Clase teórica: "MultiSim" (T1b)

Dr. José A. Chaljub Duarte

http://www.ni.com/multisim/

http://www.ni.com/multisim/
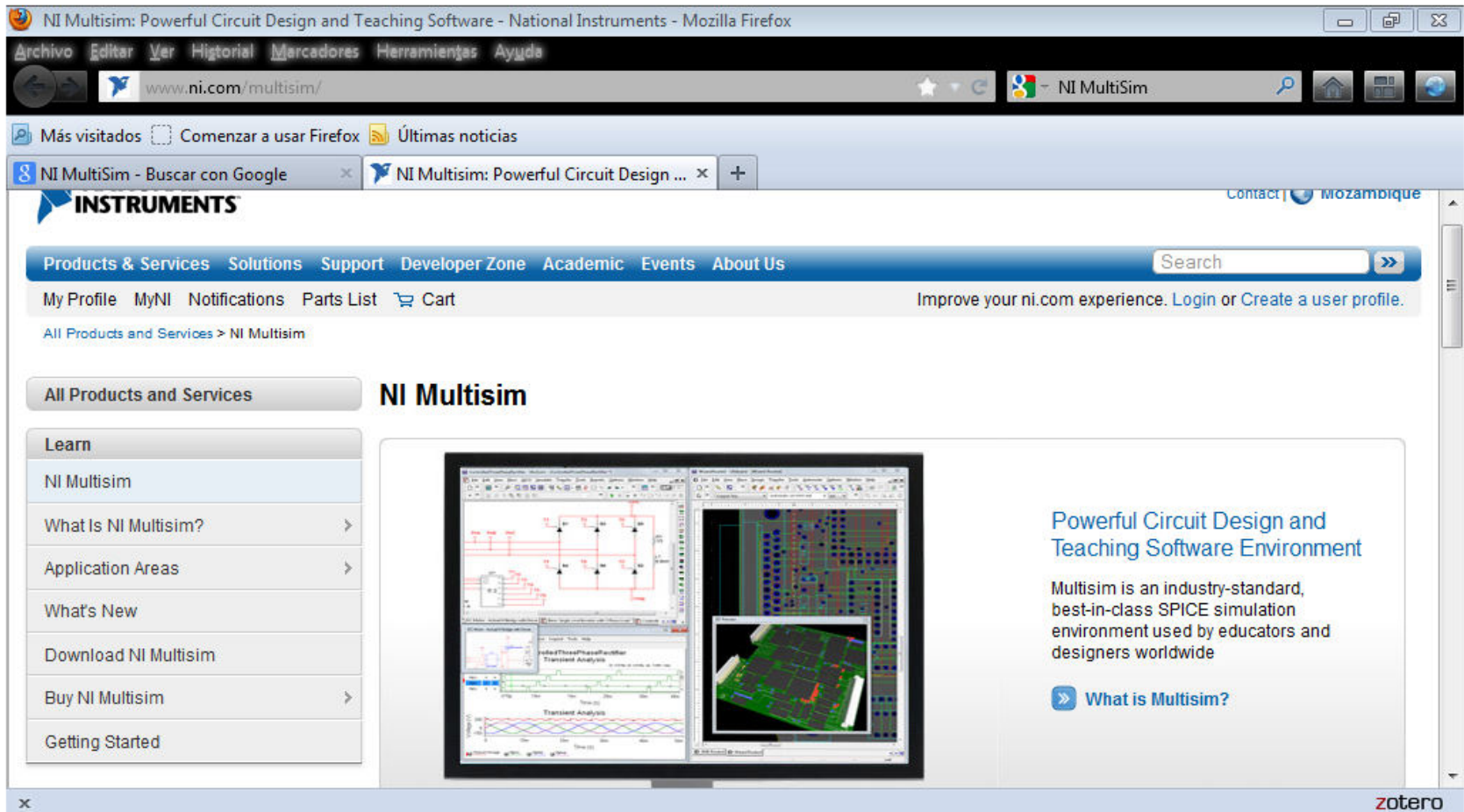
Multisim for Educators

Multisim builds student expertise through practical application in designing, prototyping, and testing electrical circuits.

Browse academic applications

Students, Get Your Copy of Multisim

Purchase Multisim Student Edition for homework and design projects.

Get Multisim Student Edition

Multisim for Professionals

With Multisim, you can optimize your circuit design performance with powerful SPICE simulation and intuitive analyses. You can reduce design errors, prototype faster, and improve productivity. Save prototype iterations and optimize printed circuit board (PCB) designs earlier in the design process by using the Multisim design approach.

Browse design applications

Featured Resources
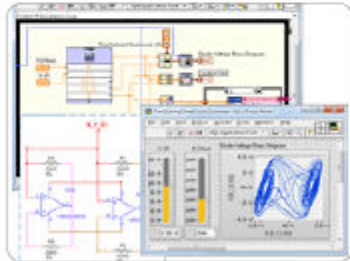
New Features in Multisim 12.0

Learn about new features to improve design productivity and circuits teaching.

Explore new features

Evaluate Multisim Now

Download a free 30-day trial or try the interactive demo.

Try Multisim

NI Multisim and Ultiboard Self-Paced Online Training

On-demand videos available for free for all customers that have an up-to-date NI

http://www.ni.com/multisim/applicati ons/edu/

All Products and Services

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NI Multisim

What Is NI Multisim? ›

Application Areas ›

What's New

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Getting Started

Education Benefits
Circuit Design Benefits
OS Support and System Requirements

Teaching Applications: Where Is NI Multisim Used?

Multisim is used for a variety of application areas for educators. Below you will find resources to learn how Multisim is used in each of the following application areas.

...nical environment of Multisim gives students the ability to quickly place basic components to ...mental circuit concepts and theory. These components, including resistors, capacitors, ...sources, switches, oscilloscopes, and probes, help to enhance learning of the following concepts:

- Resistive, capacitive, and inductive circuits
- Steady-state and transient circuit analysis techniques
- AC analysis and frequency response
- Operational amplifier and filter circuits

Teach superposition with Multisim and NI LabVIEW

Understand active RC filters with Multisim and NI ELVIS

Digital Circuits

Powerful circuit design

NI Multisim
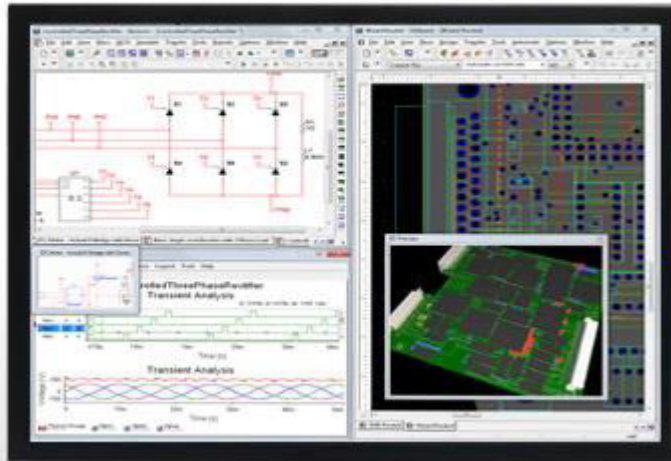
Powerful Circuit Design and Teaching Software Environment

Multisim is an industry-standard, best-in-class SPICE simulation environment used by educators and designers worldwide

» What is Multisim?

http://www.ni.com/multisim/

Multisim for Professionals

With Multisim, you can optimize your circuit design performance with powerful SPICE simulation and intuitive analyses. You can reduce design errors, prototype faster, and improve productivity. Save prototype iterations and optimize printed circuit board (PCB) designs earlier in the design process by using the Multisim design approach.

