Softrónica
Ing. Electrónica Software y Comunicaciones

RIDEL5000 DEMO PROGRAM

User Manual

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Cod.: 130.0003.1 Rev.: 0

August 2000

General Index

1.- REQUIREMENTS

1.1.- MINIMUM SYSTEM REQUIREMENTS

The minimum specification necessary to run the program and connect to RIDEL5000 readers are as follows:

- Processor: Pentium
- Memory: 32Mb
- Graphics card with minimum 1024 x 768 resolution
- CD-ROM
- Sound Card
- One free serial port (RS232)
- For bus based configurations one RS 485 port

1.2.- PROGRAM INSTALLATION

Run the «setup.exe» file from the supplied disk.

1.3.- STARTING THE SYSTEM FOR THE FIRST TIME

Before you can use the RIDEL5000 long range reader you need to set up the system components.

First check that the antenna is correctly connected to the RIDEL5000 unit and that the power supply is adequately rated and the polarity is correct. The PC should be connected to the RIDEL5000 unit with a suitable RS232 or RS485 cable. If you use the latter configuration you will need a suitable adapter installed in the PC.

Switch on the power supply and check that the LED indicating the correct operation of the RIDEL5000 unit flashes.

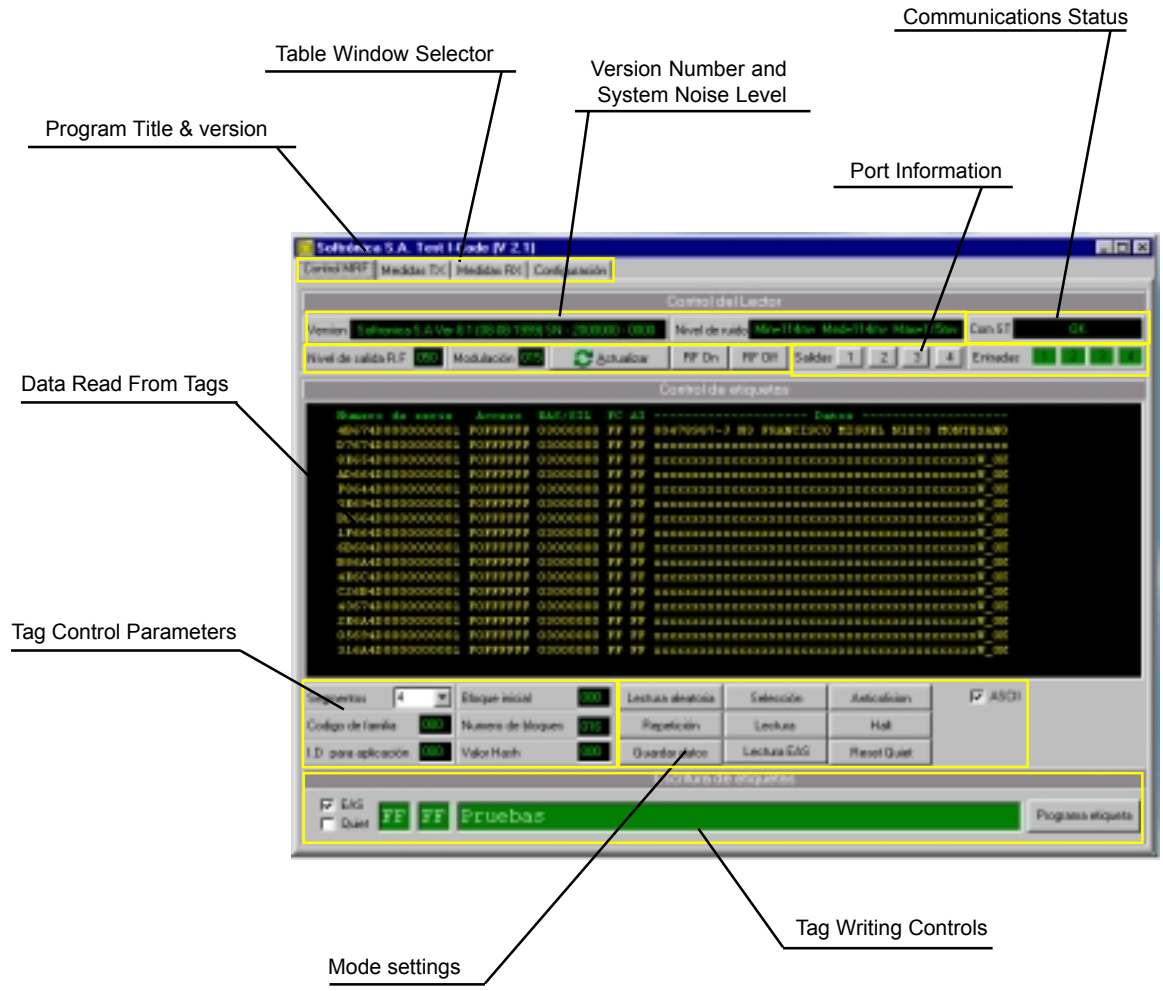
Start the program on the PC and select the Reader Control Window. Check that the settings correspond with those on the PC (e.g. the COM Port) If they don't, then select the correct alternatives. Click on the Update button in the System area of the screen. The Equipment Information of the screen should now display the version and initial parameters of the system.

After this initial configuration check, click the EAS and Repeat Read buttons in the tag control area of the screen. Place a tag in the field of the antenna and watch how this is detected and shown on the screen Click on the Repeat Read and Repeat again to turn off these functions. Click on the Random Read and Repeat Buttons in the tag control area then place a tag in the antenna field of the RIDEL5000 unit. The data on the tag will be read and displayed in the tag data area of the screen.

2.- THE RIDEL5000 CONTROL WINDOW

The RIDEL5000 Control Window is the first window displayed when starting the program. Thereafter you can access functions to read and write data to and from tags as well as many controls for various parameters of the RIDEL5000 unit.

