ATMEGA328P EM C

© Prof. Engº esp Luiz Antonio Vargas Pinto

www.vargasp.com

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Criar Ambiente

- Crie uma pasta na raiz do HD ou, preferencialmente na pendrive, com o nome "MikroC"
- Abra o MikroC já instalado

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Tela principal

mikroC PRO for AVR v.6.1.0 - C:\AVRMikroC\deleteme1.mcpav - NOT REGISTERED

File Edit View Project Build Run Tools Help

1024x768

Project Settings | Code Explorer

New Project...

Open Project...

Open Examples Folder...

Recent Projects:

- deleteme1.mcpav
- Pisca2.mcpav
- Int1.mcpav
- Deleteme2.mcpav
- AV2a.mcpav
- TWI_Simple.mcpav

Show Page On Startup

Get Started | Latest News

Welcome | Links

Welcome to mikroC PRO for AVR

mikroC PRO for AVR Help

mikroC PRO for AVR web page

Get started with mikroC PRO for AVR

Make a first project

Register your mikroC PRO for AVR

Learn how to register your mikroC PRO for AVR

Guide to key file licence

Messages | Quick Converter

Errors | Warnings | Hints

Line	Message No.	Message Text	Unit

Routine List | Project Manager [1/1] - deleteme1.mcpav | Project Explorer | Library Manager

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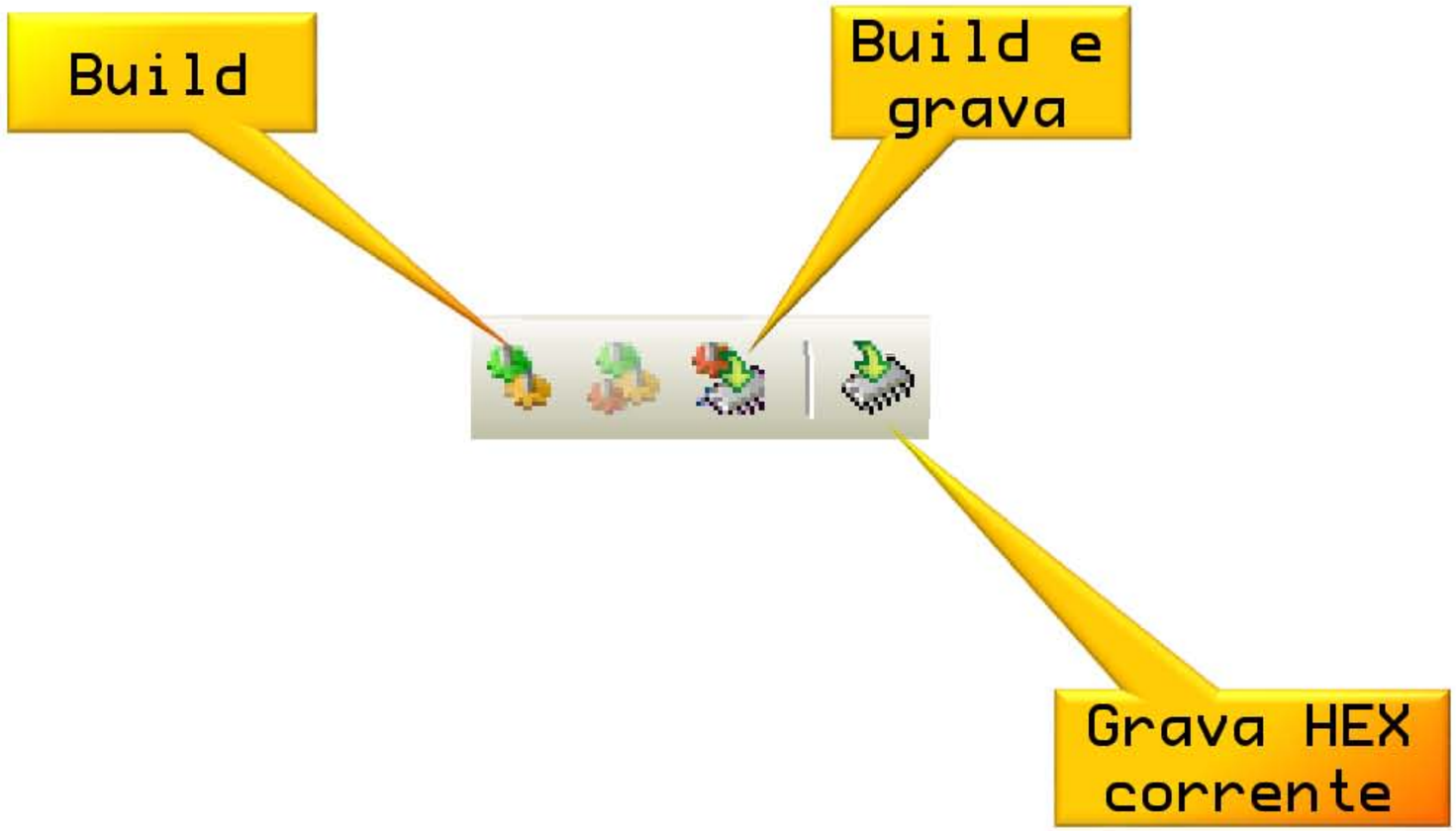
Sobre os comandos