Browse design applications

http://multisim.softonic.com/

ORCAD

Instalação
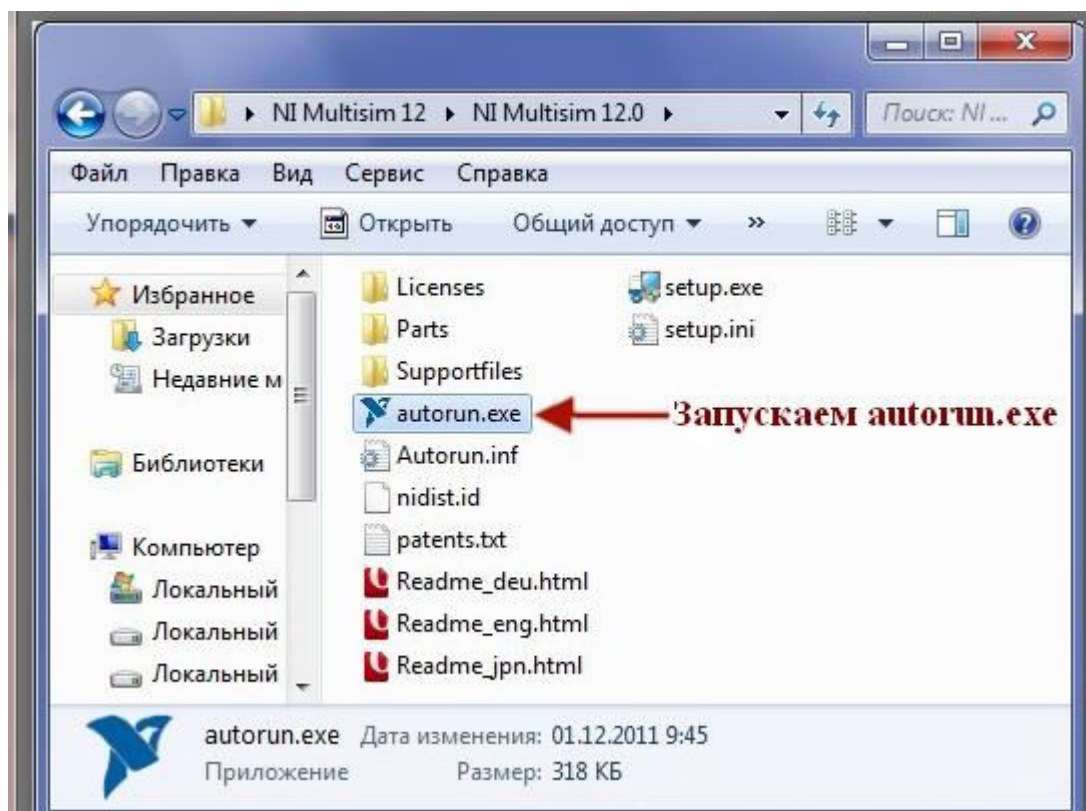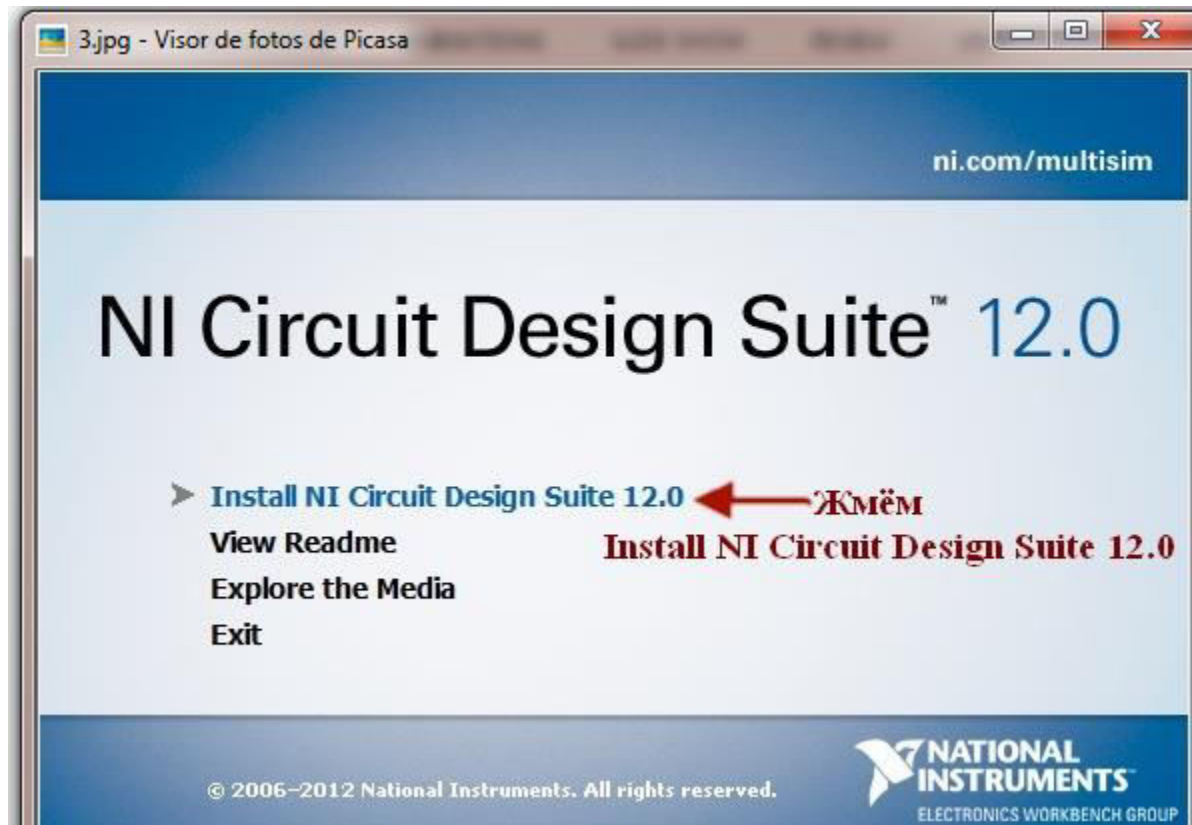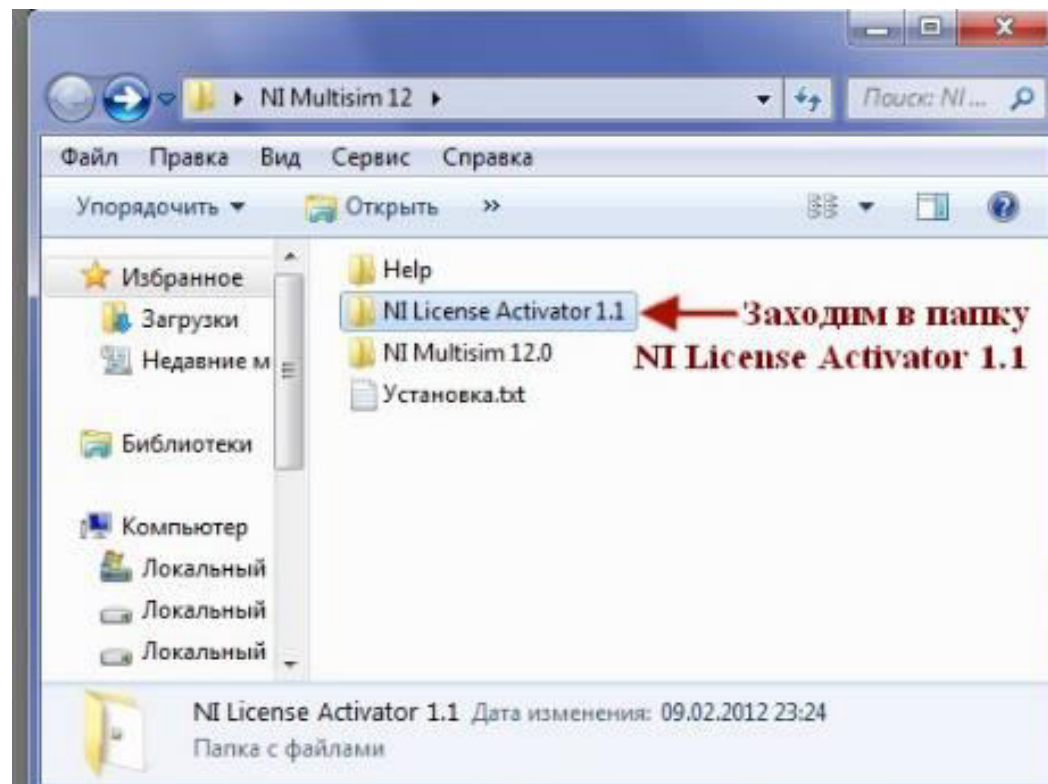
Instalação
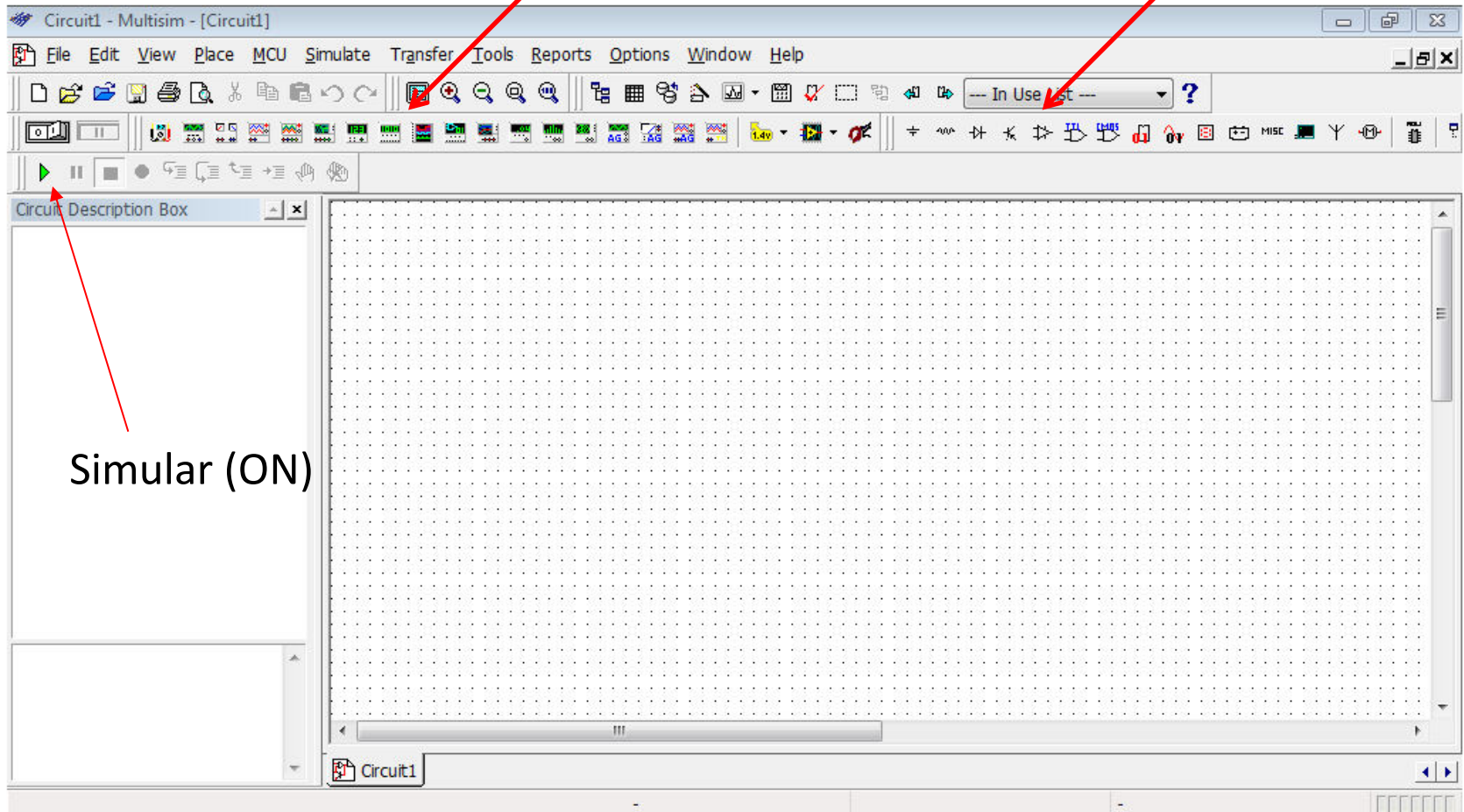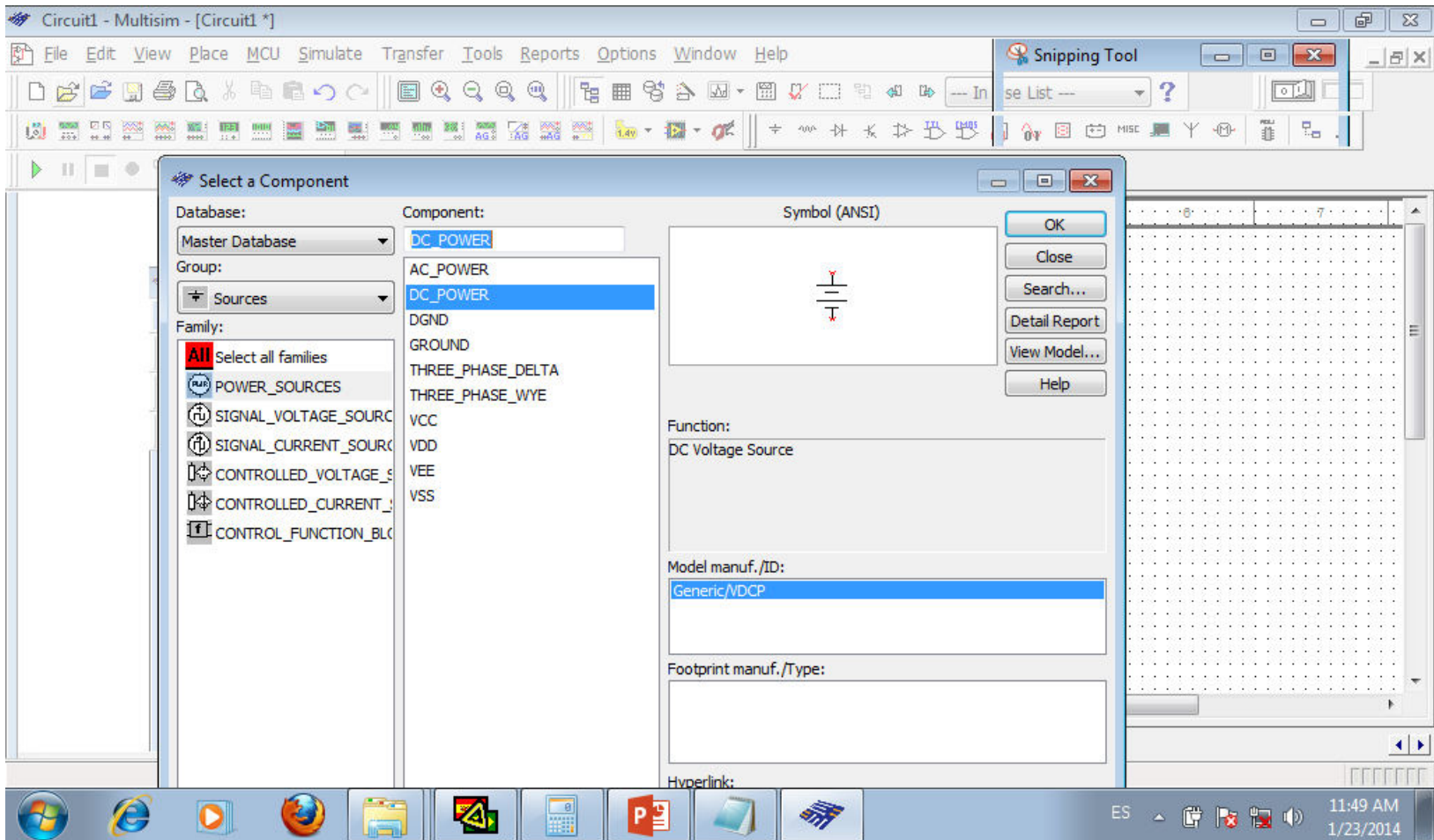
Instalação

