

Thank you for selecting our product.
e-Batch Concrete is a quality product designed for many years
of continuous operation.
Please read this manual before installing or using the program.
For any questions please do not hesitate to contact us.

www.e-batch.com

DEDOUSSIS ENGINEERING LTD.

20 Neratzoulas Str. Acharnai

13671, Athens

GREECE

tel. (0030) 210-2409990

Fax. (0030) 210-2445970

e-mail: sales@dedoussis.com

Email: support@dedoussis.com

WT520 configuration tool

INTRODUCTION

pg. x

CHAPTER 1 -Connecting with the PLC

CHAPTER 2 - Scales Installation

2.1 - Adding a New Scale

2.2 - Changing Scale configuration

2.3 - Measurement parameters of a scale

2.4 - Calibrating a scale

2.4.1 - Calibration by weight

2.4.2 - Calibration by mV/V

2.4.3 - TAC

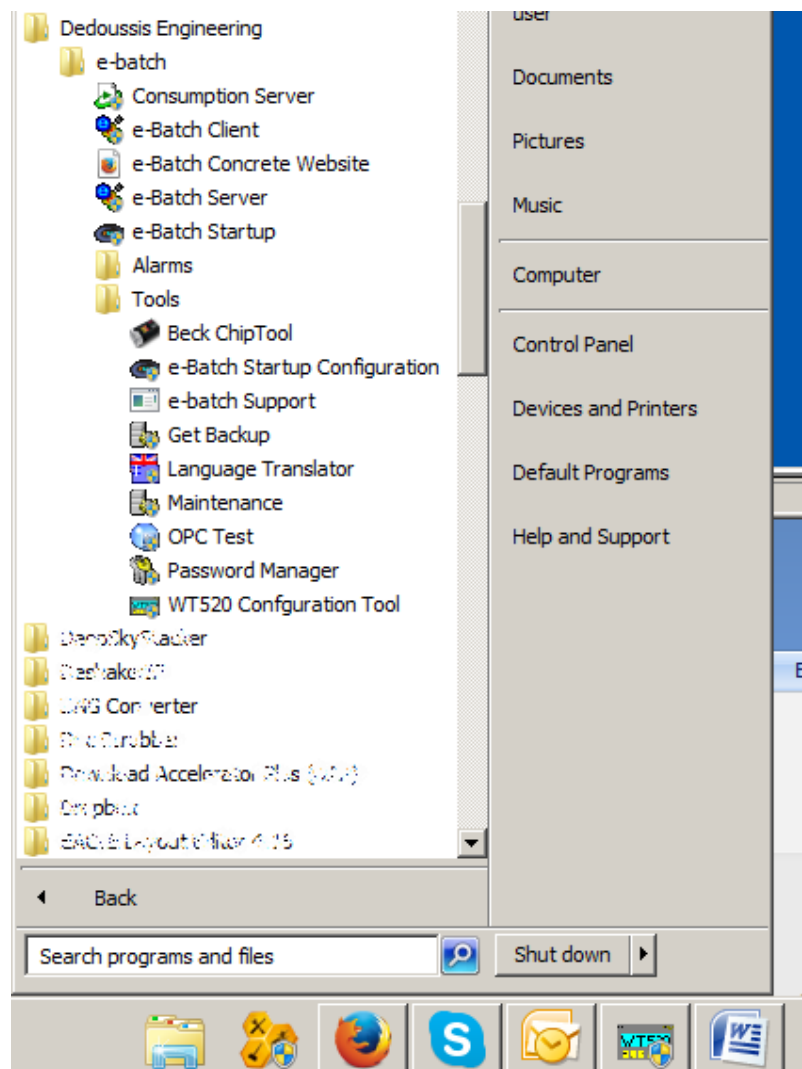
INTRODUCTION

This tool is designed to support the technician in the installation or maintenance works of an e-batch system.

The communication between this program and a PLC unit is based on Ethernet utilizing the Internet protocol suite (TCP/IP and UDP telegrams) so the members should be on the same network and share same network parameters (e.g. subnet and basic address) and permissions from the local firewall.