The RIDEL5000 Control Window is shown in the figure below and is described more fully in the following text.



RIDEL5000 Control Window.

2.1.- MOVING BETWEEN PROGRAM WINDOWS

Next figure shows the different window panes that are accessible from within the program. Pressing the Enter key when a pane is highlighted or clicking the left mouse button will cause one of the following option panes to appear:

The RIDEL5000 Control Window allows you to work with tags in various ways with distinct option settings. You can also control the power input to the system and control the communications ports for inputs and outputs.

Windows Selector

The Transmission Information Window allows access to parameters relevant to the transmission configuration of the system . These include power, background (RF) noise levels and fields to provide data on the working environment and temperature of the installation.

The Reception Information Window provides information relative to the receiving capabilities of the system. It displays a graph of data reception and corresponding timing information.

The configuration window allows the set up and modification of parameters relative to the connected MRFID equipment which can then be saved. Information is stored on the communication ports and reading characteristics as well as language variations and changes to text in the controls of the program.

2.2.- READER INFORMATION SCREEN VERSION, NOISE LEVEL AND TIME SLOTS

Next figure shows the part of the window in the RIDEL5000 control screen where data relevant to the version of the software installed on the system PC as well as the serial number are displayed. If this serial number does not correspond with the serial number shown at the beginning of this document you must immediately inform your system administrator or SOFTRONICA S.A. directly. In this area you will also see data relevant to the noise level set for the system at minimum, mid-point and maximum levels.

RIDEL5000 Module Data.

2.3.- TAG CONTROL PARAMETERS

The parameters displayed in the part of the window shown in next figure allow you to verify and alter parameters relative to the control data sent to the RIDEL5000 unit to access tags.

These parameters are defined as follows.:

Tag Control Data.

Time Slots: This parameter sets the number of tme slots that are required for the optimum operation of te anti-collision algorithm and relates directly to the number of tags that will normally be read by the MRFID unit at any one time. This will usually be set to twice the number of tags expected to be read at any one time. Note that increasing the number of time slots increases the time taken to retrieve data from tags. The MRFID unit processes approximately 30 tags per second.

Family Code: This field contains a value corresponding to the prefix identifier of the tag. This data is 16 bits in length and contains an equivalent decimal value of between 0 and 255. Code 00 is a universal family code that allows all tags to be read regardless of their family.

Application ID: The identifier is 16 bits in length and can contain a decimal number between 0 and 255. The MRFID unit will read all tags that correspond with this identifier. Code 000 is a universal identifier that reads all tags regardless of their application identifier.

Start Block: This value determines at which block in the tag data structure that reading will begin by the MRFID unit. The tag has 16 usable blocks available which can be selected using this value.

Number of Blocks: This value determines the number of blocks that will be read from each tag. Each block is sixteen bits in length and there are sixteen blocks. This field can contain a number between 1 and 16.

Hash Value: This field allows the setting of a variable in the anti-collision protocol of I-CODE. Modifying this value sets the time slot for a tag during each read cycle. The value can be set from 0 to 255.

2.4.- INFORMATION ON INPUT AND OUTPUT PORTS

The area of the window shown in figure gives information relating to the data communication ports of the system. Using the Update button provides access to the status of the four input ports. These are displayed in green when a port is active and in the deafult system colour when inactive. Cliking on one the four buttons will toggle the input channel on or off depending on the courrent state.

Port Controls

2.5.- POWER ADJUSTMENT AND SYSTEM INITIALISATION

The area of the screen shown in figure shows the RF transmission state of the RIDEL5000 unit and buttons for the operation of the system.

Power Adjustment and System Controls

The window shows the RF output level, which is a figure between 0 and 10 Watts displayed in a decimal format; for example 2 Watts is represented as 020. Placing the cursor in this window allows the entry of a value between 0 and 100. Press the Enter key after changing this value to update the system parameters and use the modified value.

This window also shows the modulation index, a number between 0 and 100 in the form of a percentage. For example 15% is shown as 015. Placing the cursor in this window allows the value to modified in the range of 0 to 100. Press the enter key to update the system parameters and use the modified value.

Clicking on the Update button causes the system to update the variables from the two windows described above as well as any variables that have been changed in other windows.

The next two buttons, RF On and RF Off control the activation and deactivation of the RF field generated by the antenna connected to the RIDEL5000 unit. Turning off the RF field causes any active tag selection options to be cancelled.

2.6.- COMMUNICATION INFORMATION

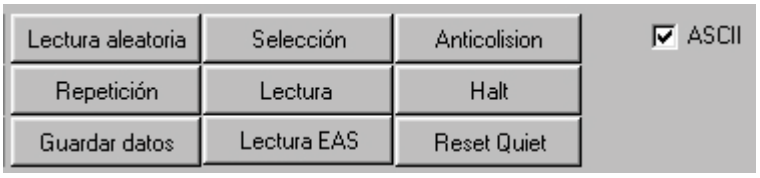
The window shown in next figure displays the current communication state of either the RS 232 or RS485 connection. Information is displayed as follows:

Communication State

- OK - System funcioning correctly.
- ERROR CRC - Checksum error encountered.

2.7.- FUNCTIONS FOR WORKING WITH TAGS

This Figure shows the controls for the various operating modes available for tag control.



Tag Controls

Clicking the first button in this control, *Random Read*, causes the reader to display data for all tags that appear in the RF field of the antenna and which have not been previously selected (using the Selected Read function described below). This option can be used in conjunction with the *Repeat Read* function which causes a continuous sequential read cycle to occur. To cancel repeat read mode, click on the Repeat Read button again. If a new tag appears in the RF field clicking the Random Read button will cause it to be read. If Repeat Read is turned on, the data in the tag will be displayed on the screen automatically.

