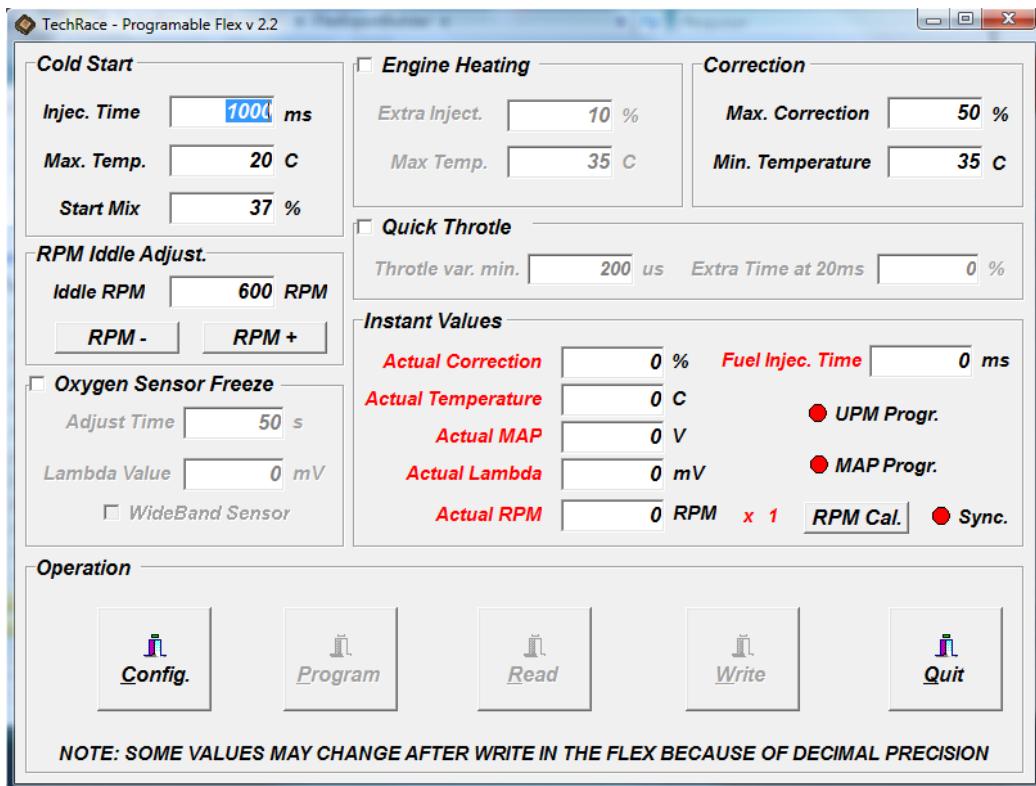


# MAIN WINDOW



Note: The temperatures on screen may differ by the real engine temperature because of the position of the flex temperature sensor is installed. Use the values only as a reference, or check the temperature with a thermometer.

## Cold Start

It's used to configure the amount of fuel injected when the engine is started at cold temperature, it's used to turn on the engine easily on cold days.

**Inject. Time:** Indicates how much time the fuel injectors will be activated at the starting of the engine. (time of the pulse sended to fuel injectors). This value is applied when the correction is at max value.

MIN: 0 to deactivate

MAX: 4000ms (4 seconds)

**Max. Temp.:** Indicates the max temperature of the engine that the cold start injection will be activated. Above this temperature the engine will start without the cold start. You have to check which temperature causes problem on start cold engine because of extra fuel injection on cold start.

MIN: 15 C

MAX: 35 C

**Start Mix.:** Indicates at what correction value that will begin to use the cold start. The value of the injection time is proportional with the mix. The max injection time is when you have the max correction.

MIN: 10%

MAX: Value on Max Correction field.

## **Engine Heating**

It's used to compensate when the engine is cold and make some extra injection at this point. In some engines you have to send more fuel than of the max correction when the engine is cold to avoid engine fails. Uses only if you checked an engine fail when using E-85 and the engine is cold.

**Extra Inj.:** Indicates how much in % the flex will inject when the engine is cold plus the actual % correction.

MIN: 0%

MAX: 10%

**Max. Temp.:** Indicates the temperature used to the extra injection. Above this temperature the Extra Injection is turned off and the correction value is returned to the original.