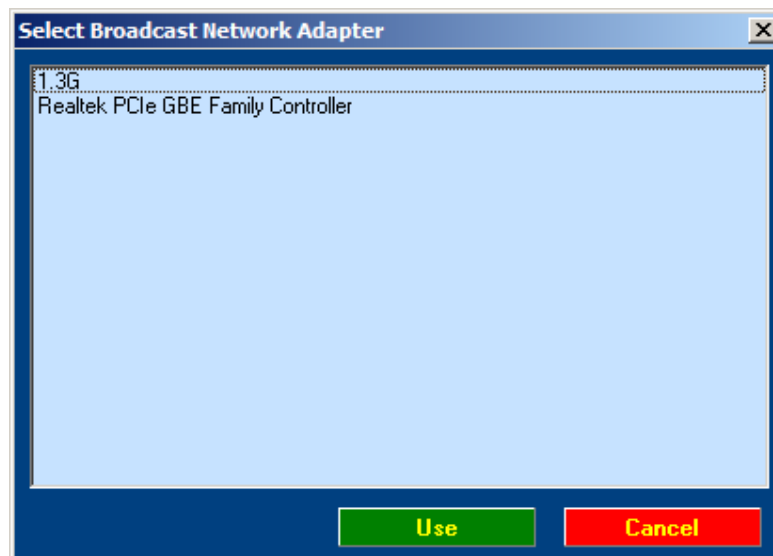
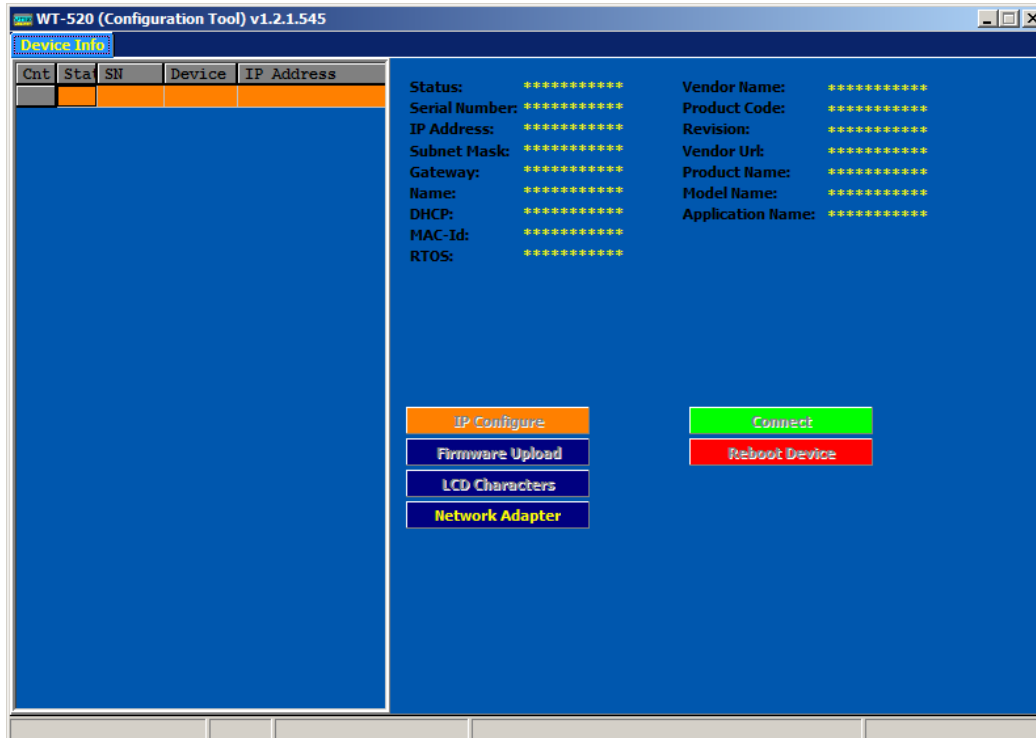
The most common subnet for local network is 192.168.xxx.xxx (IPv4 format), so please check that the local pc and plc belong to the same network range for the three first group of numbers, even as an alternative address (e.g. 192.168.001.xxx).

First, locate the executable file WT520 configuration tool in the Start menu. It is located in the Dedoussis Engineering Program Group tree.