The next button, *Selection* carries out a complete anti-collision read cycle (i.e. across all time slots) based on the preset Hash value. All tags currently in the RF field of the antenna are set to selected mode and displayed in the data window. Any tag that leaves the RF field of the antenna will also disappear from the screen display. Tags in the RF field can be reset to non-selected mode by clicking on the Read Selection button.

Clicking the *Anti-Collision* button causes the reader to select and enumerate all tags currently in the RF field of the antenna into their associated time slots according to their Hash value. These tags can then be read by clicking the Read Selection button. Removing a tag from the RF field of the antenna will cause its details to disappear from the data display on the screen. The tag can subsequently be re-read by clicking the Random Read button.

The *Repeat Read* button allows repeated sequential reading in Random Read, Selected Read, Anti-Collision, Save Reads and EAS modes. This function is activated by clicking on the button and turned off by a subsequent click.

The next button, *Read Selection*, displays data from tags that have previously been selected from the RF field of the MRFID unit using the Selection button or the Anti-Collision button. Any previously selected tags detected in the RF field of the antenna will be displayed in the data window. This option is disabled when the system has Random Read mode selected.

The *halt* button temporarily interrupts all system functions until it is pressed again.

The *Save Reads* button causes the reader to register and display all tags read by the RIDEL5000 unit and is used in conjunction with the Repeat Read button.

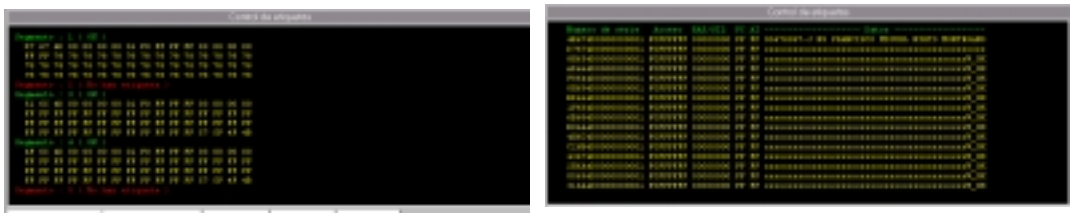
The next button controls the *EAS function* and allows reading of tags where the corresponding EAS bit is set active. This mode can be used with Repeat Read mode to find all tags with their EAS bit activated. In this mode, tags detected in the RF field of the antenna are shown by the background colour of the data display window changing from black to red along with an indication of the percentage of tag data detected.

The *Reset Quiet* button allows tags to be reset to quiet mode (according to the I-CODE protocol specification) Thereafter, it is not possible to read or write to a tag.

2.8.- TAG DATA PRESENTATION

Data read from tags is displayed on the screen in one of two formats; either as ASCII characters or raw hexadecimal data.

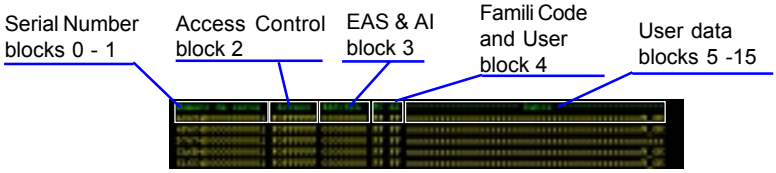
Depending on the presentation mode selected in the ASCII checkbox shown in figure 8.28 above, data will either be displayed in one of two formats as shown below.



Hexadecimal Data Display *ASCII Data Display*

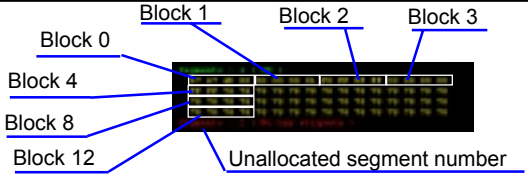
Data presentation Formats

In ASCII display mode, data blocks from a tag are displayed as in figure below.



Data Presentation in ASCII Format

In hexadecimal display mode, blocks are shown as in figure below.



Data Presentation In Hexadecimal Mode

2.9.- WRITING TO TAGS

The window zone shown in next figure provides a fast and easy method of writing ASCII data to tags along with settings for Family Code and Application Identifier. The EAS and Quiet mode bits can also be manipulated through this mechanism.

