

Centro Federal de Educação Tecnológica de Santa Catarina
Departamento Acadêmico de Eletrônica
Desenho Técnico



Introdução ao Proteus

Prof. Clóvis Antônio Petry.

Florianópolis, março de 2008.

Nesta aula

Tópicos de estudo:

1. Desenvolvedor do Proteus;
2. Proteus no Youtube;
3. Uma visão rápida do Proteus;
4. Primeiro uso do Proteus.

Desenvolvedor do Proteus

<http://www.labcenter.co.uk/>

Labcenter Electronics - Internet Explorer provided by Dell

http://www.labcenter.co.uk/

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Labcenter Electronics

...the home of PROTEUS

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Proteus VSM

Co-simulation of microprocessor software within a mixed mode SPICE simulator.

- Available for PIC, 8051, AVR, HC11, ARM7/LPC2000 and Basic Stamp processors.
- See your code interact with simulated hardware in real-time.
- Interactive peripheral models for displays, keypads, etc.
- Over 8000 analogue and digital device models.
- Extensive single step and debugging facilities including system wide diagnostics.
- Works with popular compilers and assemblers.

CCS KEIL IAR SYSTEMS HI-TECH SOFTWARE

Image Craft BYTE CRAFT MICROCHIP Proton HP InfoTech

Proteus PCB Design

Professional schematic capture and PCB

Latest...

Join the Support Forums for Latest Product News

Proteus Design Suite 7.2

Latest Releases

Register on our Support Forum for News of the Latest Software Releases.

Magazine Review

Proteus VSM is highly recommended for designers frequently working on circuits containing digital as well as analogue electronics.

Elector Electronics Review

Done Internet | Protected Mode: On 100%

Proteus no Youtube

YouTube - Broadcast Yourself. - Internet Explorer provided by Dell
http://br.youtube.com/results?search_query=proteus+%2B+simulador&search=Pesquisar

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YouTube - Broadcast Yourself.

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proteus + simulador powered by Google

Resultados da pesquisa de "proteus + simulador"
1 - 2 de cerca de 2

Classificar por: Relevância | [Data da inclusão](#) | [Mais vistos](#) | [Avaliação](#) Exibir:

PIC16F84 Microcontroller and Stepper Motor in Proteus ISIS
De: [albertocottita](#)
Exibições: 4495
Adicionado em: 8 meses atrás
Mais em [Instruções](#)

Palavras-chave: [UPICSA](#) [IPN](#) [INGENIERIA](#) [INFORMATICA](#) [COMPUTER](#) [ENGINEERING](#) [SIMULACION](#) [COMPUTER](#) [ENGINEERING](#) [PIC16F84](#) [PROTEUS](#) [SIMULATION](#) [COMPUTER](#) [ENGINEERING](#)

Duração: 00:13

Electronic Lock with PIC Microcontroller
here :
<http://upicisa.archivos.googlepages.com/PICBASICMYMICROCODESTUDIO.zip...UPICSA IPN INGENIERIA INFORMATICA PIC16F84 PROTEUS SIMULACION COMPUTER ENGINEERING> (mais)
Exibições: 5096
Adicionado em: 8 meses atrás
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Duração: 00:49

YouTube - PIC16F84 Microcontroller and Stepper Motor in Proteus ISIS - Internet Explorer provided by Dell
http://br.youtube.com/watch?v=hw13Yr55sM

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YouTube - PIC16F84 Microcontroller and Stepper...

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Videos Categorías Canais Comunidades

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PIC16F84 Microcontroller and Stepper Motor in Proteus ISIS

Experimente nossa NOVA versão (beta) desta página!
Adicionado em: 26 de dezembro de 2006
De: [albertocottita](#)
The best software to simulate your el... (mais)
Categoria [Instruções](#)
Palavras-chave: [UPICSA](#) [INGENIERIA](#) [INFORMATICA](#) [COMPUTER](#) (mais)
URL <http://br.youtube.com/watch?v=hw13Yr55sM>
Incorporar: `object width="425" height="350"><param name`

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Electronic Lock with PIC Microcontroller
De: [albertocottita](#)
Exibições: 5180