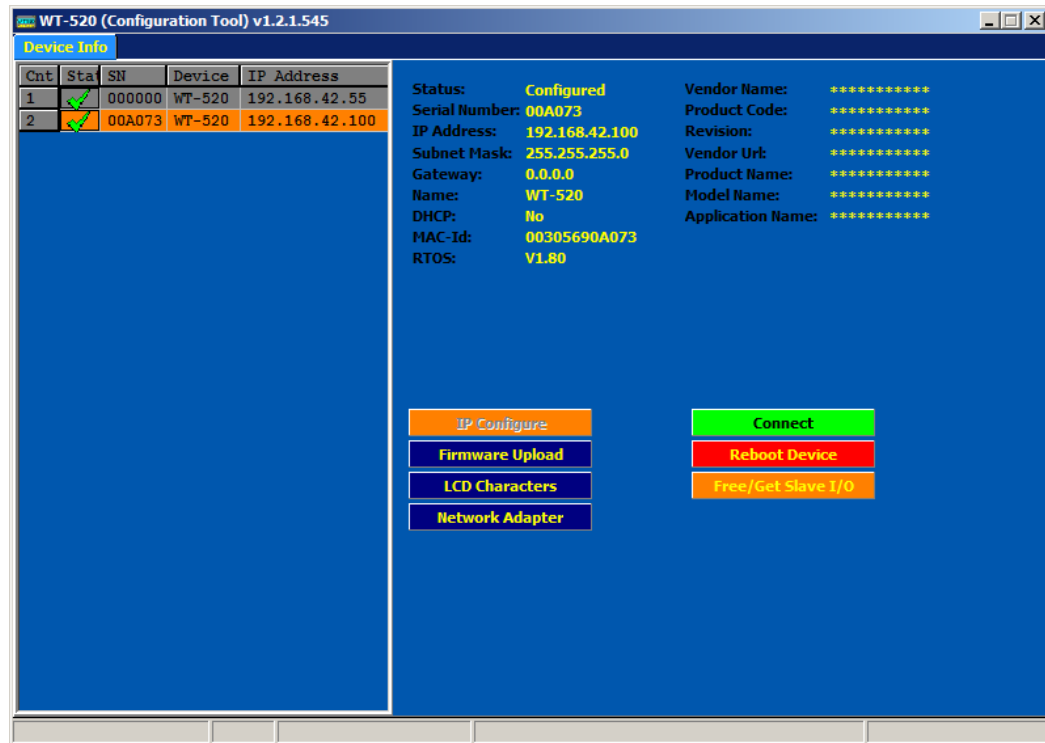


CHAPTER 1 - Connecting with the PLC

In a multi network workstation where more than one network interfaces are existing it is important to chose the network adapter that has the right path/connection to our PLC.



Now that the right network adapter has been chosen we can see the available PLC that reside on our network.