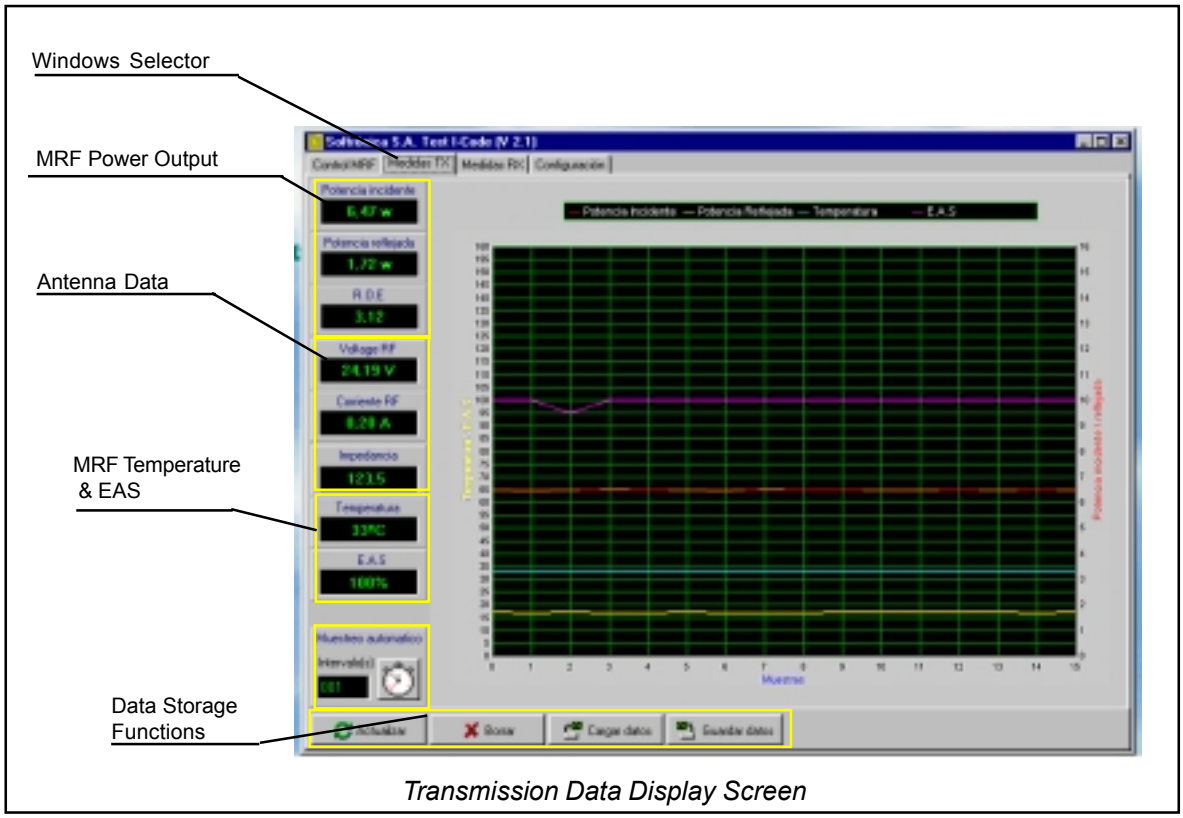
Tag Writing Window

In the green area of the window, data to be stored can be typed in along with the Family Code and Application Identifier. The EAS and Quiet mode bits can also be set according to the state of their associated checkboxes. After a tag(s) has been selected into the RF Field of the antenna (using the Read Selection button), click on the Program Tags button. Information from this window is then programmed into all currently selected tags in the RF Field of the antenna.

To achieve successful write operations there are two situations to consider with respect to the reader. Firstly, ensure that the tags are in the RF field of the antenna and that their selection has not been cancelled. In the latter case they can be selected by clicking on the Read Selection button. Secondly, if the tags have been taken out of the RF Field or have been cancelled make sure that the Selection and Anti-Collision controls are not selected and click on Random Read.

3.- TRANSMISSION DATA DISPLAY SCREEN

This window is activated by clicking the TX Control tab in the top left of the screen. This action causes the window shown in the following figure to be displayed



Transmission Data Display Screen

This window provides information on the RIDEL5000 transmission state of the system. Controls are provided to allow sequential measurements to be analysed over a long period of time. Other controls allow data sets to stored on or retrieved from hard disc.

The window allows access to transmission data from the RIDEL5000 and the connected TX antenna.

3.1.- SAMPLING OF TRANSMISSION DATA

Next Figure shows the control used to sample data from the RIDEL5000 unit.

Data Sampling Control

Clicking the Update button on the screen displays a single sample of data from the RIDEL5000. Each time that this button is clicked, a new sample is obtained from the unit. To display sequential data samples, place the cursor in the Intervals edit box of the control shown in the figure and enter a value in seconds for the time delay between the retrieval of each new sample. As soon as you click on the clock in this control, sequential data samples will be displayed at a rate depending on the value entered. To stop reading click on the clock icon again.

3.2.- POWER LEVEL OF THE RIDEL5000

The area of the screen shown in figure to the right displays information relevant to the transmission power levels of the RIDEL5000. Three values are shown: the power output level of the unit which can vary between 0.3W and 10W. Next, the reflected power level is displayed; this is the power that is reflected by the system antenna and should be the lowest value possible. If this figures exceeds 3W, it is possible that the antenna is not connected properly to the transmitter or has developed an internal fault.

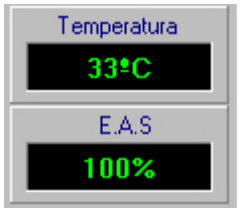
The last value shown is the Relation to Stationary Waves (RSW) that shows a mathematical relationship between the power output and the reflected power. The ideal value is 1:1 although it will vary according to the settings for the preceeding values.

Output Power

3.3.- RIDEL5000 TEMPERATURE & EAS RECEPTION

The window area shown in Figure displays two important values relative to the operation of the system. The first value represents the internal temperature of the RIDEL5000 unit; in order to operate correctly this should be between –10º and +65º C. Also shown is the level of EAS detection, if a tag is found with its EAS bit set, this information is displayed on the screen and if Repeat Read mode is active a graphic is displayed showing the influence of temperature on the potential and reflected power of EAS mode.

The RIDEL5000 unit has a built in fan than provides internal cooling. If the fan stops or its efficiency drops, the internal temperature increases. This is automatically detected and the output power of the unit is reduced by half or turned off.



Temperature & EAS Reception

3.4.- ANTENNA DATA

The figure shows data relevant to the antenna connected to the RIDEL5000 unit. Values are displayed for the voltage, current (in amps) and impedance. These values allow the technical status of the antenna attached to the system to be determined.

The impedance control can display three additional values about the antenna. These are accessed by placing the cursor over the window and clicking the left mouse button. The value displayed will then toggle between:

- Antenna impedance in ohms
- Modulus and phase in polar co-ordinates
- Modulus and phase in rectangular coordinates

Antenna Data

3.5.- DISPLAY, STORAGE AND RETRIEVAL OF DATA

The data display window shows a collection of values relative to generated power, reflected power, temperature and EAS recognition. These values are displayed graphically and can be plotted in a sequential form with a programmed time interval between each sample thereby showing the transmission state of the system.

Figure below shows the Update and Erase buttons. Clicking the Update button displays data from the RIDEL5000 in the window, Clicking the Erase button will clear all information from the display window. In the same diagram there are also buttons for “Load Data”, which allows a previously stored file to be loaded and displayed and “Save Data” which saves currently displayed data to the hard disc.