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Menu lateral

Árvore de projeto

Informações de projeto

Biblioteca

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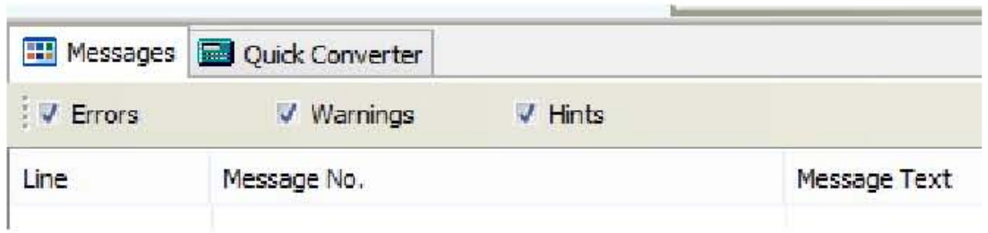
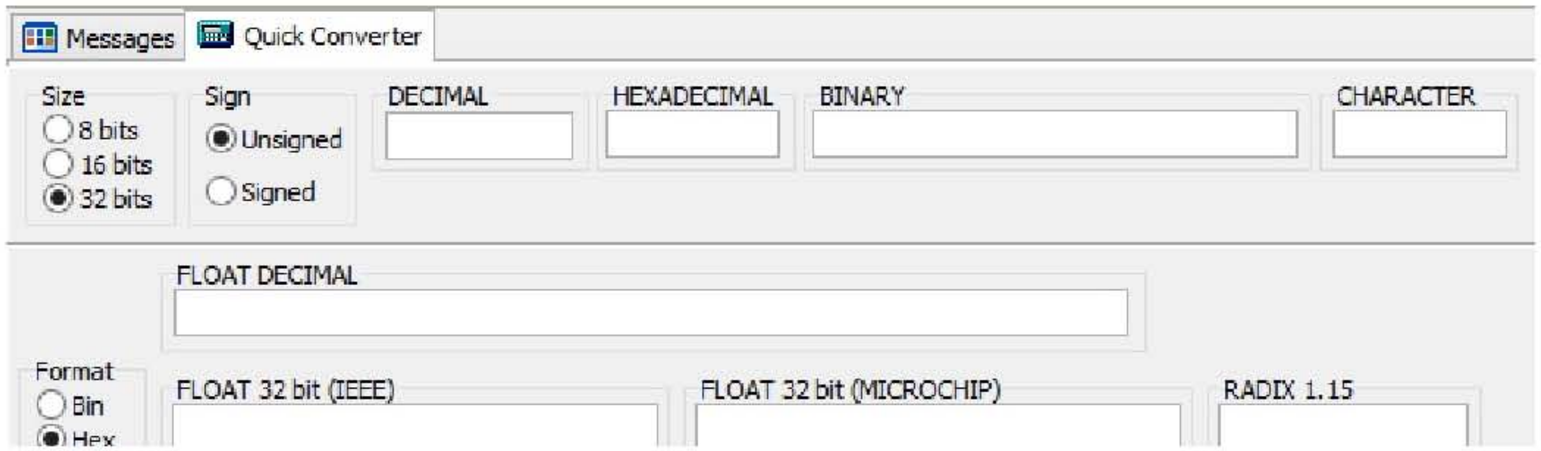
Janelas auxiliares