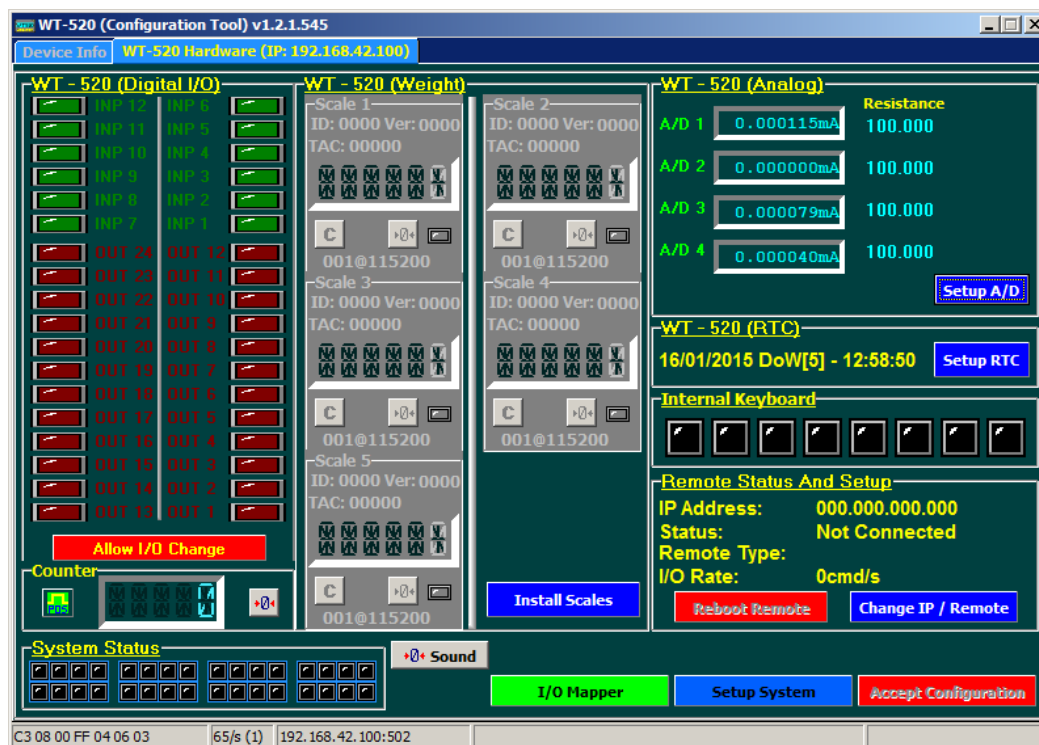


We select the one that we want and press the Connect button.



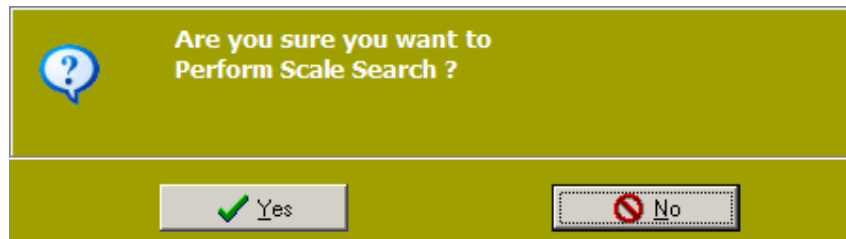
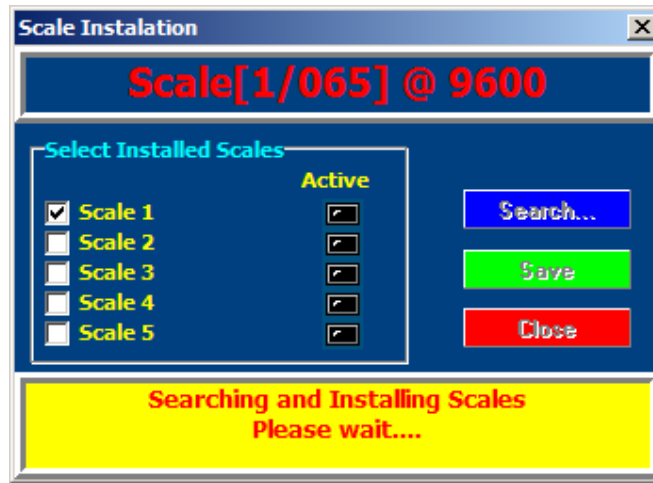
CHAPTER 2 - Scales Installation

Now we have more data about the unit shown on the basic tab of Configuration tool and a second tab is created allowing the detailed browsing of the connected Unit's parameters. Switching to this tab we get live hardware info of the system.

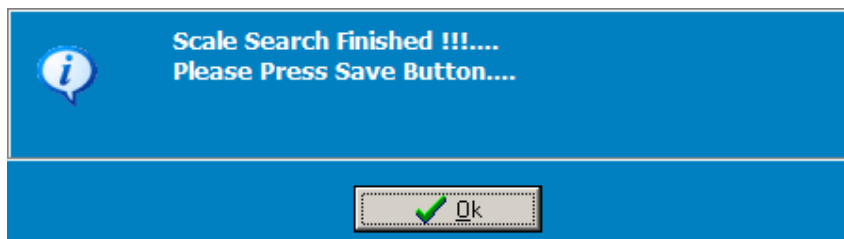
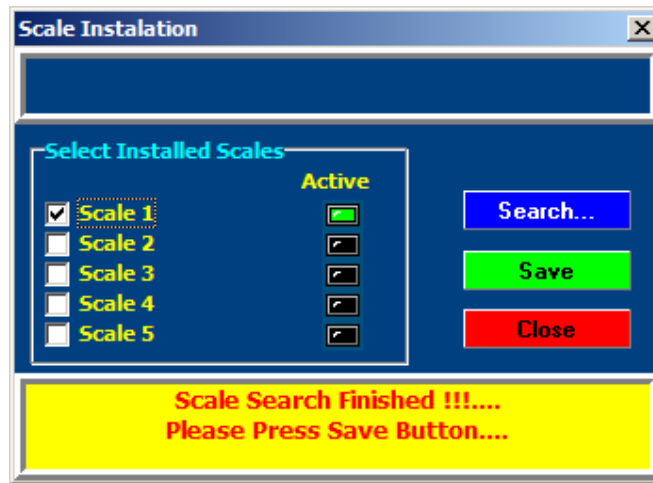


