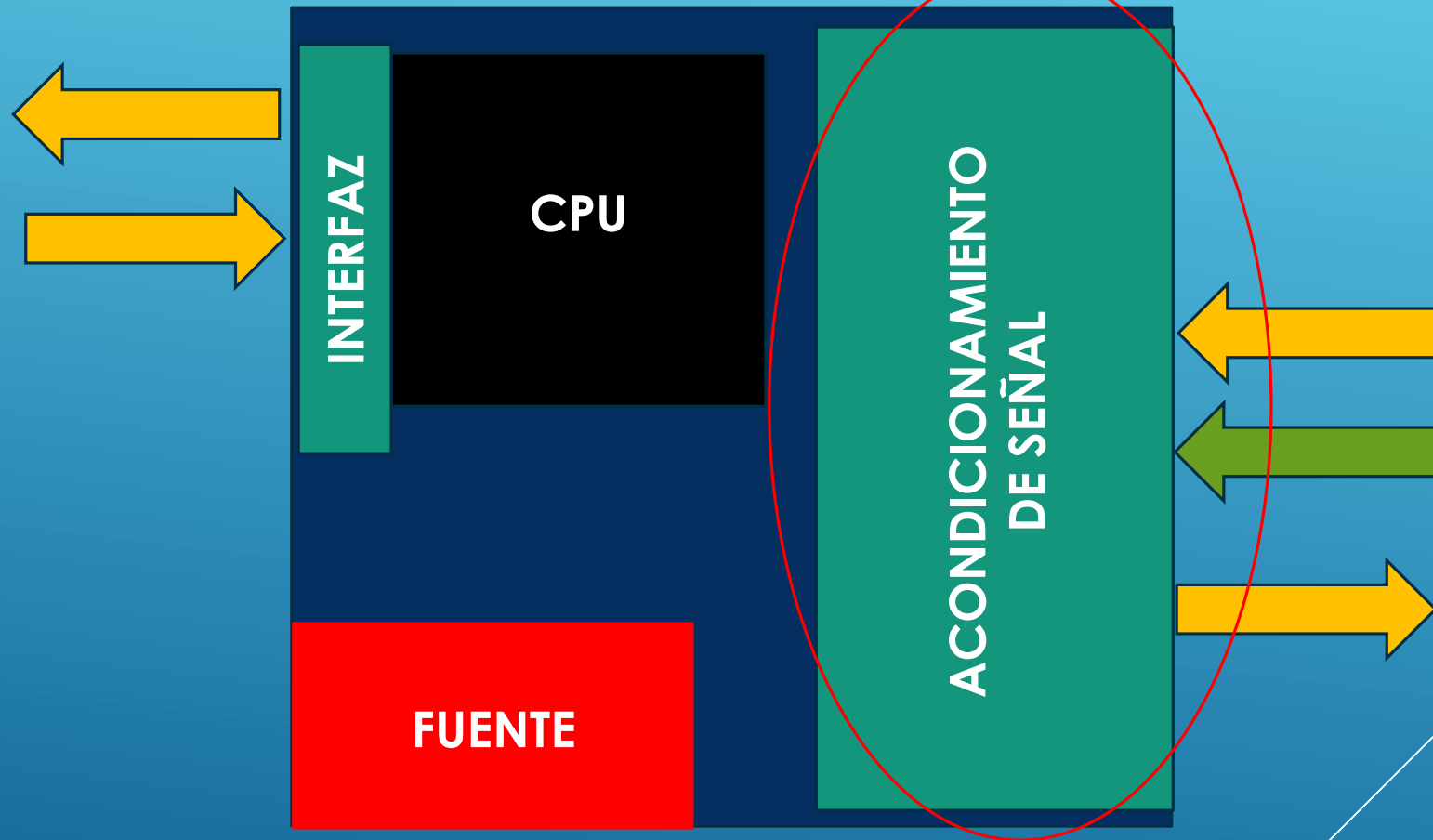


TECNICAS DIGITAL III

Clase IV

Instrumento Virtual

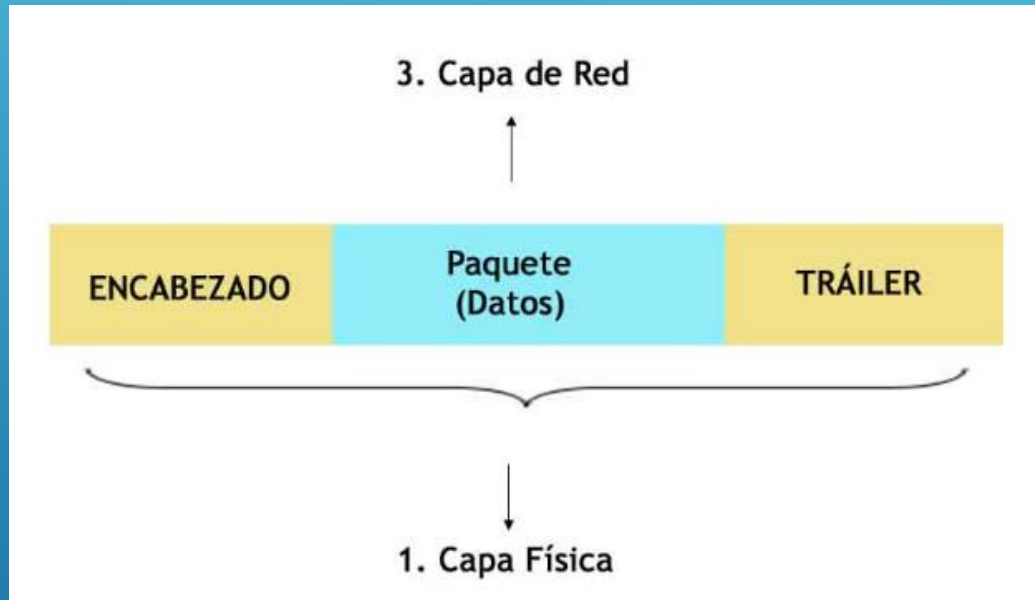
Acondicionamiento de señal



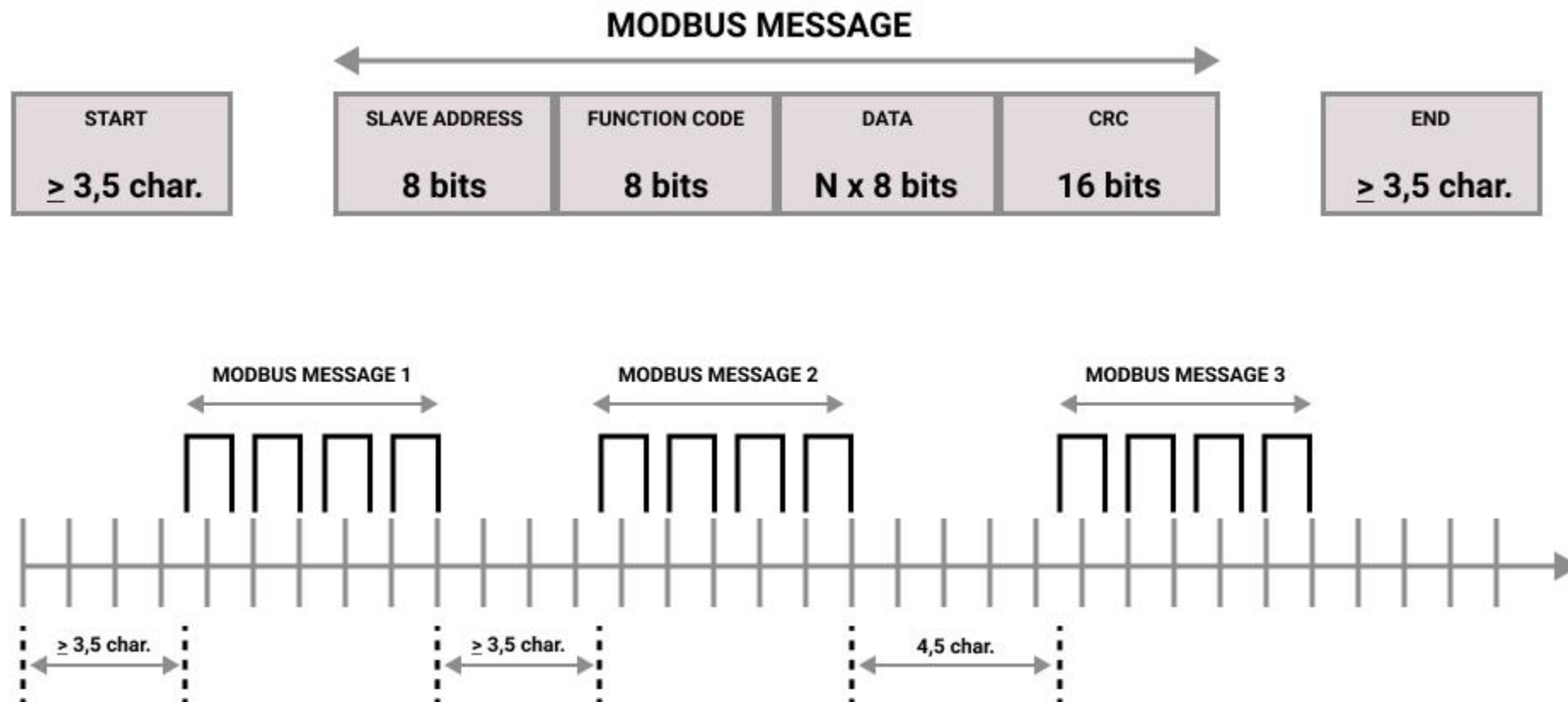
Instrumento virtual TDIII 2023

Parámetros de selección	
Cantidad mínima de canales analógicos de entrada	8
Cantidad mínima de canales analógicos de salida	2
Rango de entrada analógico canal 1-7.	0 /10V
Rango de entrada analógico canal 8	±5
Rango de salida analógica	0/10V
Entradas y salidas digitales.	8/8
Frecuencia de muestra entradas/salidas digitales.	1Khz
Frecuencia de muestra entradas analógicas.	Xxx
Tipos de entradas.	Single – ended
Tensión de salida / entrada Digital	0- 5V
Precisión de la conversión.	12 bits

Instrumento Virtual

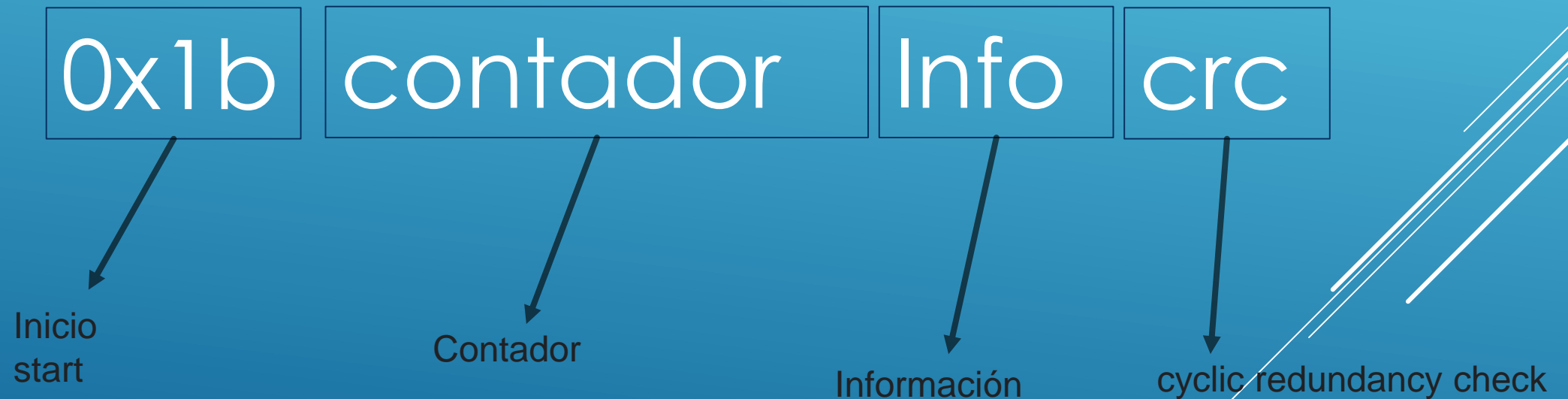


Instrumento Virtual



Instrumento Virtual

Trama de datos



Instrumento Virtual

Inicio (start)

