IOBridge.Net

Product Presentation

io!abs
Automation & Software Technologies

…and… everything is possible!!!

The company ![logo] is creation of the experience and the technology of the people who are long time now in the Software and IT sector as well as in the industrial automation sector. With the existing knowledge of constructing some of the most success systems of the industrial automation and administrative systems ![logo] expand the horizon of your business by providing you the best choices for boosting your company performance.

Based on our own completed analysis, designing and developing of our systems having always into consideration the particular requirements of your company needs we are in position to provide you with the big advantage of making even the most complicated system automated.

In ![logo] the education and the training of our executives never ends. We find ourselves in continuous search of new technologies and techniques of developing systems that are based on the education and certification of our executives in the most modern technologies. In our personnel are included professors of Microsoft with certifications as MCT, MCSD, MCAD, MCDBA, MCSE, MCSA, MCP, Sun Microsystems in technologies JAVA with titles SCJA, SCJD and SCJP, as well as CISCO Systems with titles as CCIE, CCDP and CCNA.

Microsoft CERTIFIED *Trainer* | Systems Engineering
Systems Administration
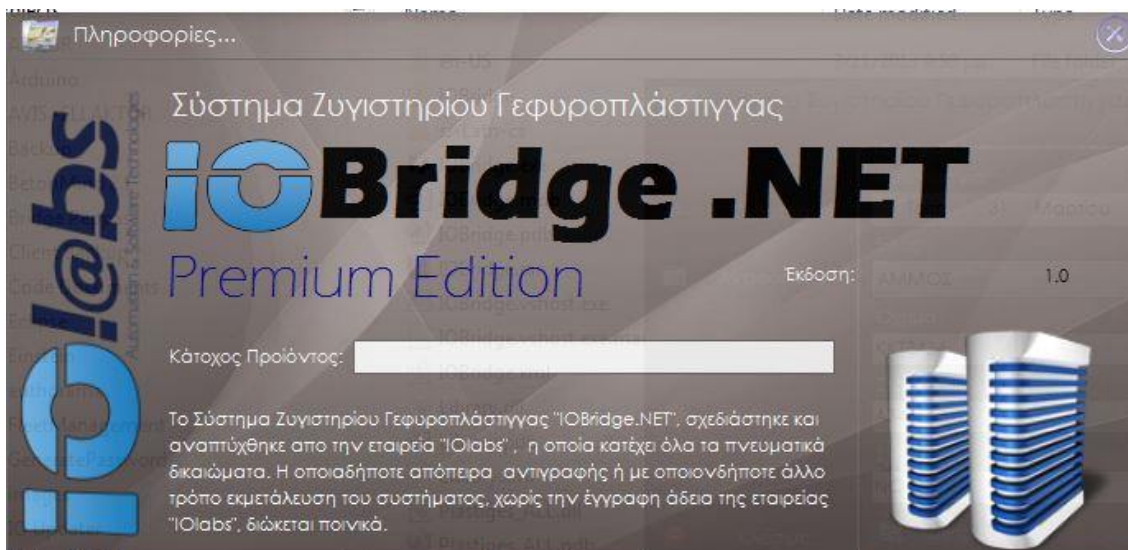Database Administration

Microsoft CERTIFIED *Trainer* | Enterprise Application Development
Web Development
Database Development

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IOBridge.Net

IOBridge.Net is an intelligent Weighbridge operation System by ![iolabs]. It is an application designed in a way to provide user the ability to exploit the maximum capabilities of their Weighbridge very easily. It's been developed after a long and detailed analysis and it is designed to be perfect parameterized and easy to use.

The application is designed with the most modern programming tools offering innovations such as the modern and friendly to user working environment, the absolute data validity management, the remote management capability and many more advantaged analyzed below.
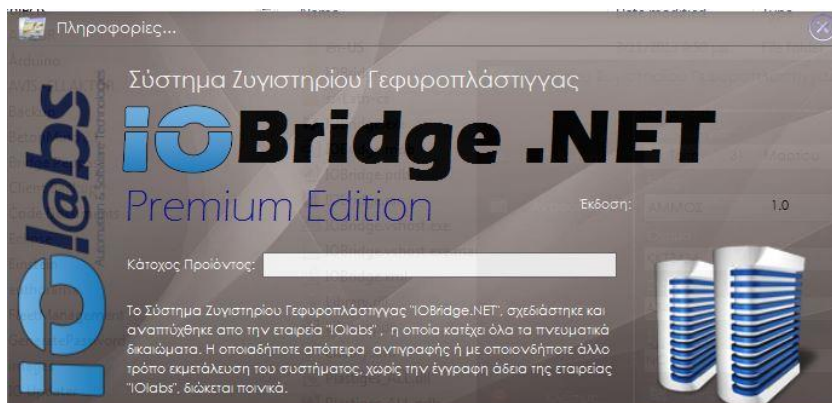
What does IOBridge.Net support?