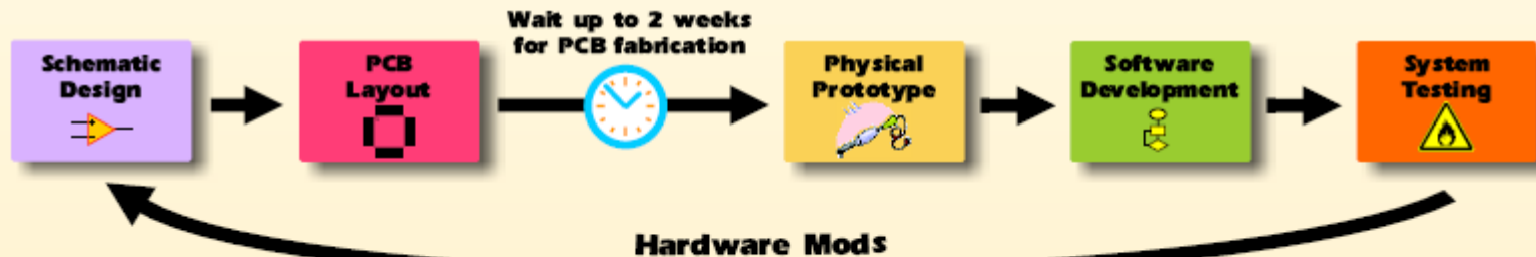
PIC16F84. LCD Y MOTOR. CON MOUSE COMO PERIFÉRICO DE ENTRADA

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Uma visão rápida do Proteus

The VSM Advantage



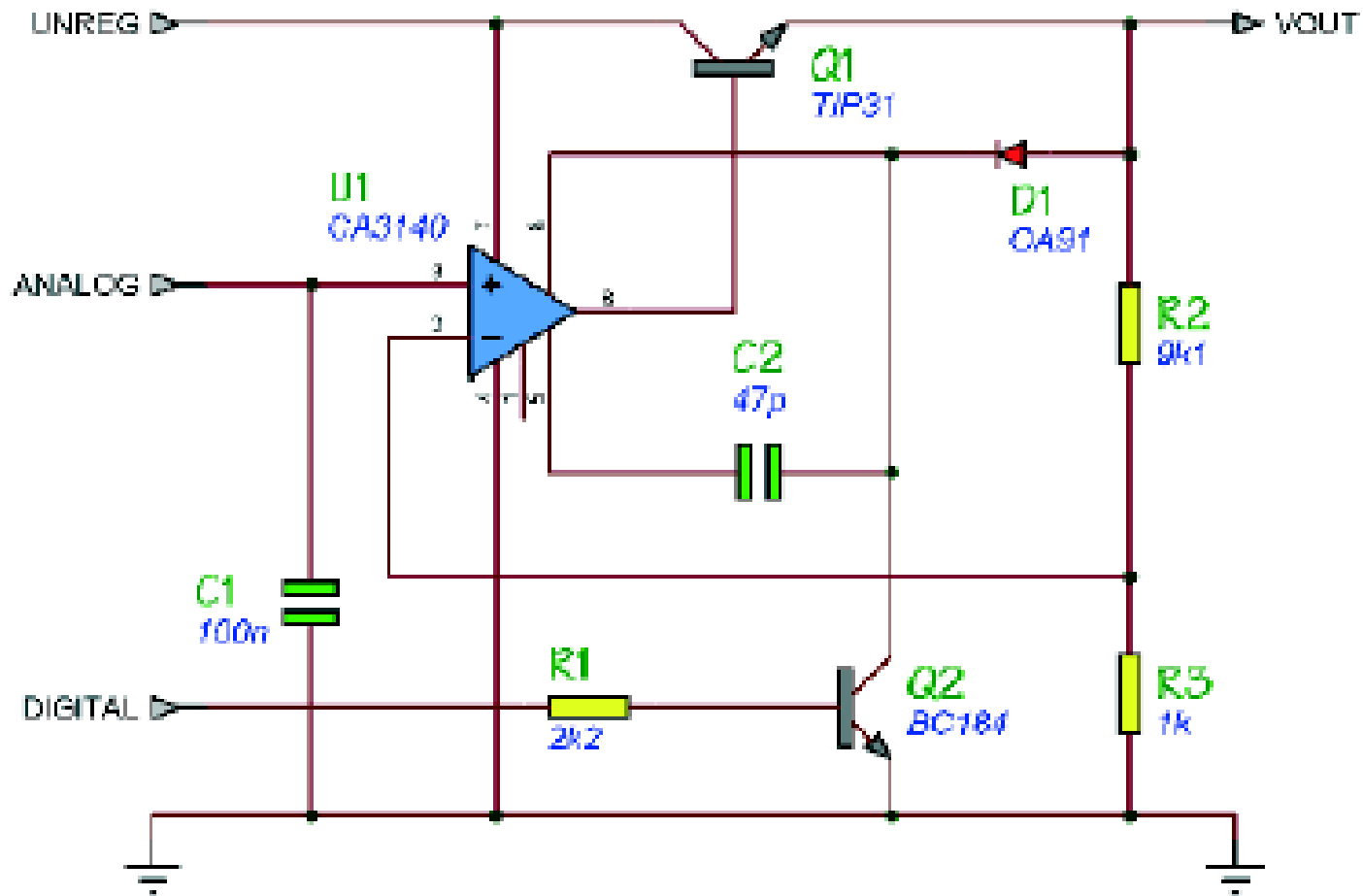
With traditional design tools, software development and system testing cannot begin until a PCB and physical prototype are available - incurring a delay of up to 2-3 weeks. And if something is wrong with the hardware design, the whole process must be repeated.



Using Proteus VSM, software development can begin as soon as the schematic is drawn, and the combination of hardware and software can be thoroughly tested before physical prototyping.

