angle component placement, full electrical and physical design rule checks and much more.
- Standard version of integrated auto-router
- Support for one shaped based ground plane per layer.
- Component libraries containing over 8000 parts
- 1000 pin capacity in Level 1; 2000 pin capacity in the Level 1+.
- Interactive Circuit Simulation.

PROTEUS PCB Design (Level 2, Level 2+) ………………………….…………….……. **$999/$1599**

These products are restricted in terms of pin count only and include the same set of features as the top of the range Level 3.
Extra functionality over Level 1 includes:
- Automatic Component placement- this tool will automatically place the component specified in the netlist onto the board.
- Rip up and retry autorouting. This enables the router to achieve 100% completion on many boards.
- Unlimited shape based ground planes per layer.
- Automatic gateswap optimisation
- 1000 pin capacity in Level 2; 2000 pin capacity in the Level 2+.

PROTEUS PCB Design (Level 3) …………….………………………………..…...…………… **$1999**
This is the top of the range package and offers all system features plus unlimited design capacity.

PROTEUS PCB Design Starter Kit ………………………..…………….…………..………… **$249**

Starter version: offers same functionality as PCB Design Level 1 but has a design capacity of **500 pins only**. Includes the Basic version of the ProSPICE simulation engine providing a complete entry-level professional package. **Upgrade to higher levels for the** price difference only.

Advanced Simulation Function …………………………..……………….………..… **$319**

The Advanced Simulation module integrates seamlessly into Proteus PCB Design providing a complete design environment. Includes over a dozen graph based analysis types.

Shape Based Autorouting with Proteus

Proteus includes a fully integrated shape based autorouter **at no additional cost** with all versions of our professional PCB Design software.

The router uses a multi-pass cost-based conflict reduction process to find a routing solution which adapts to the natural flow of the nets. Adaptive routing algorithms are now regarded as the most effective way to reach high completion rates whilst also giving results which are often hard to distinguish from manual routing.

- True shape-based gridless autorouter.
- World class performance with adaptive cost-based algorithms to maximise completion rates.
- Fully integrated with the ARES Professional Layout package.
- Works seamlessly with ARES Design Rule Manager and Net Class configurations.
- Routes SMD devices on both sides.
- Supports blind and buried vias.
- Post autorouting clean-up optimization.

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Compilers, Tools and Books

Source Boost C:

BoostC is a C compiler that works with PIC16, PIC18 and some PIC12 processors. This ANSI C compatible compiler supports features like source level symbolic debugging, signed data types, structures/unions and pointers. The BoostC compiler can be used within our Source Boost IDE (Integrated Development Environment), or it can be integrated into Microchip MPLAB.

Source Boost Pro Version – Single User………………………………..………………………………	**$149.95**
Source Boost Pro Version – 10 Users…………………………………………………………….	**$1000**
Source Boost Pro Version – 25 Users………………………………………………………..	**$1200**
Source Boost Pro Version – 50 Users ……………………………………………..……………	**$1300**
Source Boost Pro Version – 100 Users………………………………………………..……………	**$1500**
Extra Plug-in Source Boost IDE………………………………………………………………	**$20**

Code Vision AVR: …………………………………………………………………………	**$220**
C Compiler, IDE, Automatic Program Generator and ISP for the AVR microcontrollers with internal RAM	
Chip Blaster AVR: ……………………………………………………………..………	**$70**
Universal In-System Programming Software for the AVR microcontroller	

In-Circuit Perogrammer:

In-Circuit Programmer is a **cost-effective** programmer for high volume production, service and development. The ICP2 features overcurrent protection circuits, which prevent both programmed devices and the programmer from being damaged. Windows® DLL functions are suitable for high volume **automatic** programming. Once all necessary parameters are set-up, you can quickly and securely duplicate devices in production one-touch programming mode. Built-in bootloader allows convenient field firmware upgrade via software.