Instalação
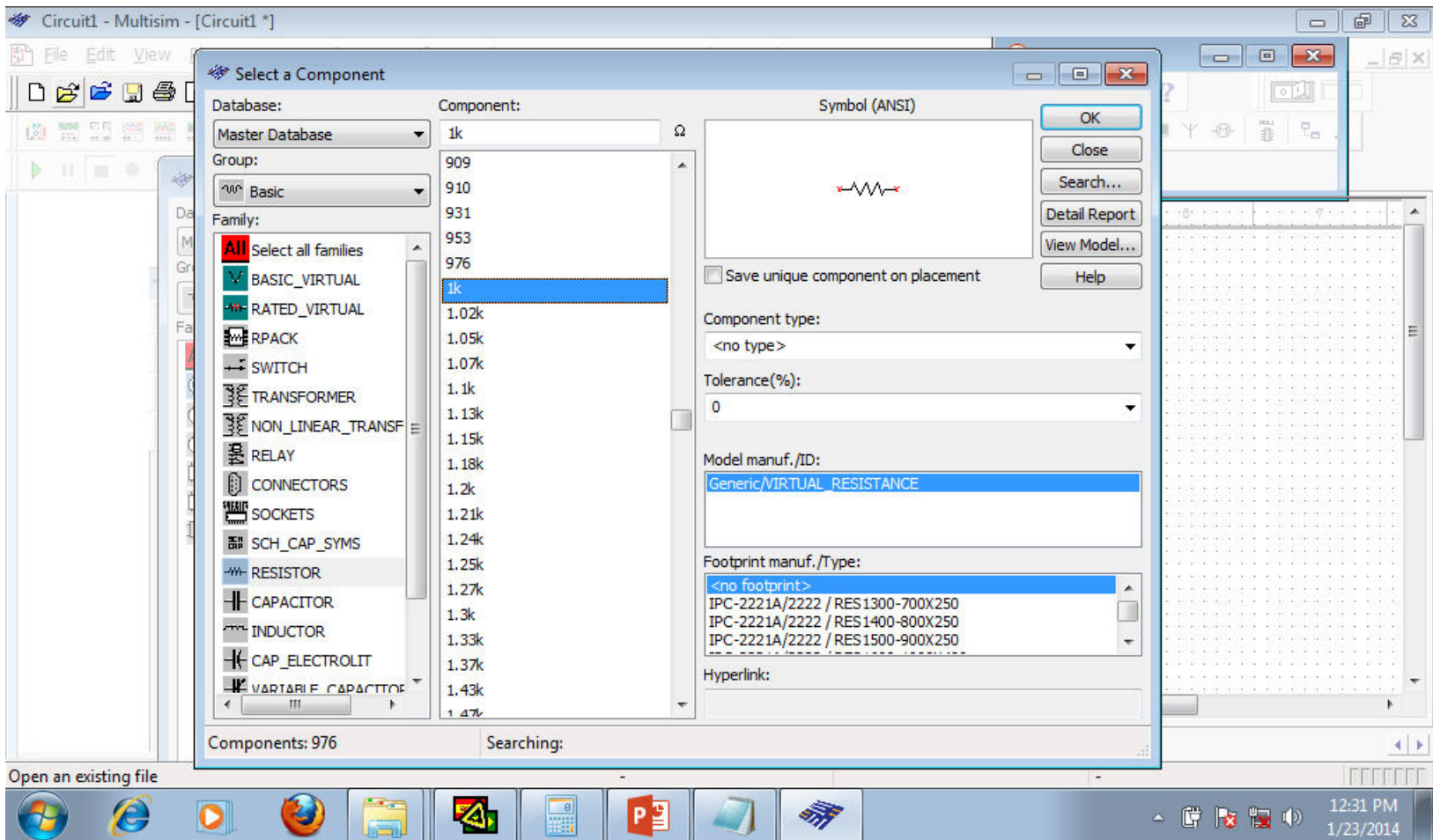
Instrumentos & componentes
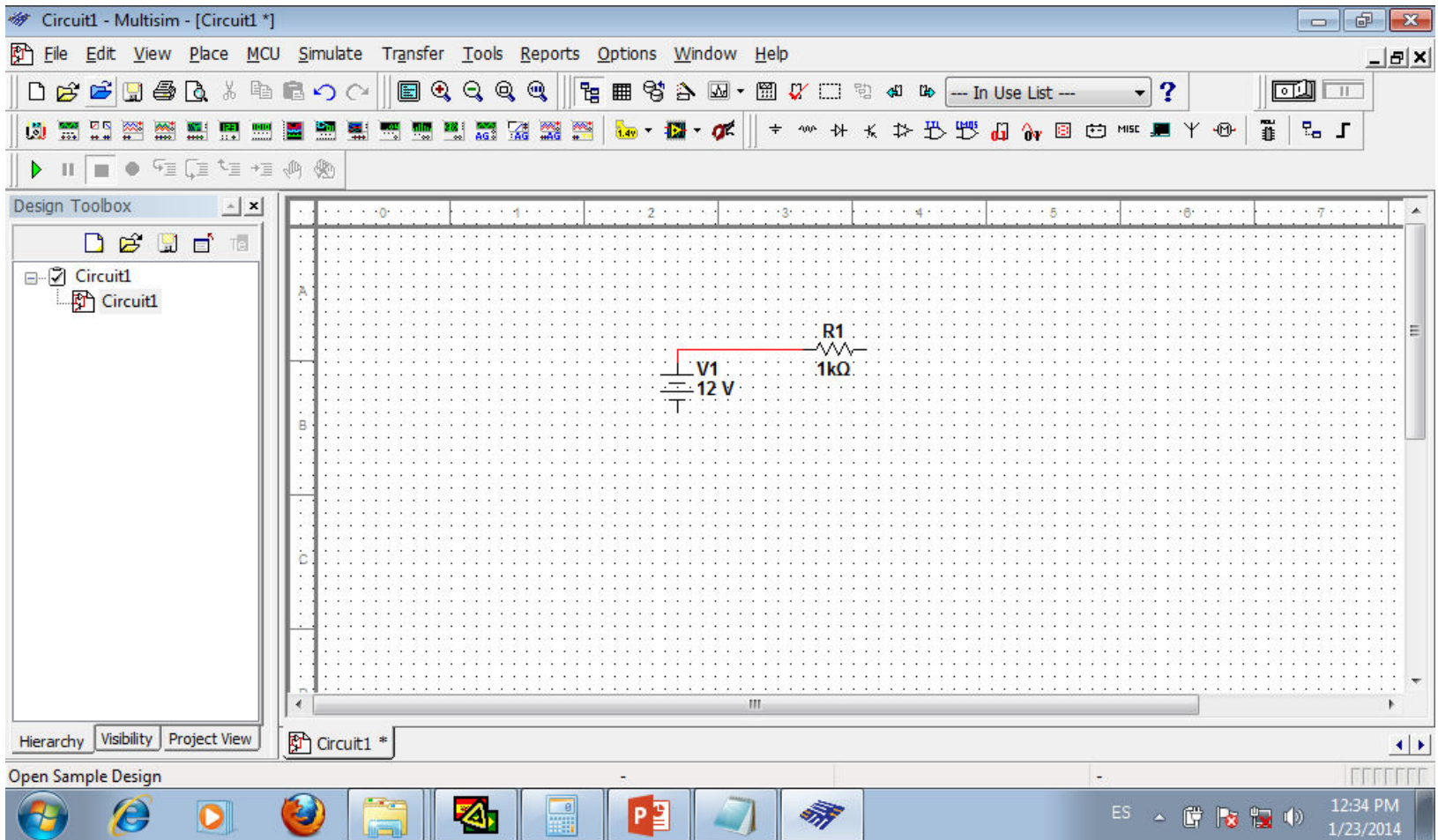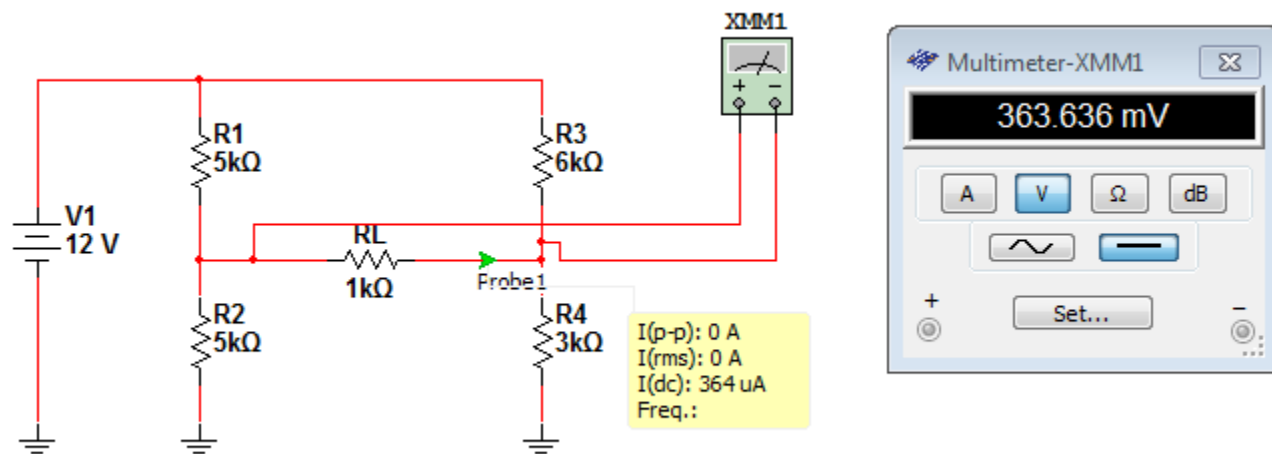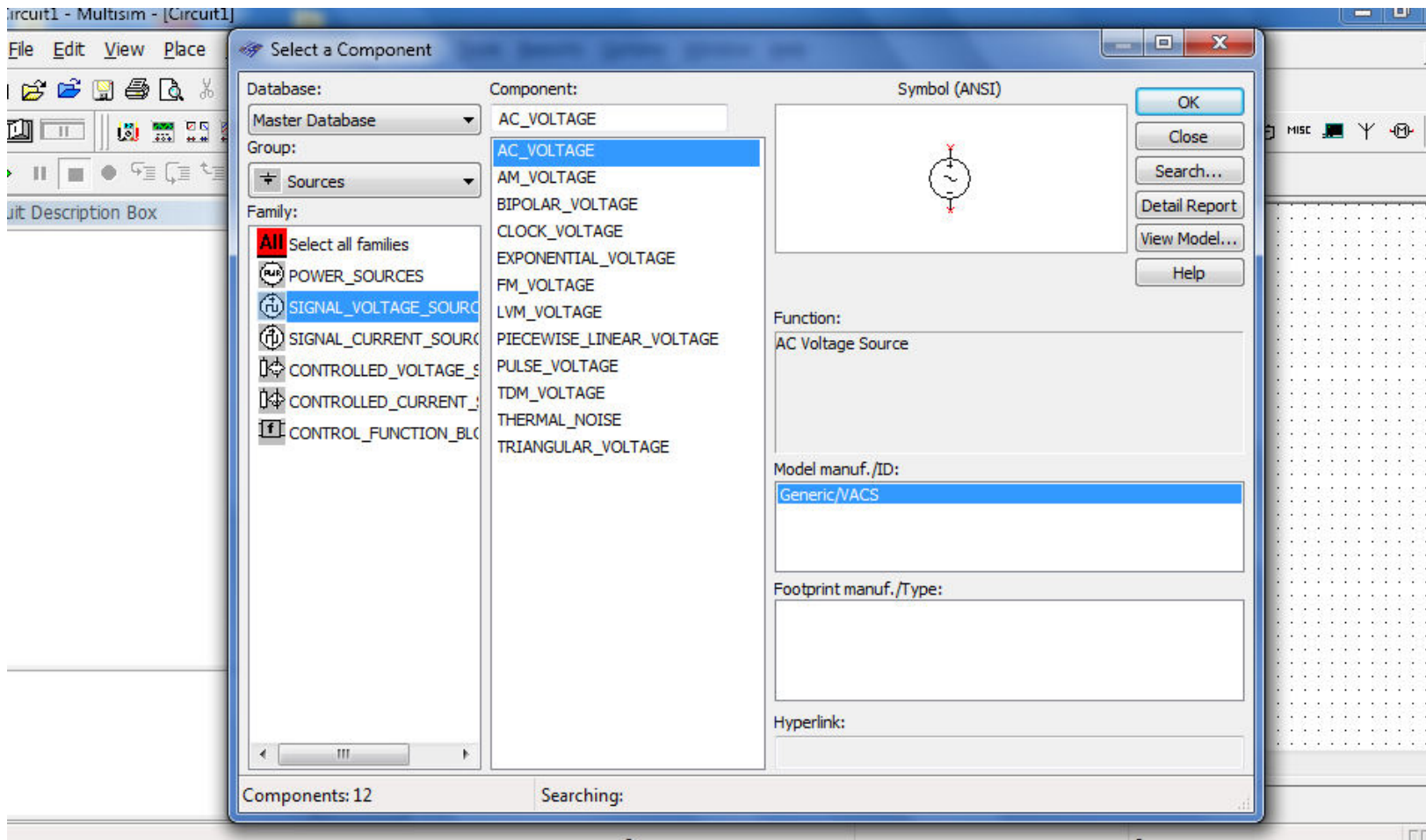

Simular (ON)