Byte cabecera de ejemplo

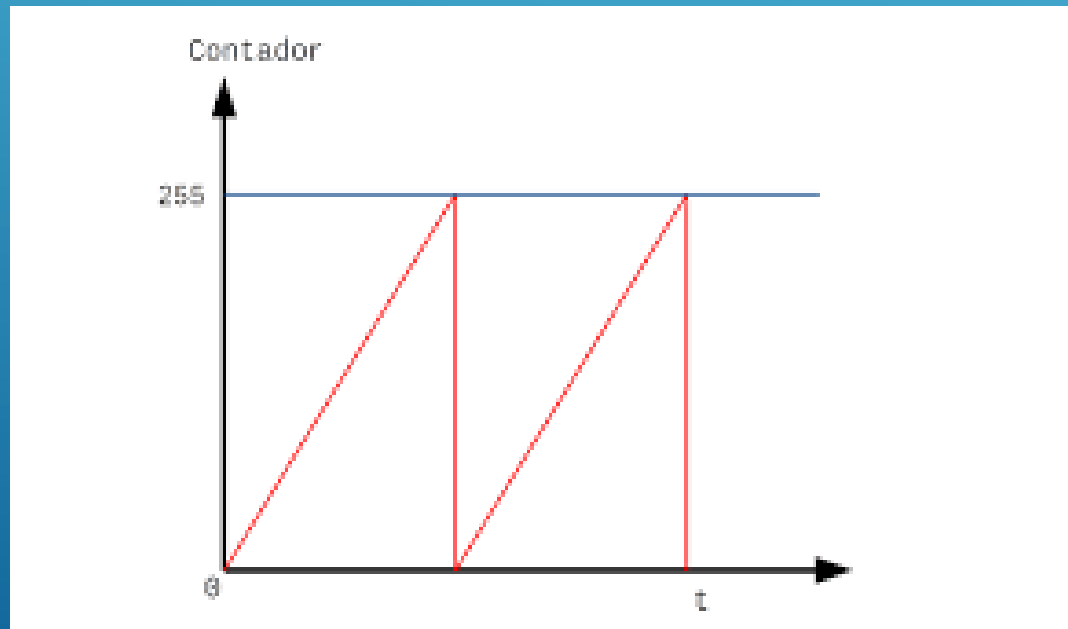
0x1b

00011011

Instrumento Virtual Contador

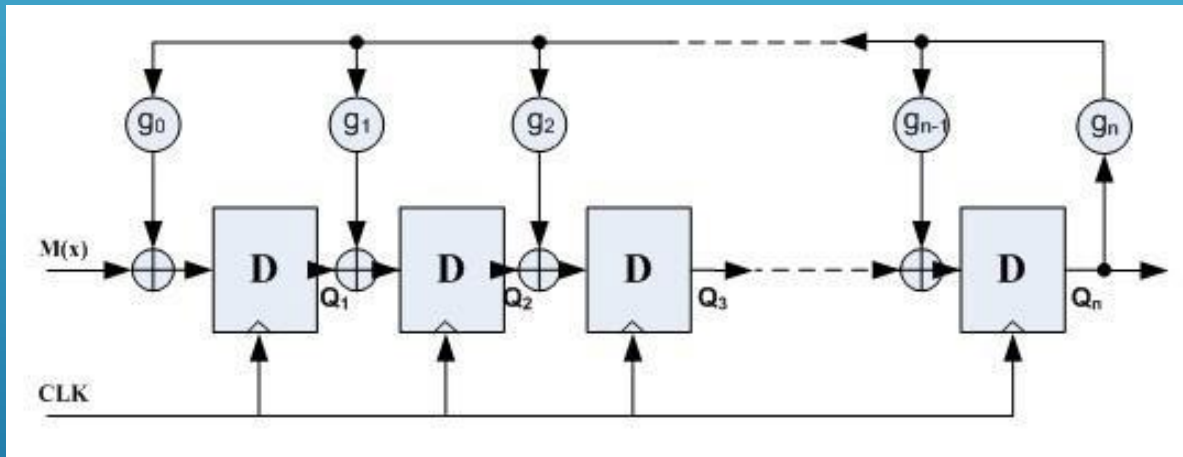
contador

0 a 255
00000000 - 11111111

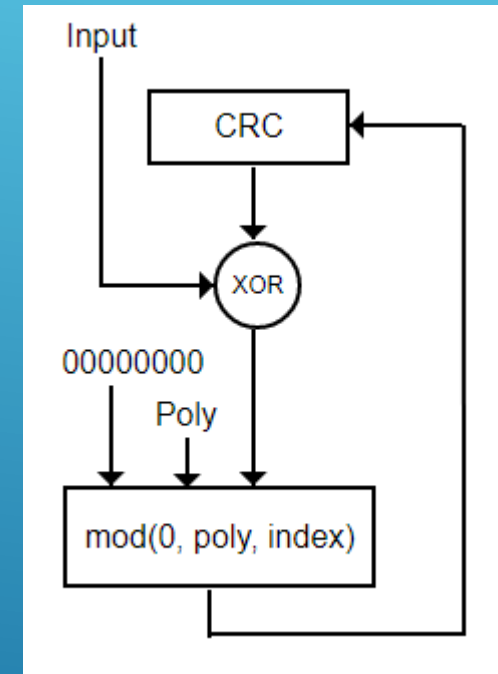


9

Instrumento Virtual CRC

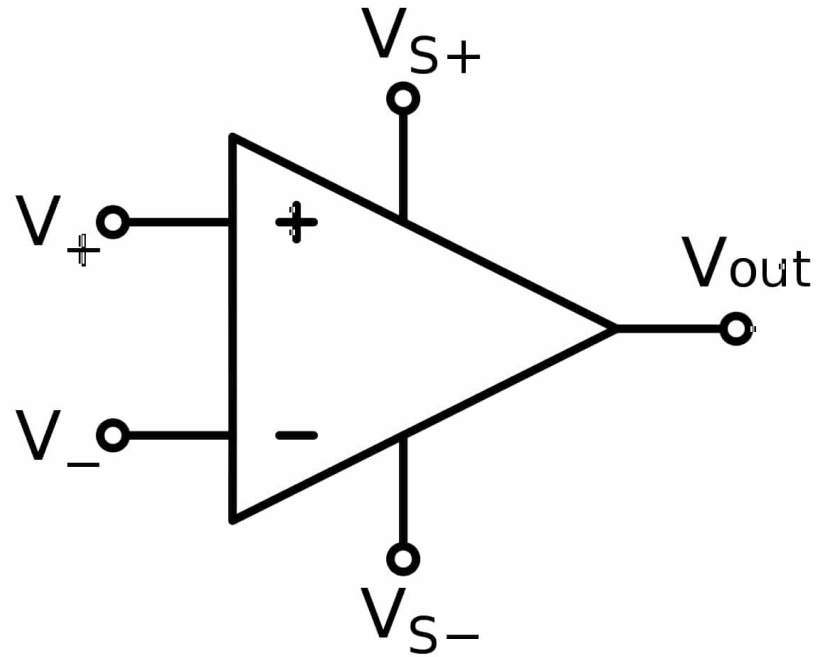


$$\begin{array}{r}
 \overline{M_5(x) \times x^3} \\
 \overline{M_5(x)} \quad \overline{G_3(x)} \\
 100100000 \quad \overline{1101} \\
 \underline{1101} \downarrow \\
 1000 \\
 \underline{1101} \downarrow \\
 1010 \\
 \underline{1101} \downarrow \\
 1110 \\
 \underline{1101} \downarrow \\
 01100 \\
 \underline{1101} \downarrow \\
 \boxed{001} \text{ Resto} \\
 R_2(x)
 \end{array}$$



Instrumento Virtual

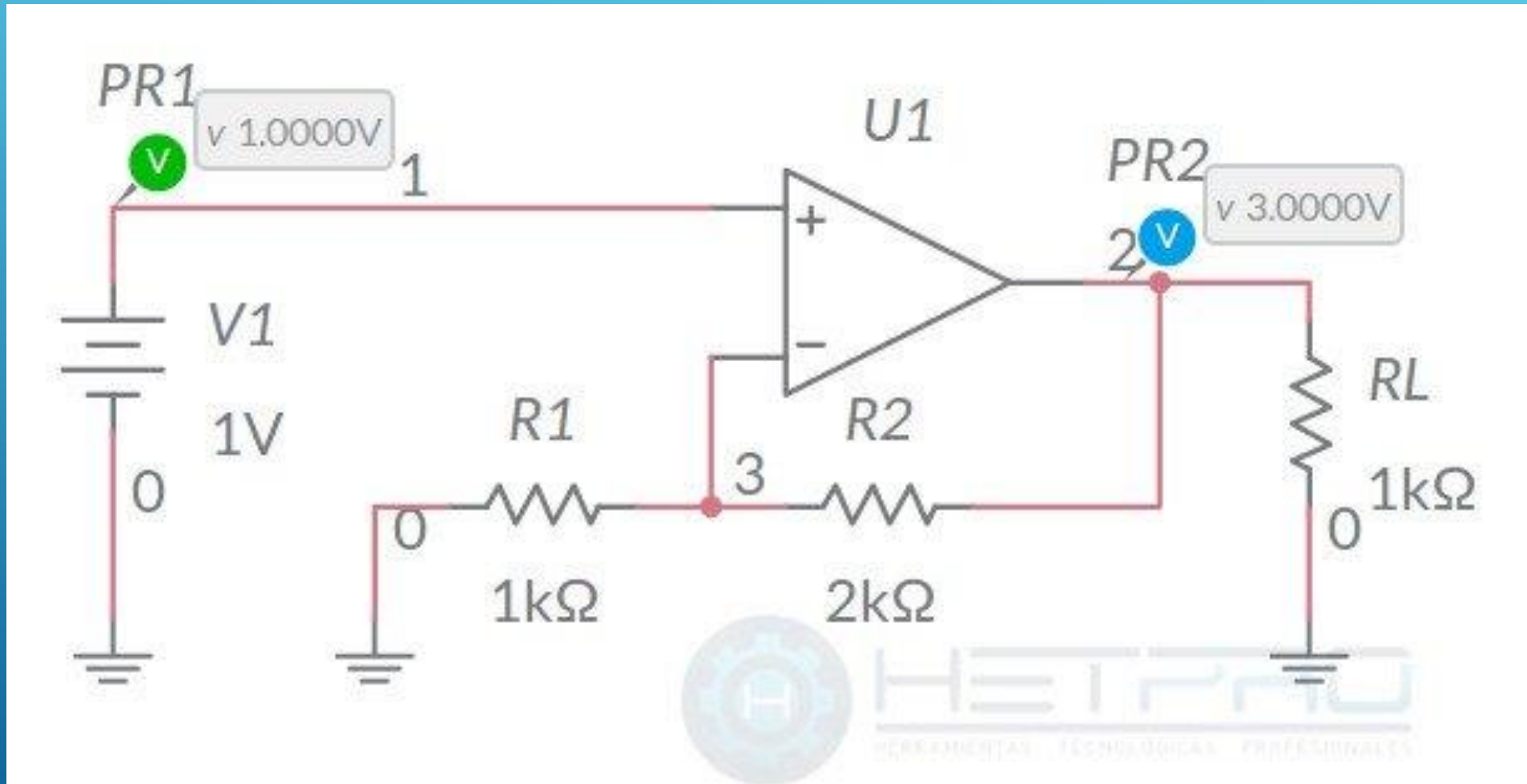
Acondicionamiento de señal



Impedancia de entrada.
Impedancia de salida.
Ganancia.