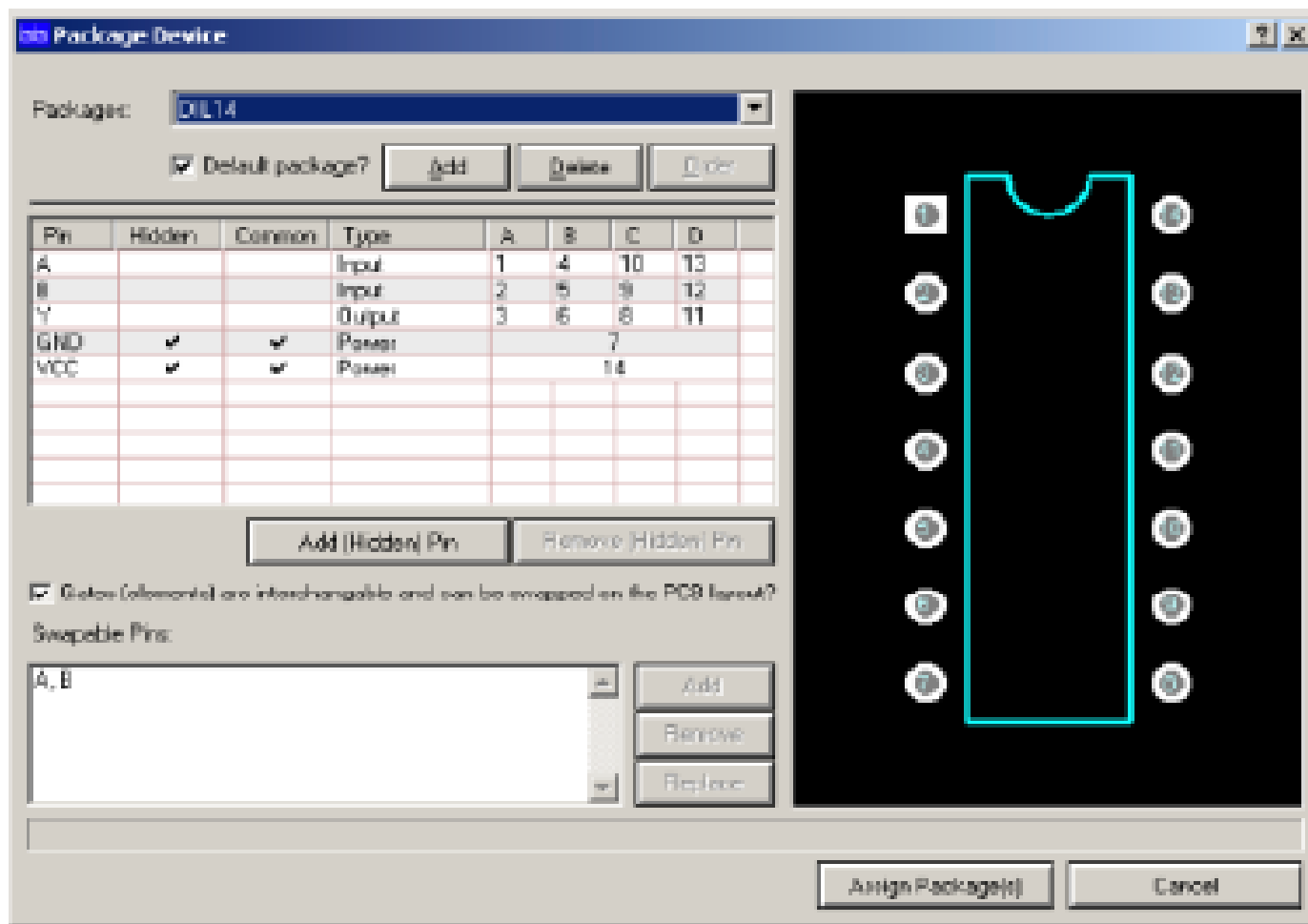
Uma visão rápida do Proteus

Esquemáticos de qualidade para publicações e impressões



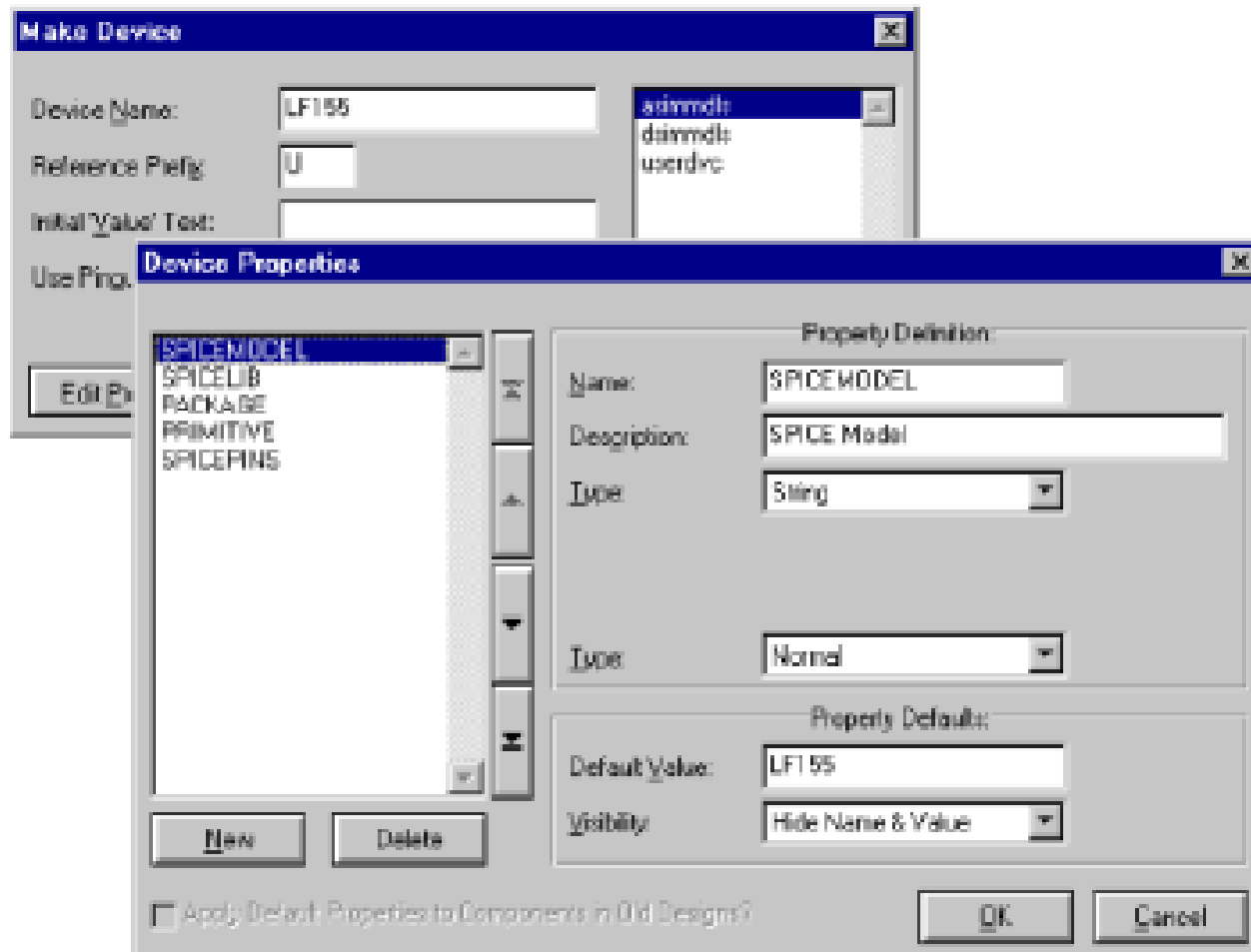
Uma visão rápida do Proteus

Visualização do encapsulamento do componente durante o desenho do esquemático



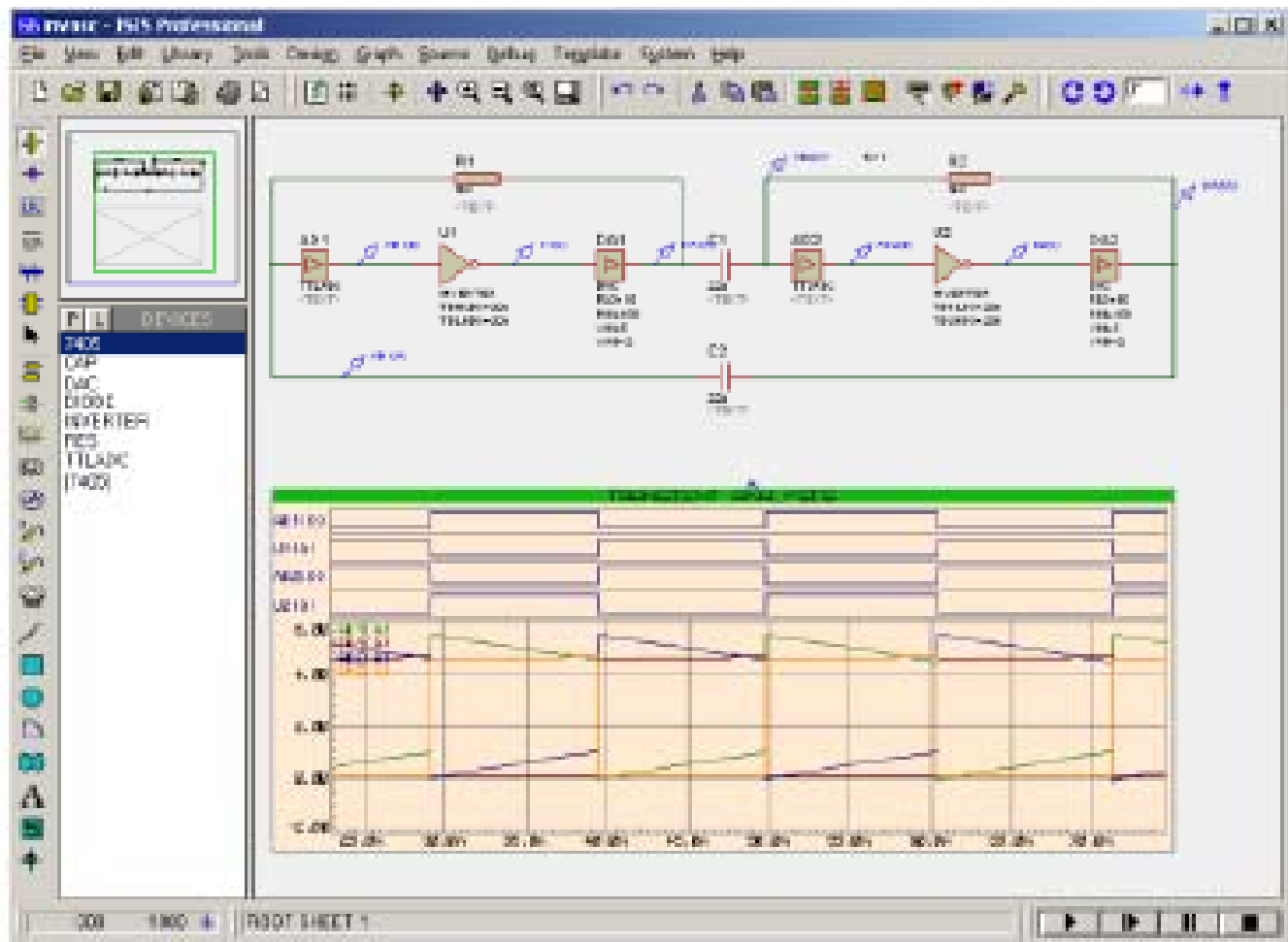
Uma visão rápida do Proteus

Possibilidade de alterar parâmetros de componentes



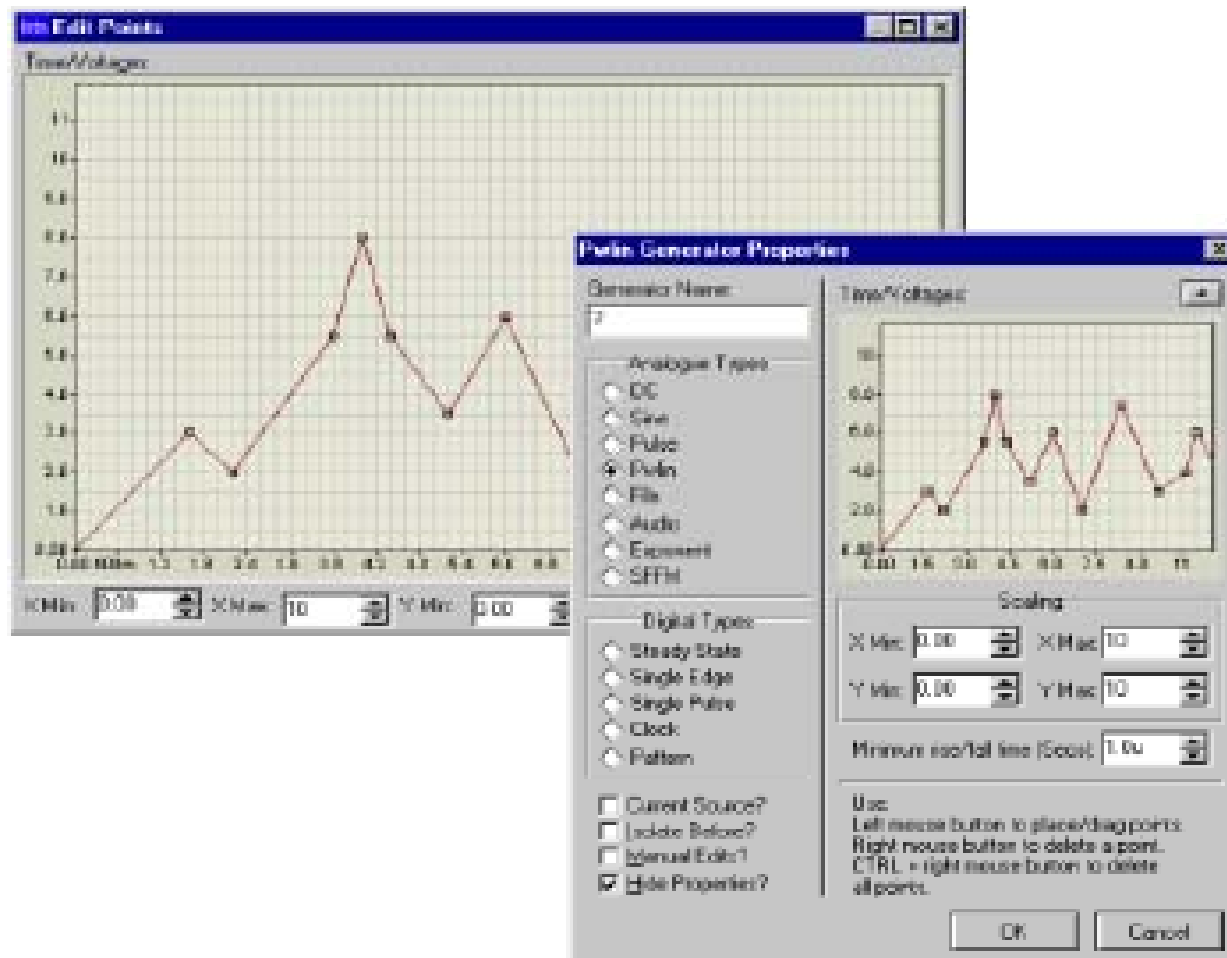
Uma visão rápida do Proteus

Simulação completa em apenas uma janela



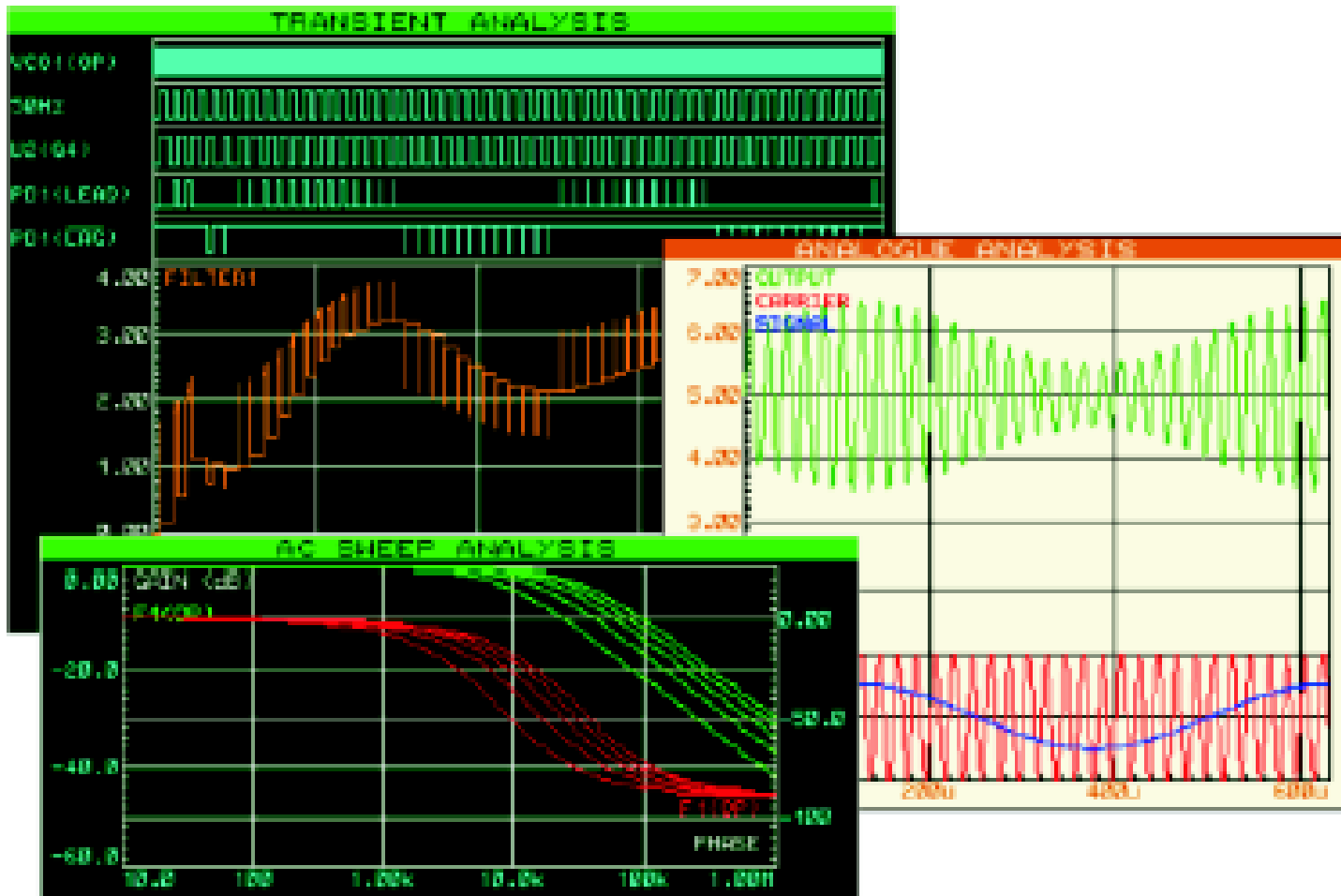
Uma visão rápida do Proteus

Núcleo de simulação do Pspice



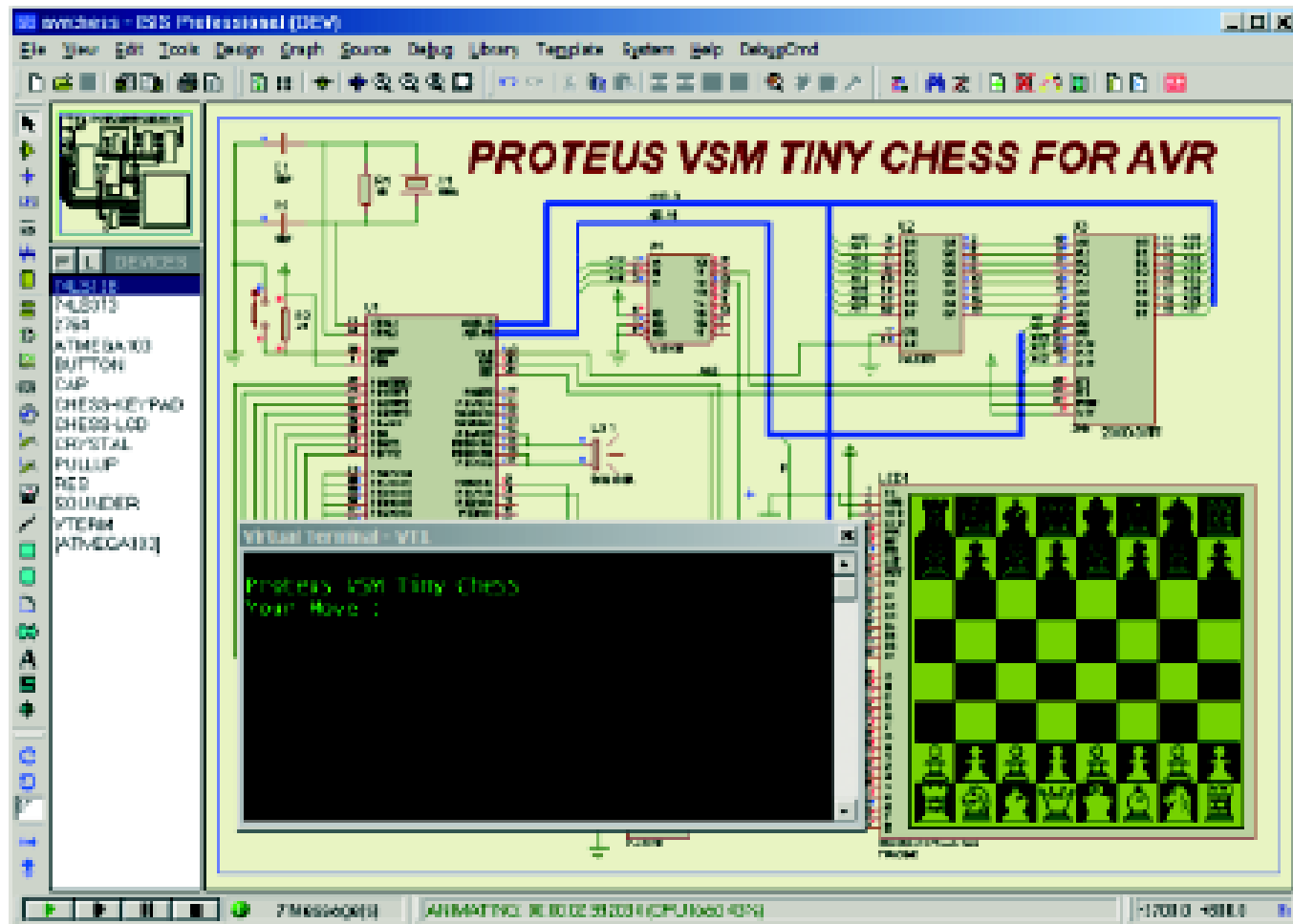
Uma visão rápida do Proteus

Simulação off-line para análise de formas de onda



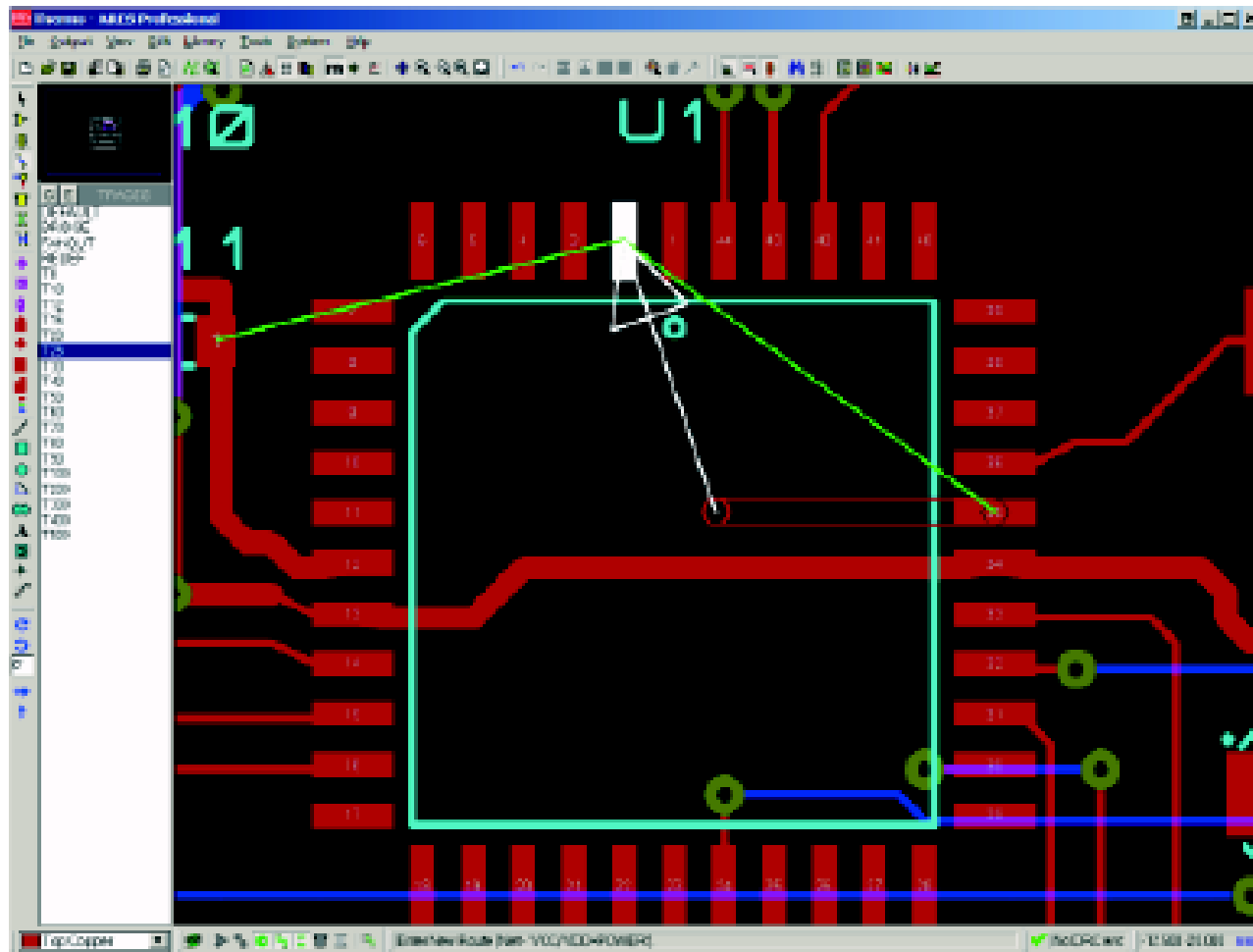
Uma visão rápida do Proteus

Simulação com código embarcado em microcontroladores



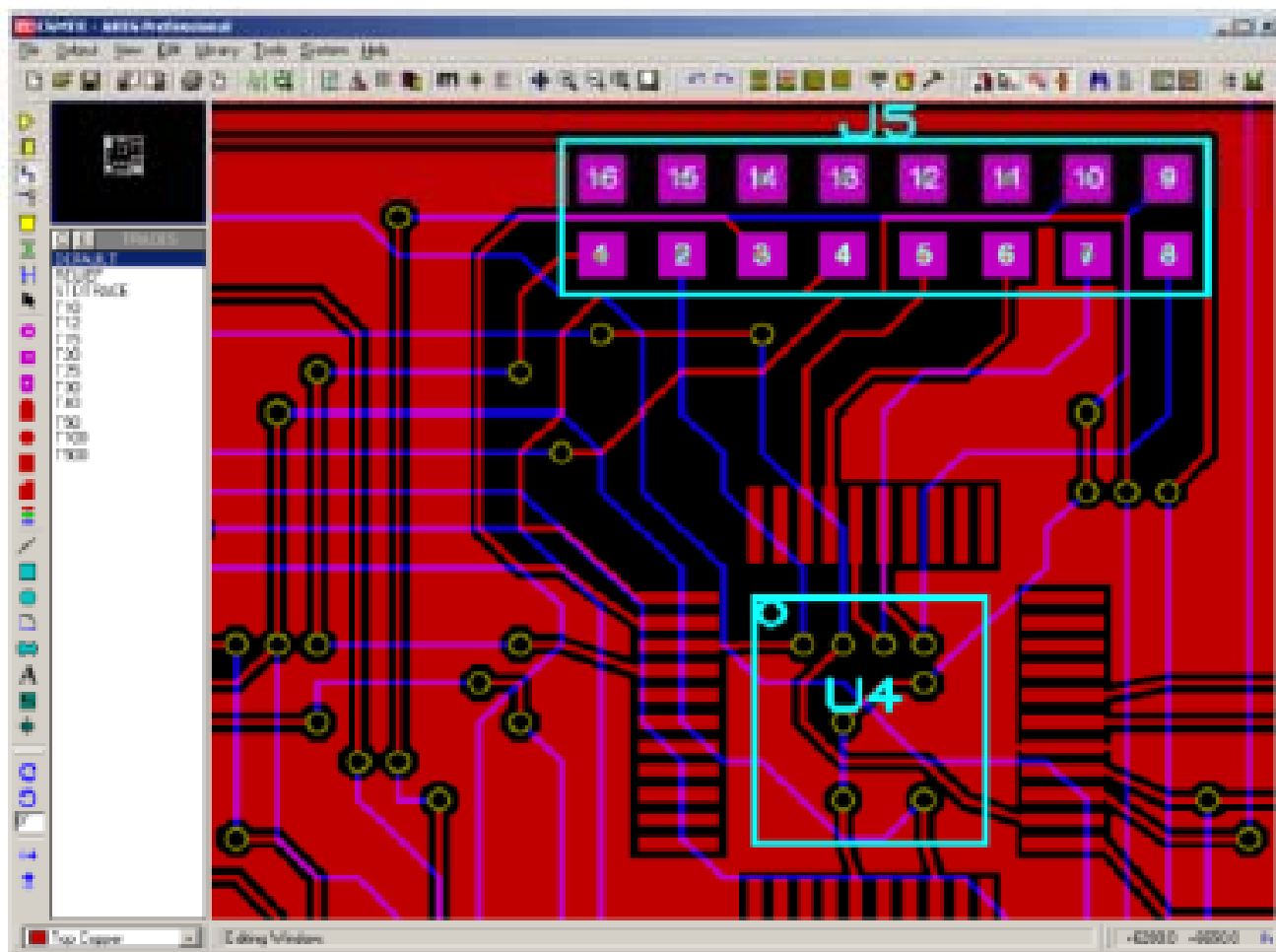
Uma visão rápida do Proteus