Instrumentos
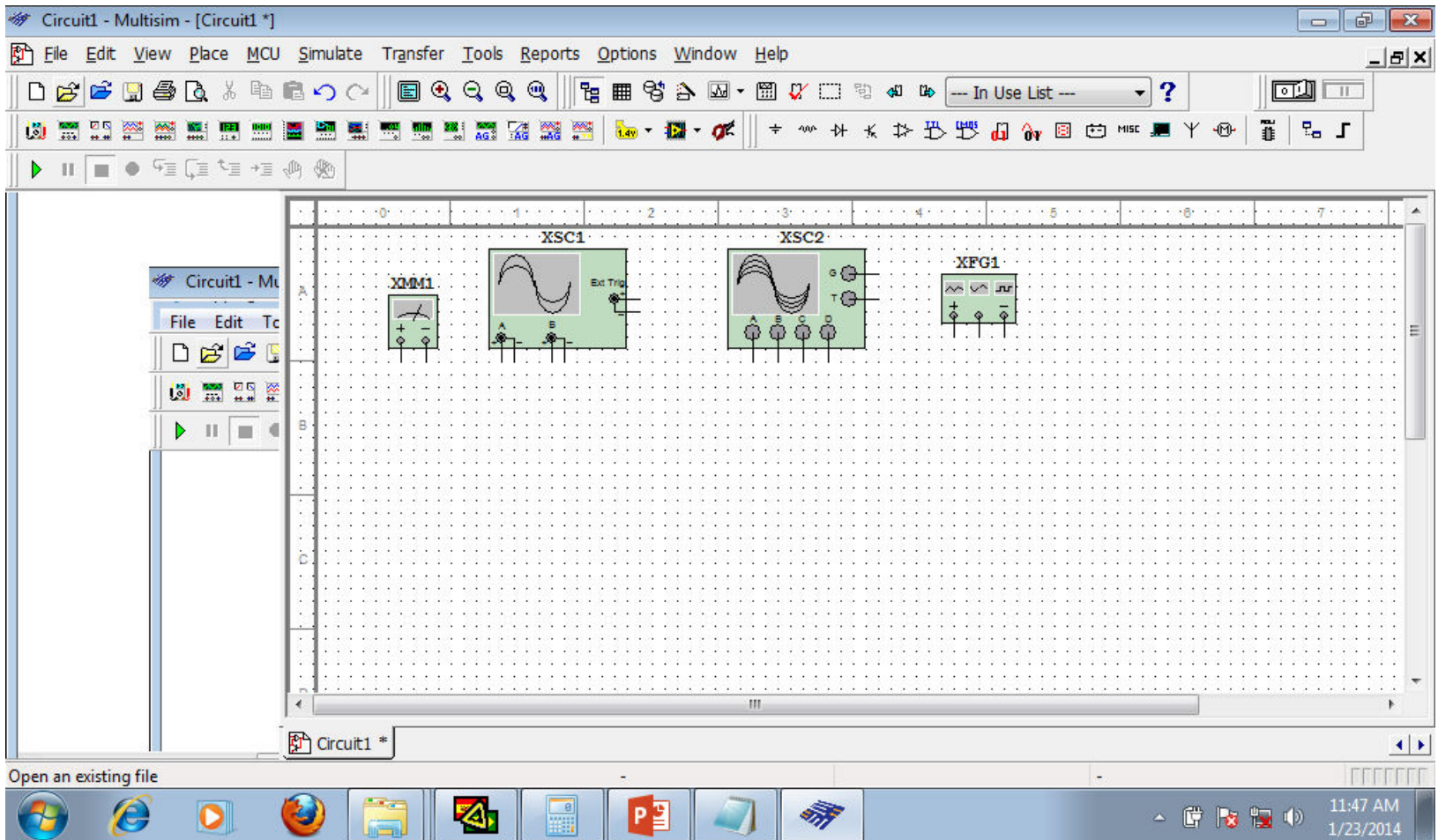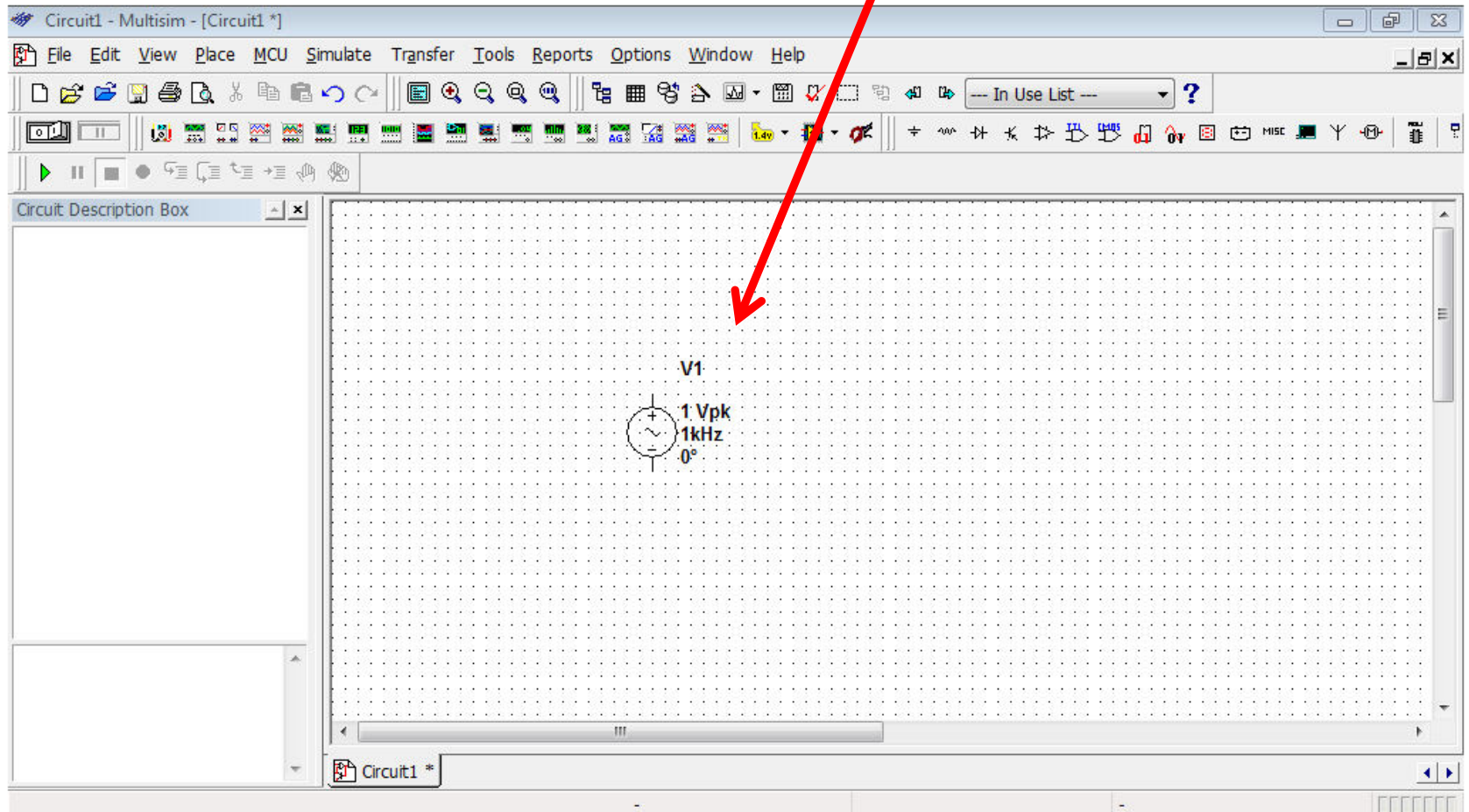
Componentes

Resistência

Conectando

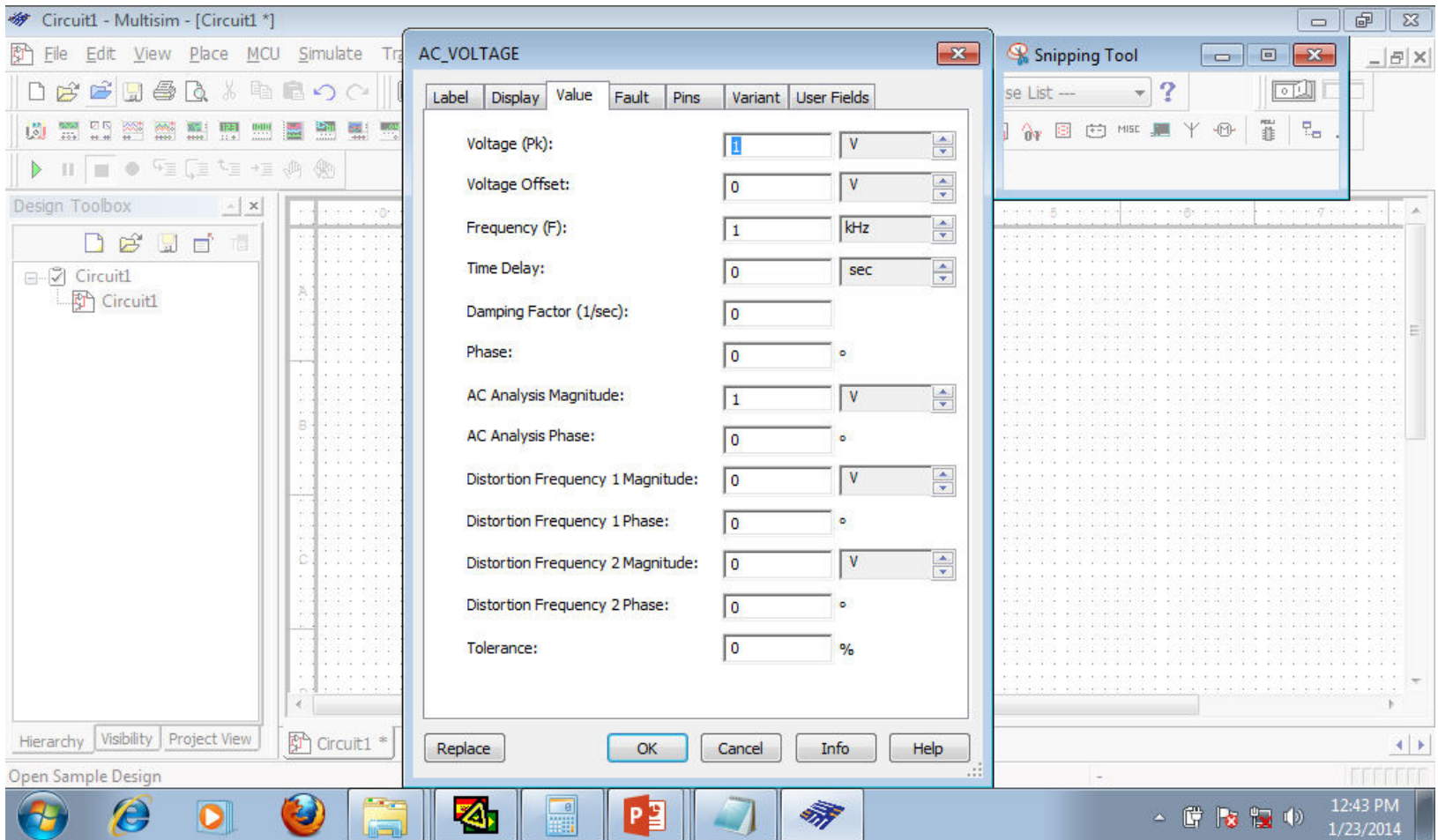# Circuito

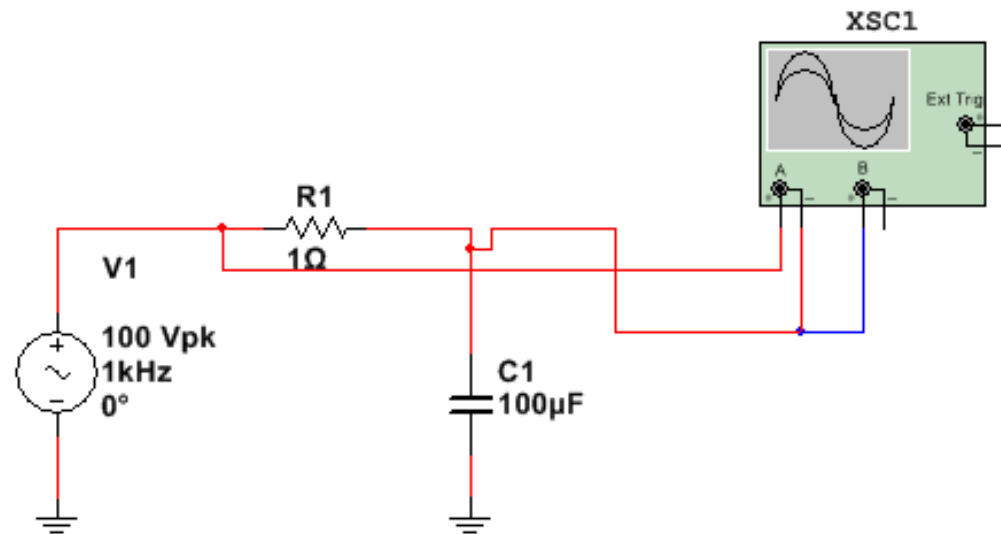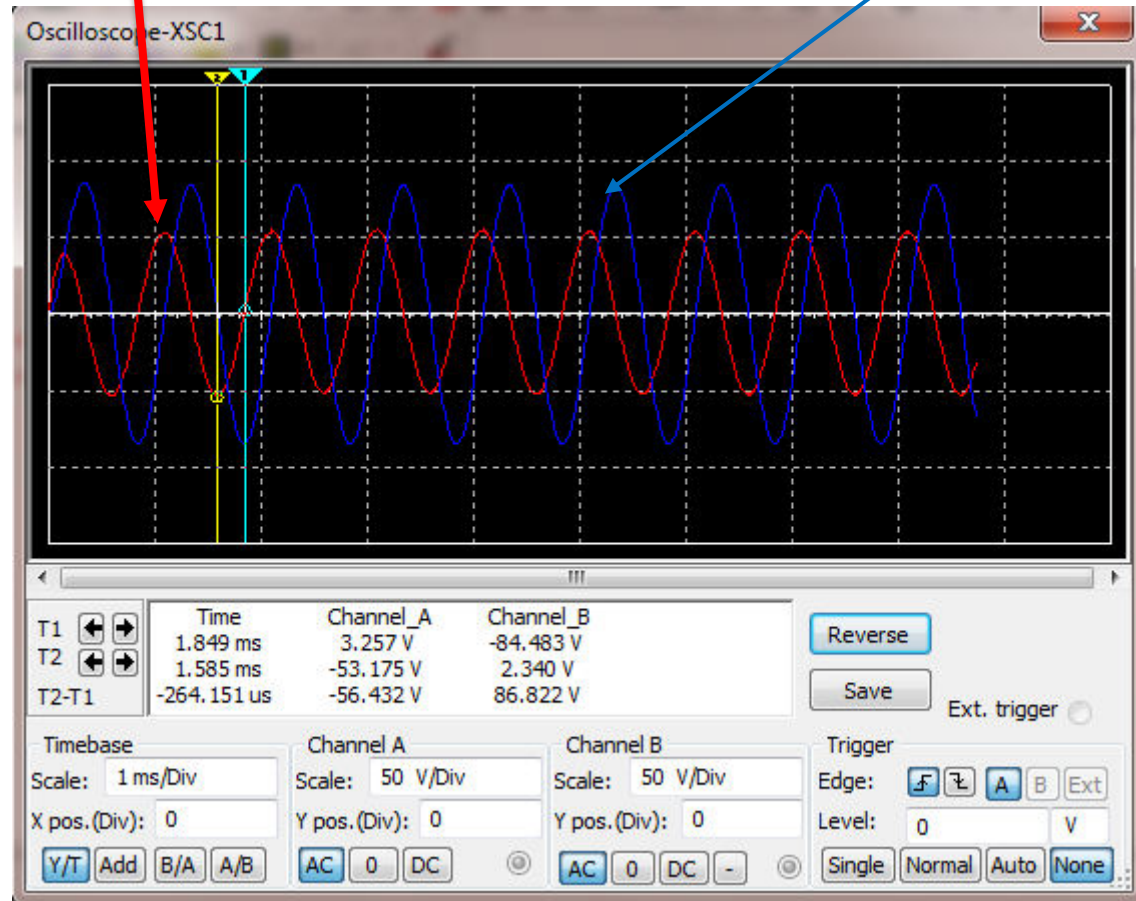# Place source (fonte)

