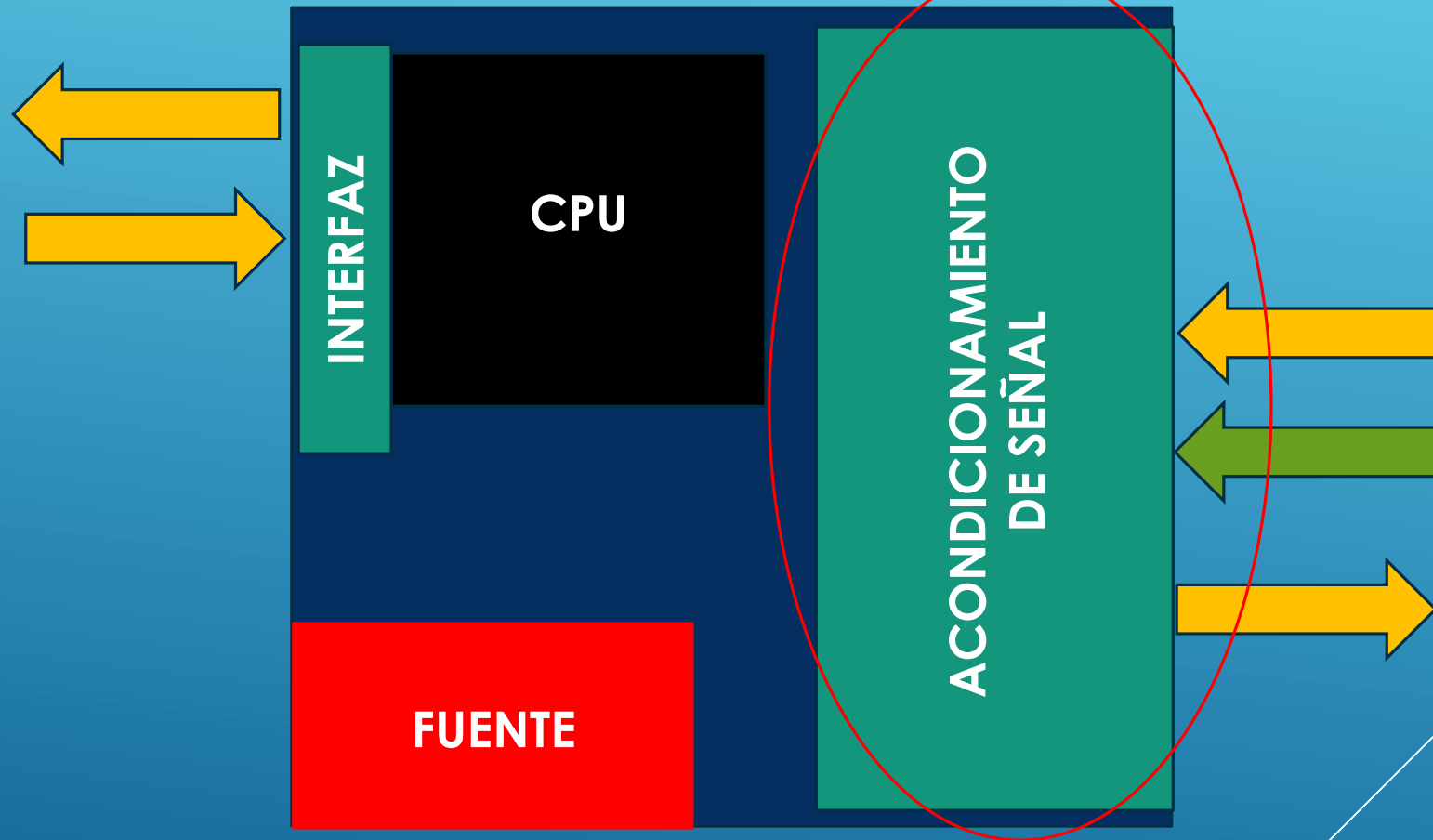


TECNICAS DIGITAL III

Clase III

Instrumento Virtual

Acondicionamiento de señal

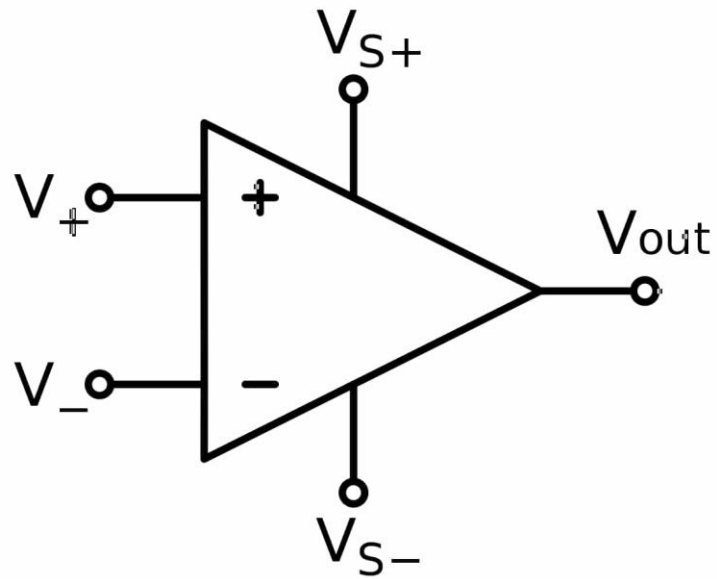


Seleccionar y configurar un dispositivo de adquisición de datos

Parametros de selección	
Cantidad mínima de canales analógicos de entrada	8
Cantidad mínima de canales analógicos de salida	2
Entradas y salidas digitales.	8/8
Frecuencia de muestra.	xxx
Rango de entrada analógico.	0-10V
Tipos de entradas.	Simples
Precisión de la conversión.	12 bits