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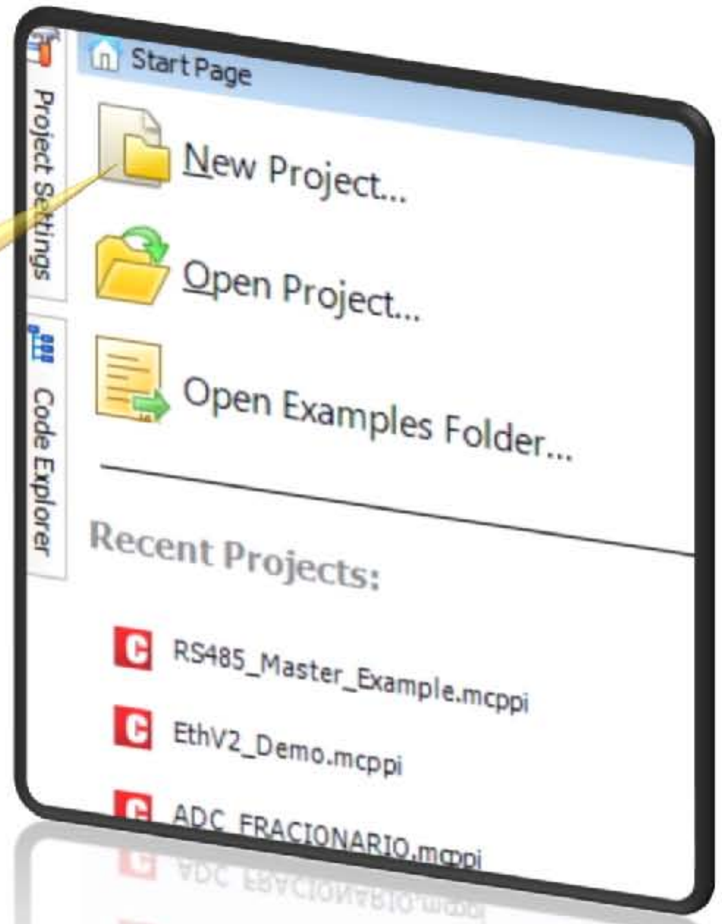
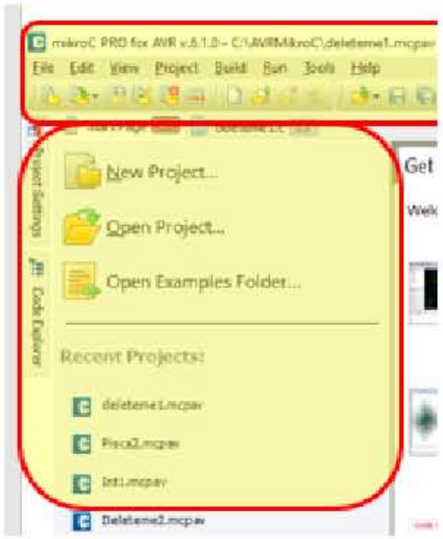
Abre Projeto

Abertura de novo projeto





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Um "New Project"

Start Page

New Project...

Open Project...

Open Examples Folder...

Recent Projects

Pisca2.mcpav

LedBlinking.mcpav

Show Page On Startup

Messages | Quick Converter

Errors | Warnings | Hints

Line | Message No. | Message Text | Unit

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Welcome | Links

Welcome to mikroC PRO for AVR

New Project Wizard

Steps:

1. Project type
2. **Project settings**
3. Add files
4. Libraries

Project Settings:

Project Name: Um

Project folder: C:\AVRMikroC\ Browse

Device name: ATMEGA328P

Device clock: 10.000000 MHz

Open Edit Project window to set Configuration bits

Enter project name, project folder, select device name and enter a device clock (for example: 80.000).

Checking 'Open Edit Project' option will open 'Edit Project' window after closing this wizard.
This enables you to easily setup your device and project.

Note: Project name and project folder must not be left empty.