desenhar fonte

Ajustar a fonte

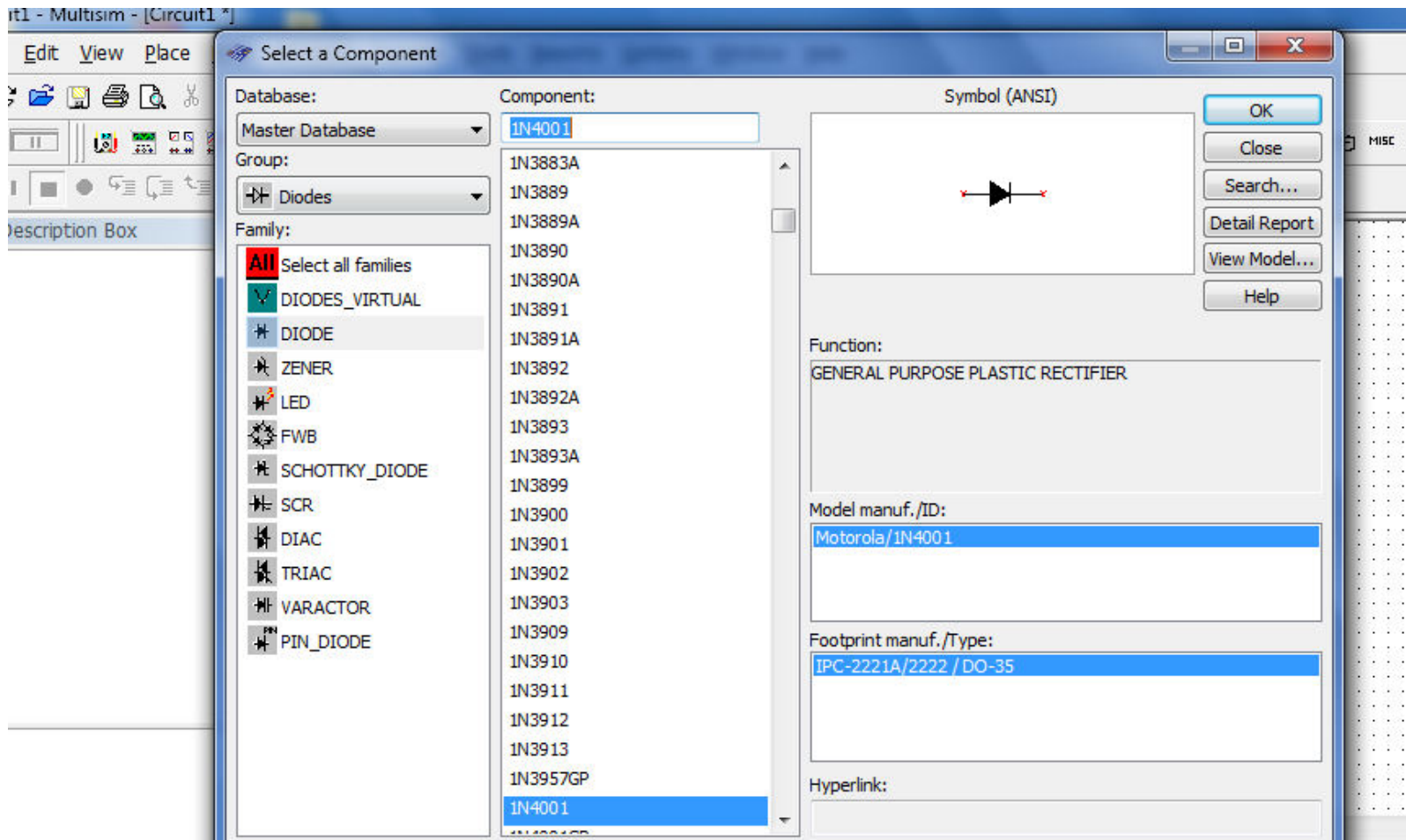# A corrente se adianta à tensão

A corrente se adianta à tensão

selecionar diodo

Diodo 1n4000

Archivo   Edición   Ver   Documento   Comentarios   Formularios   Herramientas   Avanzadas   Ventana   Ayuda

Crear ▾   Combinar ▾   Colaborar ▾   Proteger ▾   Firmar ▾   Formularios ▾   Multimedia ▾   Comentario ▾
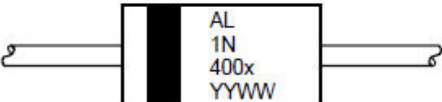
1 / 4   102% ▾   Buscar

Nota   Ediciones del texto ▾

- Case: Epoxy, Molded
- Weight: 0.4 gram (approximately)
- Finish: All External Surfaces Corrosion Resistant and Terminal Leads are Readily Solderable
- Lead and Mounting Surface Temperature for Soldering Purposes: 220°C Max. for 10 Seconds, 1/16″ from case
- Shipped in plastic bags, 1000 per bag.
- Available Tape and Reeled, 5000 per reel, by adding a "RL" suffix to the part number
- Available in Fan–Fold Packaging, 3000 per box, by adding a "FF" suffix to the part number
- Polarity: Cathode Indicated by Polarity Band
- Marking: 1N4001, 1N4002, 1N4003, 1N4004, 1N4005, 1N4006, 1N4007

DIFFUSED JUNCTION

CASE 59–03
AXIAL LEAD
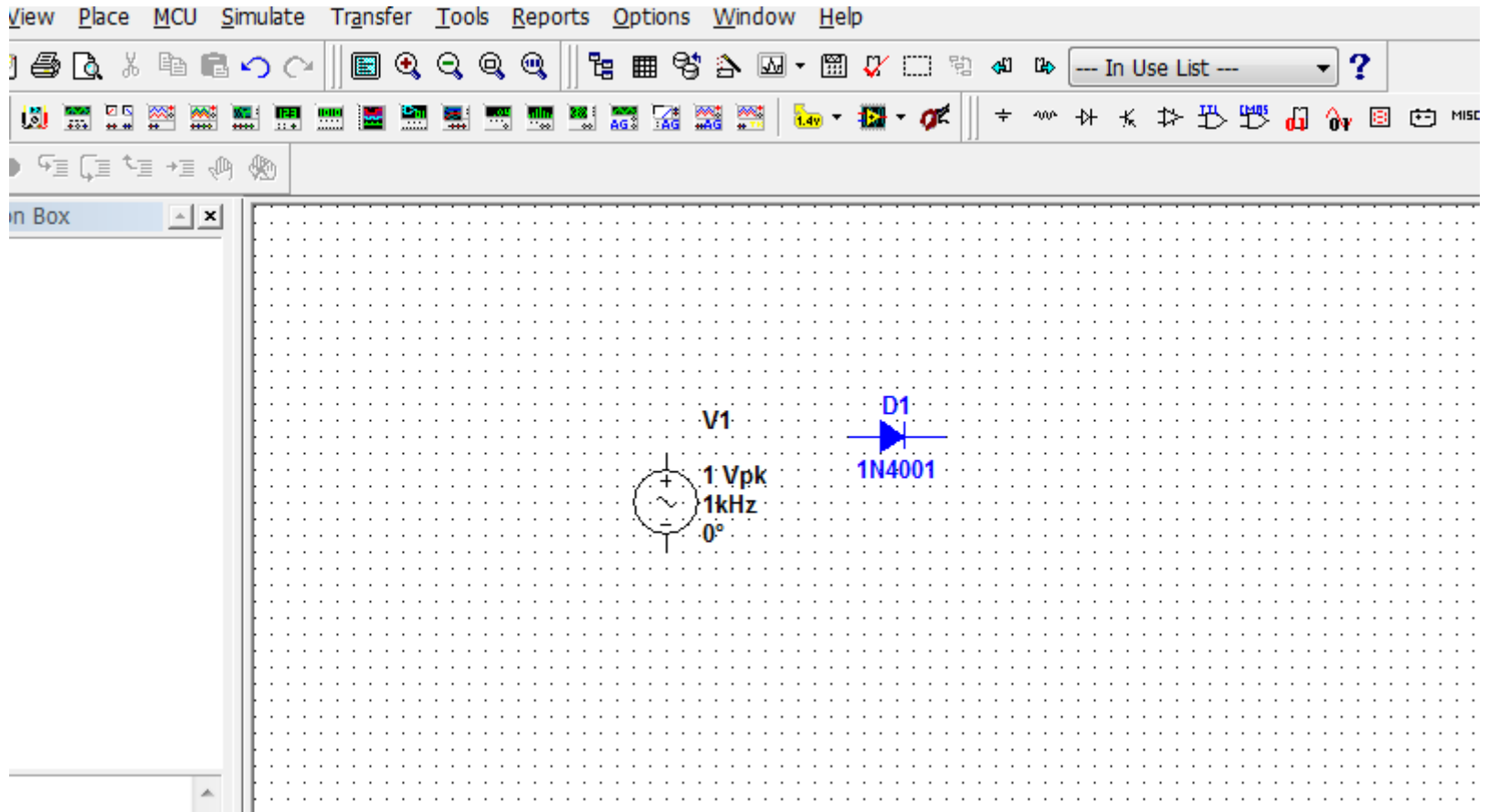PLASTIC

MARKING DIAGRAM

AL
1N
400x
YYWW

AL = Assembly Location
1N400x = Device Number
x = 1, 2, 3, 4, 5, 6 or 7
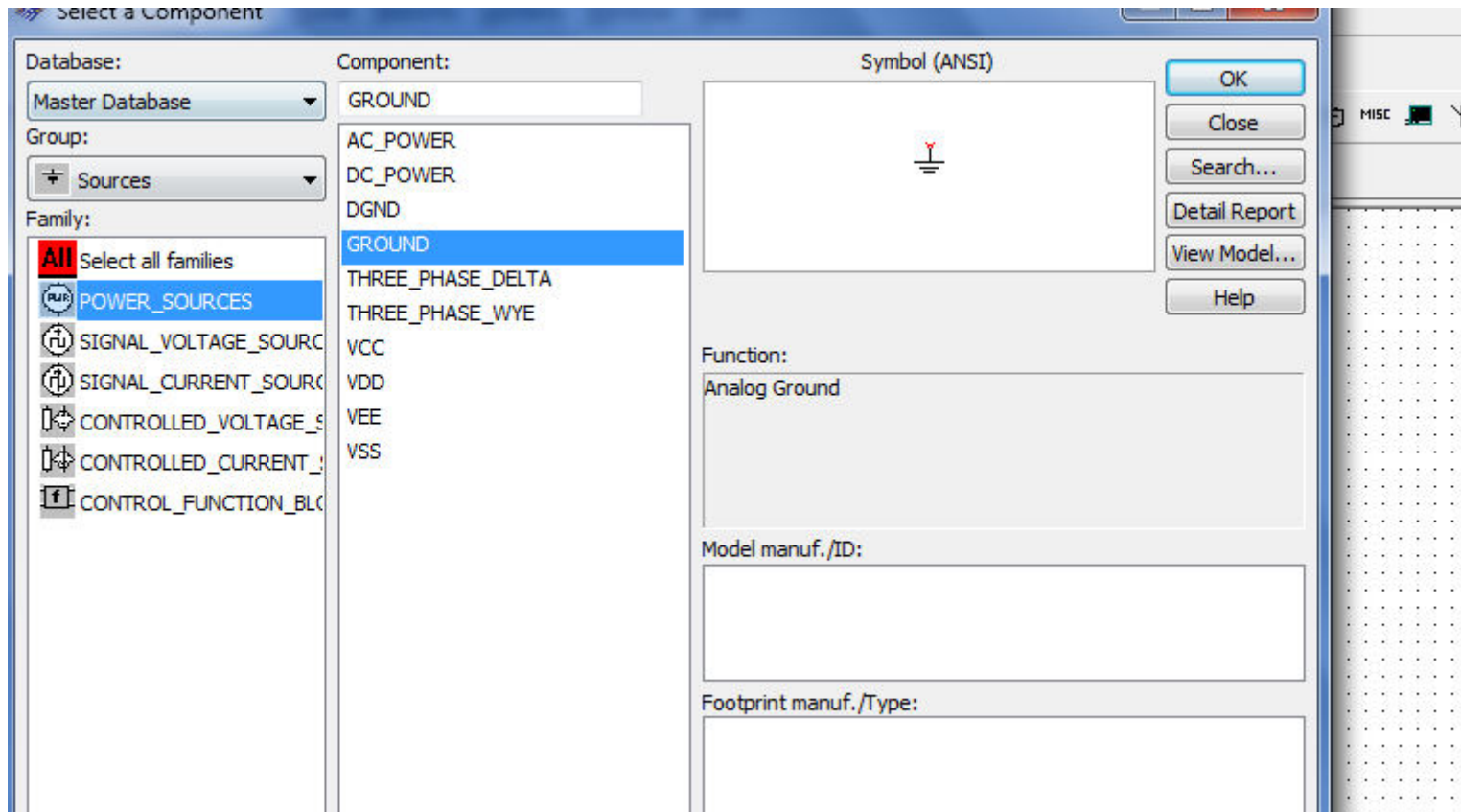YY = Year
WW = Work Week