Instrumento Virtual

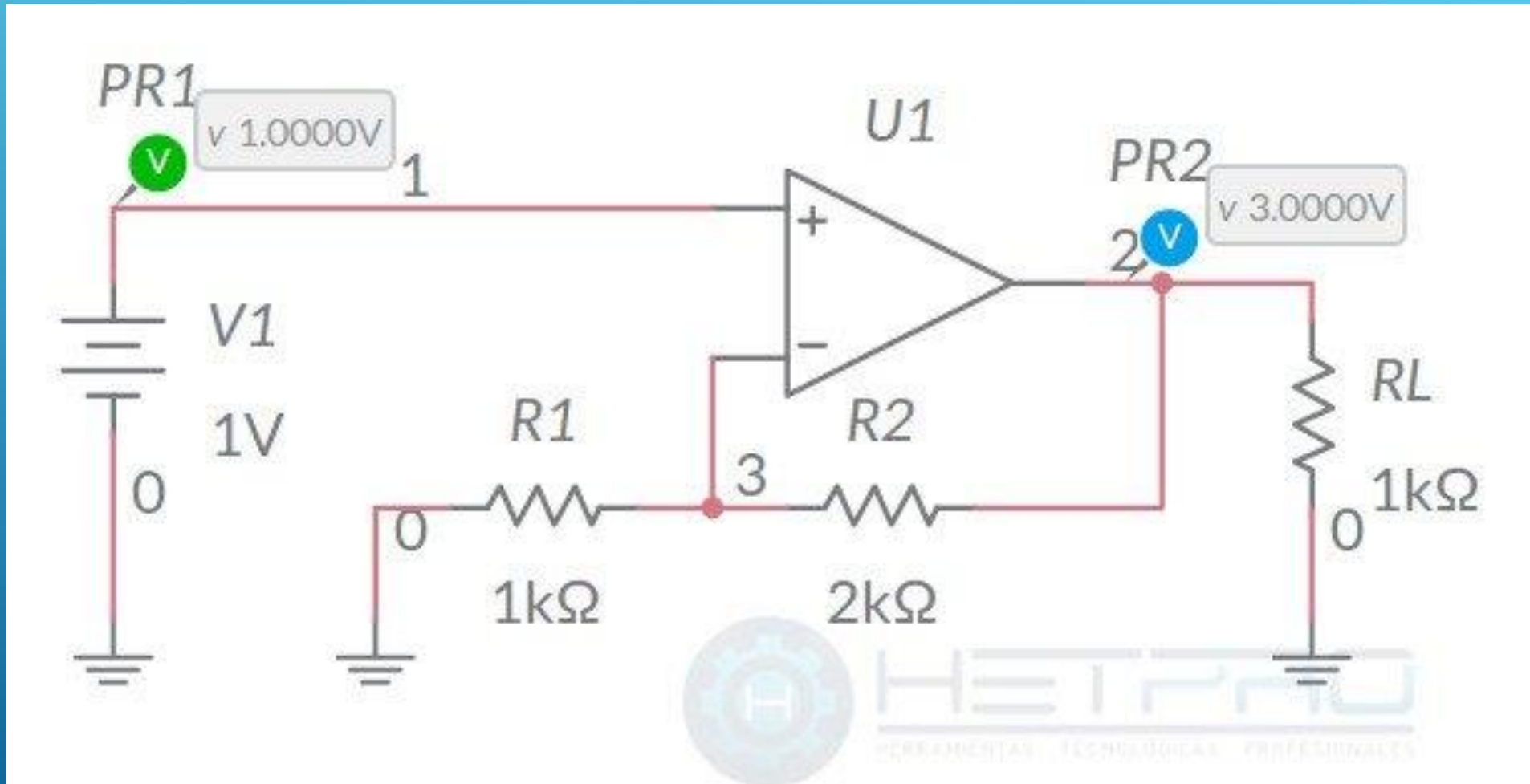
Acondicionamiento de señal



Impedancia de entrada.
Impedancia de salida.
Ganancia.

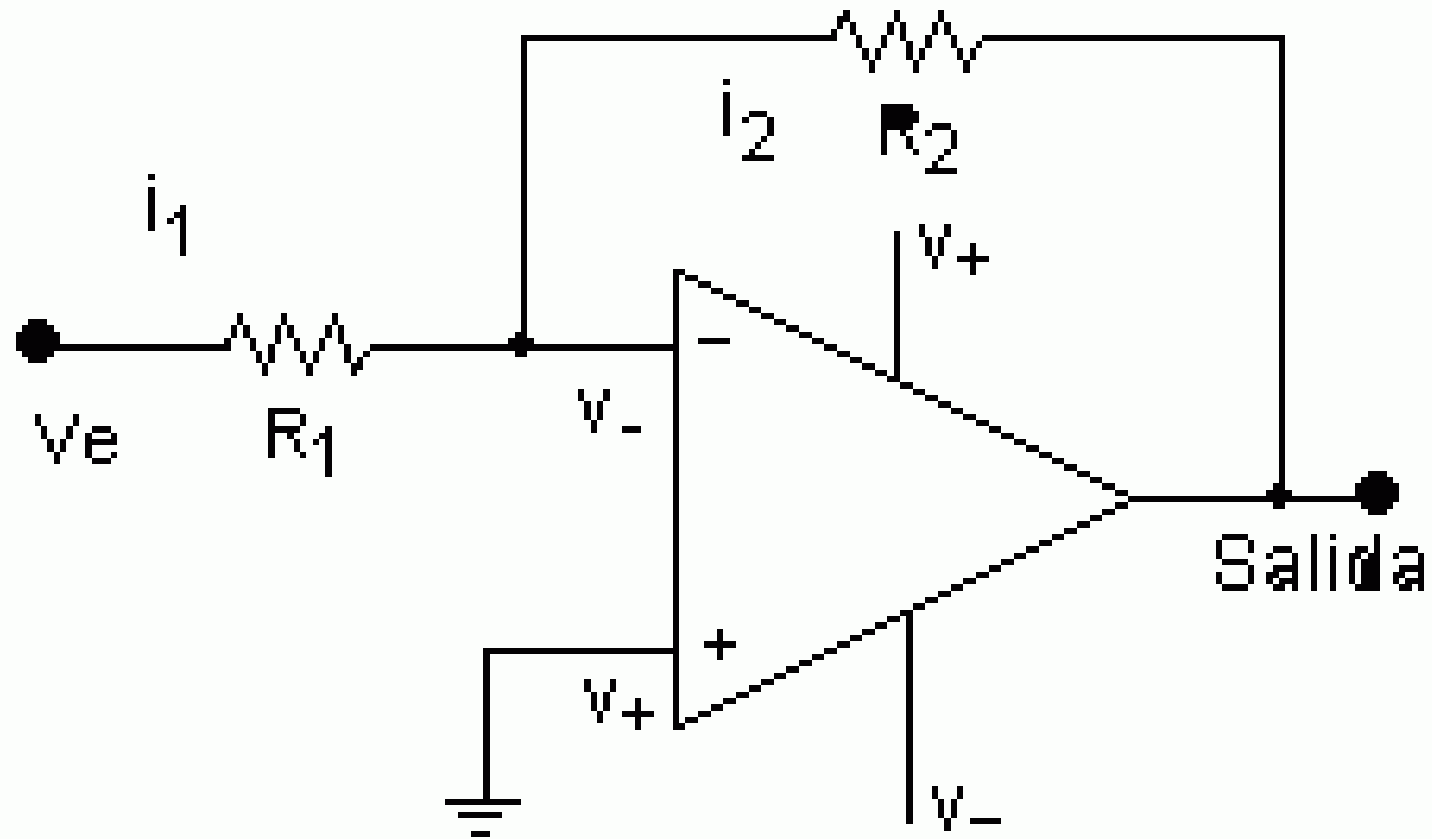
Instrumento Virtual

Acondicionamiento de señal



Instrumento Virtual

Acondicionamiento de señal



Instrumento Virtual

Acondicionamiento de señal

Diseñar el acondicionamiento de señal para entradas provenientes de un sensor LM35 que debe ingresar al conversor AD de la bluepill.