Back | Next | Cancel

Nome

Local

Habilita fuse bits

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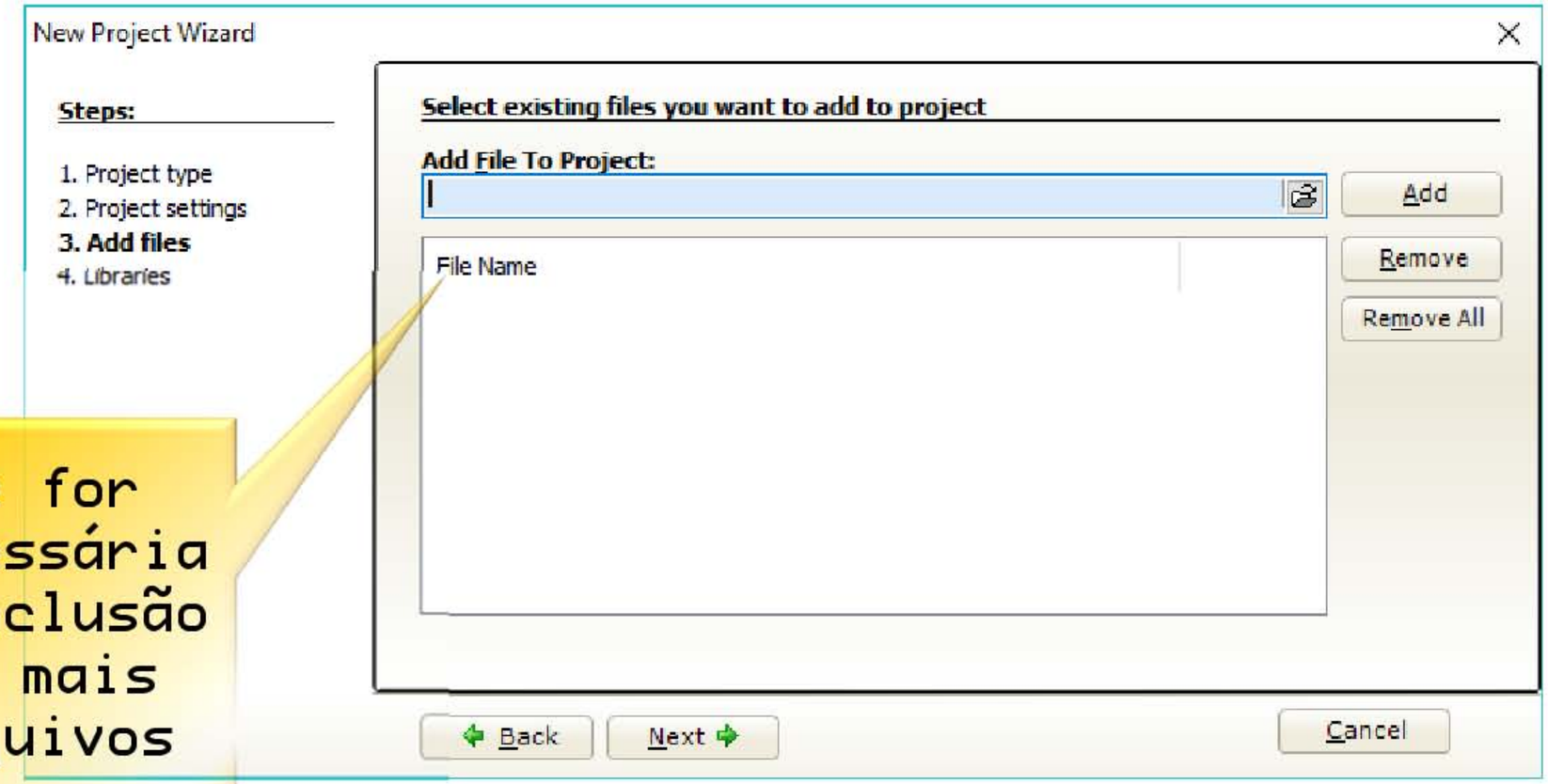
Adicionar arquivos



