PicsimLab_0_6_0

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http://sourceforge.net/projects/picsim/

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Contents

Chapter 1

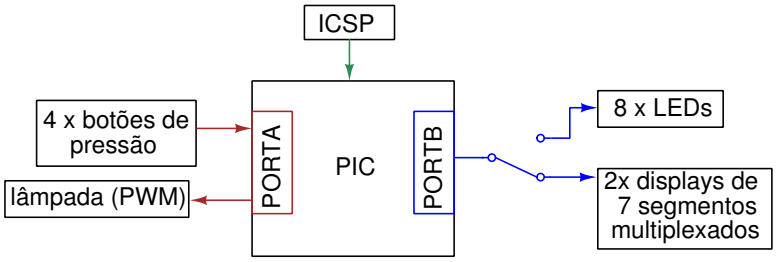
Ajuda

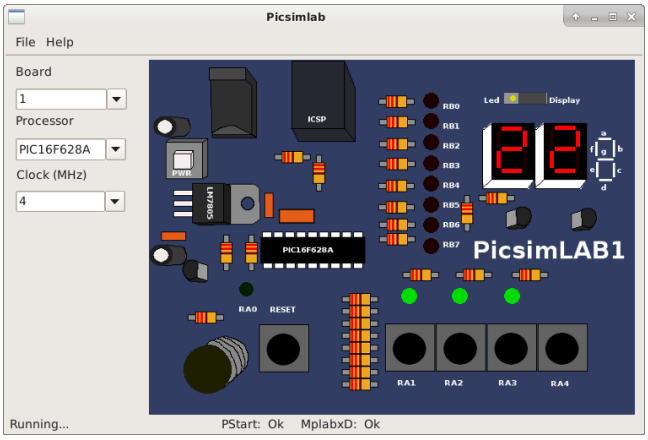
1.1 Comandos

- Clique no conector ICSP para carregar um arquivo .hex.
- Clique no botão PWR para ligar/desligar o emulador.
- Os botões podem ser acionados pelo mouse ou pelas teclas 1, 2, 3 ...

1.2 Características da Placa 1

Emula a placa de desenvolvimento McLab1 da Labtools que utiliza um PIC16F628A.





Esquemático da placa 1.

Os códigos fontes de exemplo podem ser carregados através do menu **Help->examples** do Picsimlab.

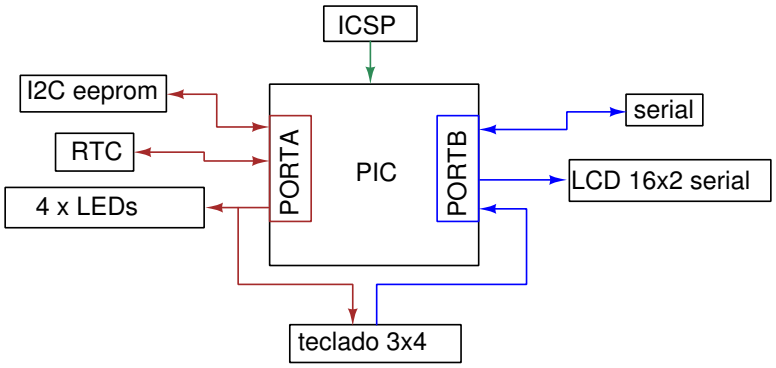
O código fonte de exemplo da placa picsimlab1 usando o MPLABX e o compilador XC8 está no diretório: src/teste_b1.X.

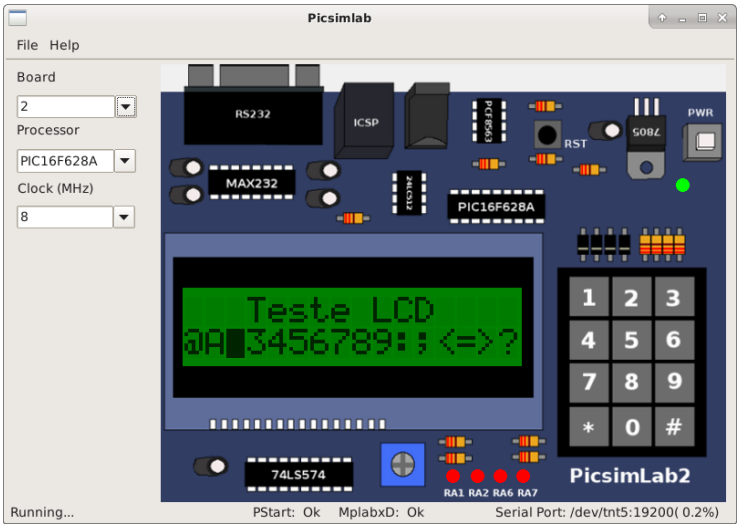
Compra do kit McLab1, manual e exemplos na área de donwload www.mosaico.com.br

O hardware e a utilização do kit também é descrita no livro **Desbravando o PIC - Ampliado e Atualizado para PIC 16F628A** da editora Erica (ISBN: 978-85-7194-867-9).