Debe medir temperatura entre 10 y 60 grados. Con la máxima resolución posible.

Además la placa debe admitir 2 entradas extras de 0 a 10V del tipo single-ended. 1 señal de entrada entre +/- 2.5V

Fuente de alimentación simple de 12V.

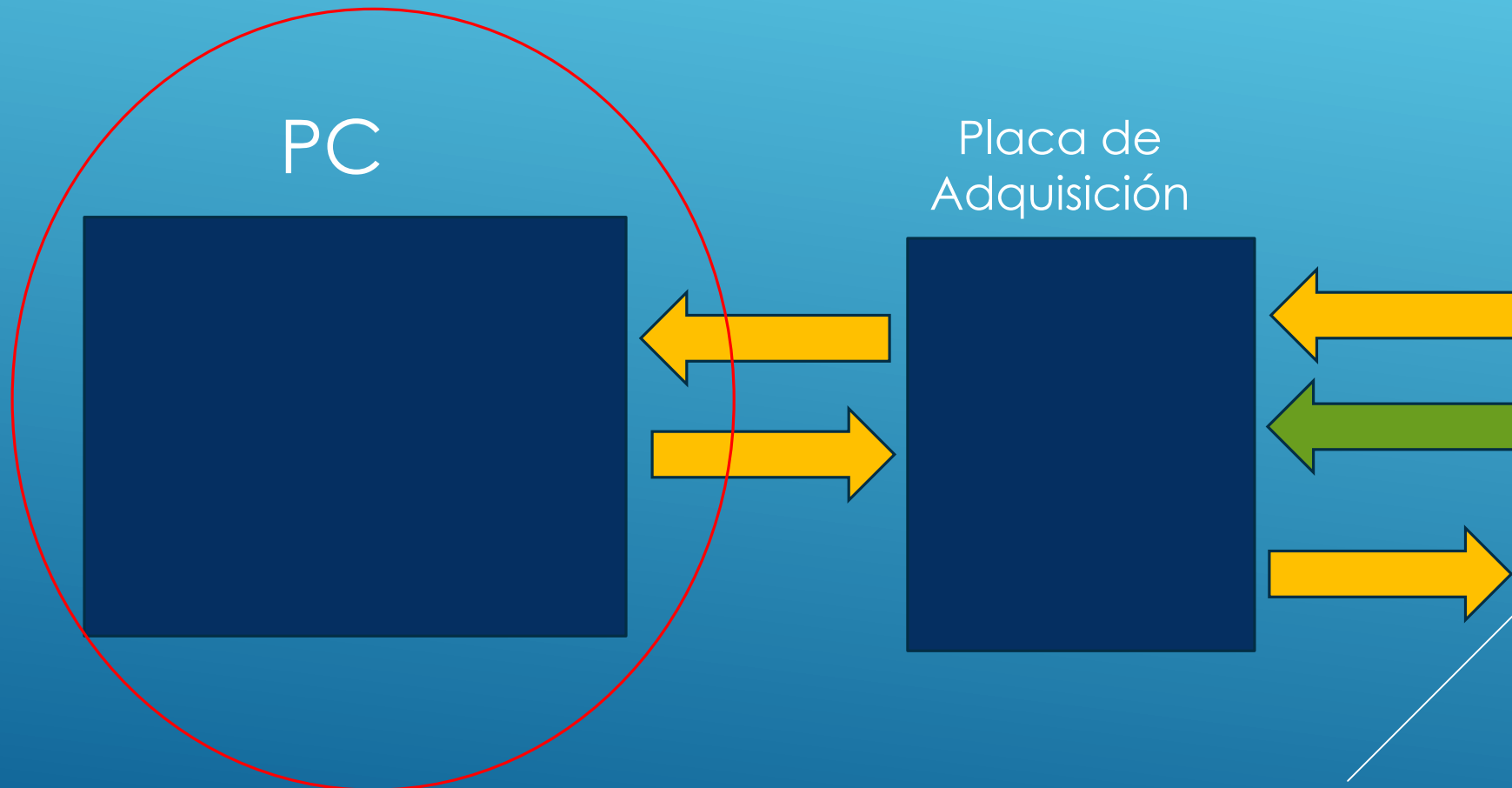
1 Circuito

2 Calculo de todos los componentes.

3 Determinar la resolución de la conversión.

4 Determinar la ecuación para almacenar la conversión en un entero, del cual sea posible sacar decimas de grado.

Instrumento Virtual





<https://www.qt.io/>

The screenshot shows the Qt website homepage. At the top, there's a navigation bar with links for Developers, Blog, Language, Price, Buy, and Download, Try. Below this is a main header with the Qt logo and a navigation menu including Design, Develop, Test, Deploy, Product, Use Cases, and Resources. The main content area features a large banner with the text "FUTURE IS WRITTEN WITH Qt" and "One framework. One codebase. Any platform." Below the banner, there are two buttons: "Browse Qt Tools" and "Browse Qt Features". The page is divided into sections for EMBEDDED, DESKTOP, MOBILE, MCUs, and MORE USE CASES, each with a brief description and a "View More" or "Read More" link. A "Contact Us" button is visible on the right side of the banner.

The screenshot shows the footer of the Qt website. It includes the Qt logo and "The Qt Company" text, followed by social media icons for Facebook, Twitter, YouTube, and LinkedIn. A "Contact Us" button is also present. The footer is organized into columns: Company (About Us, Investors, Newsroom, Careers, Office Locations), Licensing (Terms & Conditions, Open Source, FAQ), Support (Support Services, Professional Services, Partners, Training), For Customers (Support Center, Downloads, Qt Login, Contact Us, Customer Success), and Community (Contribute to Qt, Forum, Wiki, Downloads, Marketplace). The "Downloads" link in the Community column is circled in red, with a red arrow pointing to it. At the bottom right, there are links for "Feedback" and "Sign In".



Existing customers

Got Qt already and want to upgrade your license or try out the latest Qt 6 release? Sign into the customer portal to download a trial or contact your Customer Success Manager to discuss your options.