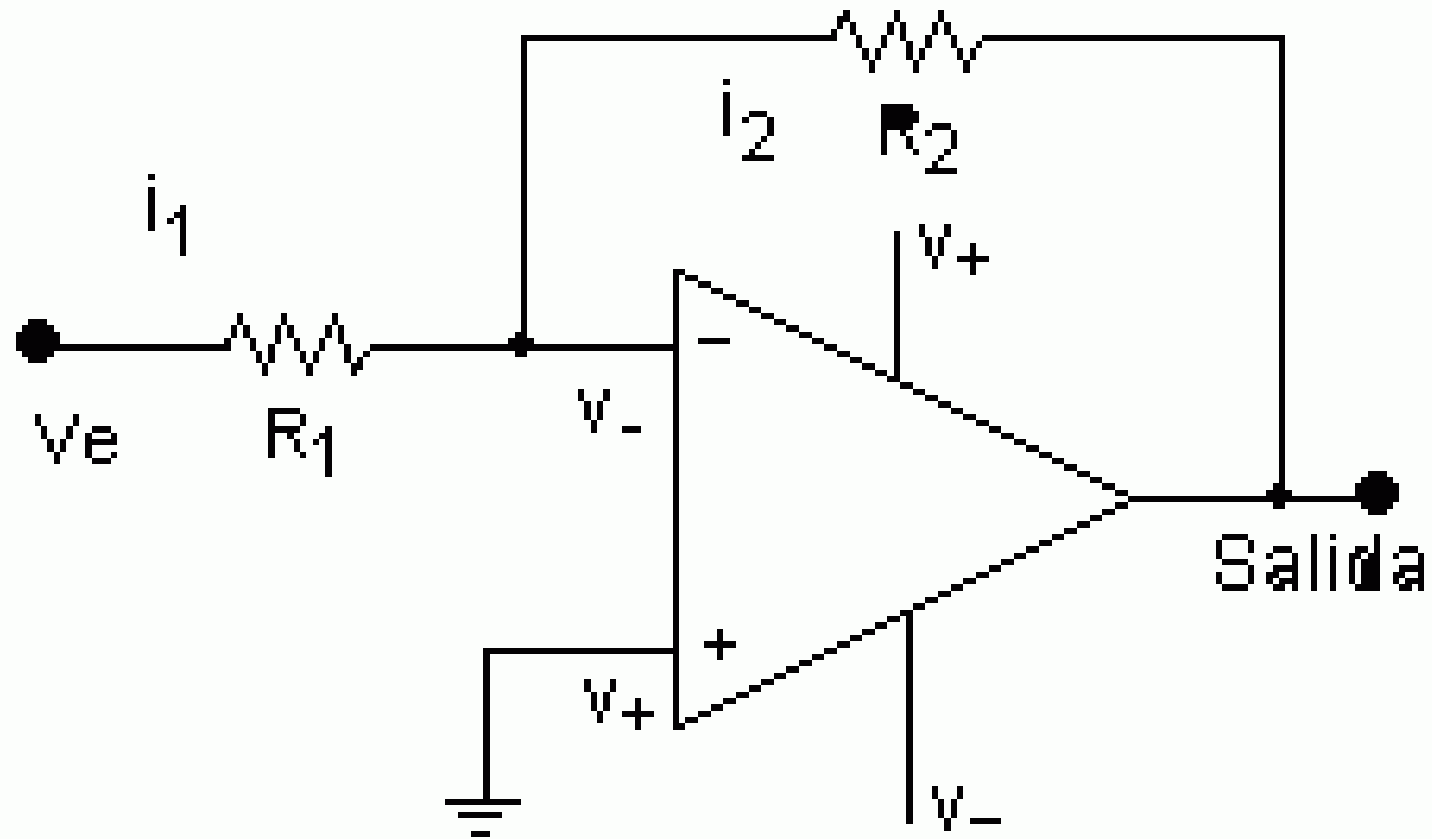
Instrumento Virtual

Acondicionamiento de señal

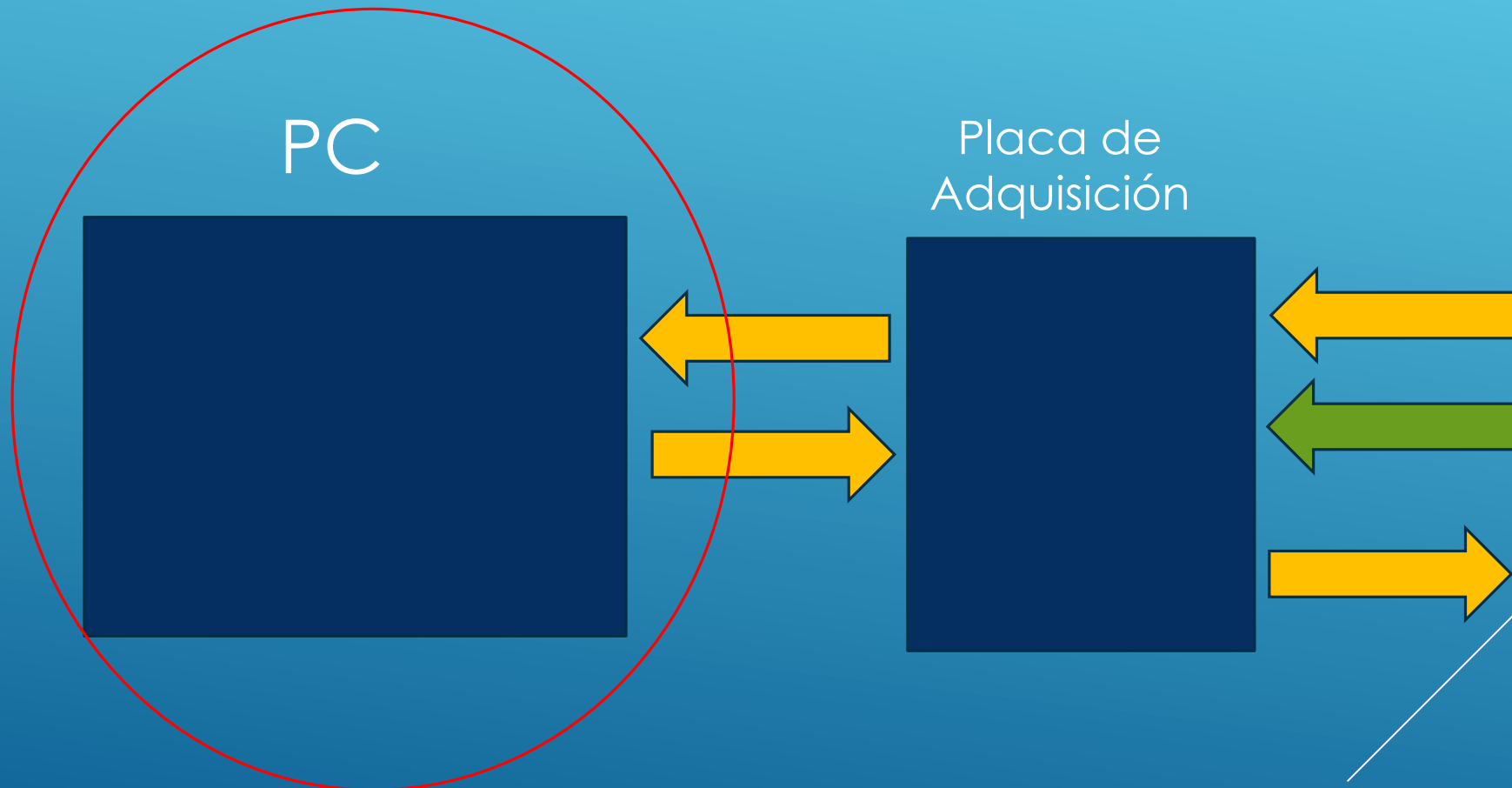


Instrumento Virtual

Acondicionamiento de señal



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 with links for 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 is organized into several columns. The first column contains the Qt logo, "The Qt Company", social media icons for Facebook, Twitter, YouTube, and LinkedIn, and a "Contact Us" button. The second column, "Company", lists links for About Us, Investors, Newsroom, Careers, and Office Locations. The third column, "Licensing", lists Terms & Conditions, Open Source, and FAQ. The fourth column, "Support", lists Support Services, Professional Services, Partners, and Training. The fifth column, "For Customers", lists Support Center, Downloads, Qt Login, Contact Us, and Customer Success. The sixth column, "Community", lists links for Contribute to Qt, Forum, Wiki, Downloads (circled in red with a red arrow pointing to it), and Marketplace. At the bottom, there is a copyright notice "© 2022 The Qt Company" and 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](#)