1.3 Características da Placa 2

Emula uma placa didática desenvolvida pelo autor.





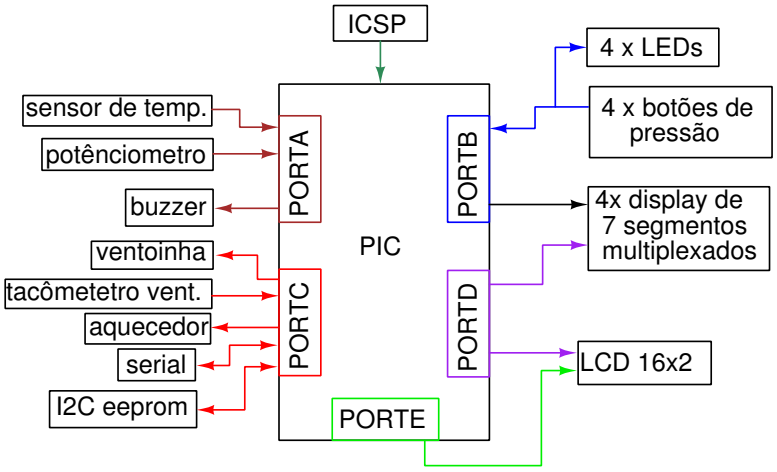
Esquemático da placa 2.

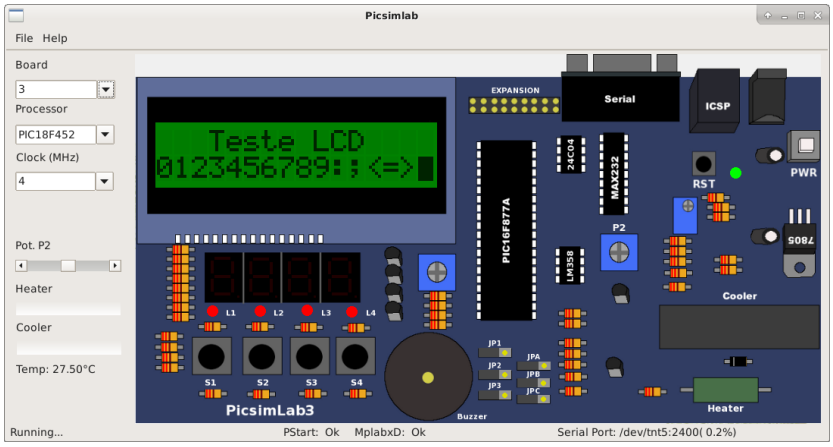
Os códigos fontes de exemplo podem ser carregados através do menu **Help->examples** do Picsimlab.

O código fonte de exemplo da placa picsimlab2 usando o MPLABX e o compilador XC8 está no diretório: src/teste_b2.X.

1.4 Características da Placa 3

Emula a placa de desenvolvimento McLab2 da Labtools que utiliza um PIC16F877A ou um PIC18F452.





Esquemático da placa 3.

Os códigos fontes de exemplo podem ser carregados através do menu **Help->examples** do Picsimlab.

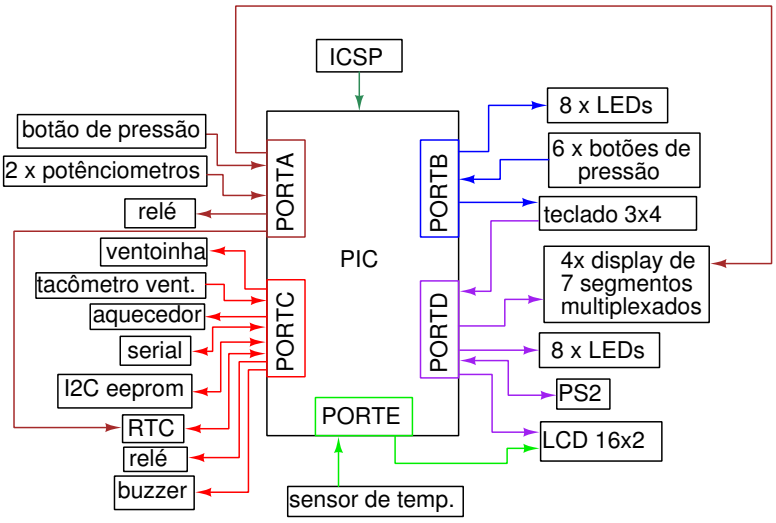
O código fonte de exemplo da placa picsimlab3 usando o MPLABX e o compilador XC8 está no diretório: src/teste_b3.X.