Se for necessária a inclusão de mais arquivos

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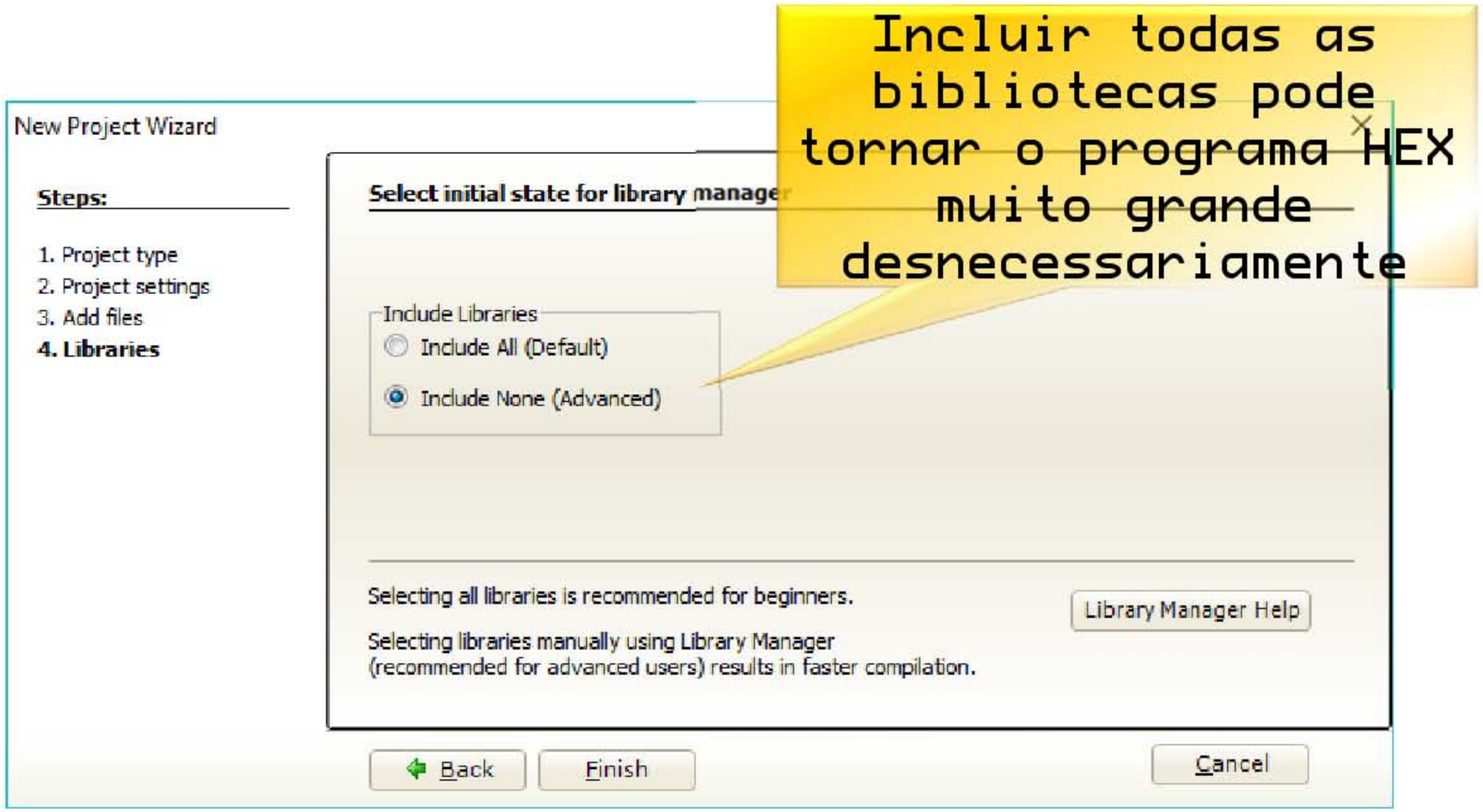
Bibliotecas



Incluir todas as bibliotecas pode tornar o programa HEX muito grande desnecessariamente