- **Precision Weighing**

- **Speed Weighing**

- **First and second Weighing based Record Print**

- **One weighing (based on Vehicle Tare) Record Print**

- **Weighing Notes Reprint.**

- **Unlimited Database Records**

- **Unlimited Reports Support**

- **Packaging Vehicles and weighing records under tare**

- **Customizable on any weighbridge**

- **Vehicles Management**

- **Raw materials and delivery notes Management**

- **Links to Software Package (ERP) for Data import**

- **Backup / Restore**

- **User Support - Access Licenses**

- **Modern and User-Friendly Design Interface**

- **Rich and Configurable Reports**

- **Calibration with 2 Steps**

- **Easy Setup**

- **Traffic lights / Traffic bars support**

- **RFID vehicle recognition**

- **Led announcement / Notification tables**

- **External commands support (Remote control Usage)**

IOBridge.Net Benefits:

✓ **Accuracy:** Using sophisticated Controllers that support thousands of samples per second, Modern class C3 Weighing systems, and new sampling methods, IOBridge.Net succeeds on achieving maximum accuracy in weighing.

✓ **Speed:** The use of new generation Controllers and new sampling techniques result in a maximum data rate management.

✓ **Installation and Operation in 2 hours:** Any Installation or Upgrade of the IOBridge.Net System can be completed in 1-2 hours, including the operations on the electrical panel, because of the system configuration convenience.

✓ **Unlimited Database Records:** IOBridge.Net is supported by a Database that can handle millions of records without having any Performance issues. This means that there is no need to backup old records, or have any issues about history logs, as IOBridge.Net can keep an endless logs History

✓ **Unlimited Reports Support:** IOBridge.Net supports thousands of reports so as to help the company have a clear view about their business. System has a basic package of reports, but it can easily create any type of report company may need.

✓ **Easy Setup and Configuration:** All operating settings on IOBridge.Net are accessible to the user, so as to be able to parameterize the weighbridge with ease. Even Weighbridge calibration can be simply done in 2 steps, without the necessity of a technician.

✓ **Security and Reliability:** IOBridge.Net supports access control and passwords for each user. It also provides Backup/Restore Security settings, whether scheduled or when the user wishes, which ensures safety against any data loss.

✓ **Vehicle Management:** IOBridge.Net supports Full Management and log data for any vehicle providing a wealth of information to the user about them.

✓ **Raw Materials Management:** IOBridge.Net is an intelligent and well-designed management and control tool so as to have a clear view about all the movement of raw materials and the consignment note accompanying these movements.

✓ **Modern and fully adjustable weight list:** IOBridge.Net supports weighing records with Modern Design and adjustable way of how the Client wishes data to appear on it.

✓ **Multi-Language Support:** IOBridge.Net is translated in many languages and is designed so that it can be translated in any language directly and quickly.

How IOBridge.Net works:

IOBridge.Net supports 2 ways of operation. Operator Based solution & Unattended / Unmanned Solution. Below is a full description and walk through for both solutions.
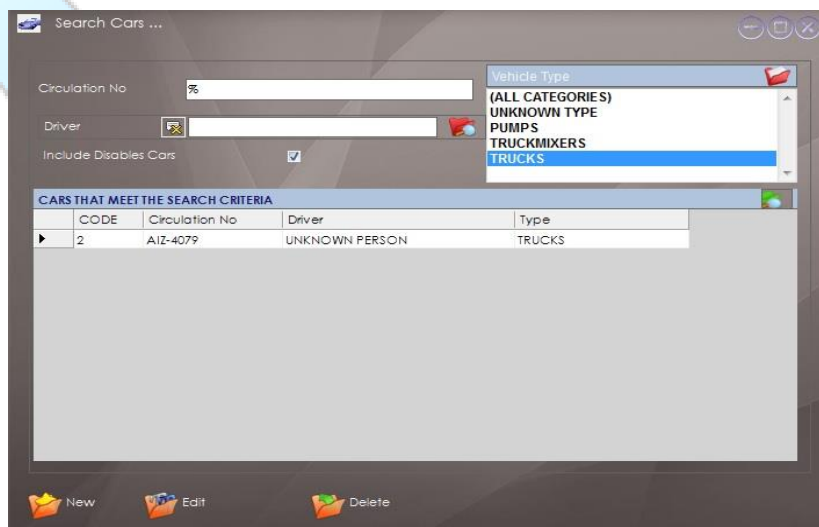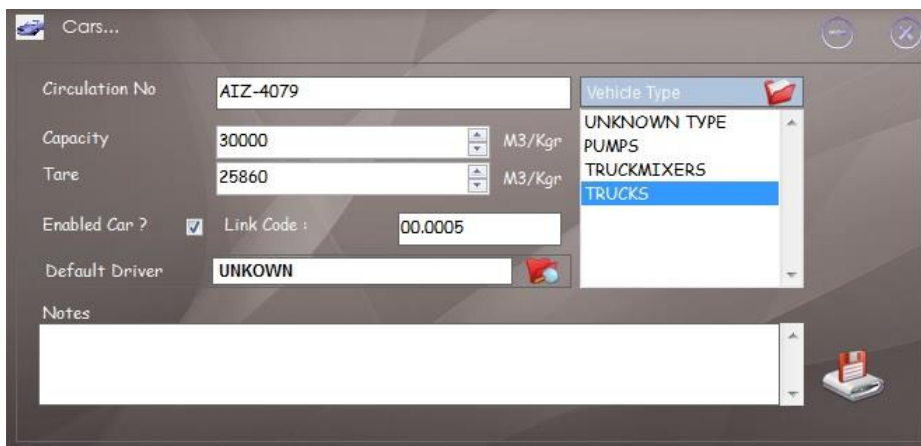
Operator Based Solution:

On this type of operation, the weighbridge operator has a full access to all IOBridge.Net Parts and is the main responsible person on system operation.

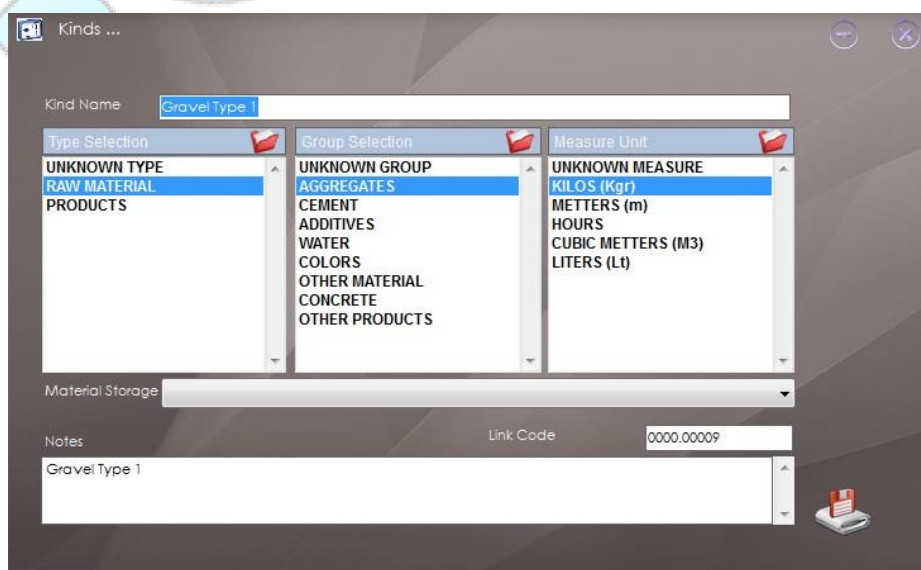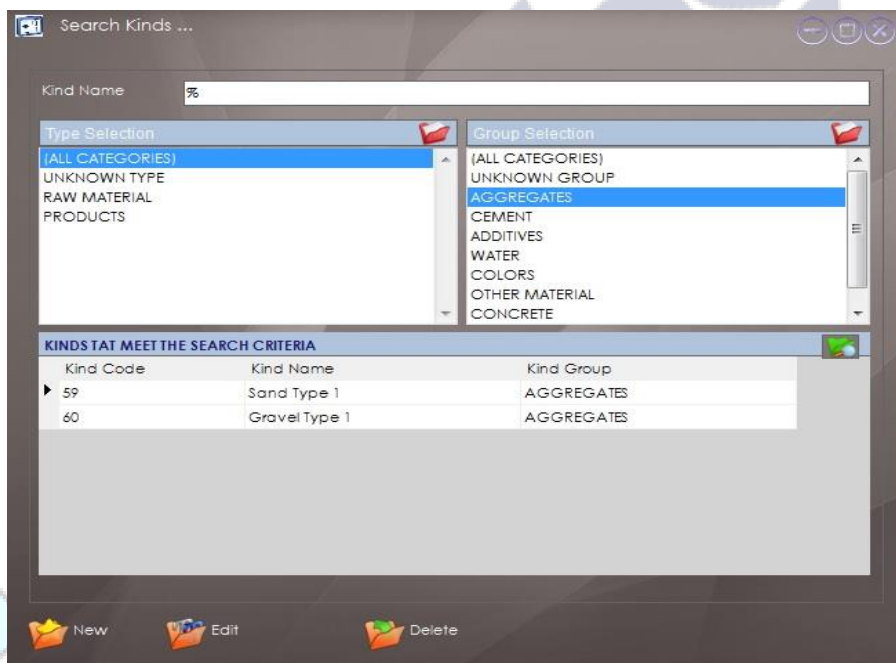IObridge.Net supports either **One Way** or **Two Way** weighing procedure Modes.