[Log in](#)[Contact us about a Qt 6 license](#)

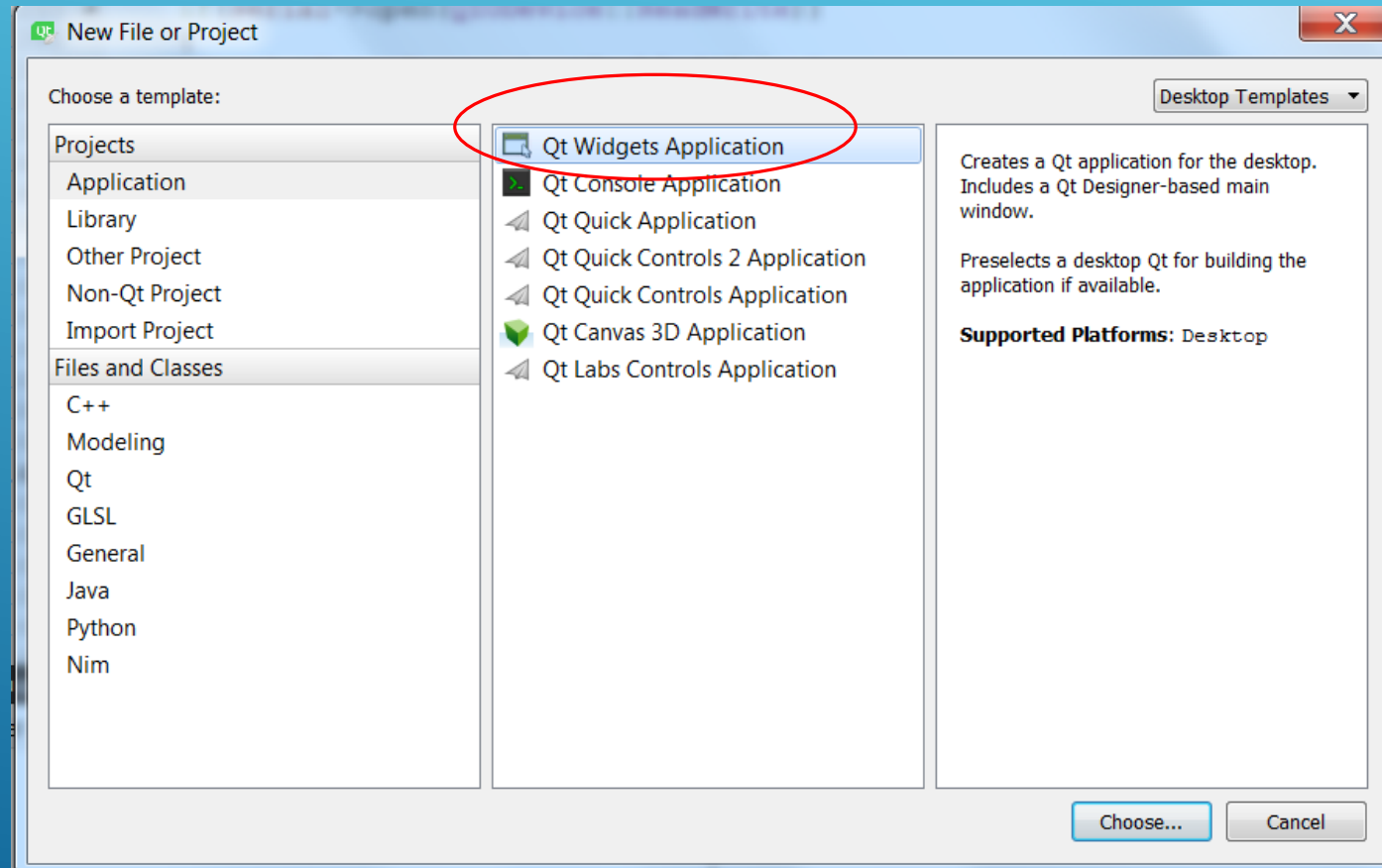
Downloads for open source users

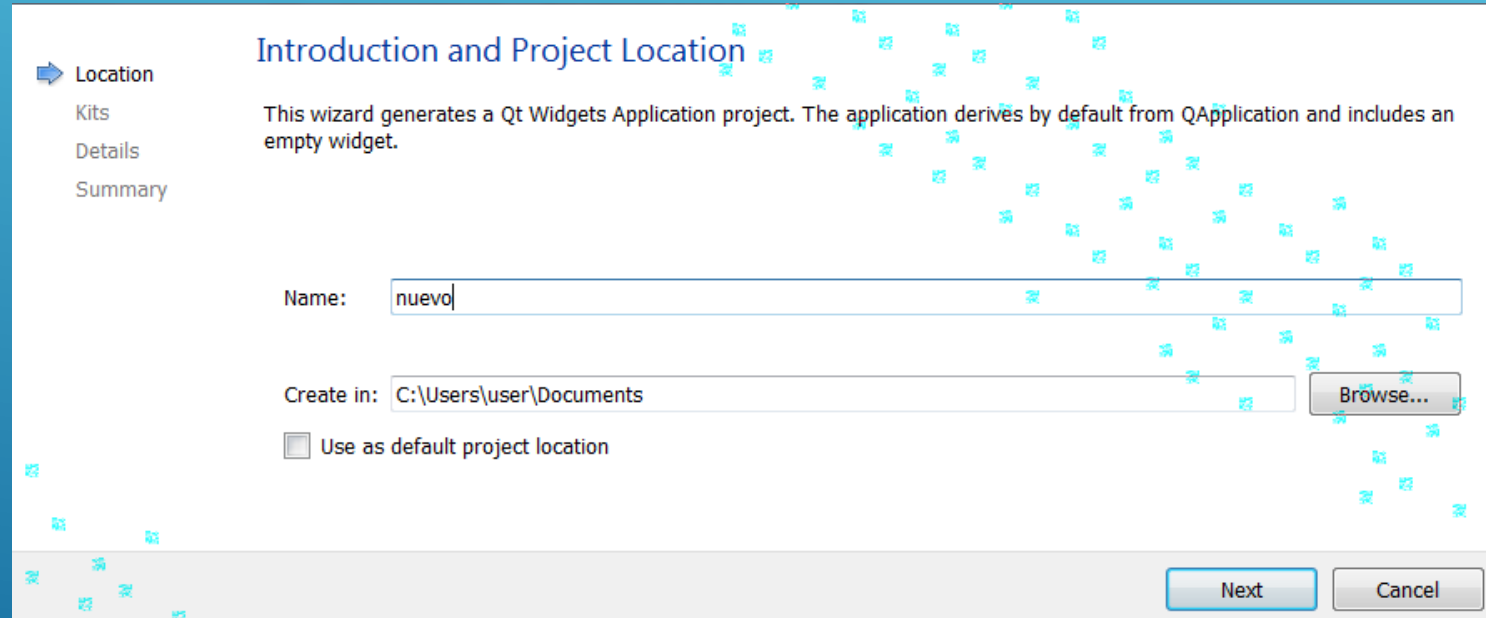
Find out how you can use Qt under the (L)GPL and contribute to the Qt project.

[Go open source](#)[View Qt product map](#)

Qt

Crear una aplicación



A screenshot of the Qt project wizard dialog box. The dialog has a title bar and a main content area. On the left, there is a sidebar with a list of steps: 'Location' (selected with a blue arrow), 'Kits', 'Details', and 'Summary'. The main content area has a title 'Introduction and Project Location' and a description: 'This wizard generates a Qt Widgets Application project. The application derives by default from QApplication and includes an empty widget.' Below this, there are two text input fields. The first is labeled 'Name:' and contains the text 'nuevo'. The second is labeled 'Create in:' and contains the path 'C:\Users\user\Documents'. To the right of the second field is a 'Browse...' button. Below the 'Create in:' field is a checkbox labeled 'Use as default project location', which is currently unchecked. At the bottom right of the dialog are two buttons: 'Next' and 'Cancel'.