Data Storage and Retrieval Functions

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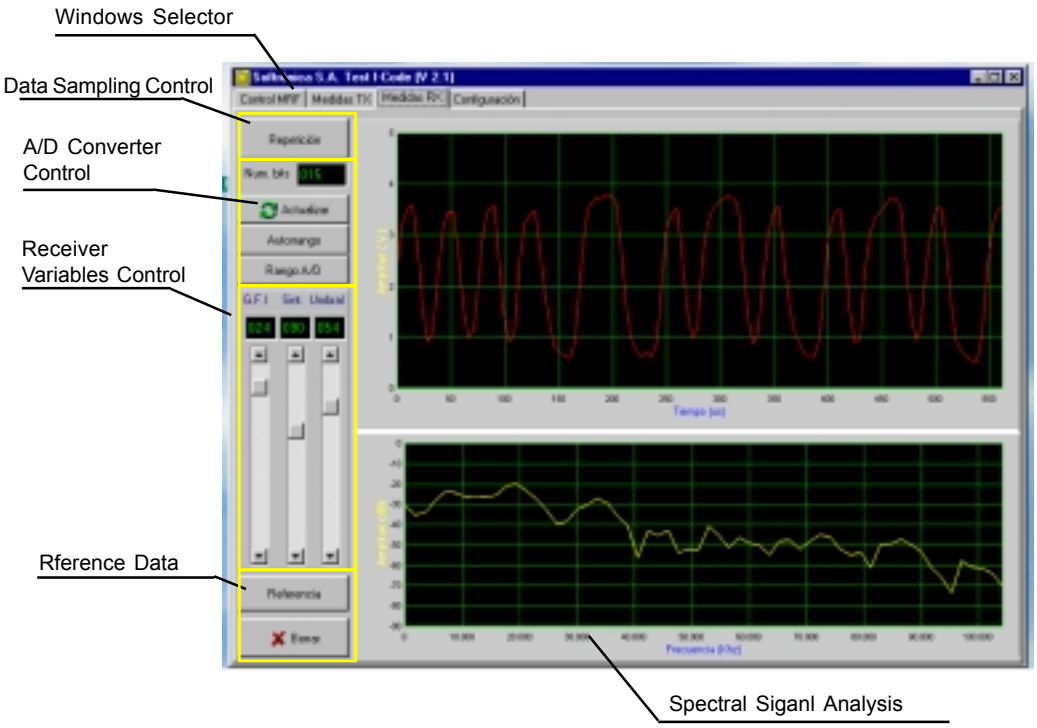
4.- RECEIVED DATA DISPLAY SCREEN

The received data display window is selected by clicking on the “RX Control” tab at the top left of the screen. After this action the window shown in figure will be displayed.



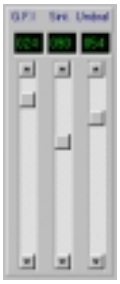
Received Data Window

This window displays information relative to the reception of tag data through the RIDEL5000 unit and its associated antenna. Controls are available to allow sequential data displays over long time periods, there are also controls to store and retrieve data as well as alter the parameters of the receiver.

4.1.- RECEIVER CONTROL

The MRFID receiver can be tuned using the controls shown in the figure which allows the following values to be adjusted:

- **IFG** – Allows adjustment of the Intermediate Frequency Gain of the receptor the effect of which can be seen in the two display windows. This control has 256 positions and can be set using the slider or by entering a value directly into the edit control over the slider.
- **Tuning** – Allows the tuned frequency of the receiver to be adjusted. Changes to this value are reflected in the screen displays. The control has 256 positions which can be set using the slider or by entering a value directly into the edit box over the slider.
- **Limit** – Allows the threshold of the receiver to be set to one of 256 positions using either the slider control or by entering a value in the edit box above the control.



Receiver Controls

4.2.- ADJUSTING THE A/D CONVERTOR

Data obtained from the receiver is passed through an A/D convertor whose settings can be adjusted using the controls shown in figure.

Receiver Controls

These adjustments are:

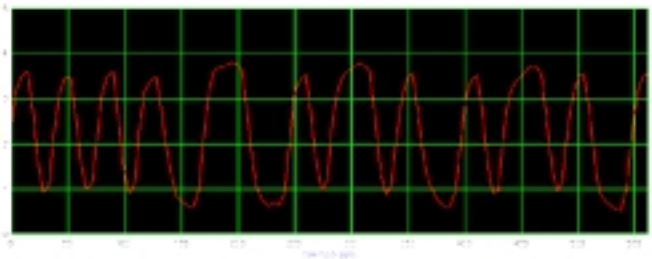
- *UPDATE* Each time this button is pressed samples of data are obtained from the receiver based on the value set in the Num. Bits window. This value can be adjusted between 0 and 255, a higher value increases the number of samples displayed. To carry out sequential sampling, click on the Continuous Mode button.
- *AUTOARRANGE* – This button adjusts the level of the A/D converter and the associated graphic data displayed.
- *A/D RANGE* The button allows manual adjustment of the signal range obtained from the RIDEL5000 receiver.

Continuous Mode

4.3.- PRESENTATION OF DATA FROM THE RECEIVER

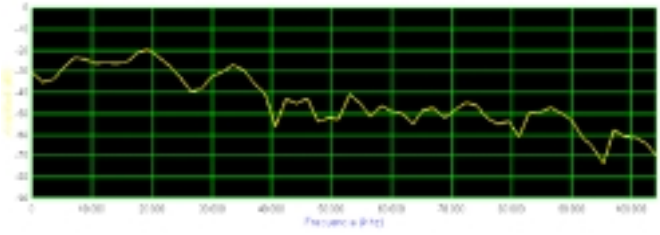
Presentation of data obtained from the A/D converter of the receiver is shown as two graphs in the RX Control window.

This figure shows a graph displaying the relationship between signal strength and time based on data sampled from the A/D converter. The X Axis of the graph shows time (in microseconds) and the Y Axis signal strength (in volts).