The middle section of this screen (named WT-520 Weight) deals with the existing Scales. The grey colour shows that no scales have been configured to work on our system. The way to add a new scale is to physically connect it and then press the INSTALL SCALES button. A new window pops up

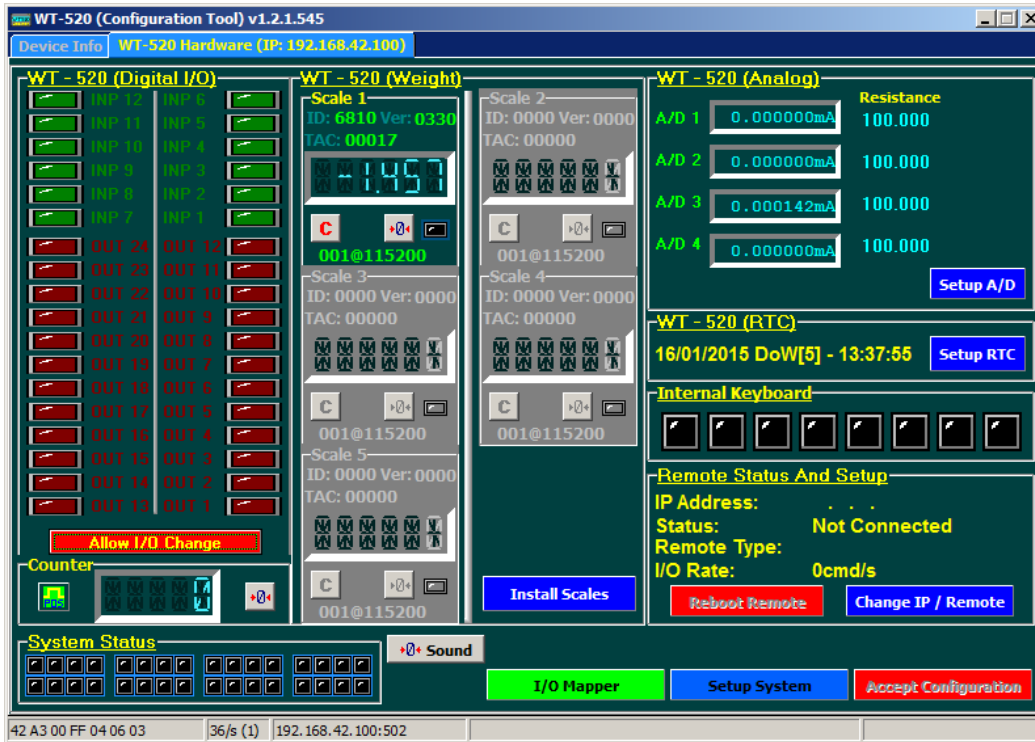
and the program asks which of the 5 available scales is going to be connected.



After a short period of searching and configuring the new scale the program shows the possitive result with a green light on the corresponding place.



We have to press save and the system will reboot with the new configuration. Connecting again will show us the new hardware status and a real time value from the new scale.



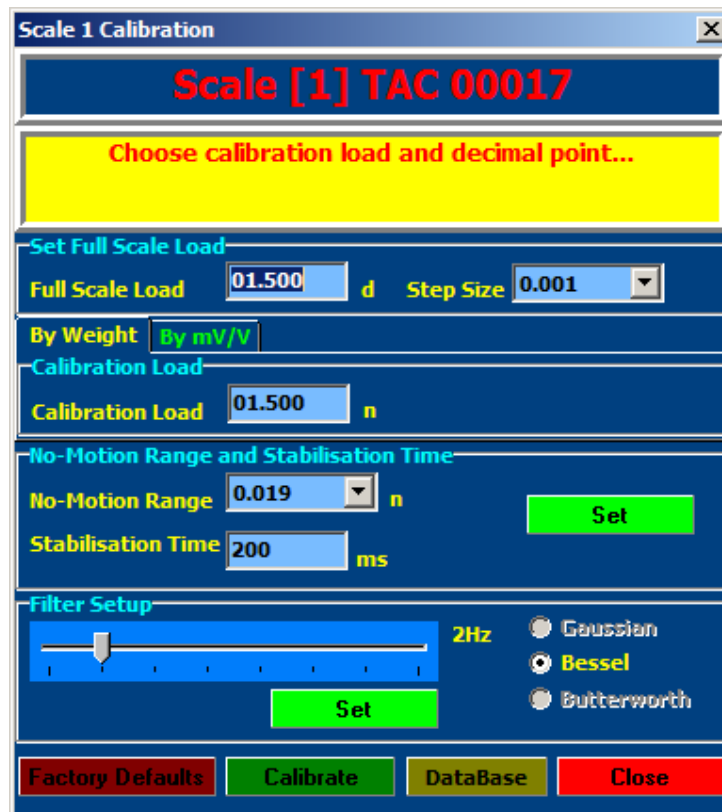
On the scale display, we can see the type of the digitizer, the TAC number and there are two buttons one for a temporary Zero for the scale (until the next power down), and the calibrate button.