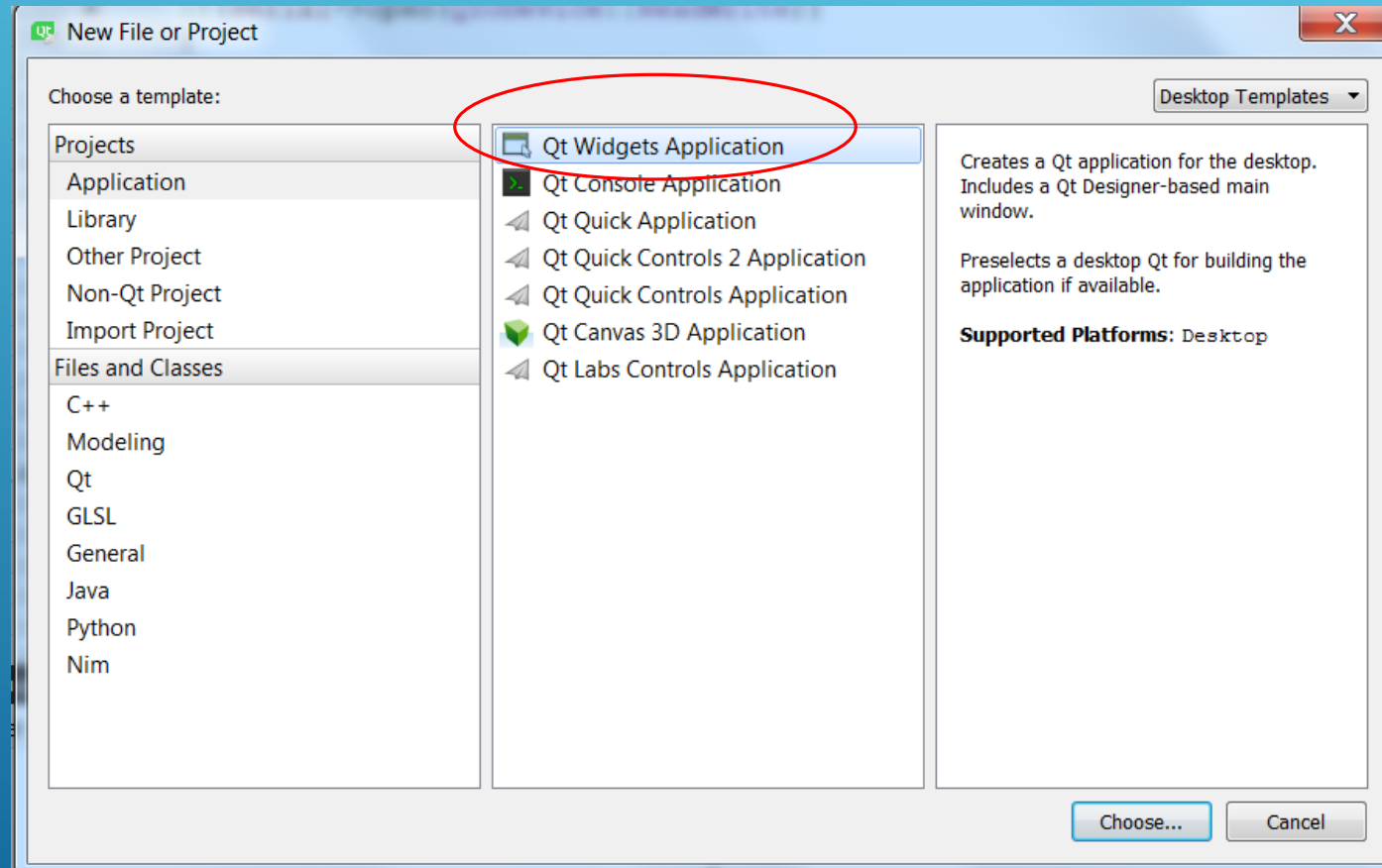
Downloads for open source users

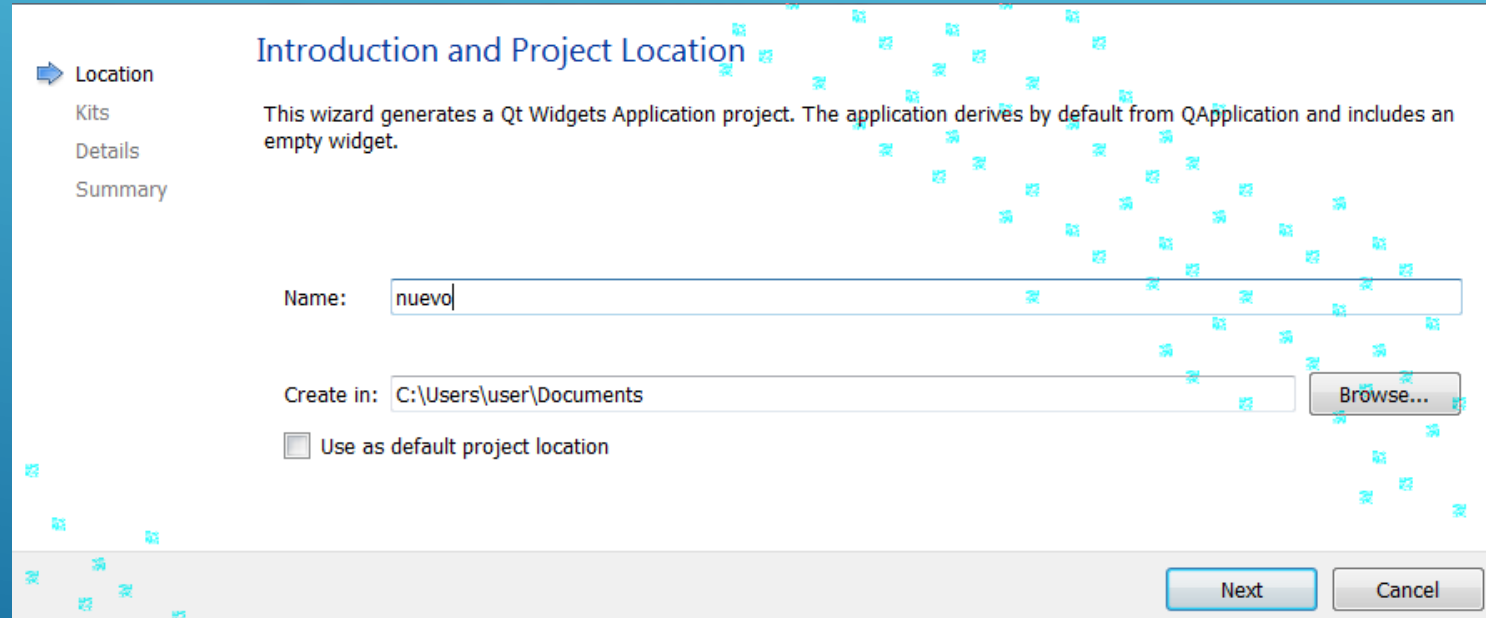
Find out how you can use Qt under the (L)GPL and contribute to the Qt project.

[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 four items: '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 these fields 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.