MAXIMUM RATINGS

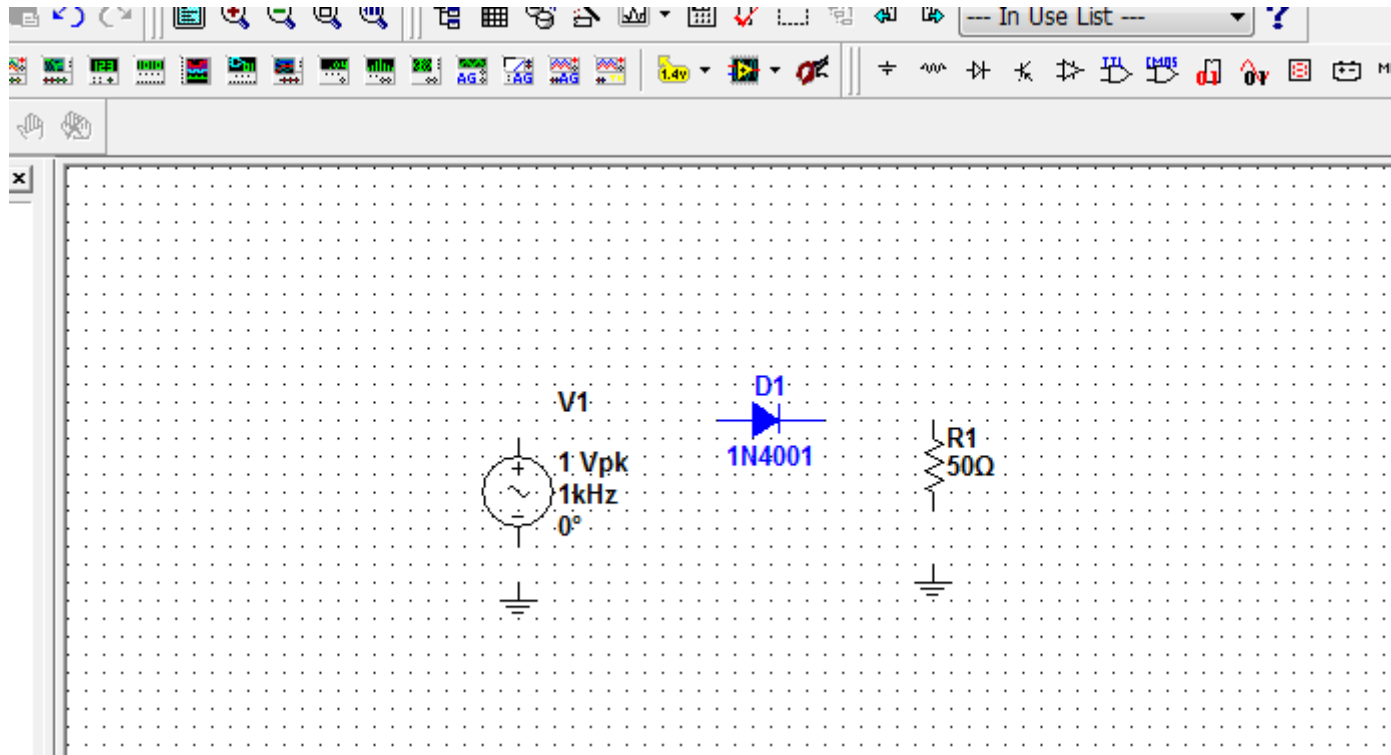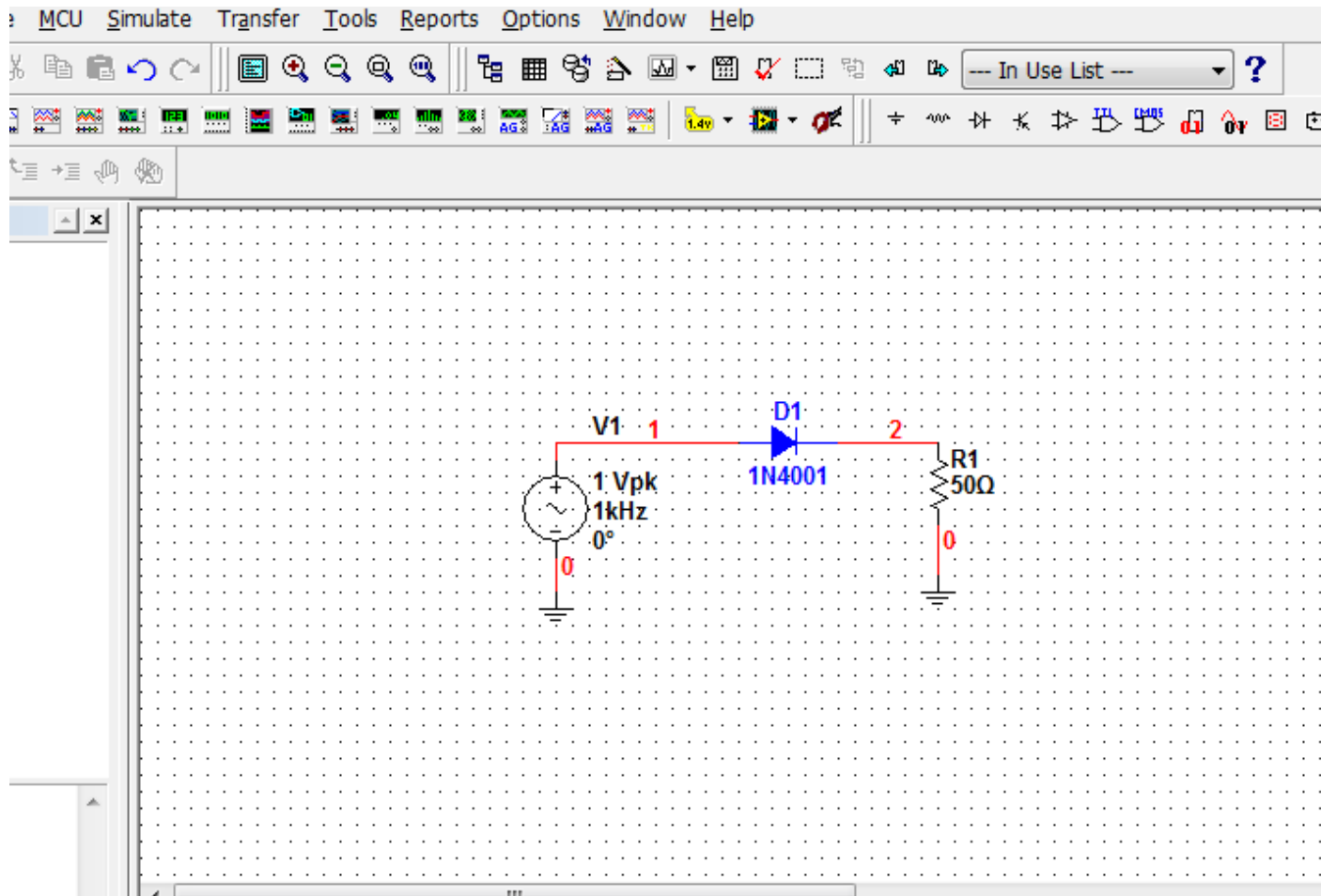| Rating	Symbol	1N4001	1N4002	1N4003	1N4004	1N4005	1N4006	1N4007	Unit
*Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	50	100	200	400	600	800	1000	Volts