Roteamento automático para placas de circuito impresso



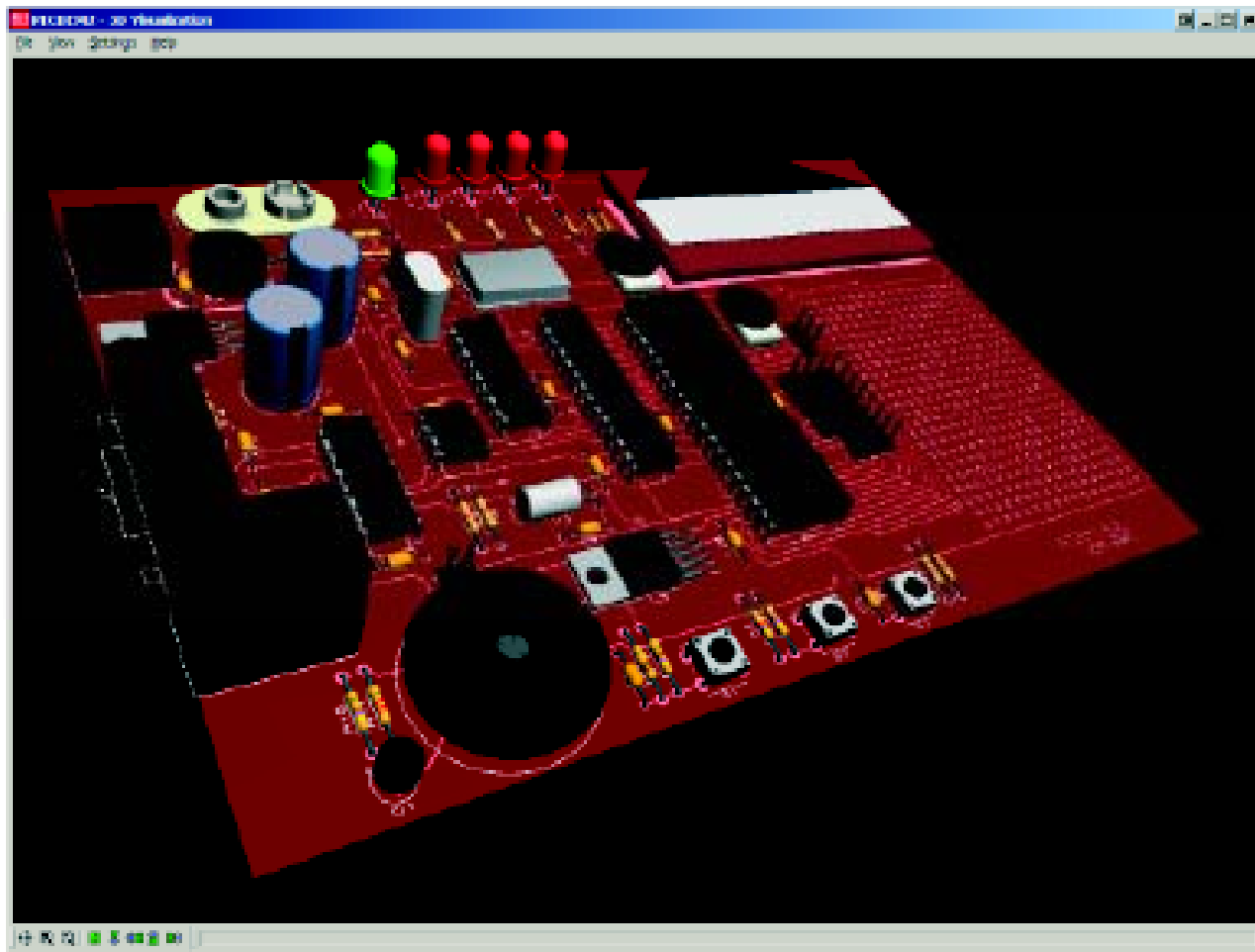
Uma visão rápida do Proteus

Trilhas de potência e malhas de terra



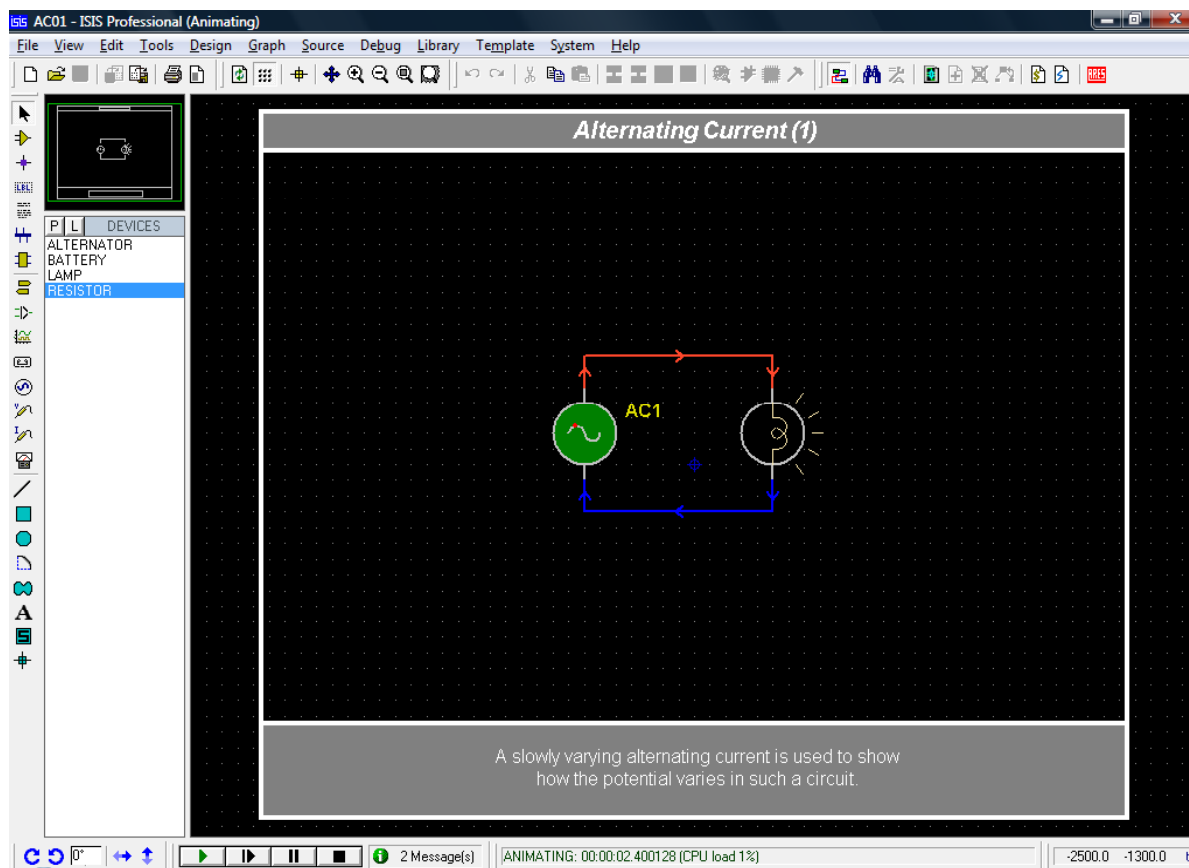
Uma visão rápida do Proteus

Visualização 3D da placa



Primeiro uso do Proteus

Circuito AC01 na pasta Interactive Simulation/Animated Circuits



Execute a simulação

Primeiro uso do Proteus

Circuito Basic01 na pasta Interactive Simulation/Animated Circuits

The screenshot displays the Proteus ISIS Professional (Animating) interface. The main workspace shows a circuit diagram titled "Basic Electricity (1)" on a black background. The circuit consists of a 12V battery (B1) on the left, a switch (SW1) at the top, and a 12V lamp (BL1) on the right. The components are connected in a single loop. A text box at the bottom of the workspace contains the following text:

Until the switch is closed the PD across the switch equals that across the supply. There is no PD across the bulb. No current is flowing. No energy can be converted to light. When the switch is closed the PD across the bulb equals that across the battery.

The interface includes a menu bar (File, View, Edit, Tools, Design, Graph, Source, Debug, Library, Template, System, Help), a toolbar, and a left-hand panel with a "DEVICES" list containing BATTERY, LAMP, MASTERSWITCH, and SWITCH. The status bar at the bottom shows "ANIMATING: 00:00:09.050000 (CPU load 0%)", "2 Message(s)", and coordinates "-1700.0 -1200.0 th".

Primeiro uso do Proteus

Circuito Basic02 na pasta Interactive Simulation/Animated Circuits

The screenshot displays the Proteus ISIS Professional (Animating) interface. The main window shows a circuit diagram titled "Basic Electricity (2)" on a black background with a grid. The circuit consists of a 12V battery (B1), a 200 ohm variable resistor (RV1), and a 12V lamp (BL1). The simulation is running, and the lamp is glowing. A text box at the bottom of the simulation window reads: "The variable resistor can be adjusted in order to vary the current through the bulb. The light output of the bulb varies accordingly." The status bar at the bottom indicates "ANIMATING: 00:00:16.750000 (CPU load 0%)".

Primeiro uso do Proteus

Circuito Comb01 na pasta Interactive Simulation/Animated Circuits

The screenshot displays the Proteus ISIS Professional (Animating) interface. The main workspace shows a combinational logic circuit titled "COMBINATIONAL LOGIC CIRCUITS - AND GATE". The circuit consists of two inputs, A and B, connected to an AND gate (U1). Input A is labeled "A-INPUT" and has a value of 1. Input B is labeled "B-INPUT" and has a value of 0. The output of the AND gate is labeled "Q-OUTPUT" and has a value of 0. A truth table is shown in the bottom right corner of the workspace, detailing the output for all combinations of inputs A and B.