Location
Kits
Details
Summary

Introduction and Project Location

This wizard generates a Qt Widgets Application project. The application derives by default from QApplication and includes an empty widget.

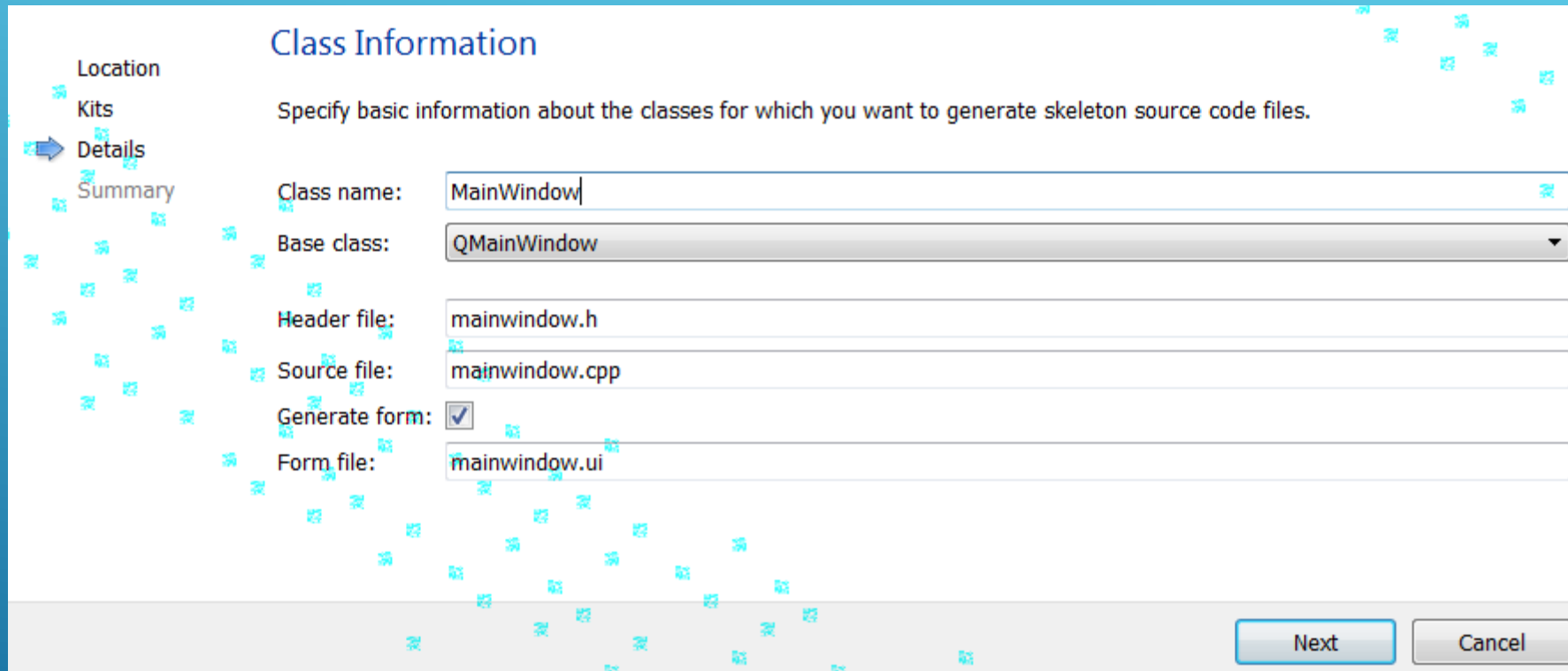
Name:

Create in:

☐ Use as default project location

Qt



The image shows a 'Class Information' dialog box from the Qt IDE. On the left is a sidebar with a tree view containing 'Location', 'Kits', 'Details' (which is selected and highlighted with a blue arrow), and 'Summary'. The main area of the dialog is titled 'Class Information' and contains the instruction 'Specify basic information about the classes for which you want to generate skeleton source code files.' Below this instruction are several input fields: 'Class name:' with the text 'MainWindow', 'Base class:' with a dropdown menu showing 'QMainWindow', 'Header file:' with 'mainwindow.h', 'Source file:' with 'mainwindow.cpp', 'Generate form:' with a checked checkbox, and 'Form file:' with 'mainwindow.ui'. At the bottom right of the dialog are two buttons: 'Next' and 'Cancel'.

Class Information

Specify basic information about the classes for which you want to generate skeleton source code files.

Class name:

Base class:

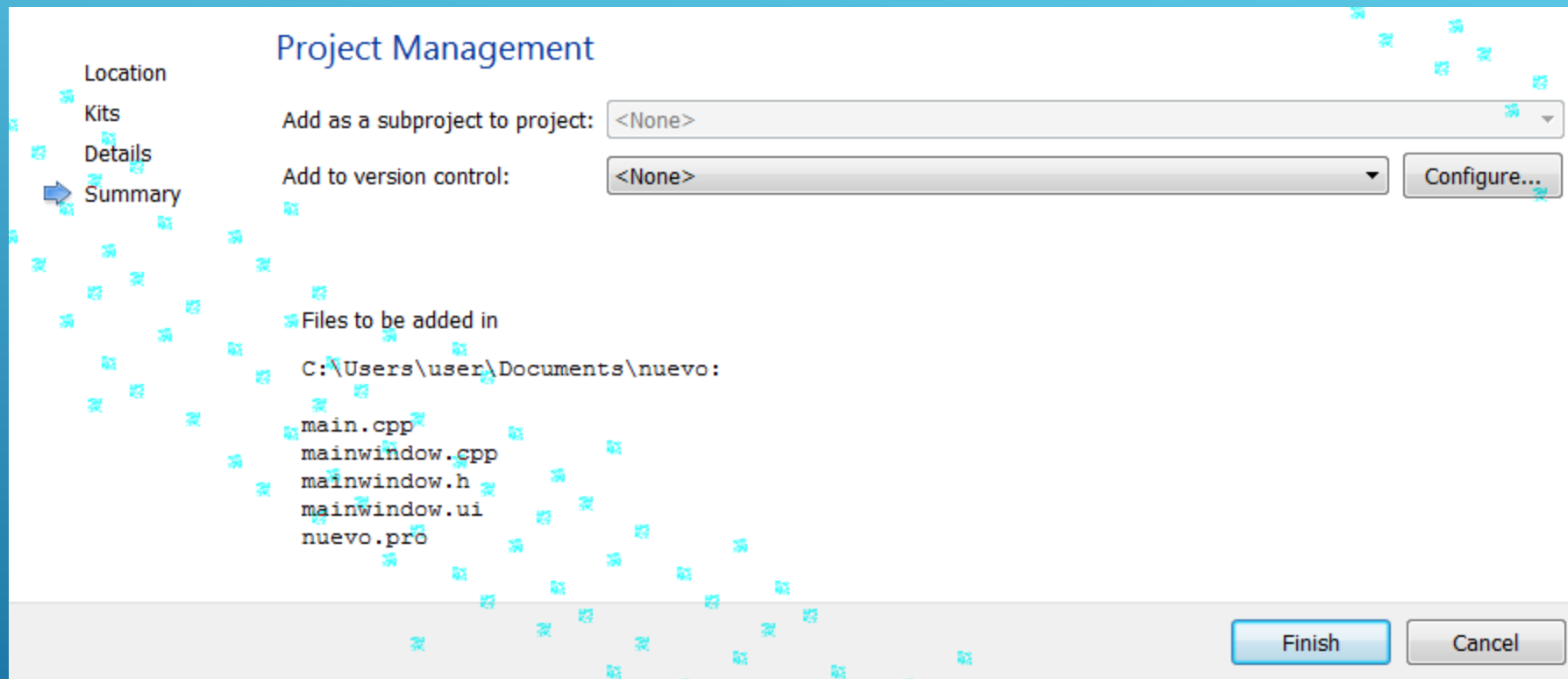
Header file:

Source file:

Generate form: ☒

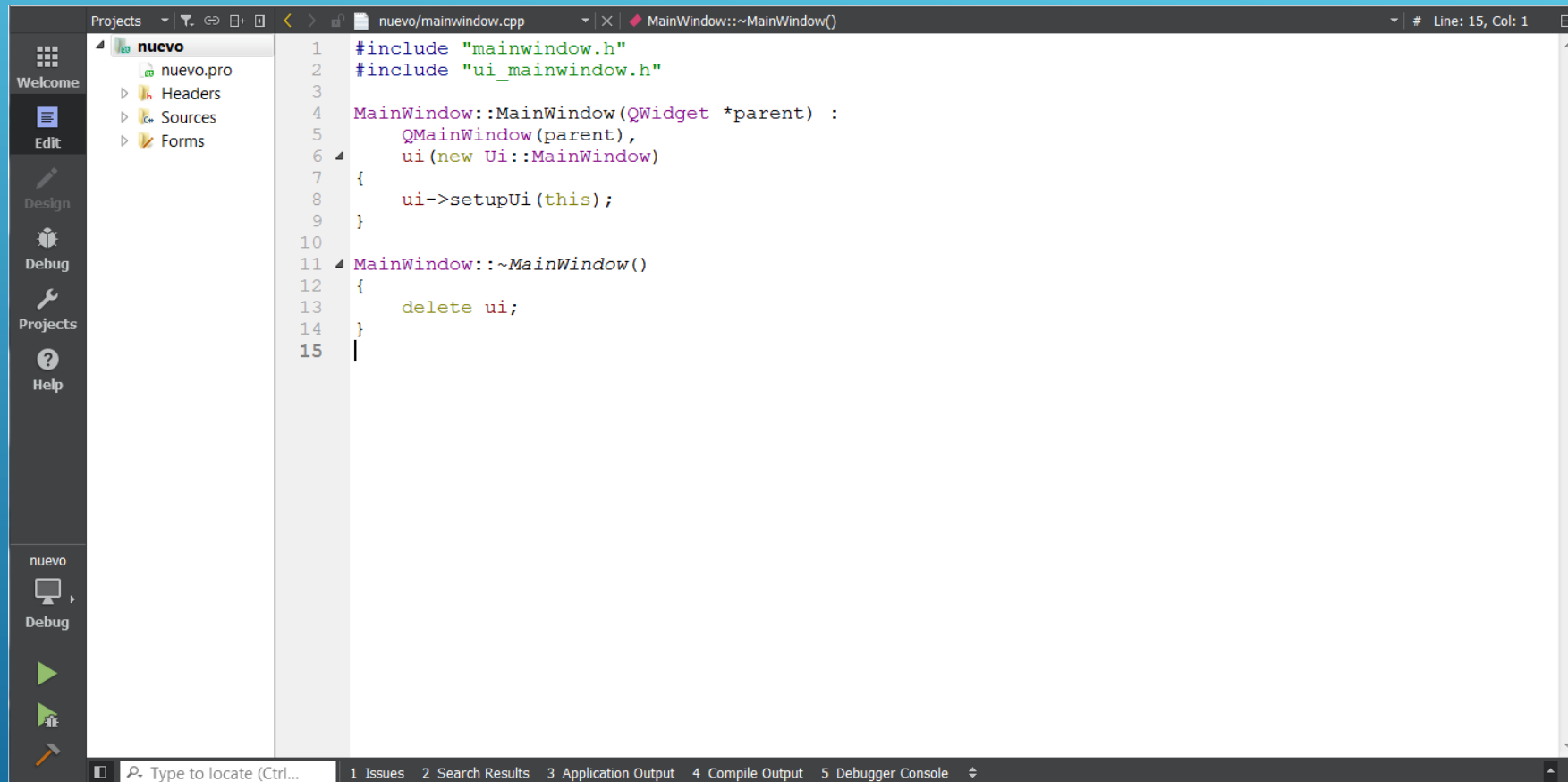
Form file:

Next Cancel



Qt

Resultado

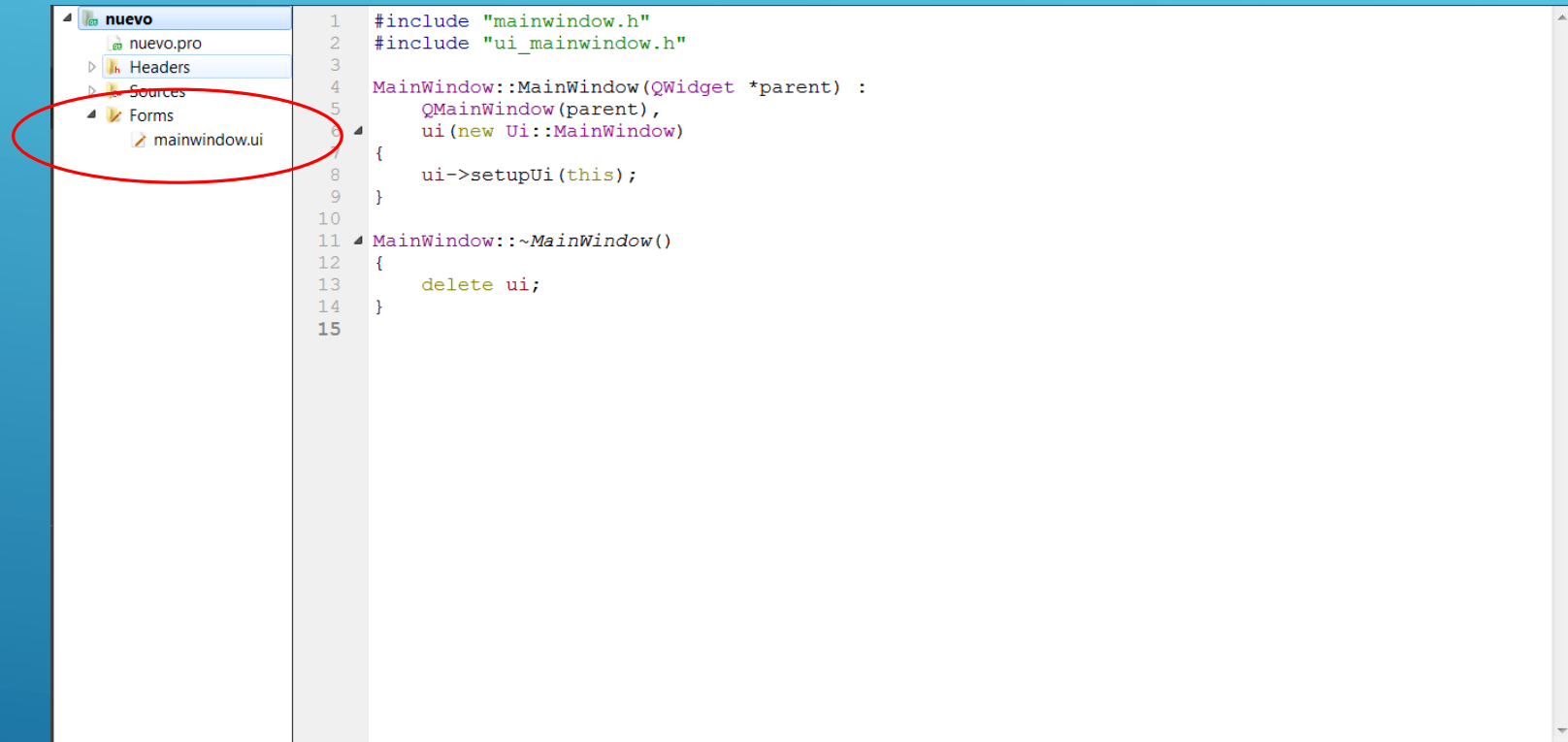


The screenshot shows the Qt Creator IDE with a project named 'nuevo'. The left sidebar contains a 'Projects' panel with a tree view showing 'nuevo.pro', 'Headers', 'Sources', and 'Forms'. The main editor window displays the file 'nuevo/mainwindow.cpp' with the following C++ code:

```
1 #include "mainwindow.h"
2 #include "ui_mainwindow.h"
3
4 MainWindow::MainWindow(QWidget *parent) :
5     QMainWindow(parent),
6     ui(new Ui::MainWindow)
7 {
8     ui->setupUi(this);
9 }
10
11 MainWindow::~MainWindow()
12 {
13     delete ui;
14 }
15 |
```

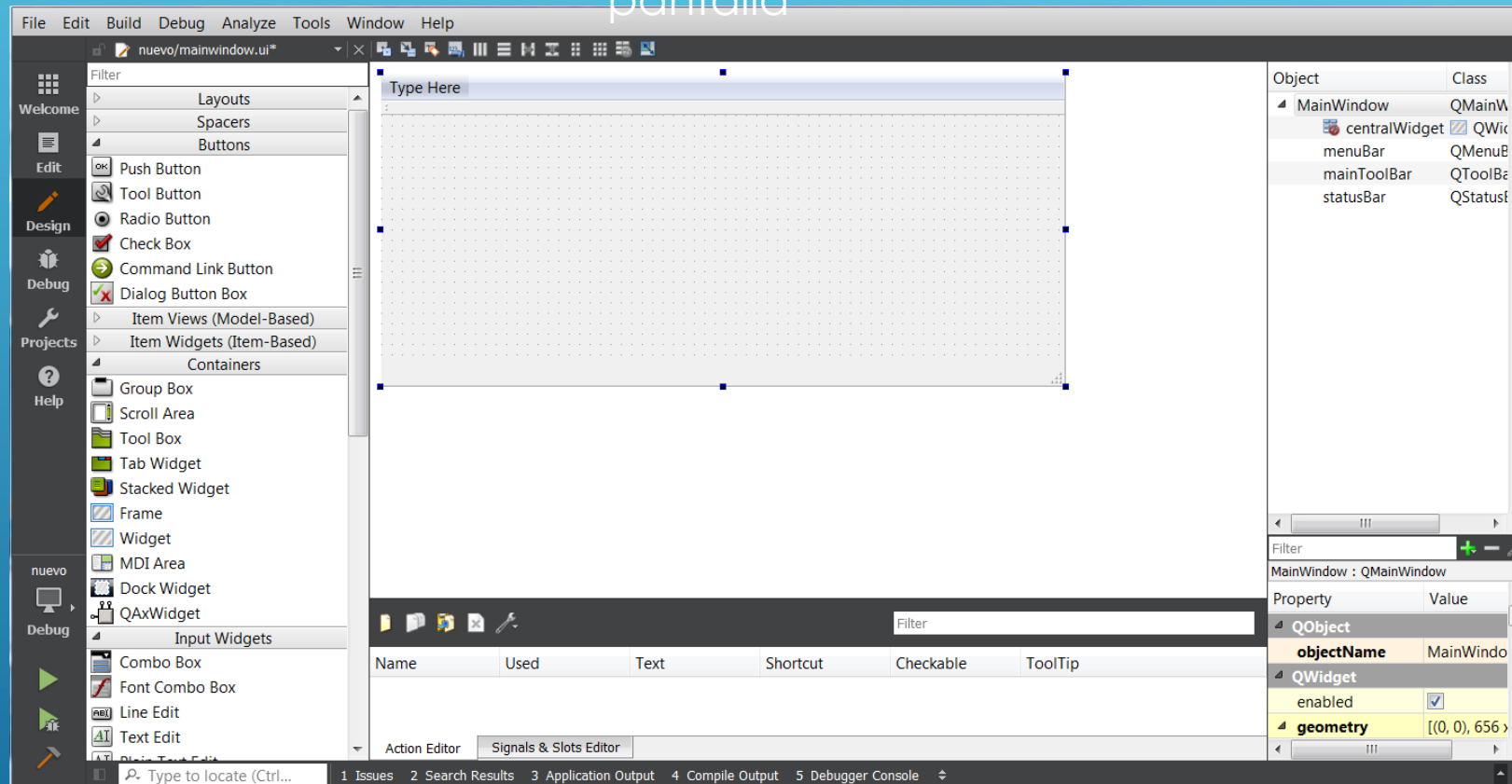
The status bar at the bottom indicates the current line and column: 'Line: 15, Col: 1'. The bottom panel shows tabs for 'Issues', 'Search Results', 'Application Output', 'Compile Output', and 'Debugger Console'.