desenhar diodo

selecionar <u>terra</u>
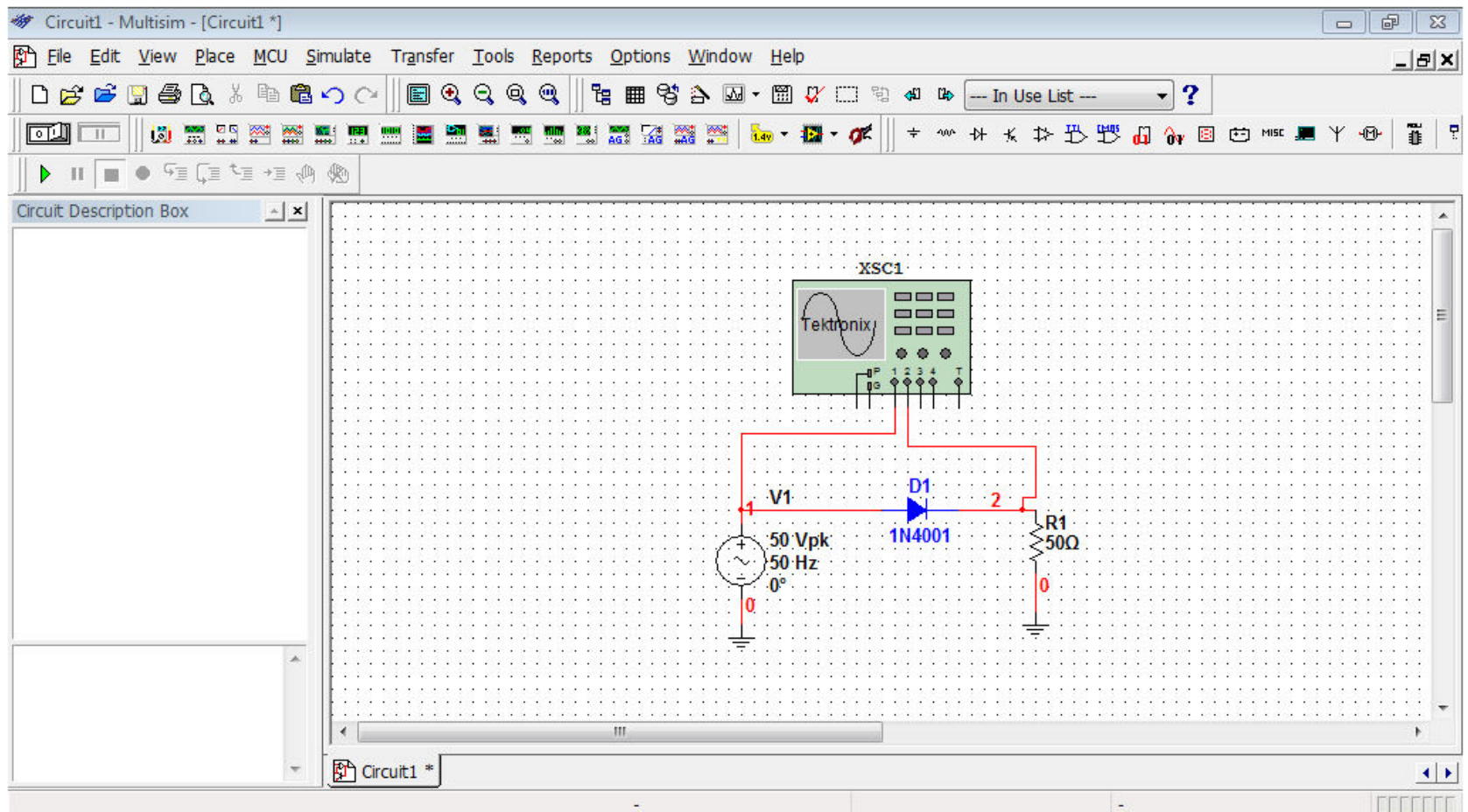
desenhar <u>terra</u>
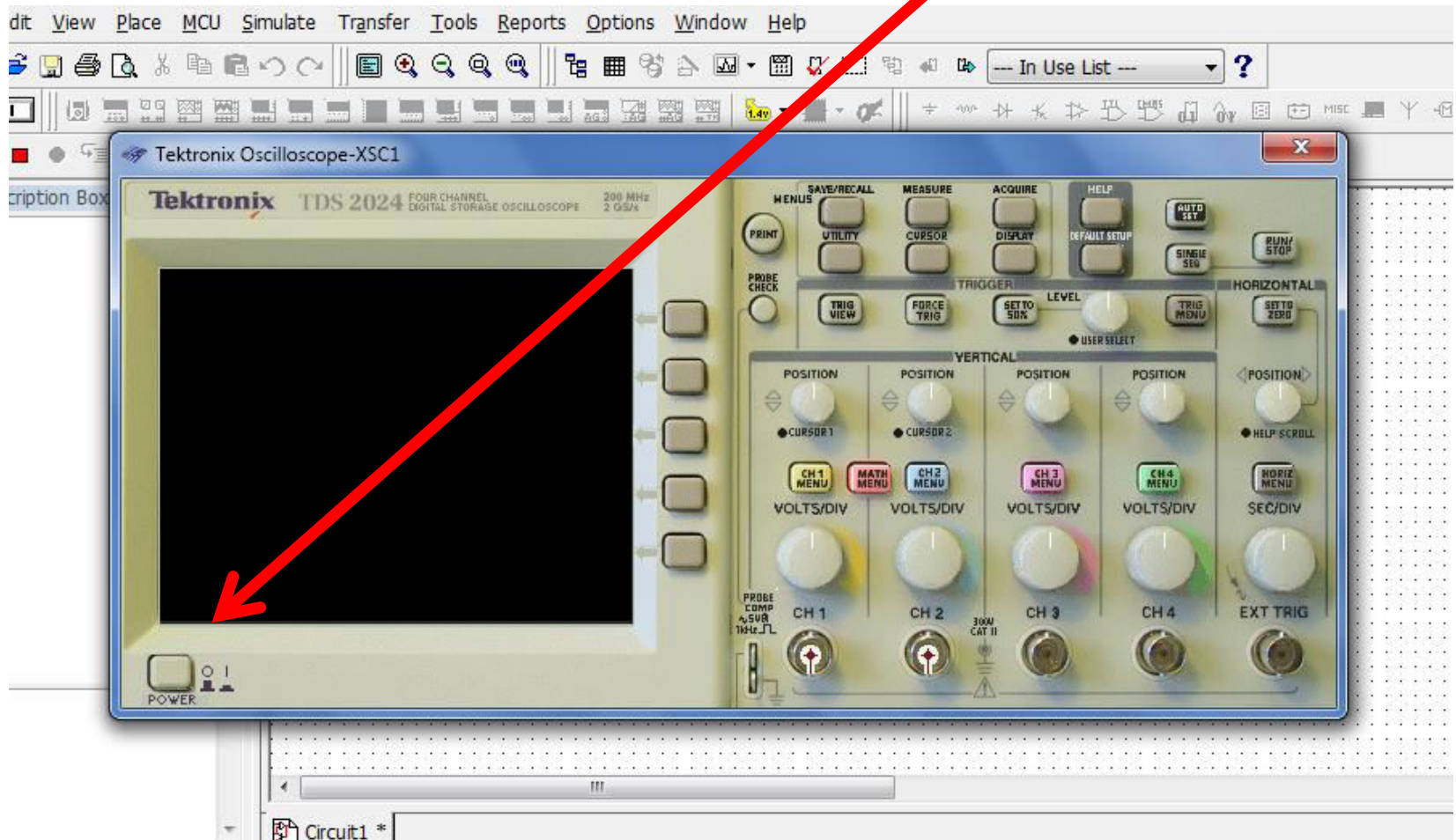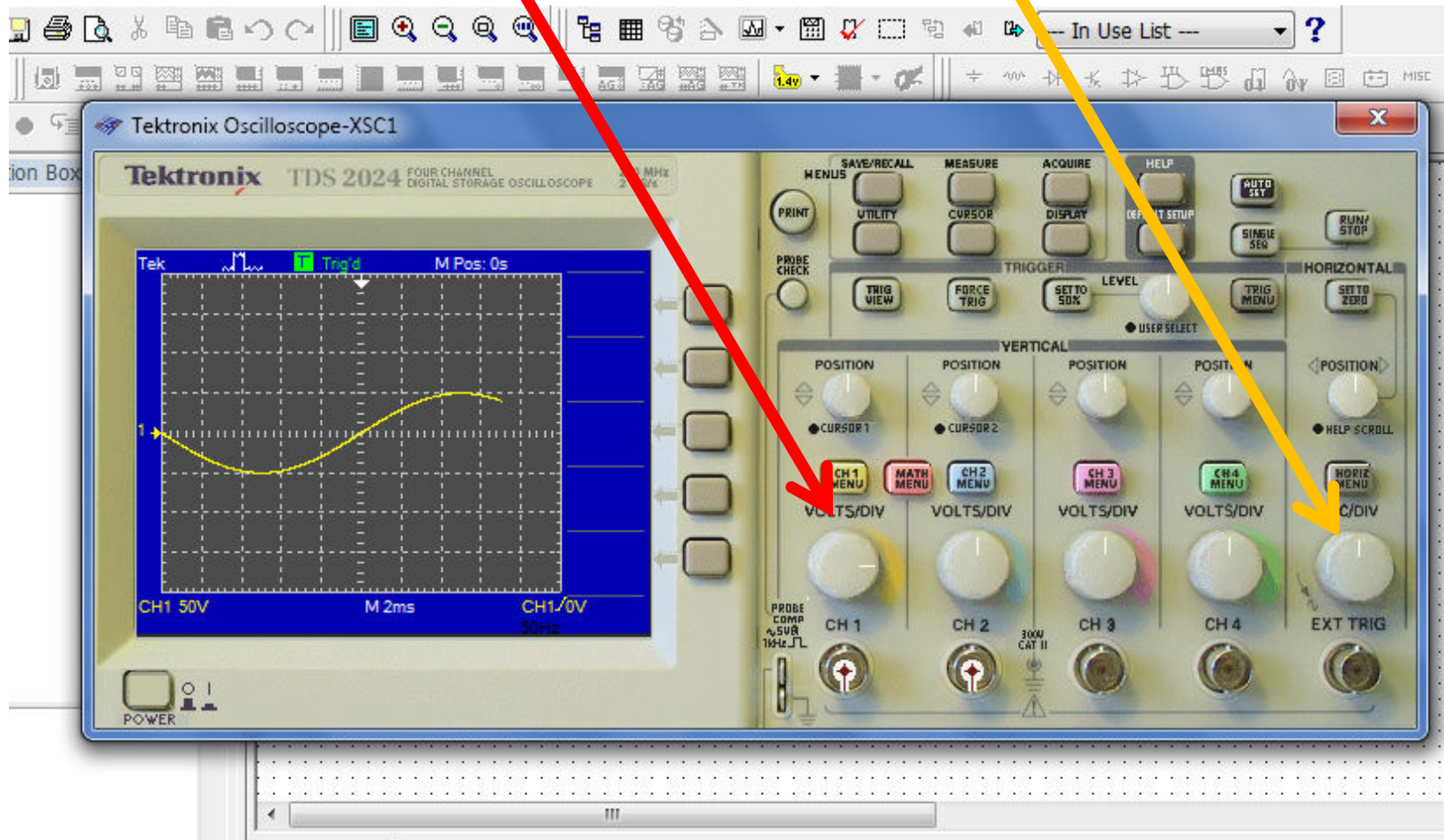
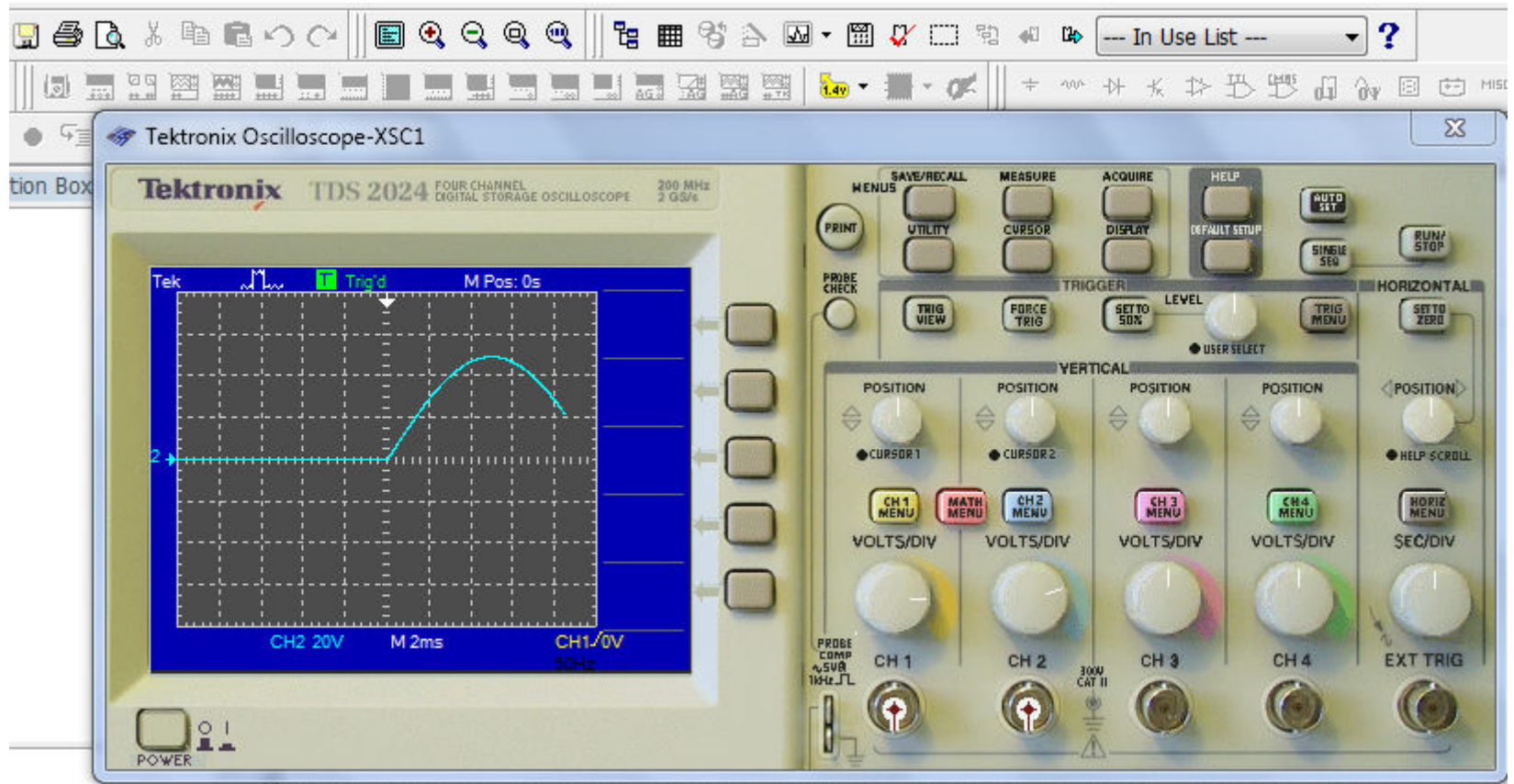# desenhar circuito