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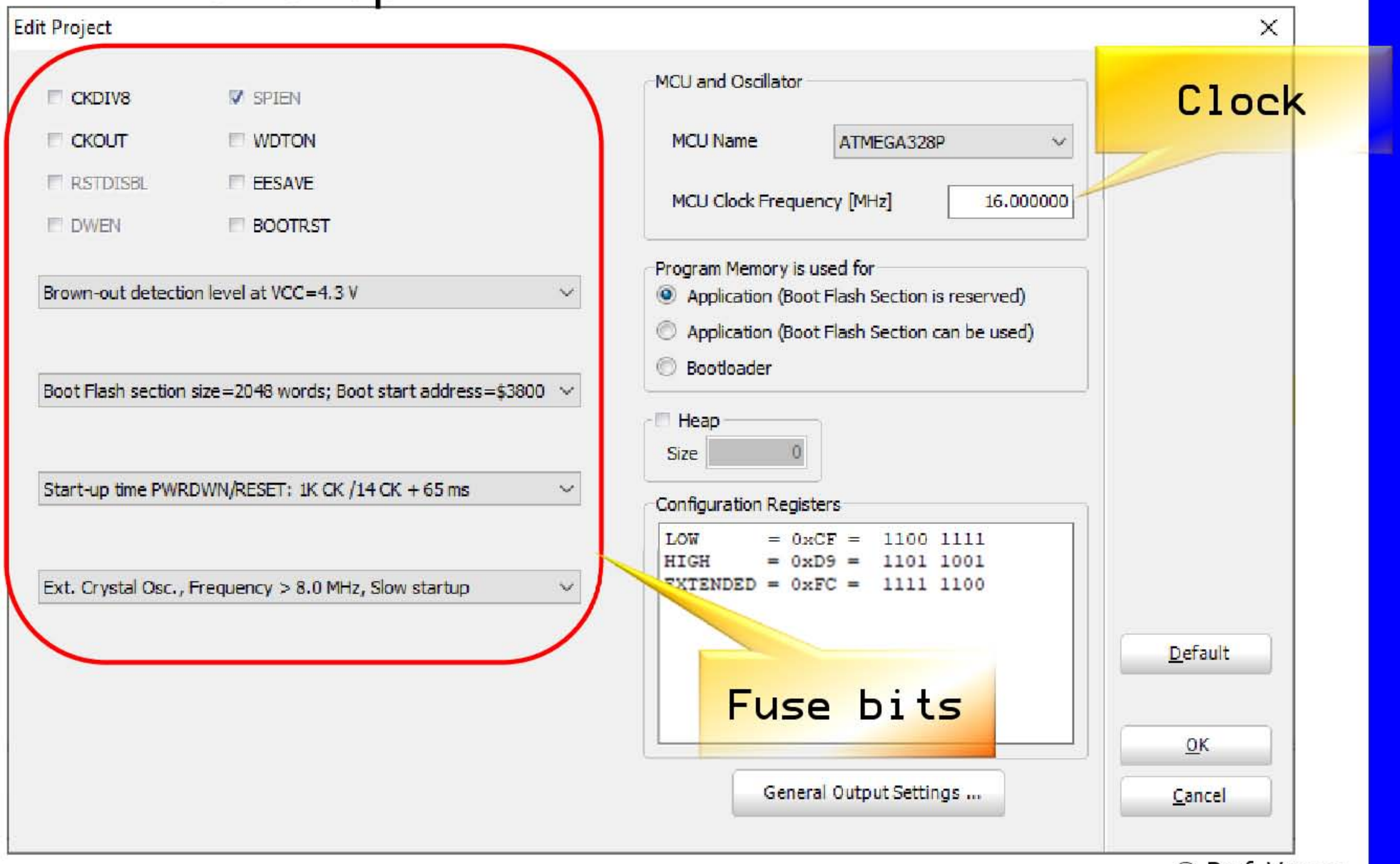
Os fuse bits

- Aqui definimos as características necessárias ao ATMEGA328p.