One way weighing Procedure mode:

On this mode, operator has already configured all Vehicle Information like plate number, Driver Name, Tare & other Vehicle related Data.
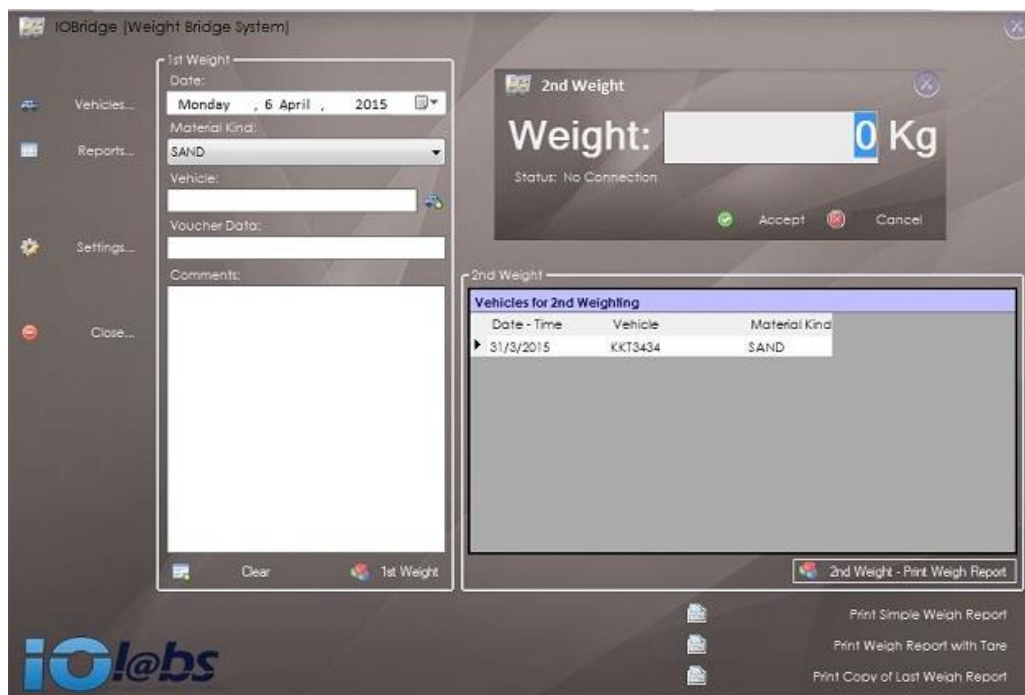
He also needs to prepare all necessary data about the Materials which the Vehicles will carry.

After that, he is able to pick the Vehicle & Material for this Weighing, get the Current weight & print the Weighing note as system will select automatically all info about Vehicle & its tare & will calculate the current weigh.
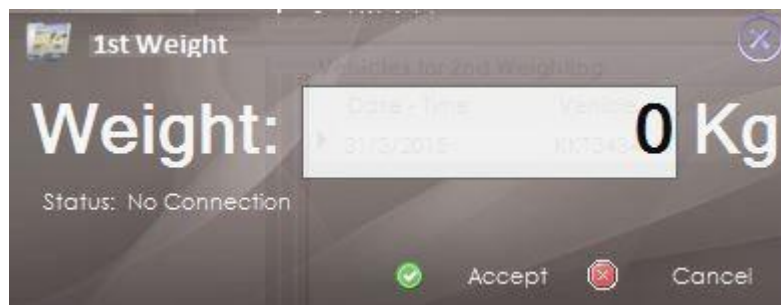

By using Vehicle mount RFID Tags, IOBridge.Net will automatically get all Vehicle Info, speeding up the current process.

Two way weighing Procedure mode:

On this mode, you can use IOBridge.Net as all classic Weighbridge Systems. Vehicles enter the Weighbridge & you follow the procedure described above for the first weighing so as to get their Tare. On the Pending 2nd Weighing Table a new record is added.

After the Vehicle is loaded, it gets back to the Weighbridge for the second Weighing. Operator can easily pick the 1st Weighing Data from the pending weighing table & click the button so as to get the 2nd weighing weight & Print the Weighing Note.

In case of Vehicle mount RFID Usage, IOBridge.Net can automatically call this procedure & Print the Weighing Note.

IOlabs can provide a huge variety of Weighing Notes, or customer can ask the one he may prefer & our Support Team can easily customize it for him.

Unattended Solution:

IOBridge.Net supports any type of Semi-Automatic or full automatic processes based on sensors & Indicators that can easily be configured on the System Settings. Any combination of Sensors & Indicators described below can be easily configured on IOBridge.Net and transform your system to a full automatic system.

Vehicle Arrival / Departure Sensors:

These sensors are used to recognize Arriving or Departing Vehicles from the Weighbridge. System can manage their signals to as to determine the traffic in/ out the weighbridge.

Traffic lights / Traffic Barriers:

After Sensors send a call to IOBridge.Net, system will proceed on Indicating by Traffic lights or barriers to prepare the vehicle driver enter or leave the weighbridge.

Vehicle mount RFID:

After Sensors send a call to IOBridge.Net, system will activate the RFID Read, so as to get the Vehicle ID & load all necessary info about the Vehicle.