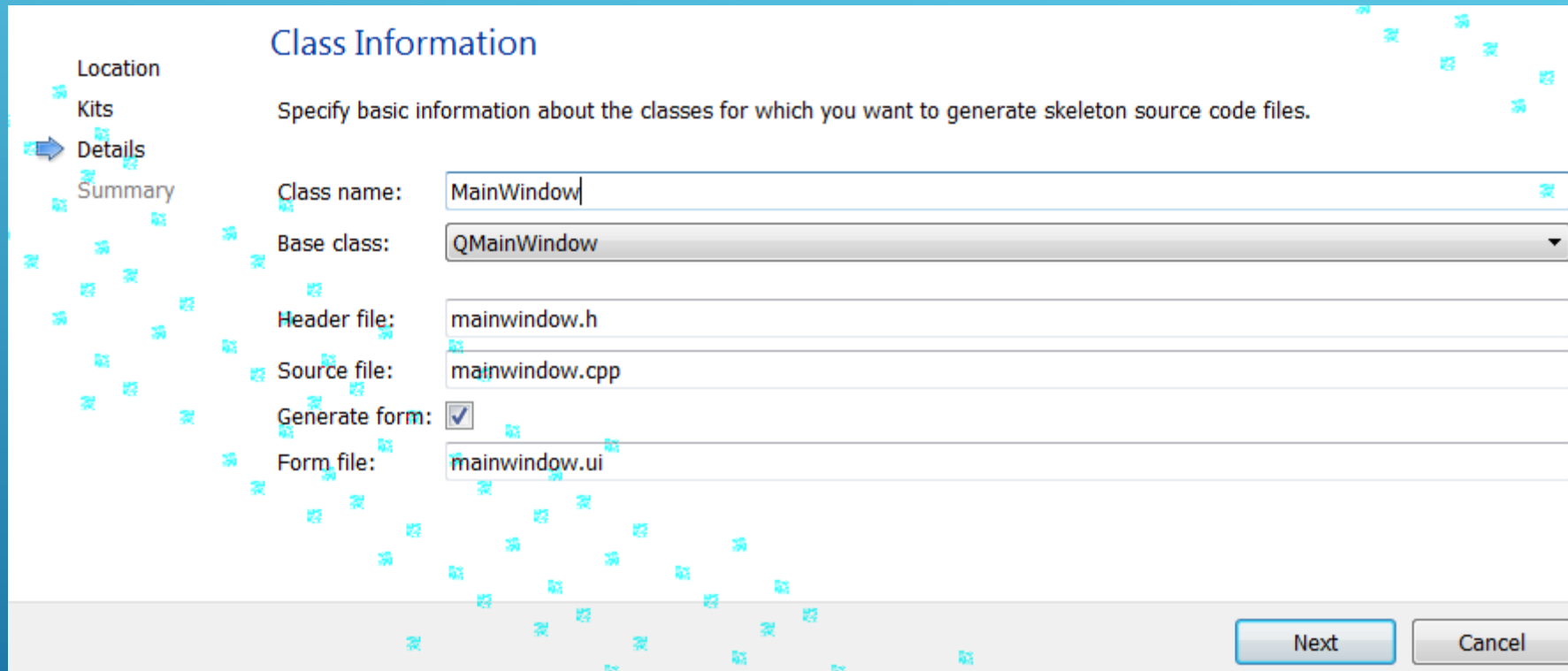
Name:

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'.

Location

Kits

Details

Summary

Class Information

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

Class name:

Base class:

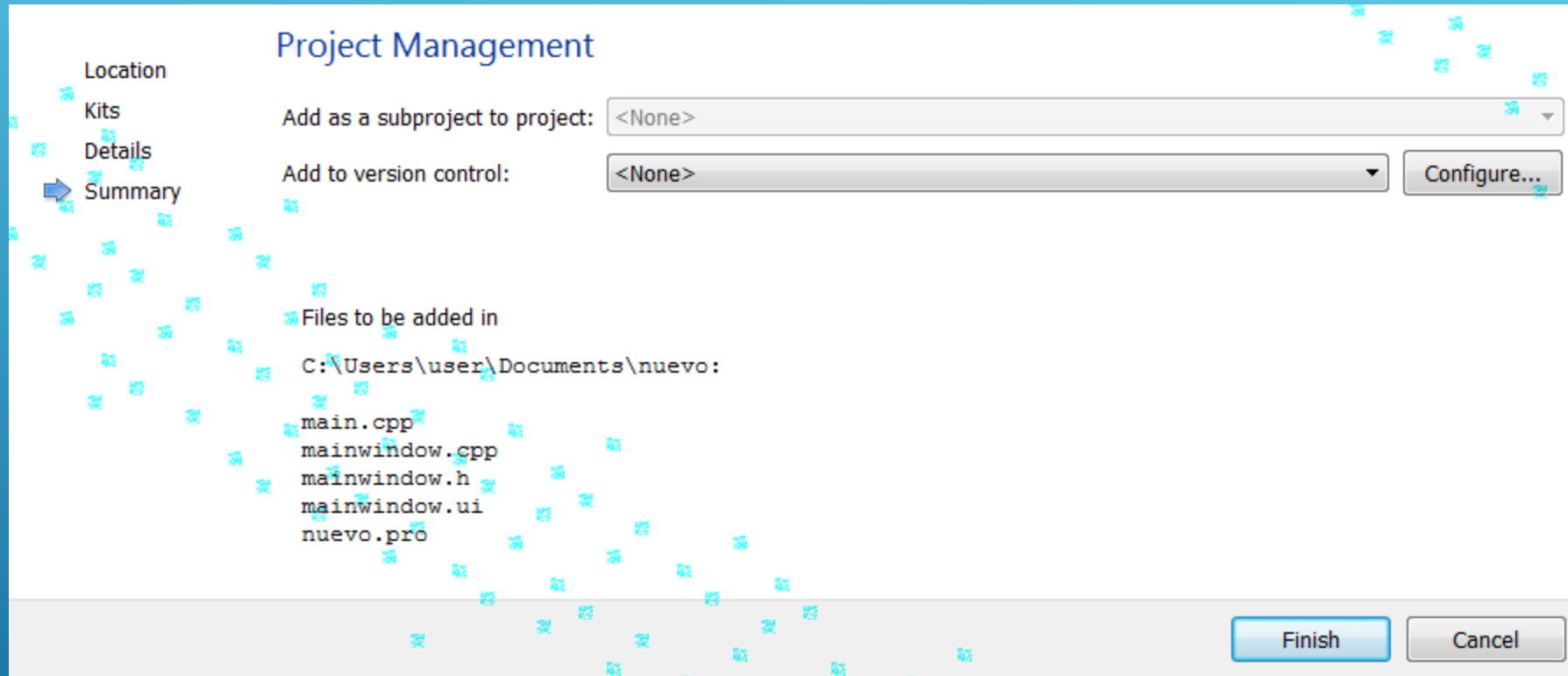
Header file:

Source file:

Generate form: ☒

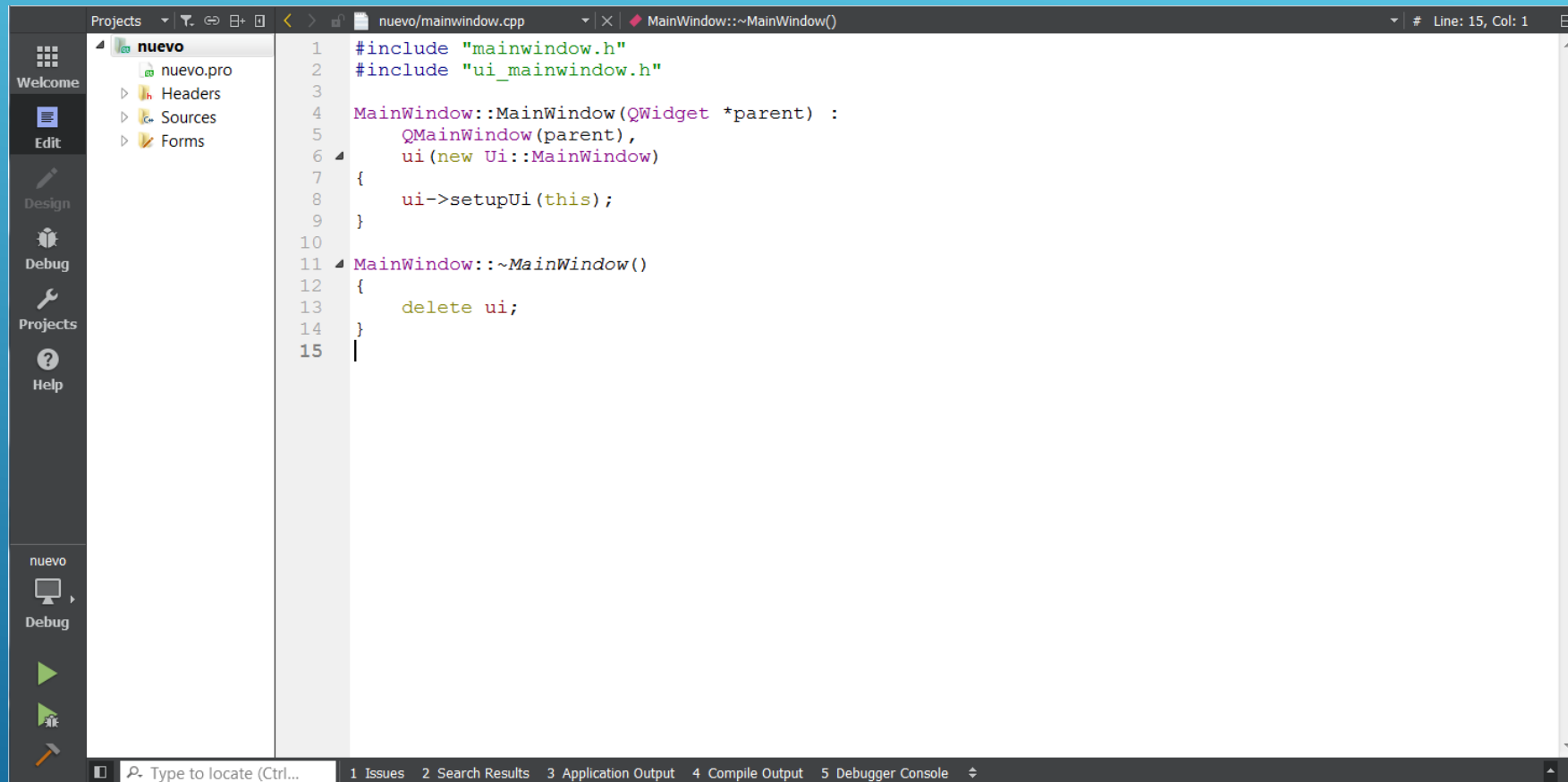
Form file:

Next Cancel



Qt

Resultado

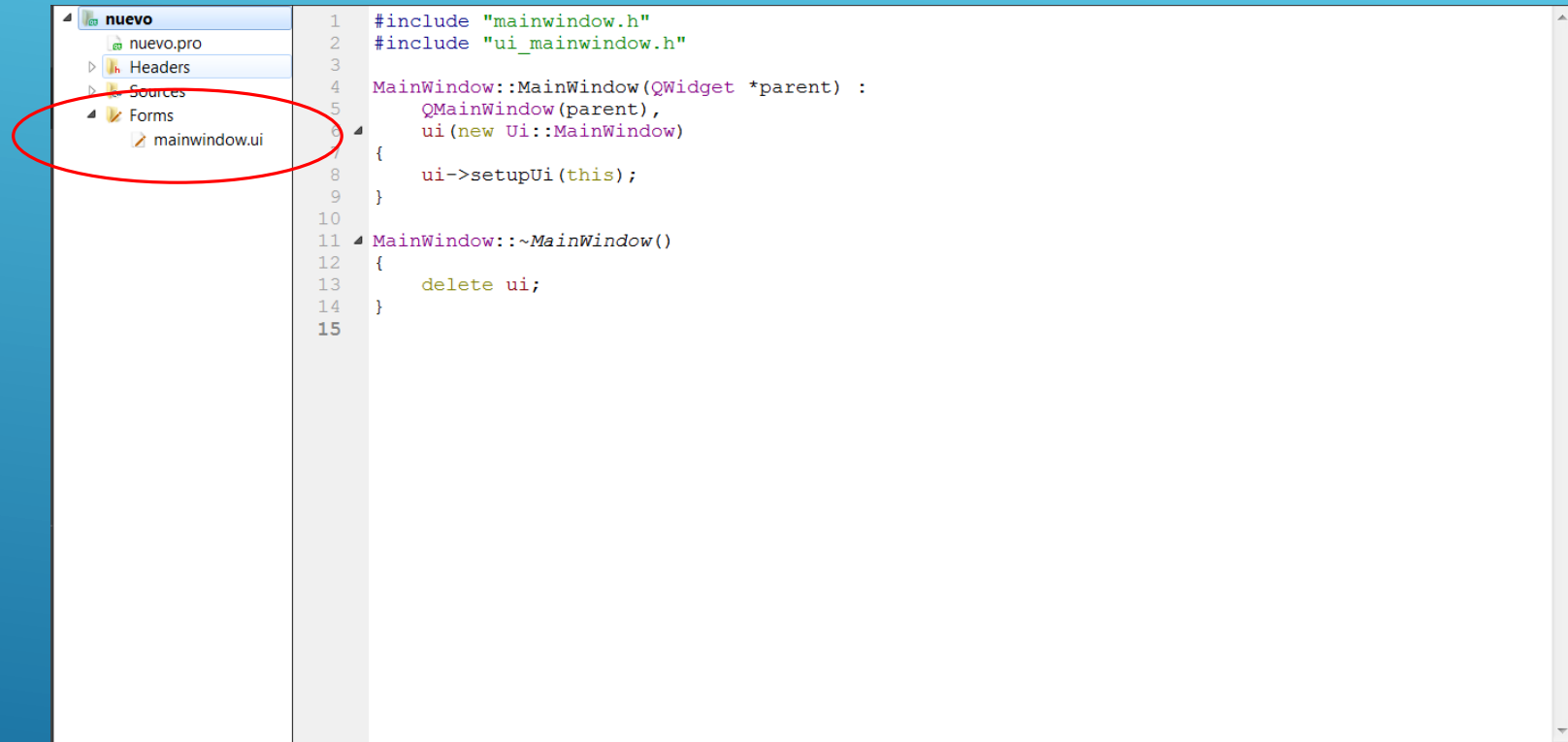


The screenshot shows the Qt Creator IDE with a project named 'nuevo'. The left sidebar contains a 'Welcome' section with 'Edit', 'Design', 'Debug', 'Projects', and 'Help' buttons. Below this is a 'nuevo' section with a 'Debug' button. The main editor area displays the file 'nuevo/mainwindow.cpp' with the following 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 |