Signal Strength Plotted Against Time

Pressing the A/D Range button displays a complete A/D trace on the graph. Using the Continuous Mode button produces sequential traces which are displayed on the same graph.

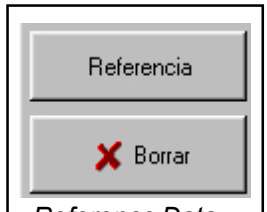
The following figure shows the relationship between frequency and amplitude. This is in the form of a spectrum analysis and shows signal strength at different frequencies.


Amplitude plotted against frequency

The X Axis displays the frequency (in Kilohertz) and the Y Axis shows the strength of each frequency in decibels. Presentation of data in this graph occurs simultaneously with the previous graph. It is possible to fix a reference for this graph and to compare successive measurements showing the performance of the receiver.

This option is accessed using the buttons shown in figure. Pressing the Reference Data button shows previously sampled data in blue whilst the new data is displayed in yellow.

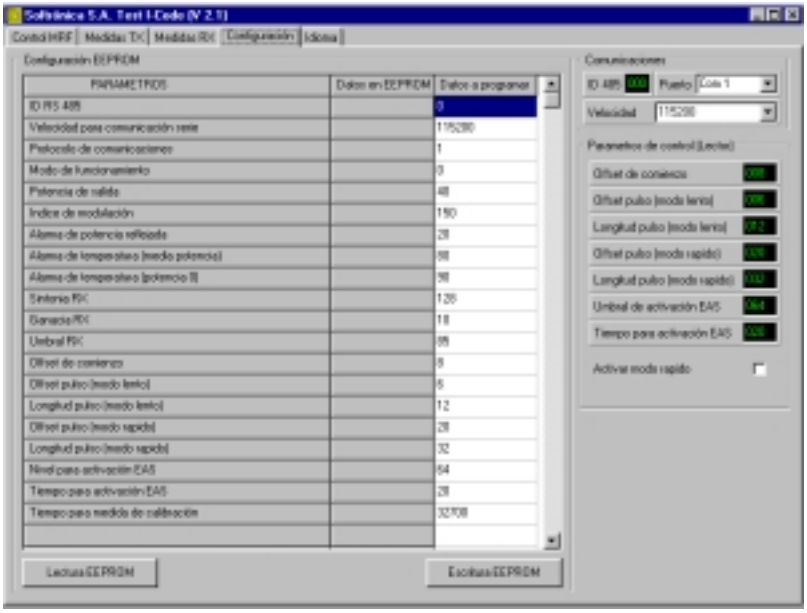
Pressing the erase button clears all previously displayed data from the screen.



Reference Data Buttons

5.- THE SET-UP WINDOW

The figure below shows the window containing information relative to the initialisation state of the RIDEL5000. Once the unit is powered on, the screen displays data relative to communication ports and the initial settings of the device.



RIDEL50000 Setup window

The variables displayed are stored in the RIDEL5000 in an EEPROM and are initialised when the unit is reset or powered on. These variables can be modified in this window and stored in or retrieved from the EEPROM of the unit.

5.1.- EEPROM DATA CONTROL

The EEPROM memory stores data shown in the above screen. Due to the nature of this type of memory, data remains permanently stored in the RIDEL5000 even when the power is turned off. The buttons shown in next figure allow the modification and entry of new data to the EEPROM

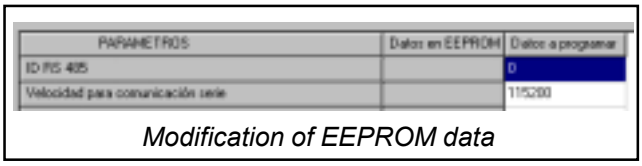
EEPROM Control Buttons

The buttons are:

- *Read EEPROM*. Reads the last stored data from the EEPROM and displays it on the screen.
- *Write EEPROM.* Stores all current settings in the EEPROM. Any stored values are overwritten with new data from the screen and will take effect the next time the unit is started.

5.2.- INITIALISATION PARAMETERS

These parameters are shown in the initialisation window and can be modified or replaced as shown in figure below.



Modification of EEPROM data

In this area there are two fields displayed that contain the current EEPROM data and any new or modified data to be written to the EEPROM when the Write EEPROM button is clicked. New values will only take effect the next time that the equipment is started.

The initialisation variables are as follows:

- **IDRS485.** This is the Identification or access code when working in RS485 configuration. Its value can range from 0 to 255.
- **Baud Rate.** Serial communication baud rate. It is possible to work with 9600, 14400, 19800, 28800, 56600 or 115200 bauds.
- **Communication protocol.** Operating communication serial protocol:

  0.- PHILIPS compatible protocol

  1.- ASCII Softrónica protocol

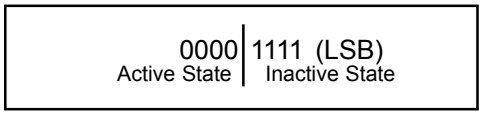
  2.- NET Softrónica protocol

  3.- TAG-WORLD protocol
- **Operating mode.** Mode of operation. It is possible to combine several bits from the following;

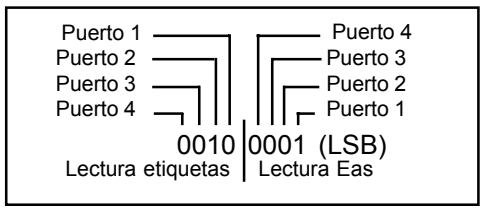
bit 1	Fast mode	0000 0001
bit 2	Auto EAS	0000 0010
bit 3	Auto READ	0000 0100
bit 4	Auto write	0000 1000
bit 5	Pass counter	0001 0000
bit 6	Automatic Tuning Unit control	0010 0000