RFID Cards:

IOBridge.Net also supports RFID Cards. In this case Vehicle driver needs to get of the Vehicle and pass the card in front of the RFID Reader.

Weighbridge mount touch Screens / Weighbridge mount buttons:

Used in combination with RFID Cards, Vehicle driver using a touch screen or buttons can enter into the system the load Details like material type etc.

Remote control External calls to IOBridge.Net:

Remote controls can also be used so as to enter predefined commands to IOBridge.Net like Start / Stop Weighing procedure & select Material Info.
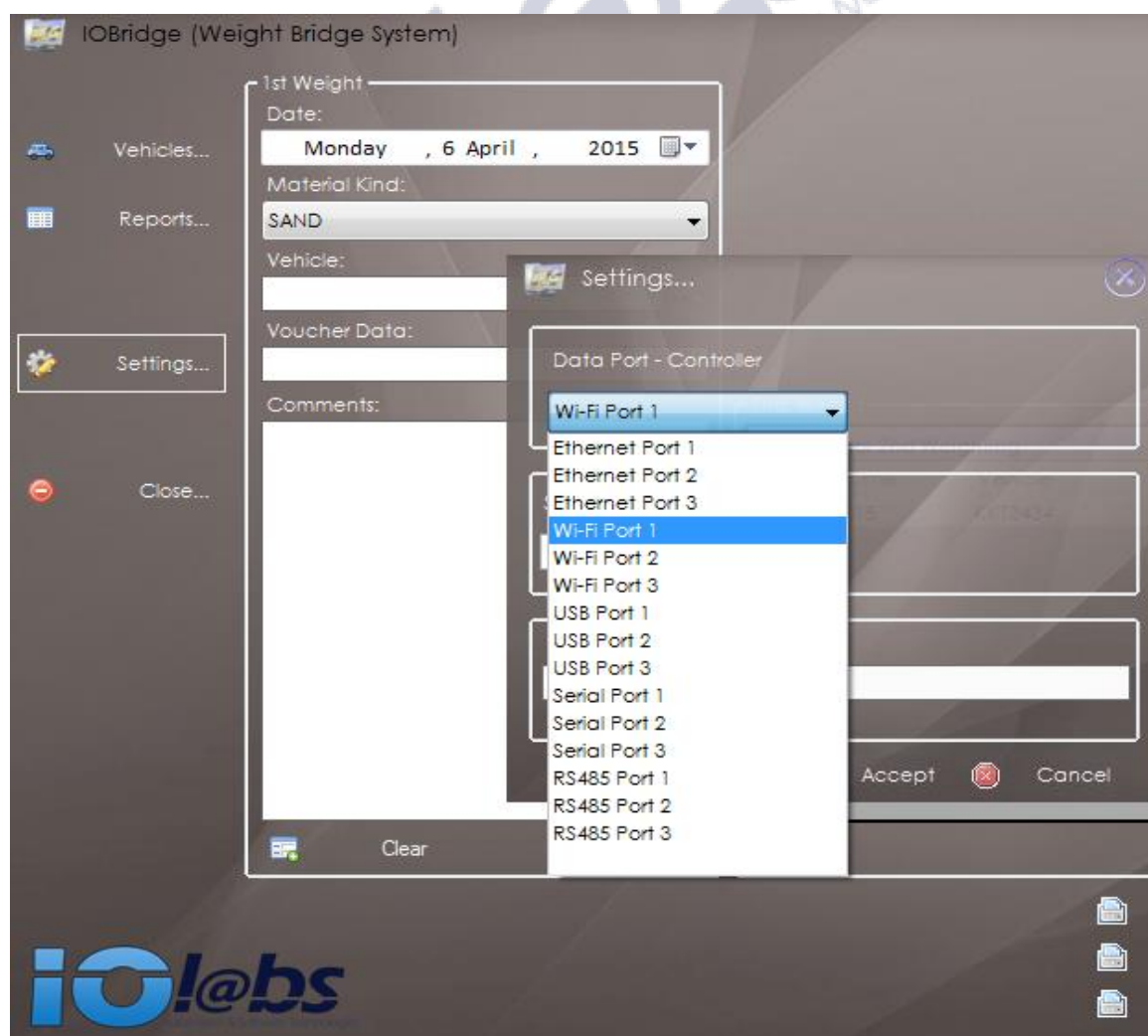
CCTV & Camera based controls:

IOBridge.Net can also use Cameras for Vehicle management automatically and in combination with all previous components.

IOBridge.Net Settings & Helpful Functionality.