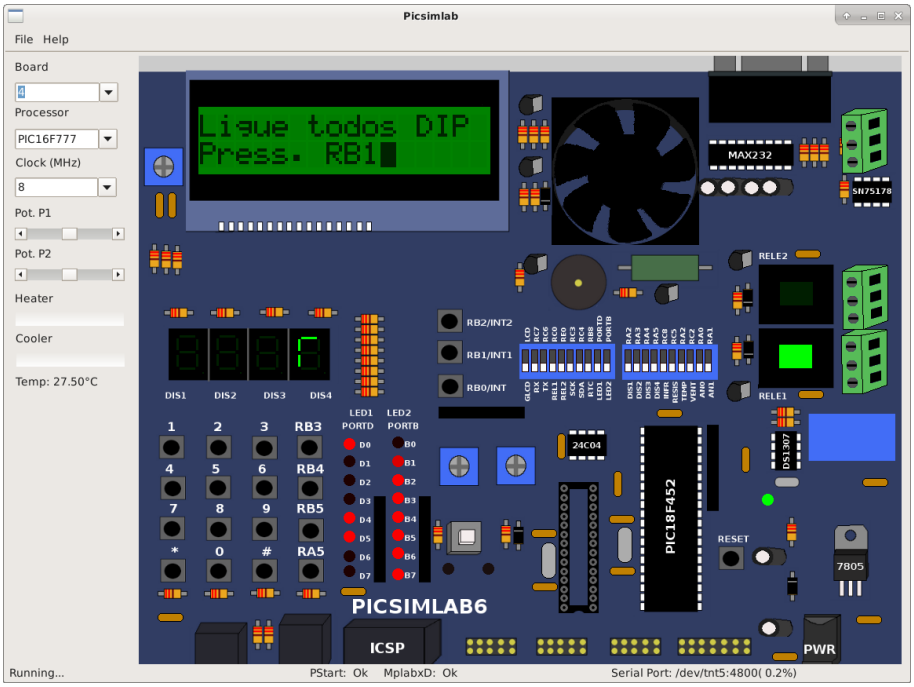
Compra do kit McLab2, manual e exemplos na área de donwload www.mosaico.com.br

O hardware e a utilização do kit também é descrita no livro **Conectando o PIC - Recursos Avançados** da editora Erica (ISBN: 978-85-7194-737-5).

1.5 Características da Placa 4

Emula a placa de desenvolvimento PICGenios PIC18F e PIC16F Microchip da microgenios que utiliza um PIC16F877A ou um PIC18F452.





Esquemático da placa 4.

Os códigos fontes de exemplo podem ser carregados através do menu **Help->examples** do Picsimlab.

O código fonte de exemplo da placa picsimlab4 usando o MPLABX e o compilador XC8 está no diretório: src/teste_b4.X.

Compra do kit PICGenios PIC18F e PIC16F Microchip e manual em www.microgenios.com

1.6 Conexão com o Programador

Para utilizar o emulador de programador picstart+ embutido, instale um emulador NULL-MODEM:

- Windows: com0com `http://sourceforge.net/projects/com0com/`
- Linux: tty0tty `http://sourceforge.net/projects/tty0tty/` ou `https://github.com/lcgamboa/tty0tty`

Exemplos de configuração:

OS	porta PicsimLab	porta IDE	NULL-Modem prog.	Conexão
Windows	wport=com8	Mplab=com2	com0com	com2<=>com8
Linux	lport=/dev/tnt4	Piklab=/dev/tnt5	tty0tty	/dev/tnt4<=>/dev/tnt5

1.7 Depuração Integrada com o MPLABX

Para utilizar o IDE MPLABX para depurar e programar o PicsimLab, basta instalar o plugin com-picsim-picsimlab.nbm no MPLABX.