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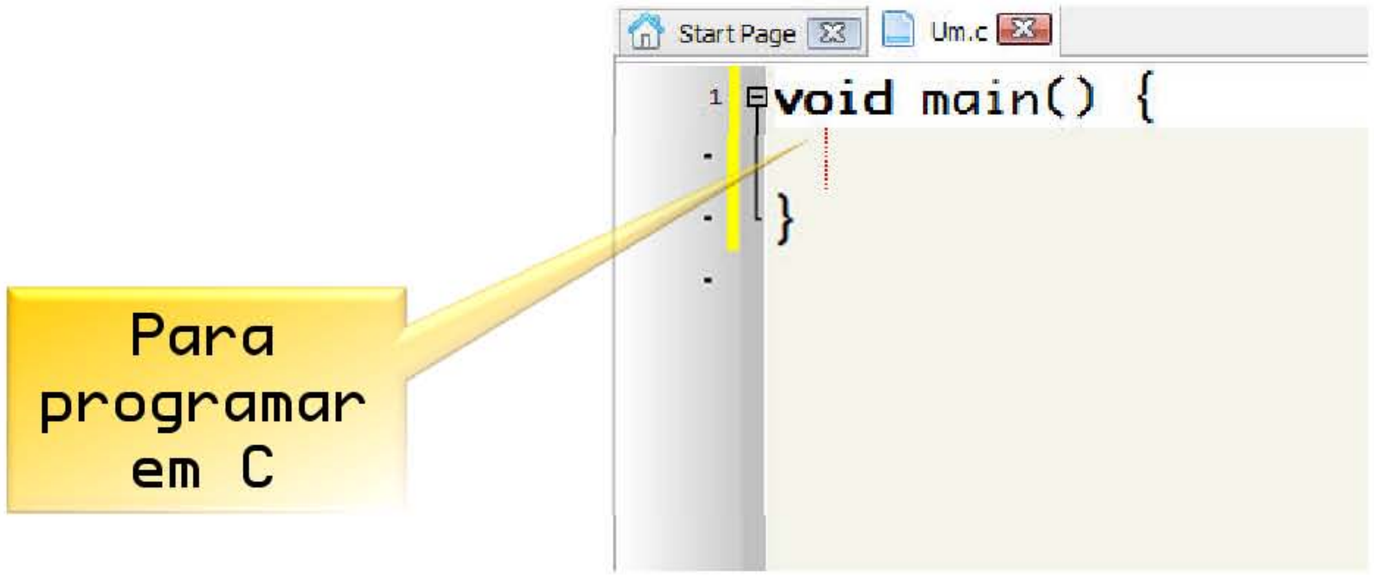
Janela final para criar código



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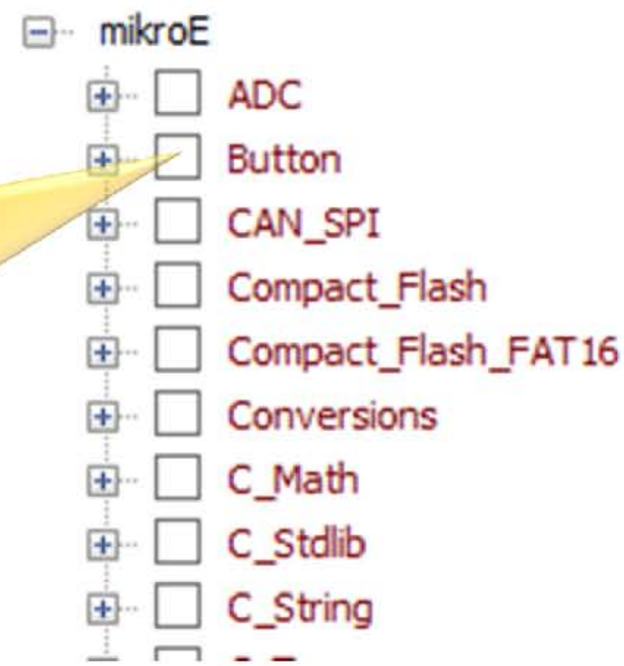
Seleção de biblioteca

Clicando aqui habilitamos as funções de botão, por exemplo



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Opções para o loop permanente

```
for (;;)
{
}
```

```
while(1)
{
}
```

```
do
{
}while(1);
```

```
xxx:
goto xxx ;
```

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O programa

```
 1: /*-------------------------------------------------------
 2:  Programa : Um.c
 3:  Data     : 25/05/2020
 4:  Autor    : Prof. Vargas
 5:  Descrição:
 6:     Como exercício inicial vamos criar um programa que faz os
 7:     LEDs D1 a D6 piscarem alternadamente com 0.5S de tempo.
 8:     Sendo que os mesmos estão conetados respectivamente em
 9:     PB0 a PB5.
10:  -------------------------------------------------------*/
11: void main()
12: {
13:    PORTB = 0b11010101; //dado que impede qualquer LED acender
14:    DDRB  = 0b00111111; //define quem é entrada e quem é saída
15:    for(;;)
16:    {
17:       PORTB.B0 = !PORTB.B0; //muda estado do LED D1
18:       PORTB.B1 = !PORTB.B1; //muda estado do LED D2
19:       PORTB.B2 = !PORTB.B2; //muda estado do LED D3
20:       PORTB.B3 = !PORTB.B3; //muda estado do LED D4
21:       PORTB.B4 = !PORTB.B4; //muda estado do LED D5
22:       PORTB.B5 = !PORTB.B5; //muda estado do LED D6
23:       Delay_ms(500);  //temporiza 0.5S
24:    }//final do loop permanente
25: }
26:
```

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