In IOlabs, we have a clear philosophy on System Setup & Maintenance. Our experience all these years has shown that the best Support model is based on 3 following support levels:

- **1st level (Operator / Admin level):** All System Preferences & some System Settings are unlocked so System Admin, or system Operator to have the ability to change them, so as to expand his machinery / equipment capabilities.
- **2nd level (Technician / Partner level):** All System Preferences & All System settings are unlocked so our Technicians or our Partners Technicians to have a full access on system Settings & be able to provide solve any possible issues that appear, or install new features / Equipment.
- **3rd level (IOlabs Support Department):** Our Support Department can provide any info by email / phone and can easily guide our partners Tech Department so as to fix issues on site.
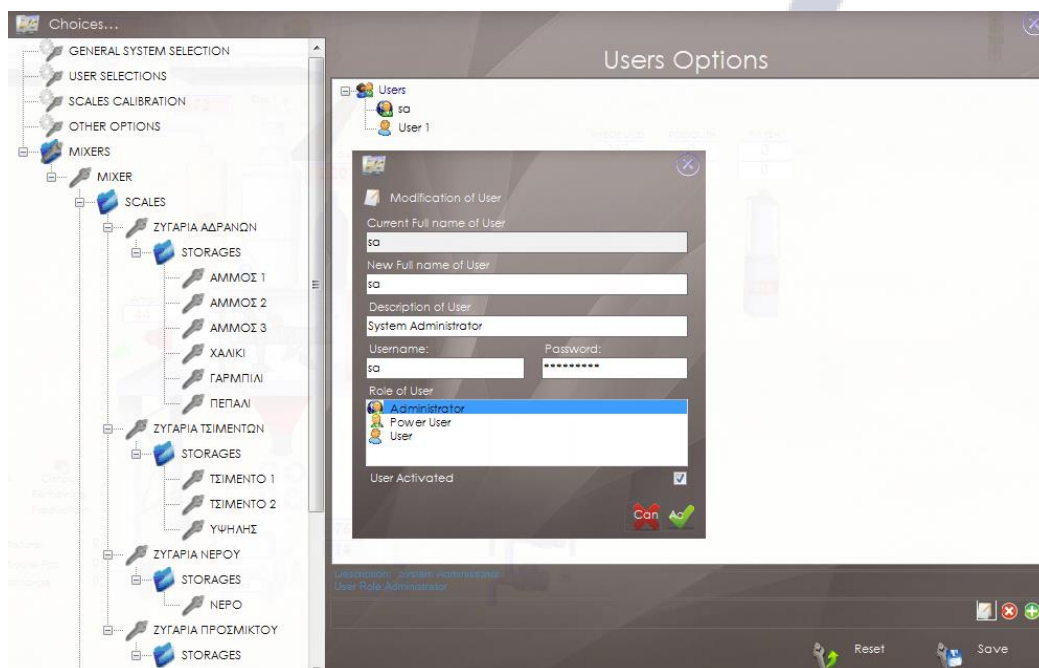
IOBridge.Net System Settings.

IOBridge.Net supports a huge variety of Analog & Digital Input & output signals. Each one of them can be easily configured through IOBridge.Net System Settings Table. You can there configure Weighbridge Analog Input, Ethernet & Wi-Fi ports , USB / Serial & RS485 ports based on what your components input supports.

IOBridge.Net supports also Input-Output ports for external calls, such as Remote control input signals, and configuration on the system can be done by 2 clicks.
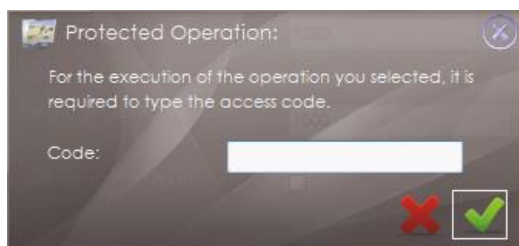
User Management.

Through this window, the man responsible for IOBridge.Net Operation (System Administrator), set during the System Installation, has the ability to add new Users, to modify the IOBridge.Net Rights of Use having each one or he can delete a User Code.

This regards the backbone of IOBridge.Net **Security System** and access to these Settings only by the man Responsible for IOBridge.Net Operation. In this way maximum security and the correct automation system operation is achieved. It is well known that an error setting to the main IOBridge.Net settings can cause undesirable Problems to its Operation.
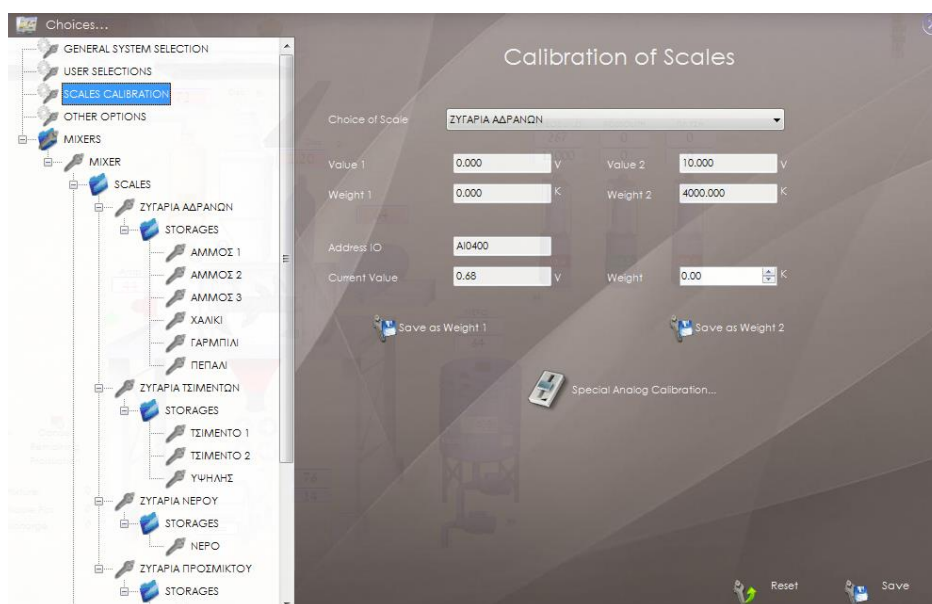
Weighbridge Calibration.