O plugin se conecta ao Picsimlab através de um socket TCP na porta 1234, permita o acesso no firewall.

Tutorial: Como usar o MPLABX para programar e depurar o PICsimLab (Inglês)

Chapter 2

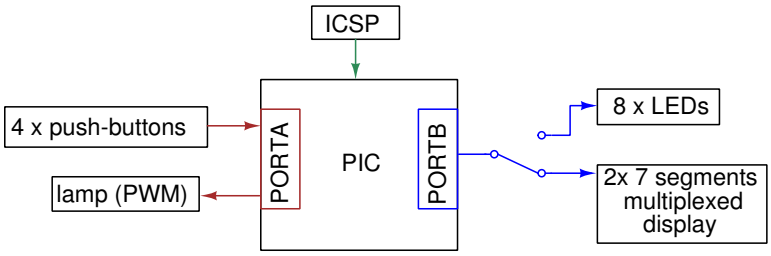
Help

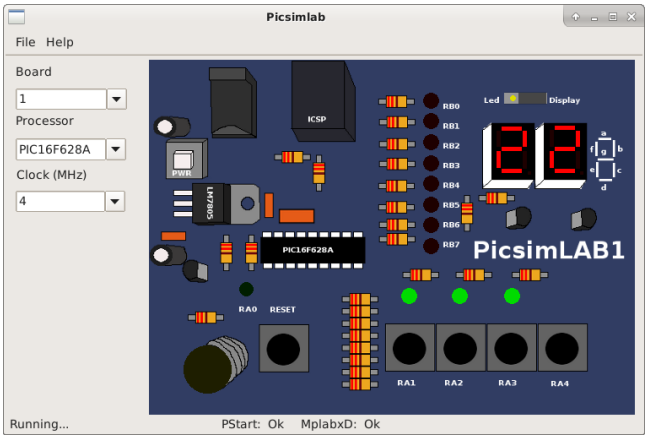
2.1 Commands

- Click in ICSP connector to load an .hex file.
- Click in PWR button to ON/OFF the emulator..
- The buttons can be activated through mouse or keys 1, 2, 3 e 4.

2.2 Features of Board 1

It emulates the Labtools development board McLab1 that uses one PIC16F628A.





Board 1 schematics.

The code examples can be loaded in PicsimLab menu **Help->examples**.

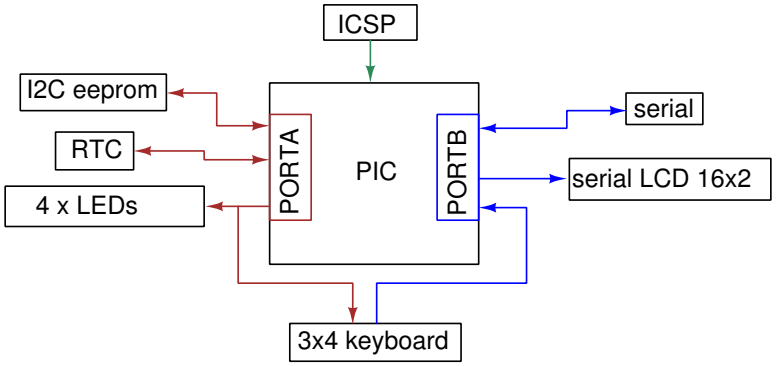
The source code of picsimlab1 example using MPLABX and XC8 compiler are in the folder: src/teste_b1.X.

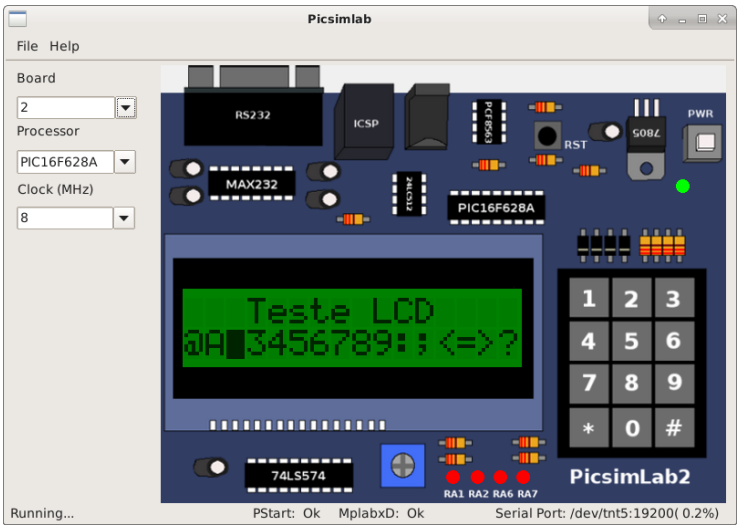
To buy McLab1 kit, download manual and examples you can go to www.mosaico.com.br

The hardware and the use of kit are described in the book **Desbravando o PIC - Ampliado e Atualizado para PIC 16F628A** of Erica publisher (ISBN: 978-85-7194-867-9).