2.4 - Calibrating a scale

Now with the scale connected we can proceed in changing the scale parameters and calibration data. This is done by pressing the C button.

A new window pops up where we have two option tabs :

2.4.1 - Calibration by weight



Scale 1 Calibration

Scale [1] TAC 00017

Choose calibration load and decimal point...

Set Full Scale Load

Full Scale Load d Step Size

By Weight By mV/V

Calibration Load

Calibration Load n

No-Motion Range and Stabilisation Time

No-Motion Range n

Stabilisation Time ms

Filter Setup

Gaussian Bessel Butterworth

This option gives us the freedom of using a calibration weight (>30% F.S.D.) to calibrate our scale. The program in two steps asks for empty scale, and then loaded scale and calculates the gain of the system. It is important that the 'no motion range' and the stabilization time take care of possible vibration on the scale to avoid a 'not stable' error during the calibration steps.

2.4.2 - Calibration by mV/V

This type of calibration is mostly used because of the size of weights needed for batching plants and also because of the stable and accurate manufacturing and detailed certificates of modern load cells.

Scale 1 Calibration

Scale [1] TAC 00017

Choose calibration load and decimal point...

Set Full Scale Load

Full Scale Load d Step Size

By Weight **By mV/V**

Loadcell Deadload and Span

By Weight mV/V Span mV/V

No-Motion Range and Stabilisation Time

No-Motion Range n

Stabilisation Time ms

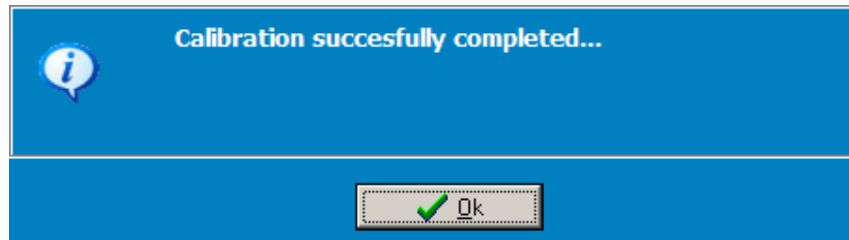
Filter Setup

Gaussian Bessel Butterworth

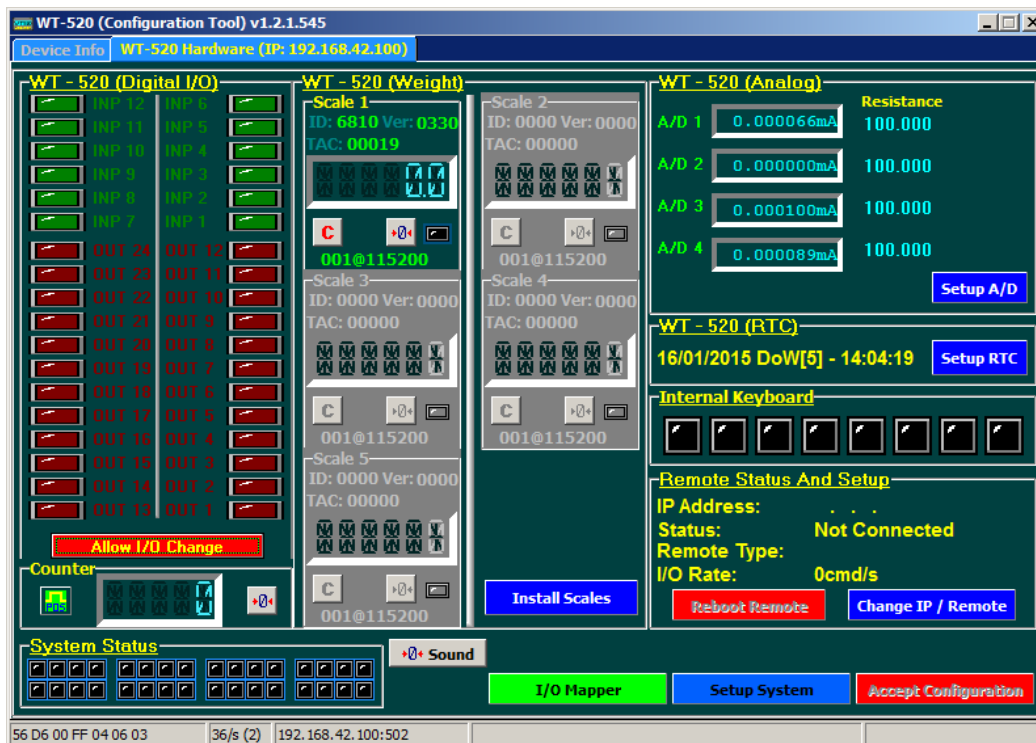
Here, we have two options. One is to enter Zero point and Full Scale point by mV/V, or Zero point by the actual weight of the scale and Full Scale point by mV/V. The second way is the most used in any occasion. As a rule of thumb the LDUxx units work with $(ZERO + FULL \text{ LOAD}) < 2.4 \text{ mV/V}$. This has to be

considered at the time of sizing the load cells and the scale full capacity.

After pressing the 'CALIBRATE' button the program asks for empty scale, and then finalizes the system. It is important that the 'no motion range' and the stabilization time take care of possible vibration on the scale to avoid a 'not stable' error during the calibration steps.



As we see after pressing the 'CLOSE' button, our scale shows 0.0 weight and the TAC number is incremented since the calibration data have changed.



2.4.3 - The Traceable Access Code (TAC)