In order the operator of System to enters in Weighbridge Calibrator he will be supposed to put the suitable code access that is fixed by the Technician.

The Operator has the possibility to transport from the central window of application to the Scales Calibrator making right click under any Weighbridge.

After he imports the code access he is transported in the following picture and he has the possibility to make the following Settings:

Choice of Scale: User Selects the Weighbridge is about to make the Calibration.

Value 1: Indication in Volts is appeared saved when used saves the Weight 1.

Weight 1: User Selects the Weight matches to the Value 1.

Address IO: Is the Analog Port to which the Weighbridge to the Controller is connected.

Current Value: Indication in Volt having the Weighbridge at that Time.

Value 2: Indication in Volts is appeared saved when used saves the Weight 2.

Weight 2: User Selects the Weight matches to the Indication 2.

<u>**Steps for a Scale Calibration**</u>

1. Select the Weighbridge you wish to Calibrate.
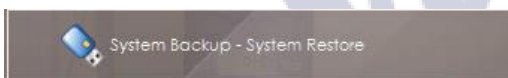
2. Discharge the Weighbridge.

3. Make sure that context **Weight** has zero (0) value

4. Press the button **Save as Weight 1**

5. Put to Weighbridge a Model Weight (ex: 200kgr)

6. Type the right Weight to the context Weight (ex:200kgr)

7. Press the button **Save as Weight 2**

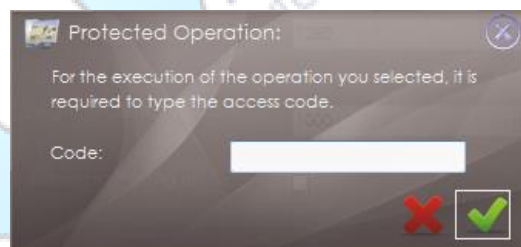That's it!! Weighbridge Calibration has Successfully Completed.

System Maintenance / Backup Restore.

The Administrator of the System through the General Options has the possibility of keeping Backups, as well as of Restoring the System in case of some problem.

So, clicking the following window appears, asking for the access code for System Restore. The code is regulated by the Technician.
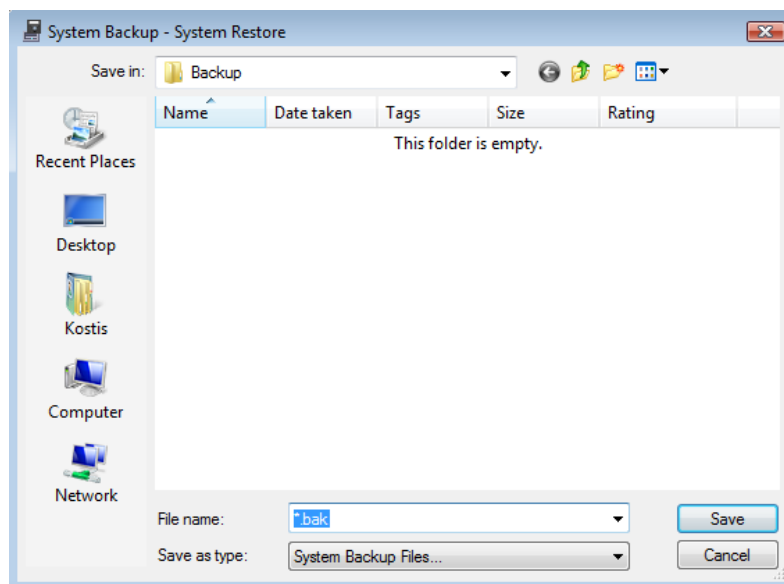

After the right code is inserted, appears the main window of this operation.