- **Output Power.** The output power of the unit is stored here. It is stored as tenths of watt. For instance, 7W is represented as 70, and 3.5W is represented as 35.
- **Modulation Index.** Initial modulation index for the transmitter. It is stored as a percentage. For example, a 25 value means a modulation index of 25%.
- **Reflected Power Alarm.** Level for reflected power alarm, represented as tenth of watts.
- **Temperature Alarm (Half power).** Level for temperature alarm in ºC. When the unit reaches this temperature, the output power will be automatically halved..
- **Temperature Alarm (0 power).** Level for second temperature alarm in ºC. When the unit reaches this temperature, the output power will be automatically set to 0.
- **RX Tuning.** Value for RX antenna tuner (between 0 and 255)
- **RX Gain.** Intermediate frequency gain setting (between 0 and 255)
- **RX Threshold.** Threshold for the RX slicer (between 0 and 255)

- **Start Offset.** This parameter sets when the RX signal samples is started. (between 0 and 255)
- **Pulse Offset (slow mode).** This parameter sets when the pulses corresponding to time-slots are sampled on the RX protocol in slow mode (between 0 and 255)
- **Pulse Length (slow mode).** Slow mode pulse length as a value between 0 and 255.
- **Pulse Offset (quick mode).** This parameter sets when the pulses corresponding to time-slots are sampled on the RX protocol in quick mode (between 0 and 255)
- **Pulse Length (quick mode).** Quick mode pulse length as a value between 0 and 255.
- **EAS Activation level.** Threshold for EAS activation between as a percentage between 0 and 100.
- **EAS Activation time.** Sets the activation time for the digital output once the EAS activation level has been reached. It is stored as tenth of seconds. For instance, a 20 in this parameter will activate a digital output during 2 seconds once the EAS activation level has been reached.
- **Callibration Interval.** Time in tenth of seconds for the callibration interval.
- **Digital Output mask.** Active and inactive state definition of the RIDEL5000 output port. This indicates, for every digital output of the RIDEL5000, its «active» state (active low or active high). It is defined as a mask:



- **Digital Outpu mask for EAS and READ.** Digital Output Port activation mask for EAS or READ VALID operations. The bits with a logic 1, will be activated when the corresponding operation takes place:



- **RD Activation time.** Sets the activation time for the digital output after a valid tag has been read. It is stored as tenth of seconds. For instance, a 20 in this parameter will activate a digital output during 2 seconds once the EAS activation level has been reached.
- **ATU Serial Capacitance TX1.** Starting value for the serial capacitance for Automatic Tuning Unit TX 1.
- **ATU Paralell Capacitance TX1.** Starting value for the paralell capacitance for Automatic Tuning Unit TX 1.
- **ATU Serial Capacitance RX1.** Starting value for the serial capacitance for Automatic Tuning Unit RX 1.
- **ATU Paralell Capacitance RX1.** Starting value for the paralell capacitance for Automatic Tuning Unit RX 1.
- **ATU Serial Capacitance TX2.** Starting value for the serial capacitance for Automatic Tuning Unit TX 2.

- **ATU Paralell Capacitance TX2.** Starting value for the paralell capacitance for Automatic Tuning Unit TX 2.
- **ATU Serial Capacitance RX2.** Starting value for the serial capacitance for Automatic Tuning Unit RX 2.
- **ATU Paralell Capacitance RX2.** Starting value for the paralell capacitance for Automatic Tuning Unit RX 2.

5.3.- DEFAULT VALUES

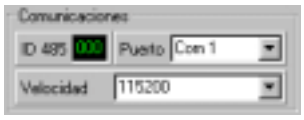
The factory stored values are:

IDRS485	0
Baud Rate	115200
Communication Protocol	0
Operating Mode	0
Output Power	40
Modulation Index	150
Reflected Power Alarm Level	20
Temperature Alarm Level (1/2 power)	80
Temperature Alarm Level (0 power)	90
RX Tuning value	128
RX Gain	10
RX Threshold	40
Start Offset	8
Pulse Offsett (slow mode)	6
Pulse Length (slow mode)	12
Pulse Offsett (quick mode)	20
Pulse Length (quick mode)	32
EAS Activation level	64
EAS Activation time	20
Callibration interval	60
Digital Output mask	15
EAS and READ Output mask	1
RD Activation time	10
ATU Serial Capacitance TX1	0
ATU Paralell Capacitance TX1	0
ATU Serial Capacitance RX1	0
ATU Paralell Capacitance RX1	0
ATU Serial Capacitance TX2	0
ATU Paralell Capacitance TX2	0
ATU Serial Capacitance RX2	0
ATU Paralell Capacitance RX2	0

5.4.- INITIALISATION OF COMMUNICATION PORTS

The parameters that determine port initialisation are shown in the figure. These parameters are:

- **RS 485 ID** This value determines the bus address of the unit when used in RS 485 mode. It can be a value between 0 and 255.
- **Port**. Determines the port through which the MRFID unit is connected to the PC in either serial or RS 485 mode.
- **Speed**. Determines the communication speed in either RS 232 or RS 485 mode. This can be set between 2400 and 115200 baud.



Communication Port Controls

5.5.- MRFID CONTROL PARAMETERS

These parameters control the operating functions of the MRFID unit. Normally these will not be changed. They are shown in the figure.

- **Starting Offset**. This value allows a point to be selected at which samples are graphically displayed. The effect of changing this value can be seen in the RX Control Window as data is received from the MRFID unit. The value can be set between 0 and 255.
- **Pulse Offset (Slow Mode)** Sets a value that determines when the display of sampled data from corresponding time-slots begins in slow mode. This figure can be set to between 0 and 255.
- **Pulse Length (Slow Mode)** Selects the pulse length in slow mode. Can be set to a value between 0 and 255.
- **Pulse Offset (Fast Mode)** Sets a value that determines when the display of sampled data from corresponding time-slots begins in fast mode. This figure can be set to between 0 and 255.