Complete package comes with ICP2 programmer unit, power adapter.

ICP2 …………………………………………………………………………………………………	**$479**

 Programmer unit, Power adapter 220VAC(2) or 110VAC(1) to 12VDC, Sub-D 15-pin mating connector, Windows Software CD, USB cable.
Support for standalone operation. Base kit for in-circuit programming PIC microcontrollers: PIC10Fxxx, PIC12C/Fxxx, PIC16C/Fxxxx, PIC18Fxxxx

Optional Accessory for ICP2

UPG-DLL …………………………………………………………………………………	**$299**
DLL firmware, DLL CD developer kit	
Command line support Windows DLL support for automatic programming from user's applicatio	
UPG-KEE ……………………………………………………………………..……………	**$299**
Firmware for Keeloq support	
Supports Keeloq encoders HCS300/301/362 and HCS360/361	
UPG-dsPIC …………………………………………………………………………………	**$299**
Firmware for dsPIC support	
Supports PIC24, dsPIC family devices	

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Package for ICP2

ICP2-D **$549**
Includes Base kit ICP2 and DLL kit UPG-DLL

ICP2-K **$549**
Includes Base kit ICP2 and Keeloq support UPG-KEE

ICP2-P **$549**
Includes Base kit ICP2 and dsPIC support UPG-dsPIC

ICP2-DP **$649**
Includes Base kit ICP2, DLL kit UPG-DLL and dsPIC support UPG-dsPIC

ICP2-DK **$649**
Includes Base kit ICP2, DLL kit UPG-DLL and Keeloq support UPG-KEE

ICP2-DKP... **$729**
Includes Base kit ICP2, DLL kit UPG-DLL, Keeloq support UPG-KEE and dsPIC support UPG-dsPIC

ICP2GANG $999
4 channels Programmer unit, Universal power adapter 100-240VAC to 12VDC, 9-9 pin RS-232 cable1.8m, Sub-D 15-pin mating connector, Windows Software CD, USB cable

Optional Accessory for ICP2GANG

UPG4CH-DLL ....…… **$399**
DLL firmware, DLL CD developer kit

UPG4CH-dsPIC ....…..…… **$399**
Firmware for dsPIC support
Supports PIC24, dsPIC family devices

UPG4CH-KEE ....…..…… **$399**
Firmware for Keeloq support
Supports Keeloq encoders HCS300/301/362 and HCS360/361

Package for ICP2GANG

ICP2GANG-D ....…...………… **$1299**
Includes Base kit ICP2GANG and DLL kit UPG4CH-DLL

ICP2GANG-K ....…...……… **$1299**
Includes Base kit ICP2GANG and Keeloq support UPG4CH-KEE

ICP2GANG-P ....……...…...…… **$1299**
includes Base kit ICP2GANGand dsPIC support UPG4CH-dsPIC

ICP2GANG-DK ....…………… **$1459**
includes Base kit ICP2GANG, DLL kit UPG4CH-DLL and Keeloq support UPG4CH-KEE

ICP2GANG-DP ....………… **$1459**
includes Base kit ICP2GANG, DLL kit UPG4CH-DLL and dsPIC support UPG4CH-dsPIC

ICP2GANG-DKP ....……… **$1619**
includes Base kit ICP2GANG, DLL kit UPG4CH-DLL, Keeloq support UPG4CH-KEE and dsPIC support UPG4CH-dsPIC

DISCOVERING
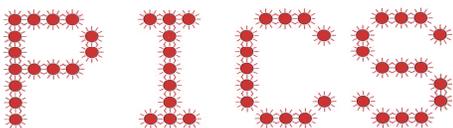
Discovering PICs (Book): ....…………… **$46**

This book helps you to go directly into the programming and using PIC devices with minimum background information

It includes the Book, the CD and Wave Wand PCB)

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Microcontrollers and Peripherals Component List *- continue from first page*