The user has the ability to do the above:

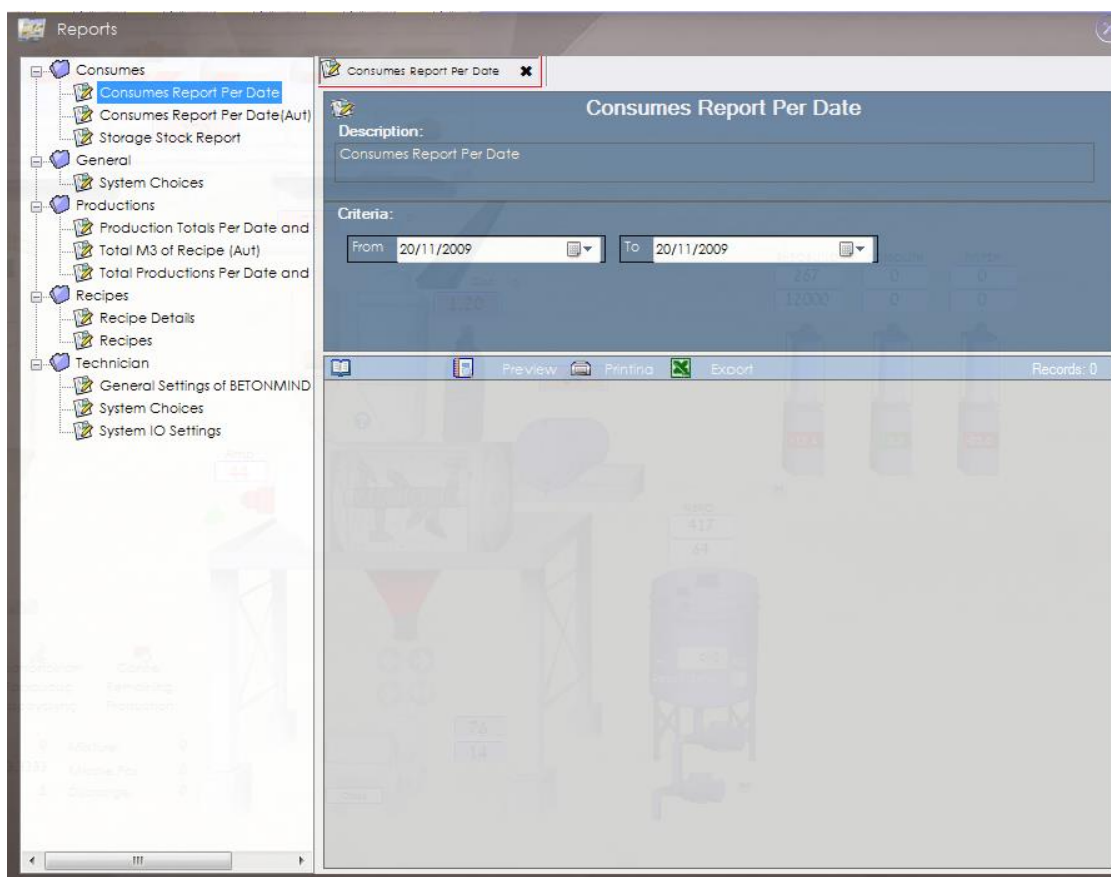**Create New System Backup**: the user can create easily a new system backup.

Restore from a System Backup: the user can restore a system backup which has created by giving the path that has saved the backup.
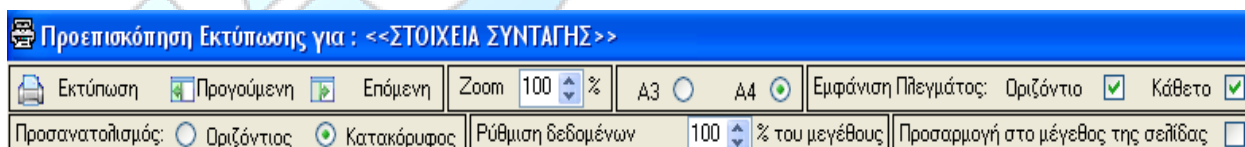

Reporting.

Reports are the tool that helps in the better depiction and comprehension of information that is recorded in the Database of IOBridge.Net. The Reports help also in the Evaluation of this information and in the export of sure Conclusions that they will help in the making right decision.

There are exist already ready **Reports** in the IOBridge.Net, what are products of the Analysis and the Study which became at the Planning of Application.

The user has also the ability to clicks on the PREVIEW and sees the specific report before he prints the report. Also the user can export this data in Excel.

Through Preview the user has several possibilities with regard to the appearance of the specific document.

The user can make Zoom In/Zoom Out, Print, be transported automatically in the next pages, select which paper wants A3 or A4, select mesh, the orientation of page and finally he regulates the size of data in the page.

Thank You….

 Thanks you for your Preference to the Products and Services Providing.

We wish this Product to contribute in the right Operation and Company Development.

Any Kind of Improvement Proposal of our Products or Malfunction Report comprises for us an improvement guide, our Capabilities Increase and Our Products and Services we provide Efficiency.

Do not hesitate to Contact us for any kind of Technical Advice or to tell us your opinion about the Products and Services we provide. The Excellent trained of Technical Support Department Technicians will be glad to help you.

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Thank You,

Software Development and Automation System Department