RIDEL5000 Control Parameters

- **Pulse Length (Fast Mode)** Selects the pulse length in fast mode. Can be set to a value between 0 and 255.
- **EAS Activation Level**. Sets the value that determines when the EAS activation alarm is triggered. This is shown as a percentage and can be between 0 and 100%.
- **EAS Activation Time**. Determines the delay before the EAS Activation alarm is triggered. This figure is set as a percentage between 0 and 100.
- **Enable Fast Mode**. Activates I-CODE fast mode protocol

5.6.- FIRMWARE UPDATE

In the initialization window, there are three buttons (see figure) to update the RIDEL50000 firmware (the program is soterd in FLASH memory), to enter master mode and to reset the RIDEL5000.

- **Master Mode.** The RIDEL5000 enters master mode with default operating parameters:

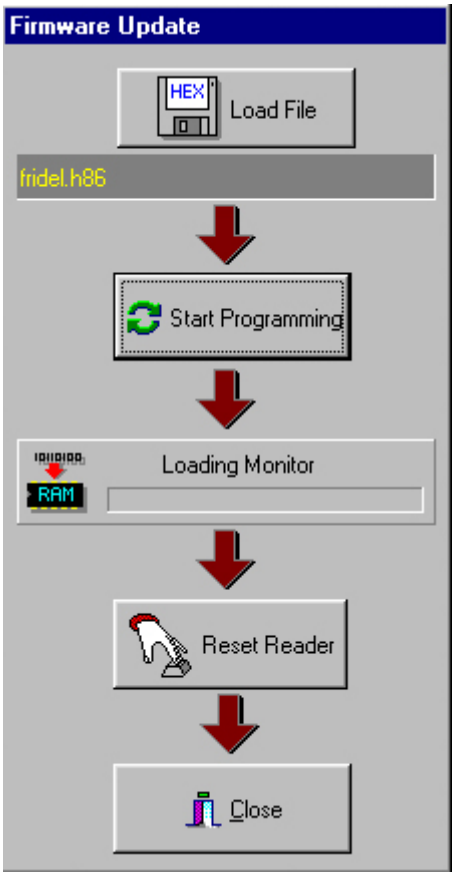
  Philips protocol, 115200 bauds, ... This is usefull for restarting after a unknown state.

- **Reset RIDEL5000.** General RIDEL5000 reset.

- **Firmware Update.** It allows the update of the RIDEL5000 firmware. A window appears with all the neccesary controls.

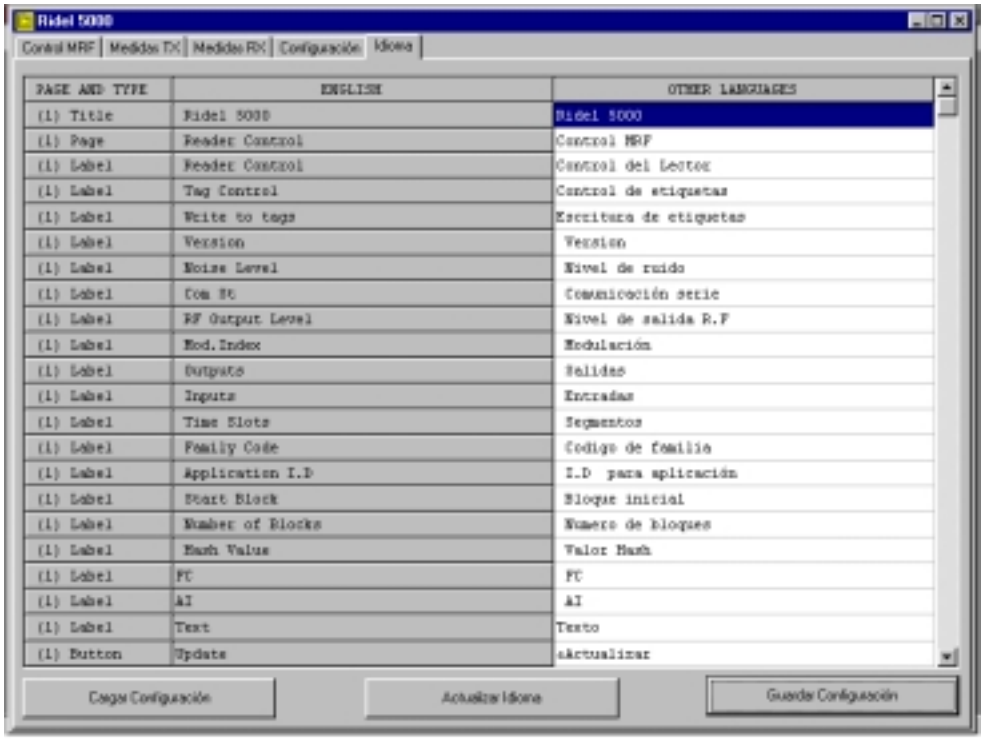
Botones actualización

The firmware is updated from a file selected from this window. The update files will be supplied by Softrónica when neccesary.



6.- MULTILANGUAGE SUPPORT

This window allow us to change captions or texts for every label on any window, to allow customization of the



Language Change Window

whole program.

6.1.- LANGUAGE CHANGE CONTROLS

There are three buttons to:

- **Load configuration**. To load the configuration from a default file («default.cfg»). This file contains all the neccesary data to update the captions and labels in the program. If this file is not present, the english version is loaded.
- **Language update.** To update the captions from the data introduced in this window.
- **Save configuration.** To save the changes made in this window. A name can be introduced for the file. After saving the configuration, it is possible to rename the file as default.cfg to change the configuration at start-up.

6.2.- TEXT EDITING AND CUSTOMIZING

The captions and texts can be customized from this window. There is a table with three columns, corresponding to «Page and type», «English» and «Other Languages».

In the page and type column, there is a number in brackets corresponding to the page in which the label or text appears. Then there is a description of the type of element (title, page, label, button, ...). In the English column, the english version appears, and in the third column, it is possible to write the new customized text.

Once the changes are made, it is neccesary to save the configuration.