MIN: 35 C

MAX: 60 C

## **Correction**

It's used to indicate the max extra injection that the flex will inject when using only E-85. It's used to reduce a vehicle high consuption. Reduce this value only if you have the consuption problem!!!

**Max. Correction:** Indicates the % extra the the flex will inject on the original fuel injection time when is used E-85.

MIN: 10%

MAX: 50%

**Min. Temperature:** Indicates when the flex will start the automatic correction. If you change this value, be sure that in this temperature the ECU of the vehicle is already in hot operation mode, not on warm operation. A wrong temperature configuration may dificulty the flex automatic correction when the engine is not hot.

## **Quick Throttle**

In most engines, a max correction of 50% is perfect. But some engines only on quick throtle (fast pedal acceleration) have a poor mix problem. With the Quick Throttle you inject extra fuel over the actual correction to compensate this problem. Uses only in engines with quick throttle problems because this resource causes extra fuel consuption.

**Throttle var. Min.:** Indicates how much the fuel injector pulse time has to change in a quick throtle to inject the extra fuel. A high value the extra fuel will be injected only in a full acceleration, a low value will inject at any move of the acceleration.

MIN: 200 us (0,2ms)

MAX: 15000us (15ms)

**Extra Time at 20ms:** Indicates how much extra injection is applied when the throtle variation is equal or more than 20ms. It's the max value of extra injection for the quick throtle variation resource.

## **RPM Idle Adjust.**

Adjust the Iddle RPM for the lambda correction (the flex makes the lambda and map adjustment only when the engine in on iddle speed), when the lambda is programmed the idle speed is memorized, but sometimes is needed to make an adjustment on the idle speed. Usually when then engine don't have a fixed idle speed.

## Oxygen Sensor Freeze

It's used when you have a variation problem with the oxygen sensor. Usually a 1 wire lambda sensor or a oxygen sensor that stops to work when you change the fuel and the ECU of the engine have a problem to read the lambda value, like some Hondas Civic. Don't use this resource when the oxygen sensor is defective.

**Adjust Time:** Indicates how much time after the oxygen sensor stops to work and the flex will try to wake it up.

MIN: 10 s

MAX: 50 s

**Lambda Value:** Indicates the Voltage of the oxygen sensor used as reference for lambda.

MIN: 0 mV

MAX: 1000mV

## Instant Values

Indicate the actual values readed from the flex. They are automatic actualized at each 1s.

The UPM indicates that the Lambda and idle speed are memorized.

The MAP indicates that the MAP is memorized.

When the engine fuel injectors work on pairs or all together, the RPM could be wrong. In these cases you may adjust to the correct value by pressing the "RPM. Cal." button.

## BUTTONS

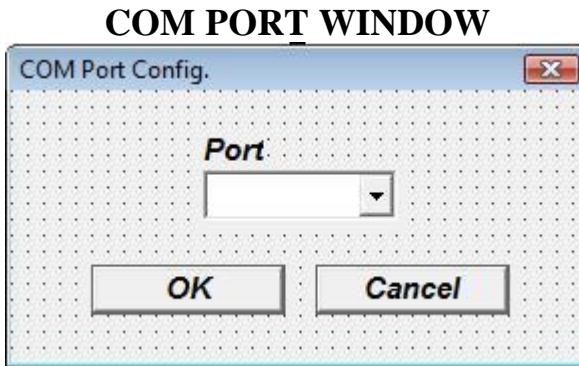
**Config.:** Select COM Port of the communication.

**Program:** Select the programation of the flex. The same used by the button on the flex, like MIX, RPM, LAMBDA and MAP Programation.