```

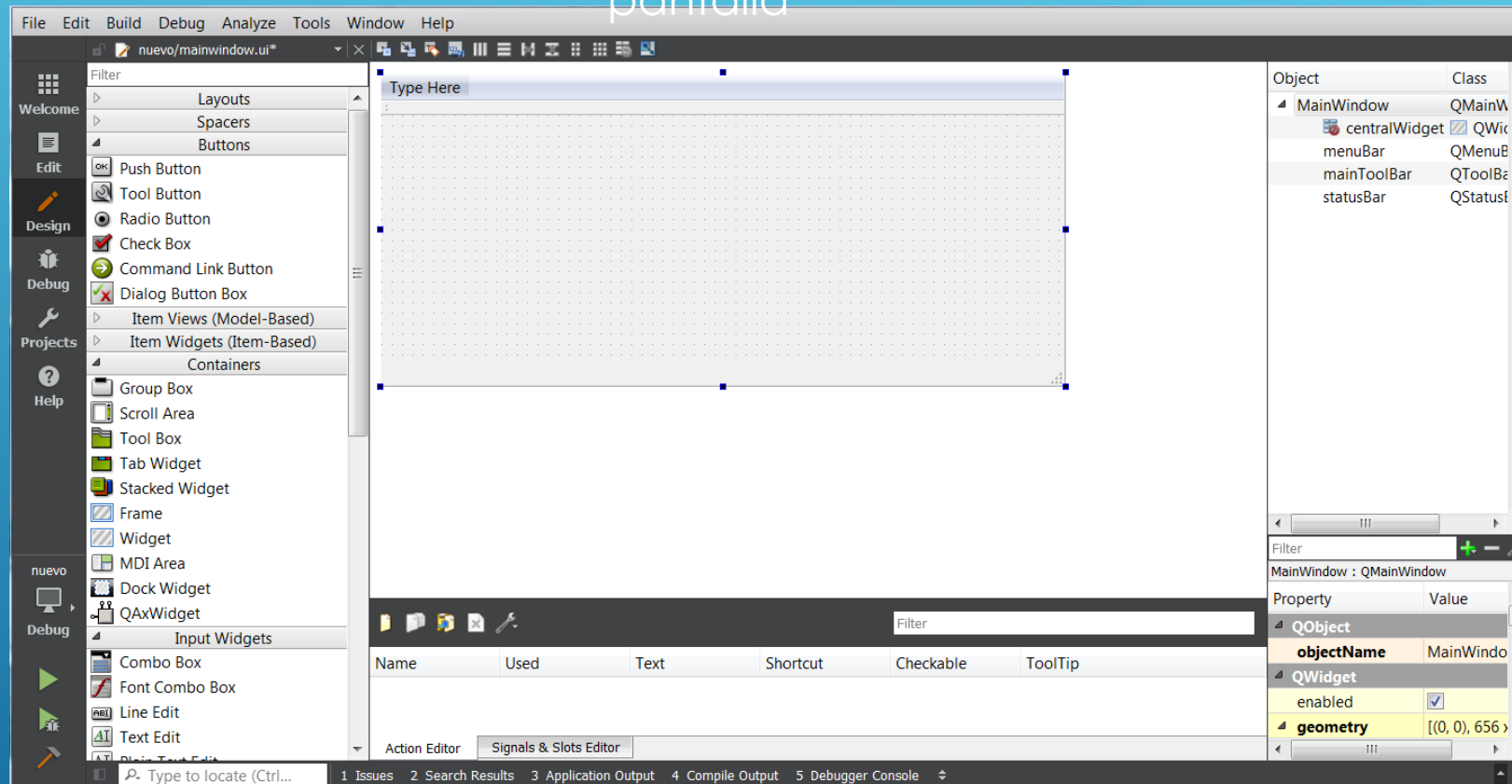
The status bar at the bottom shows a search bar and tabs for 'Issues', 'Search Results', 'Application Output', 'Compile Output', and 'Debugger Console'.

Qt

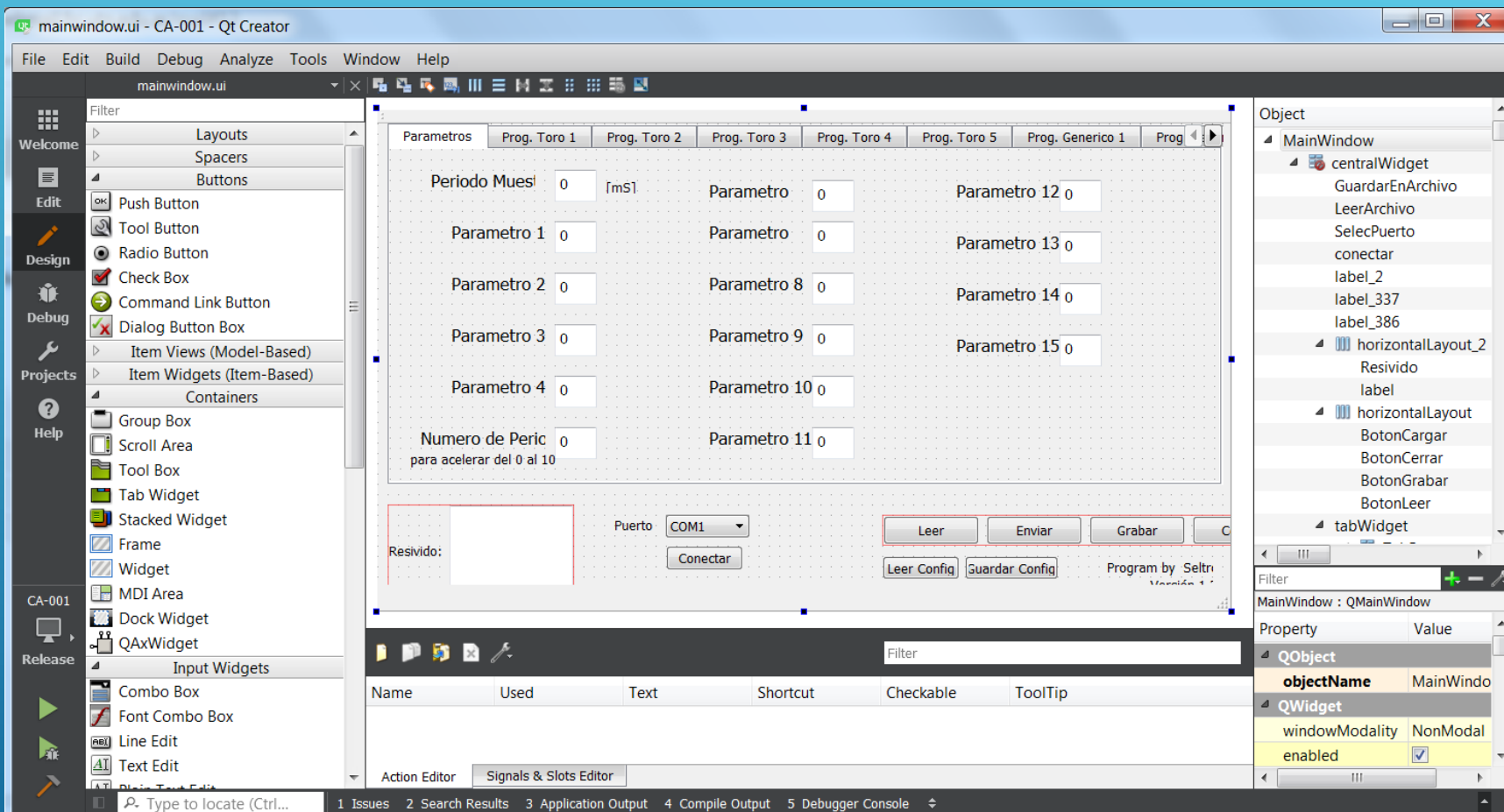


Qt

Diseño de pantalla

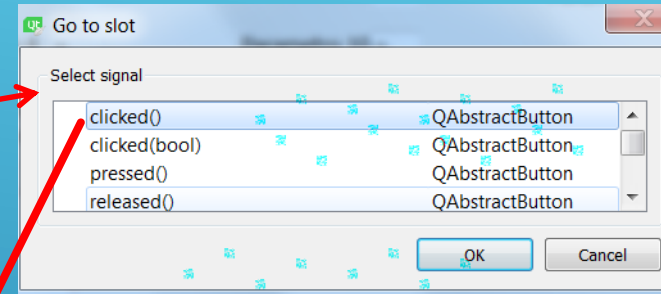
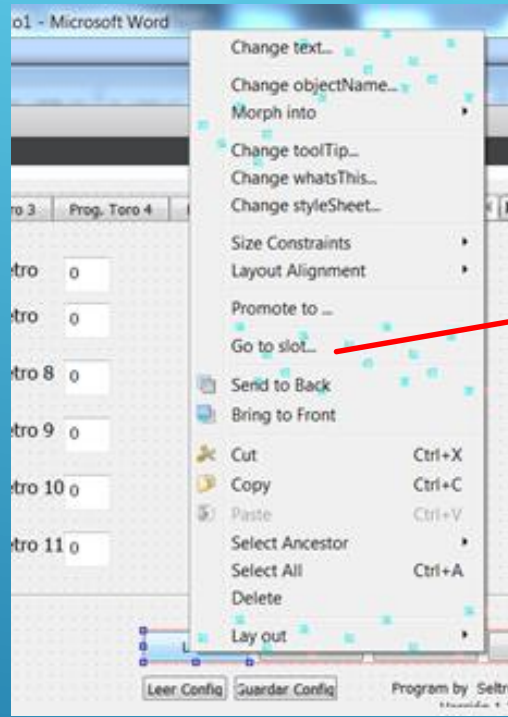


Qt



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