The system has provide a guard against improper access of the calibration commands. The LDU xx.1 digitizer features the Traceable Access Code. or TAC method of controlling the access to the calibration commands group. This means that a code is maintained within the device, and is incremented whenever any change to any of the calibration commands is saved.

When performing the 'stamping' test, the Trading Standards Officer will make a note of the TAC, and advise the user that any change to this code which occurs prior to the regular re-inspection by the Trading Standards Office, will result in legal prosecution of the user.

The user software is required as a condition of approval, to make the TAC available to the weight display indicator or console, on demand.

Restrictions upon usage when in 'Approved' applications

A number of performance restrictions must come into force. These restrictions are the number of display divisions, which may become limited to 10000 divisions, and the sensitivity per display division, which becomes 0.7uV per division.

Once installed in the application, an 'approved' application will require 'stamping' by an Officer of the relevant Governmental Trading Standards Department.

This certifies the equipment or system as being in accordance to the relevant regulations and within calibration limits.

The term 'approved' applies whenever the weighing application is intended to be used for 'legal-for-trade' weighing - that is, money will change hands according to the weight result.

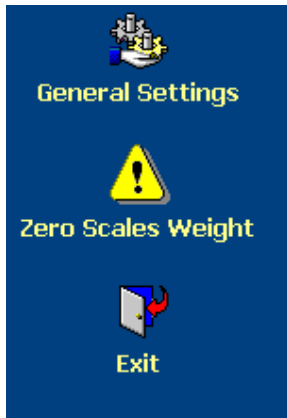
Such applications are bound by the legal metrology regulations of the relevant governments around the World, but most

countries will comply with either the relevant EN's (Euro Norms) or the relevant OIML (Organisation Internationale de Metrologie Legale) recommendations.

The LDU xx.x has been approved as a component for use in weighing systems according to OIML recommendation R76, the highest performance level approved being Class III, 3000 division. The approval Authority was the Danish Electronics, Light & Acoustics (DELTA), and the approval certificate number was DK0199-R76-02.02 Revision 1, dated **30.07.03**. This approval will allow the use in approved weighing systems throughout Europe, and in many other countries of the World.

To achieve approval on a particular application, it will be necessary to satisfy the relevant Governmental Trading Standards Authority that the requirements of the various rules and regulations have been satisfied. This task is greatly simplified if the key components of the weighing system, namely the load cells and the weighing indicator or digitizer, are already approved as 'components'.