TRUTH TABLE		
A	B	Q
0	0	0
1	0	0
0	1	0
1	1	1

The output is logic 1 when both the A input AND the B input are logic 1.
The output is logic 0 for all other cases.

Primeiro uso do Proteus

Circuito Diode07 na pasta Interactive Simulation/Animated Circuits

The screenshot displays the Proteus ISIS Professional (Animating) interface. The main workspace shows a circuit diagram titled "Diodes and Rectification (7)". The circuit consists of two AC voltage sources, AC1 and AC2, connected to a bridge rectifier composed of four diodes: D1, D2, D3, and D4. The output of the bridge is connected to an ammeter (AM1) and a load resistor. The ammeter displays a reading of +397 mA, and a voltmeter (VM1) displays a reading of +9.54 Volts. The simulation status bar at the bottom indicates "ANIMATING: 00:00:01.550000 (CPU load 5%)".

In this circuit a diode bridge is used to produce a full wave rectified output. As a result of the arrangement of diodes a current is flowing in both halves of the AC cycle. This is also shown by the ammeter and the voltmeter.

Próxima aula

Assunto:

1. CAD para Eletrônica – ISIS.

The screenshot displays the Proteus ISIS Professional software interface for a PICDEM2 Evaluation Board project. The main workspace shows a detailed circuit board layout on a grid. Key components include:

- Microcontroller:** PIC18F442 (U4) and PIC18F452 (U5).
- Peripherals:** LCD1 (LCD1602), piezo buzzer (P1), LEDs (D1-D5), buttons (S1-S3), and a potentiometer (R16).
- Passive Components:** Numerous resistors (R1-R24) and capacitors (C1, C2).
- Connectors:** J1 (JUMPER), J2 (JUMPER), and J3 (JUMPER).

The left sidebar shows the component library with a search filter set to 'P L DEVICES'. The status bar at the bottom indicates 'No Messages' and 'Interactive Peripherals'.