2.3 Features of Board 2

It emulates an didatic board developed by author.





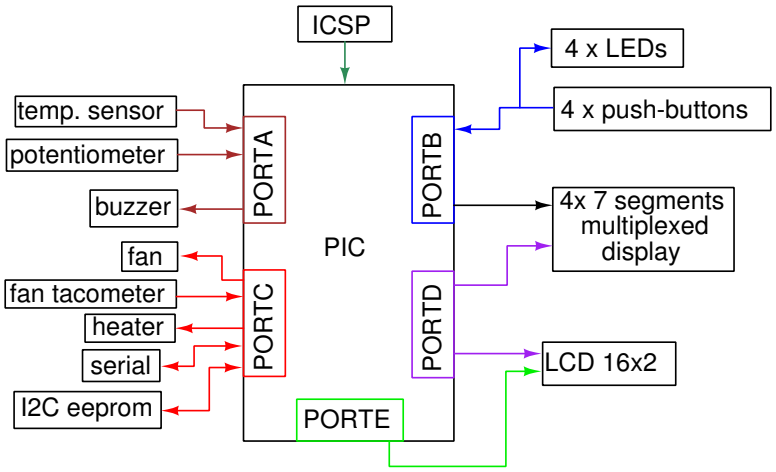
Board 2 schematics.

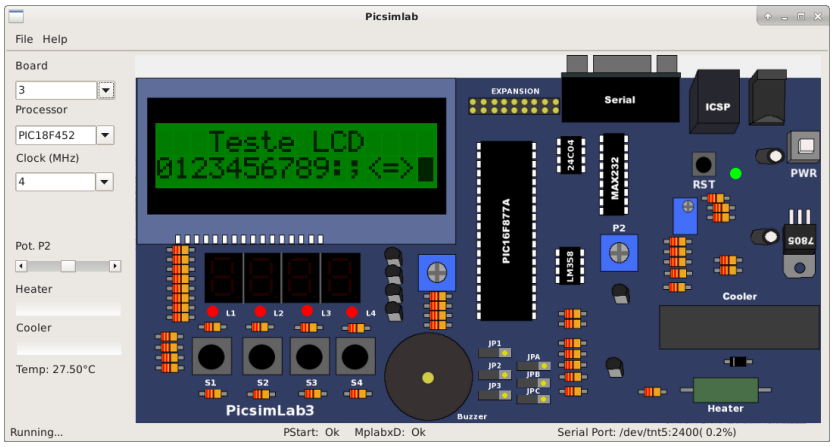
The code examples can be loaded in PicsimLab menu **Help->examples**.

The source code of picsimlab2 example using MPLABX and XC8 compiler are in the folder: src/teste_b2.X.

2.4 Features of Board 3

It emulates the Labtools development board McLab2 that uses one PIC16F877A or one PIC18F452.





Board 3 schematics.

The code examples can be loaded in PicsimLab menu **Help->examples**.

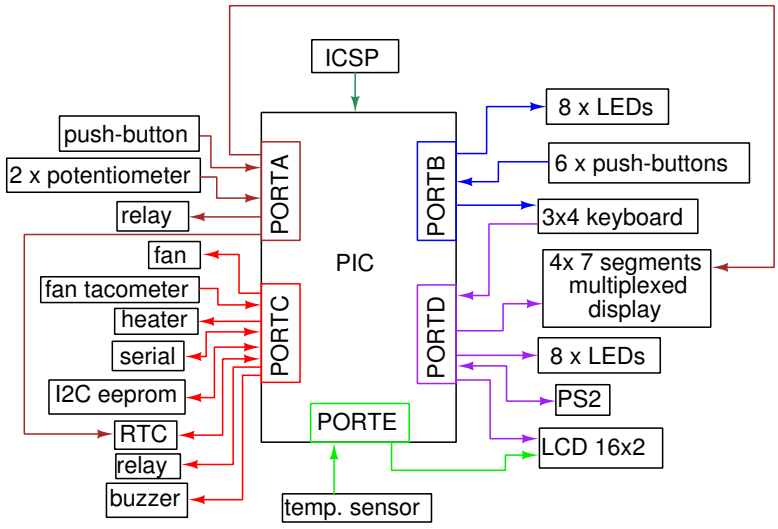
The source code of picsimlab3 example using MPLABX and XC8 compiler are in the folder: src/teste_b3.X.