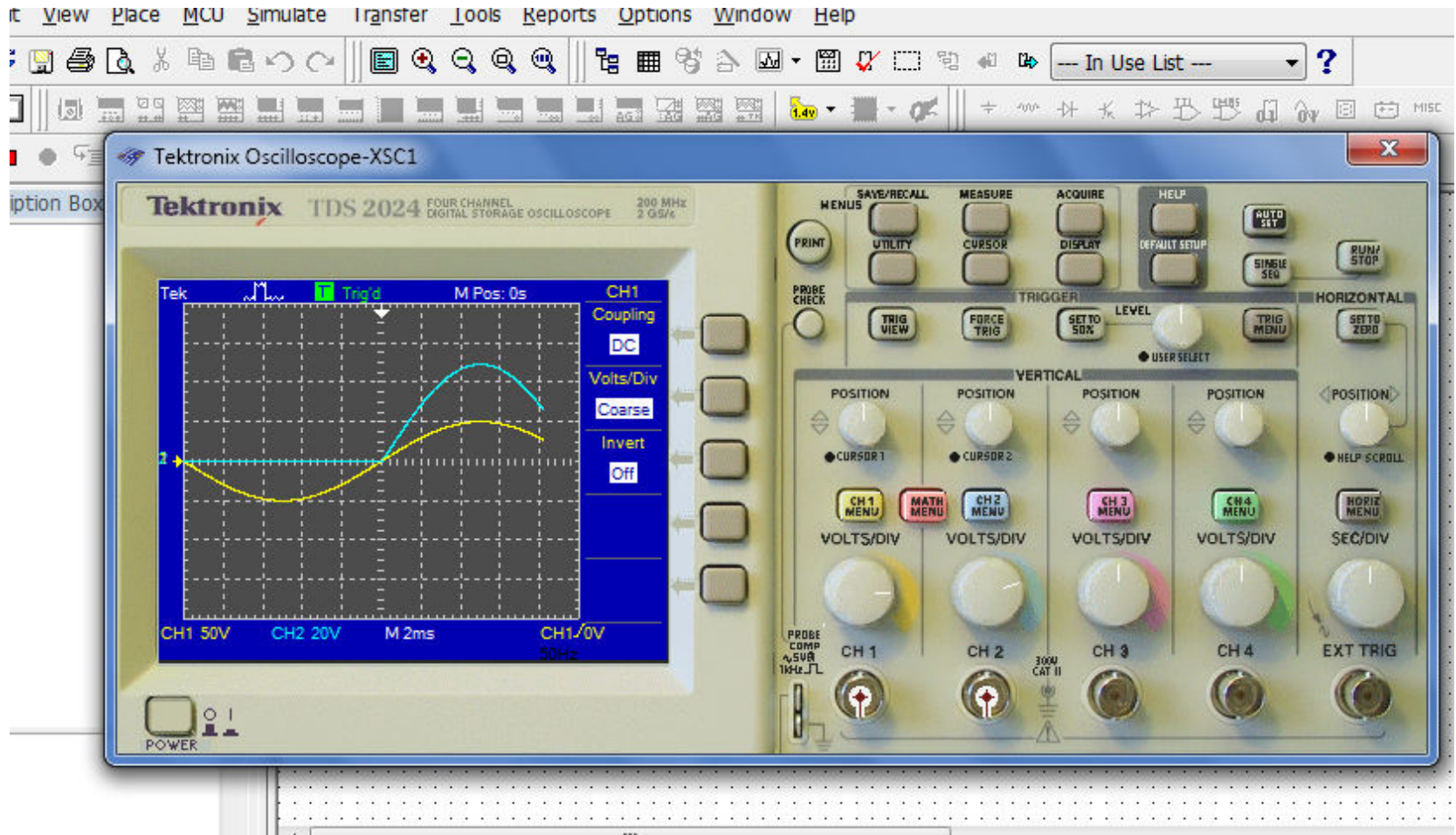# osciloscopio

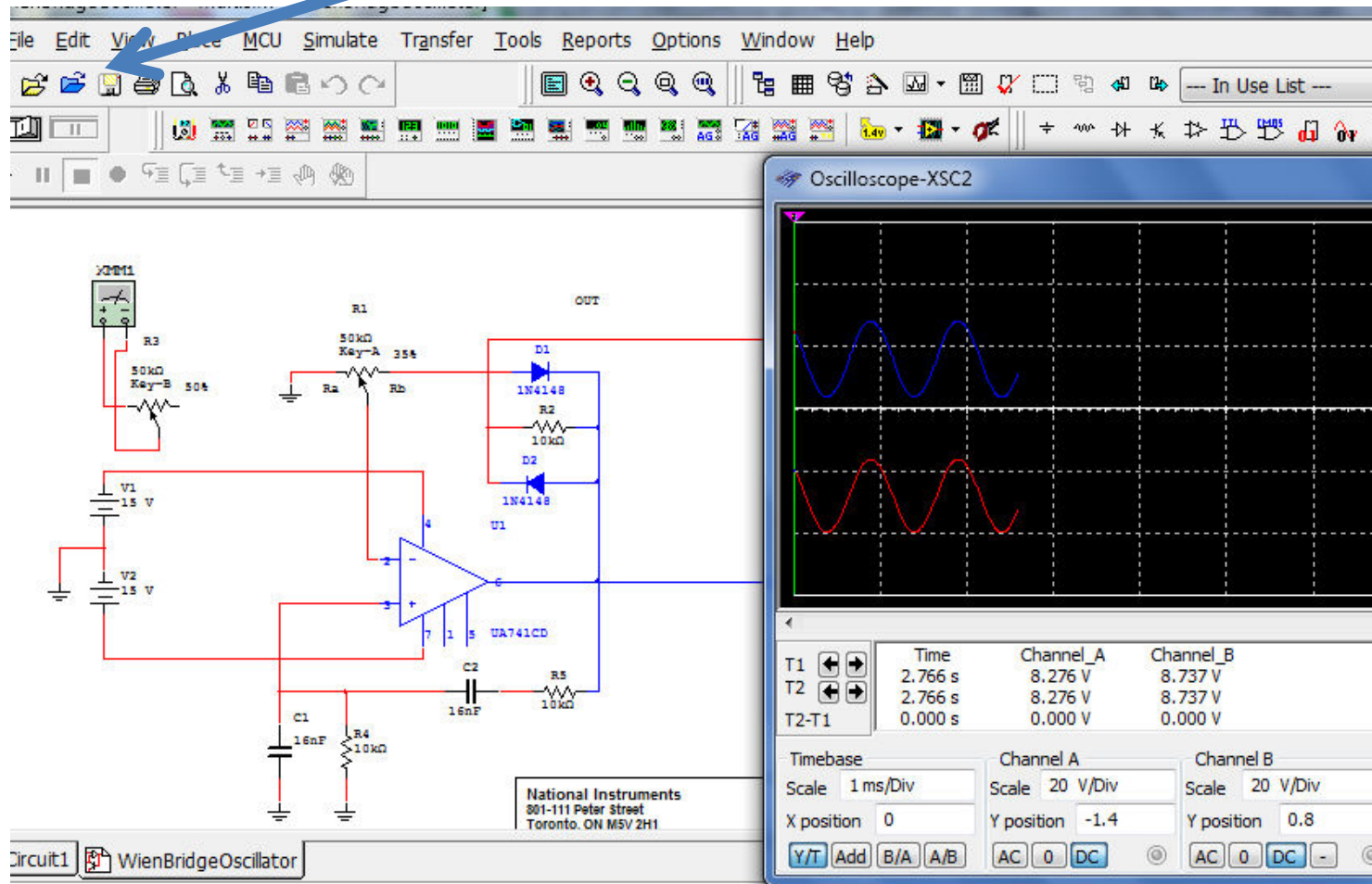# Osciloscopio conectar

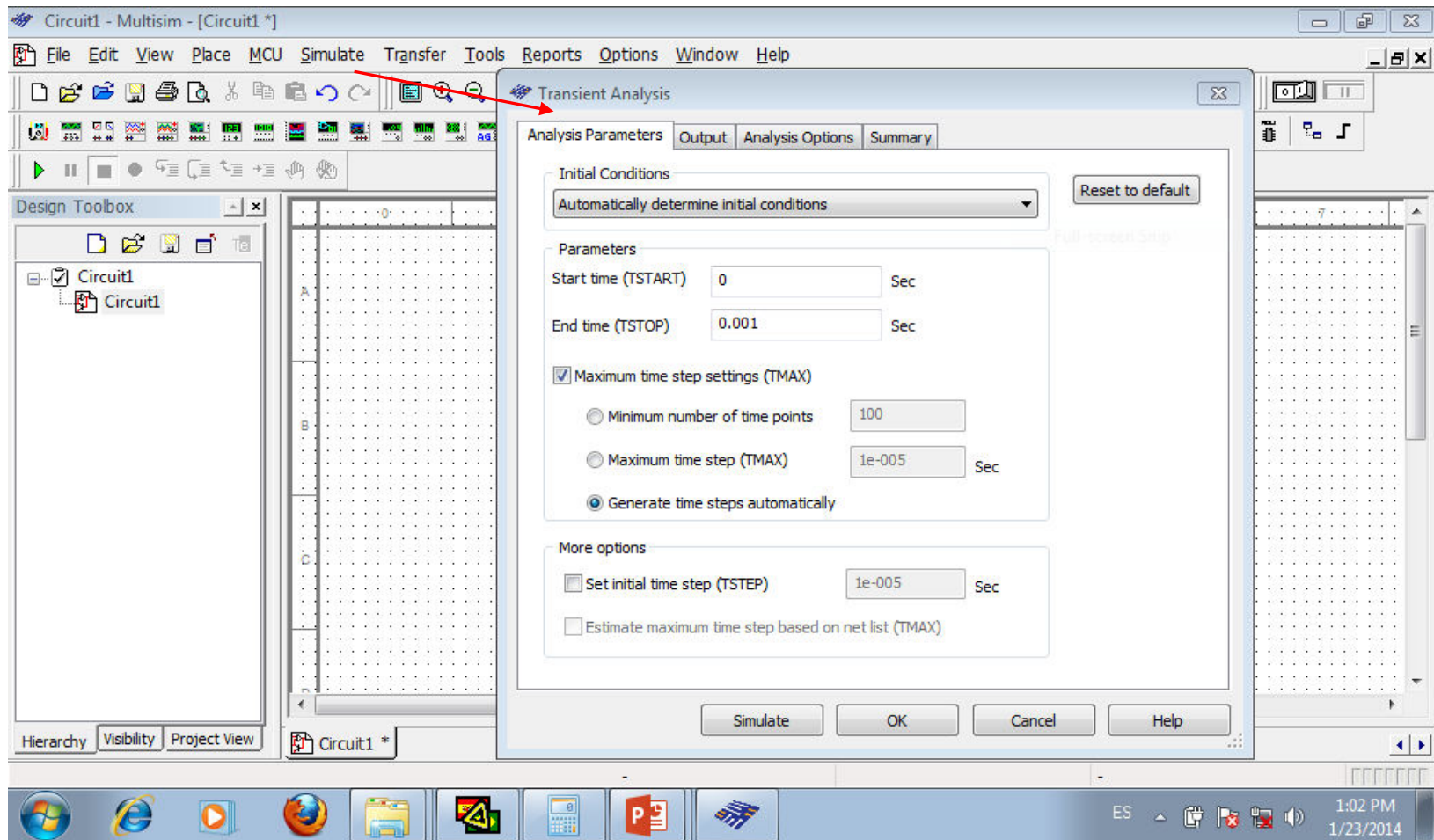# Amplitude & freqüência

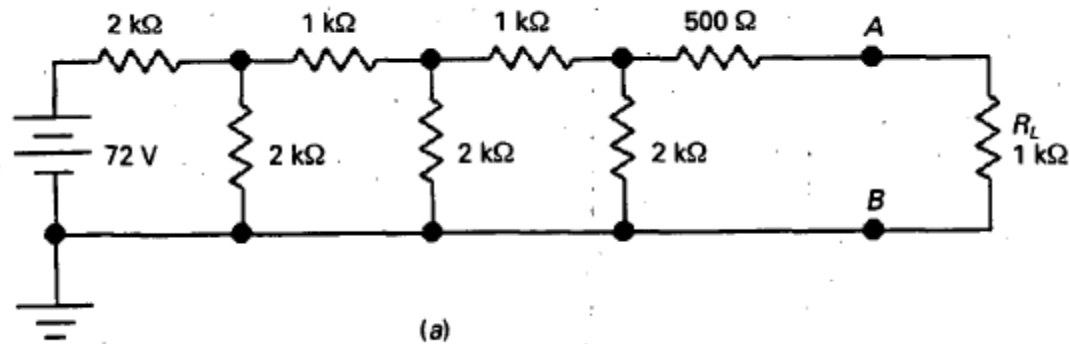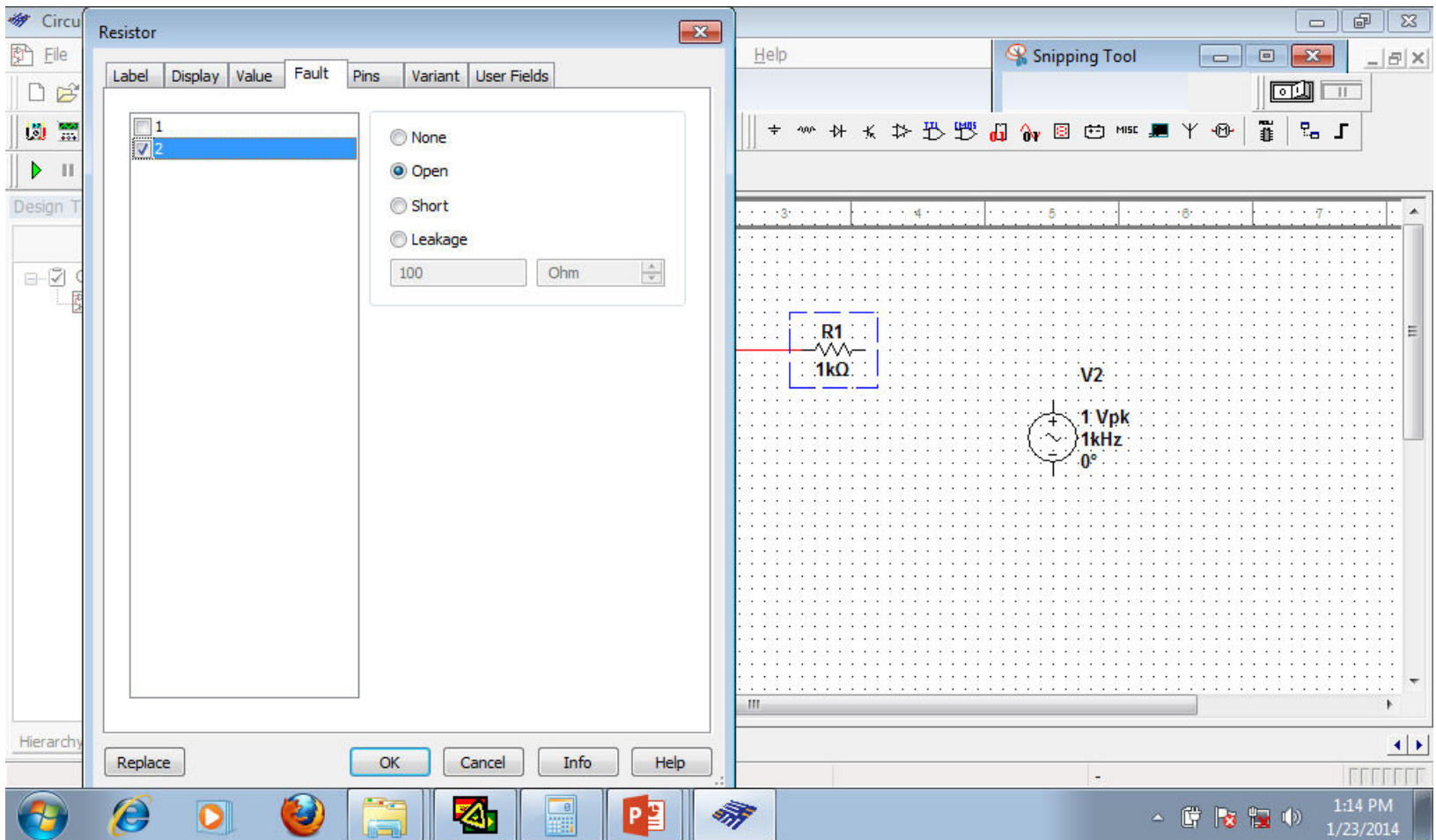# Forma de onda de saida

ingresso e saída

Oscilador

Análise no domínio do tempo

Exercício

(a)

Defeitos

Verificação de defeitos (exercício, R4 aberto)