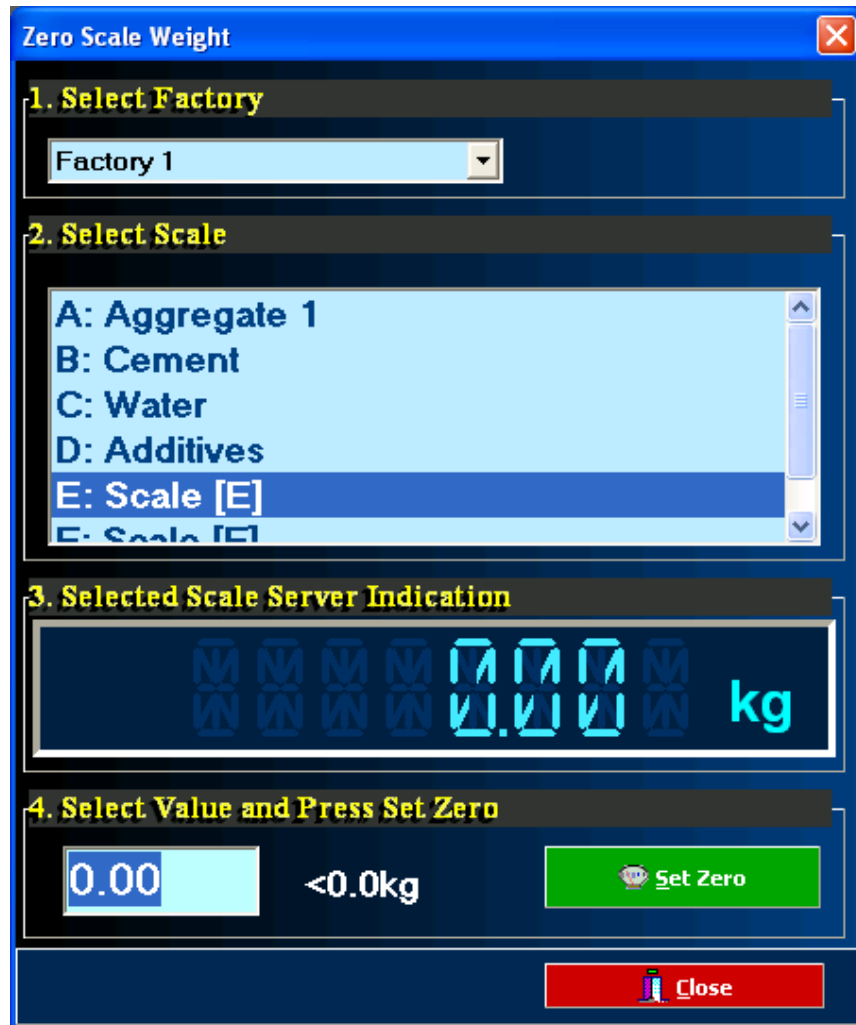
Usually, a discussion with the Weighing Equipment Approvals Officers at the relevant National Weights & Measures Office will then reveal the extent of any pattern testing that may be necessary to ensure compliance.

REVIEW OF OWNERS MANUAL CHAPTER 5 - System

The System menu includes the options which have to do with the operation of the e-batch software. We have the ability to customize the function of the e-batch client, by adding our functional parameters, and customizing our company data and the texts that will be written on the reports.

Some of the options that we will discuss in this chapter does not reside inside the tab menu but only on the main system menu.

- By clicking on the "Zero scales weight" menu or side tab bar Icon, the dialogue on the following page appears. This dialogue, gives the ability to change the zero weight offset of the selected scale.



At first we have to select the factory, and then we have to select the scale we want to change the zero offset. After a short time of communication with the PLC, the current scale weight appears in the third and fourth section of the dialogue. We can set this value as zero if it is less than or equal with the current value shown on the right of the edit box.

There is a maximum percentage of zeroing at which the program will allow us to set the zero offset to any scale. In case of larger values, the user has two options to overcome this restriction.

- From the factory setup, we change the percentage of allowed zero weight.
- Make a recalibration in order to create a new absolute zero with WT520 configuration tool.

DEDOUSSIS ENGINEERING LTD.

20 Neratzoulas Str. Acharnai

13671, Athens

GREECE

tel. (0030) 210-2409990

Fax. (0030) 210-2445970

e-mail: sales@dedoussis.com

www.e-batch.com

