

## 1) DIO Configuration tool

### Main idea:

Each embedded system project has its own configuration for its drivers.

For example:

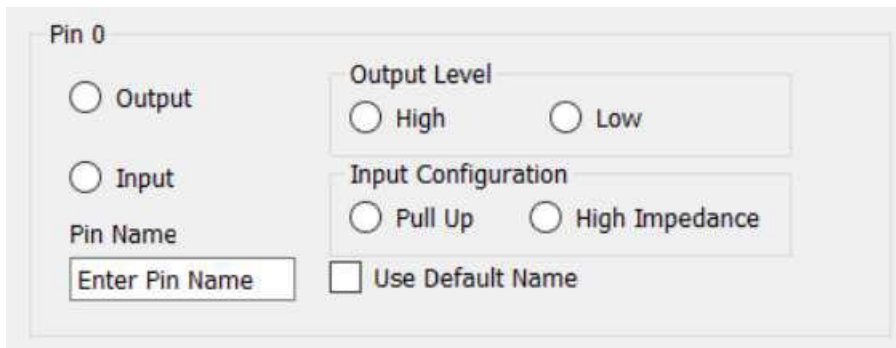
- DIO
- Timers
- Communication drivers.

In this project, the target is to make a GUI configuration tool for DIO to generate its configuration files instead of manually editing the existing files.

The tool shall be able to configure all the micro-controller pins; each pin shall have its configurations parameters.

### The tool shall have three buttons for configuration:

- New -> create a file with any extension to save the current configurations.
- Save -> to save the changes you made to the file.
- Load -> to load a previous configuration.



The image shows a screenshot of a GUI window titled "Pin 0". It contains several configuration options for a microcontroller pin. On the left, there are two radio buttons: "Output" and "Input". Below them is a text field labeled "Pin Name" with the placeholder text "Enter Pin Name". To the right of the "Output" radio button is a sub-section titled "Output Level" containing two radio buttons: "High" and "Low". Below the "Input" radio button is a sub-section titled "Input Configuration" containing two radio buttons: "Pull Up" and "High Impedance". At the bottom right, there is a checkbox labeled "Use Default Name".