PROTEUS VSM for ARM/LPC2000:

Microprocessors models for: LPC2104, LPC2105, LPC2106, LPC2114, LPC2124 , ARM7TDMI and ARM7TDMI-S core models, LPC2131, LPC2132, LPC2134, LPC2136, LPC2138, LPC2101, LPC2102, LPC2103

PROTEUS VSM for PIC 10/12:

PIC10 series: PIC 10F200, 10F202. 10F204, 10F206

PIC12 series: 12C508A, 12C509A, 12CE518, 12CE519, 12C671, 12C672, 12CE673, 12CE674, 12F629, 12F675, 12F683

PROTEUS VSM for PIC 16:

PIC16 series: 16C54, 16C55, 16C56, 16C57, 16C61, 16C62B, 16C63A, 16C64A, 16C65B, 16C66, 16C67, 16C72A, 16C73B, 16C74B, 16C76, 16C77, 16F83, 16F84A, 16F87, 16F88, 16F610, 16F616, 16F627A, 16F628A, 16F630, 16F631, 16F648A, 16F676, 16F677, 16F684, 16F685, 16F687, 16F688, 16F689, 16F690, 16F785, 16F870, 16F871, 16F873, 16F873A, 16F874, 16F874A, 16F876, 16F876A, 16F877, 16F877A, 16F882, 16F883, 16F884, 16F886, 16F887, 16F913, 16F914, 16F916, 16F917, 16HV610, 16HV616, 16HV785, 16F818, 16F819

PROTEUS VSM for PIC 18:

PIC18 series: 18F2450, 18F2455, 18F2458, 18F2550, 18F2553, 18F4450, 18F4455, 18F4458, 18F4550, 18F4553, 18F23K20, 18F24J10, 18F24K20, 18F25J10, 18F25K20, 18F26K20, 18F43K20, 18F44J10, 18F44K20, 18F45J10, 18F45K20, 18F46K20, 18F242, 18F248, 18F252, 18F258, 18F442, 18F448, 18F452, 18F458, 18F1220, 18F1320, 18F2220, 18F2320,18F2331, 18F2410, 18F2420, 18F2431, 18F2510, 18F2515, 18F2520, 18F2525, 18F2439, 18F2539, 18F2610, 18F4510, 18F2620, 18F4220, 18F4320, 18F4331, 18F4410, 18F4420, 18F4431, 18F4439, 18F4515, 18F4520, 18F4525, 18F4539, 18F6520, 18F6527, 18F6585, 18F6620, 18F6622, 18F6627, 18F6680, 18F6720, 18F6722, 18F8520, 18F8527, 18F8620, 18F8622, 18F8627, 18F8720, 18F8722, 18F1230, 18F1330, 18F2480, 18F2580, 18F2585, 18F2680, 18F4480, 18F4580, 18F4585, 18F4610, 18F4620, 18F4680

PROTEUS VSM for PIC 24:

PIC24 series: 24FJ32G002, 24FJ32GA004, 24FJ48G002, 24FJ48GA004, 24FJ64G002, 24FJ64GA004, 24FJ16GA002, 24FJ16GA004, 24FJ064GA006, 24FJ096GA006, 24FJ128GA006, 24FJ064GA008, 24FJ096GA008, 24FJ128GA008, 24FJ064GA010, 24FJ096GA010, 24FJ128GA010

PROTEUS VSM for dsPIC 33:

dsPIC33 series: 33FJ12GP201, 33FJ12GP202, 33FJ32GP202, 33FJ32GP204, 33FJ16GP304, 33FJ12MC201, 33FJ12MC202, 33FJ32MC202, 33FJ32MC204, 33FJ16MC304

PROTEUS VSM for 8086:

8086 and Peripherals 8255, 8253, 8251 and 8279

PROTEUS VSM for MCS51/52:

CPU models for the 80C31, 80C32, 80C51, 80C52, 80C54 and 80C58 micro-controllers. Also includes Atmel AT89C51, AT89C52, AT89C55, AT89C51RB2, AT89C51RC2 and AT89C51RD2 and Philips P87C51FA, P87C51FB, P87C51FC, P87C51RA+, P87C51RB+, P87C51RC+, P87C51RD+

PROTEUS VSM for Atmel AVR:

CPU models for Atmel AVR series*:* AT90USB646, AT90USB1286, ATMEGA640, ATMEGA644, ATMEGA644P, ATMEGA645, ATMEGA162, ATMEGA165, ATMEGA165P, ATMEGA325, ATMEGA325P, ATMEGA3250, ATMEGA3250P, ATMEGA2313, ATMEGA8515, ATMEGA8535, ATMEGA1284P, ATMEGA8, ATMEGA8(32PIN), ATMEGA16, ATMEGA32, ATMEGA48, ATMEGA48P, ATMEGA48P(32PIN), ATMEGA48(32PIN), ATMEGA64, ATMEGA88, ATMEGA88P, ATMEGA88P(32PIN), ATMEGA88(32PIN), ATMEGA128, ATMEGA164P, ATMEGA168, ATMEGA168P, ATMEGA328P, ATMEGA328P(32PIN), ATMEGA168P(32PIN), ATMEGA168(32PIN), ATMEGA324P, ATMEGA1280, ATMEGA1281, ATMEGA2560, ATMEGA2561, ATMEGA6450, ATMEGA103, ATTINY10, ATTINY11, ATTINY12, ATTINY13, ATTINY15, ATTINY24, ATTINY25, ATTINY44, ATTINY45, ATTINY48, ATTINY48(32PIN), ATTINY84, ATTINY85, ATTINY88, ATTINY88 (32PIN), ATTINY261, ATTINY461, ATTINY861, ATTINY2313, AT90S1200, AT90S2313, AT90S2323, AT90S2333, AT90S2343, AT90S4433, AT90S4434, AT90S8515, AT90S8535, ATMEGA169, ATMEGA19P, ATMEGA329, ATMEGA3290, ATMEGA329P, ATMEGA3290P, ATMEGA649, ATMEGA6490

PROTEUS VSM for HC11:

CPU models for HC11 series: MC68HC11A8, MC68HC11E9

PROTEUS VSM for Basic Stamp:

CPU models for Basic Stamp series: BS1, BS2, BS2e, BS2sx, BS2p24, BS2p40, BS2pe

PROTEUS VSM for USB Simulation:

PIC series: 18F4450, 18F4553, 18F2450, 18F2455, 18F2458, PIC18F2550, 18F2553, 18F4450, 18F4455, 18F4458

AVR Series: AT90USB646, AT90USB1286

PROTEUS VSM for TI MSP430 NEW

MSP430C1101, MSP430C1111, MSP430C1121, MSP430F1101, MSP430F2001, MSP430F2011, MSP430F1111, MSP430F1121, MSP430F2101, MSP430F2111, MSP430F2121, MSP430F2131.

Proteus VSM Peripherals Library:

OptoElectronic Display Models and Drivers such as Alphanumeric and Graphical LCD Models, LED Models, Seven Segment Display Models, Optoelectronic Driver Models, Optocoupler Models. Motor Models and Controllers, Ethernet Controller Models, Potentiometer Models, Memory Models such as I2C, SPI, … , Temperature Control Models, RS232/RS485/RS422 Protocol Models, ADC/DAC Converter Models, Power Management Models, Pulse Width Control Models, Laplace Transform Models, Thermionic Valve Models, Transducer Models, 1-Wire Protocol Models, and Interactive Instrumentation such as 4-channel Digital Oscilloscope, 40-Channel Logic Analyser, Counter/Timer instrument measures time intervals, signal frequency and pulse counts, RS232 Terminal, DC and AC Voltmeters, and lots of other components

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