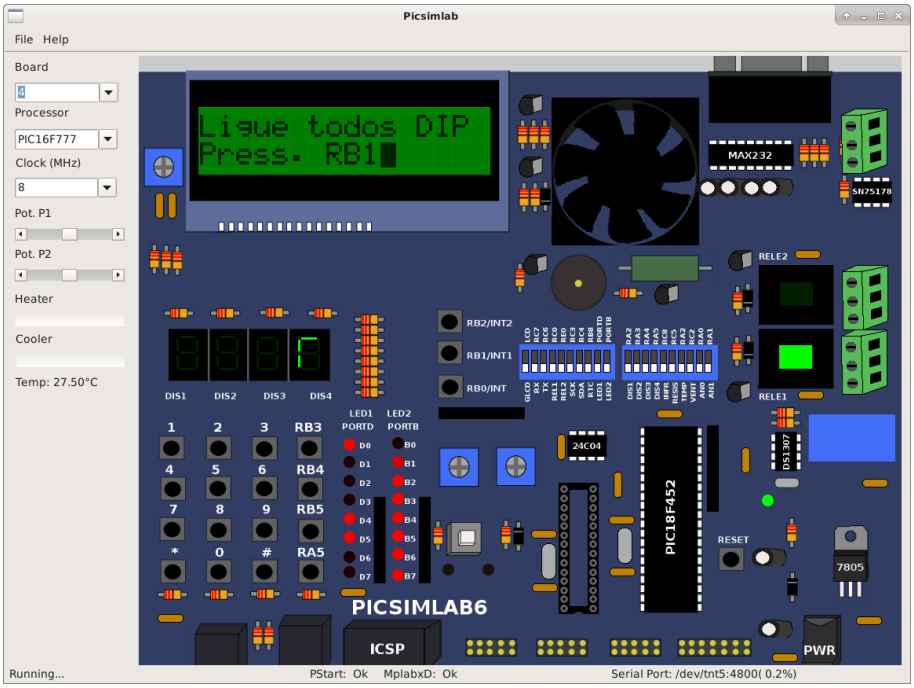
To buy McLab2 kit, download manual and examples you can go to www.mosaico.com.br

The hardware and the use of kit are described in the book **Conectando o PIC - Recursos AvanÃ§ados** of Erica publisher (ISBN: 978-85-7194-737-5).

2.5 Features of Board 4

It emulates the microgenius development board PICGenios PIC18F e PIC16F Microchip that uses one PIC16F877A or one PIC18F452.





Board 4 schematics.

The code examples can be loaded in PicsimLab menu **Help->examples**.
The source code of picsimlab4 example using MPLABX and XC8 compiler are in the folder: src/teste_b4.X.
To buy PICGenios PIC18F and PIC16F Microchip kit and download manual www.microgenios.com.

2.6 Programmer Connection

To use the embedded picstart+ emulator, install an NULL-MODEM emulator:

- Windows: com0com `http://sourceforge.net/projects/com0com/`
- Linux: tty0tty `http://sourceforge.net/projects/tty0tty/` or `https://github.com/lcgamboa/tty0tty`

Configuration examples:

OS	PicsimLab port	IDE port	NULL-Modem prog.	Connection
Windows	wport=com8	Mplab=com2	com0com	com2<=>com8
Linux	lport=/dev/tnt4	Piklab=/dev/tnt5	tty0tty	/dev/tnt4<=>/dev/tnt5

2.7 MPLABX Integrated Debug

To use the MPLABX IDE for debug and program the PicsimLab, install the plugin com-picsim-picsimlab.nbm in MPLABX.
The plugin connect to Picsimlab through a TCP socket using port 1234, and you have to allow the access in the firewall.
Tutorial: how to use MPLABX to program and debug PICsimLab.

Chapter 3

How To's

- How to use MPLABX to program and debug PICsimLab.
- How to Compile PICsimLab and Create New Boards.

Chapter 4

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