Qt



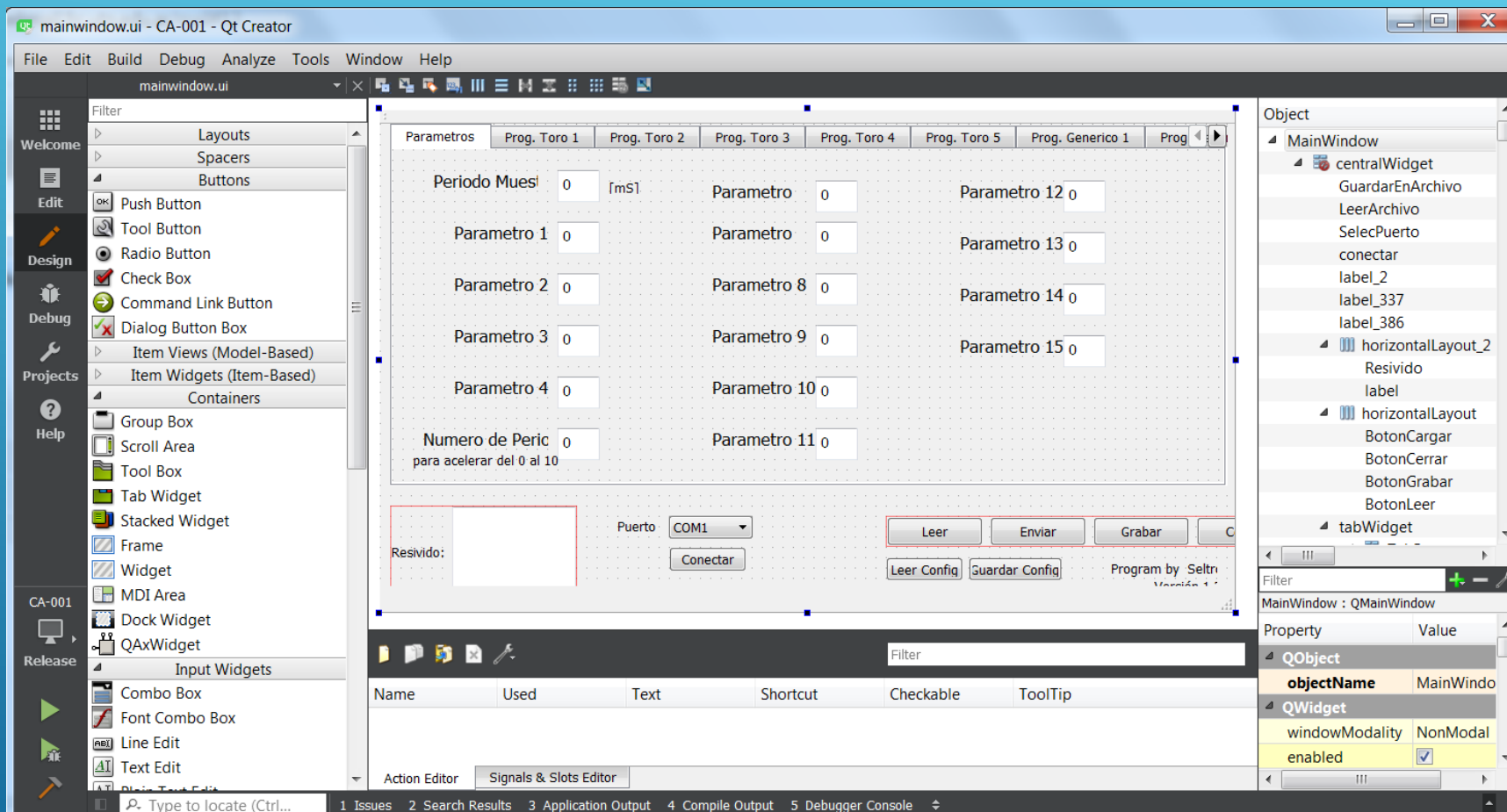
Qt

Diseño de pantalla



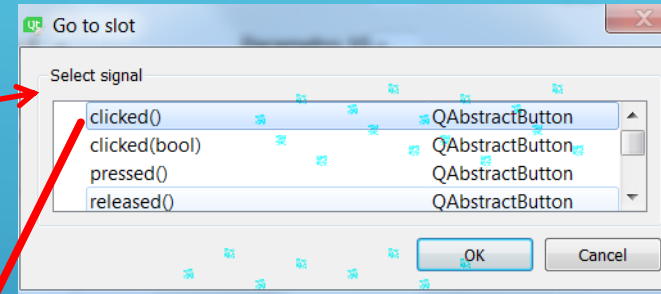
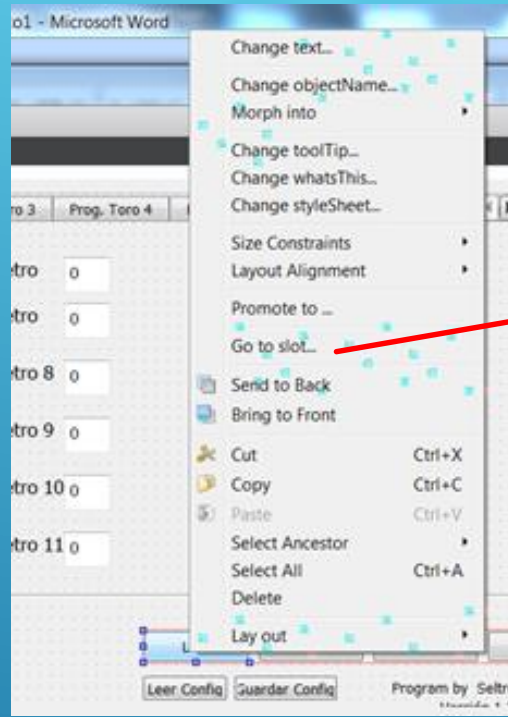
Qt

Formularios



Qt

Códigos en C++



```
void MainWindow::on_BotonLeer_clicked()
{
    QByteArray data;
    data[0]='0';
    procesarDato(COMADO_LEER, data);
}
```

Qt

Programa en ejecución

Parametros Prog. Toro 1 Prog. Toro 2 Prog. Toro 3 Prog. Toro 4 Prog. Toro 5 Prog. Generico 1 Prog

Periodo Muestreo 0 [ms] Parametro 0 Parametro 12 0

Parametro 1 0 Parametro 0 Parametro 13 0

Parametro 2 0 Parametro 8 0 Parametro 14 0

Parametro 3 0 Parametro 9 0 Parametro 15 0

Parametro 4 0 Parametro 10 0

Numero de Peric 0 Parametro 11 0
para acelerar del 0 al 10

Resivido: Puerto COM1 Leer Enviar Grabar Cerrar

Conectar Leer Config Guardar Config Program by Seltri Versión 1.1