**Read:** Read the programed values on the flex.

**Write:** Write the changed values on the flex.

**Quit:** Exits the program.

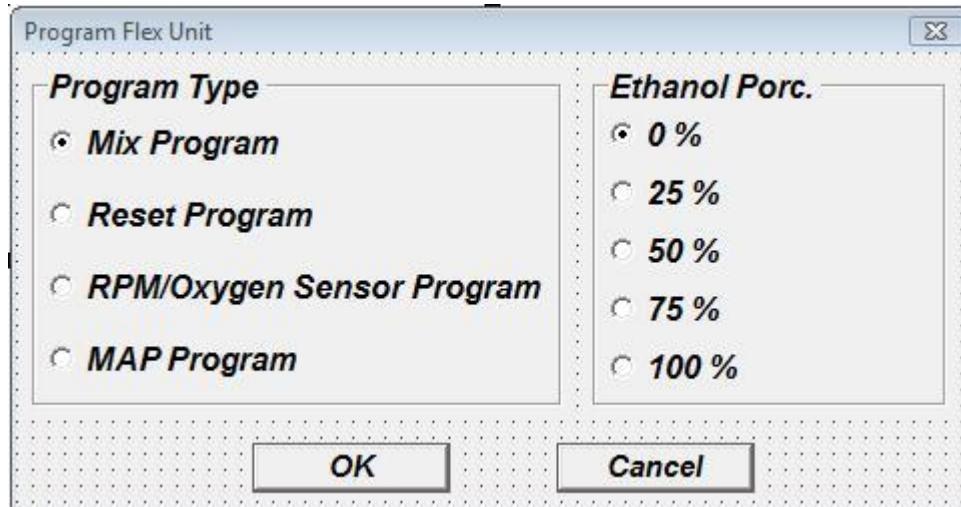


**Port:** Select the COM Port used to comunicate with the Flex.

**OK:** Confirm the COM Port

**Cancel:** Exit Window

## PROGRAM FLEX WINDOW



### Program Type

Selects what kind of program is sent to the flex.

**Mix Program:** Configures the mixture of benzin and E-85 on the vehicle. 0% is for only benzin and 100% for only E-85

**Reset Program:** Stops any programation on course, RPM or MAP programming.

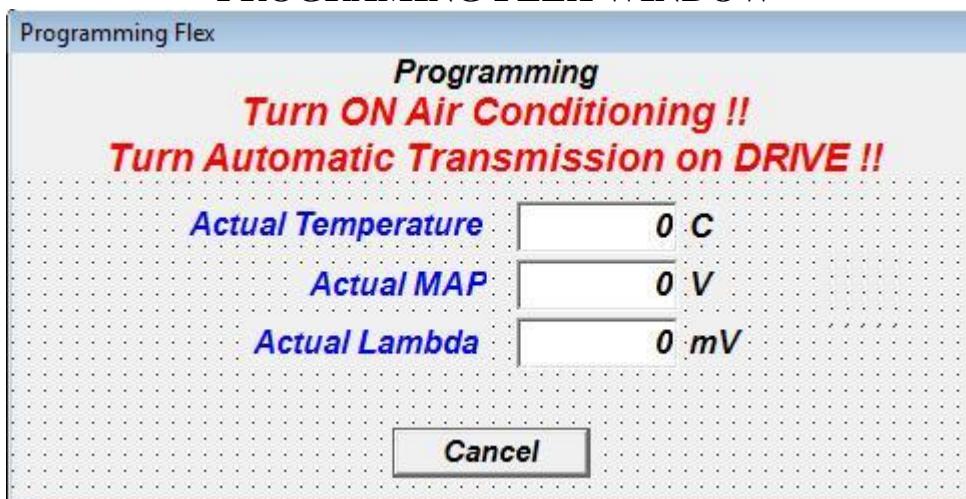
**RPM/Oxygen Sensor Program:** Starts programation of the flex. It will read the fuel injectors and the lambda sensor to program the automatic correction. It's the same of the press the flex button twice. Don't forget to select the mix first. At the end of the programation a message will pop up.

**MAP Program:** Starts the MAP programation of the flex, is used to make the correction more sensitive and linear. It's the same of press the flex button 3 times. At the programation, a message to turn on the air conditioning and turn the transmission on DRIVE will pop up. After the programation of the MAP a confirmation message will pop up.

**OK:** Confirms the selected programation.

**Cancel :** Exit the window

## PROGRAMMING FLEX WINDOW



This window shows the values readed from the flex during the RPM, LAMBDA or MAP programation.