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NOTES:



This icon signals for a tip you may focus on, to get the right information from the system.



This icon indicates a concept that must be analyzed in order to understand it properly.

INTRODUCTION

The Pendulum Time and Attendance system as a tool for your human resources administration you will find:

A user friendly, intuitive and easy to understand interface, it features some wizards that will help you with the initial configuration of the system and daily operation, as well as a tool showing technical support contact information.

The users may customize the application interface, keeping shortcuts to their favorites or most frequently used system processes and PC applications.

Features a set of third party payroll systems export utilities to most popular commercial payroll systems, and it's flexible enough to let you make your own payroll system application interface.

PENDULUM, may be configured to a variety of scenarios used for actual companies, as allows to customize almost all element's names of the system, such as categories, exceptions, time levels, and more, as well as schedules and pay period types, work journals and personalized processes and report accordingly to the company requirements.

Also supports direct Communications with several time and attendance devices such as ADCT, DC700, HandPunch, GT-400, PCPunch networks system. No matter how many terminals you need to connect. It supports serial connections, serial network connection, TCP/IP connection and USB-Memory for those devices that support it.

You may also define all needed classificatory for your personnel such as Departments, Groups and so, making the administration of your personnel easier and keeping a history of where your personnel has been in the company along the years.

Also allows creating your own record of personnel information, adding all needed custom fields to store information that is important for your company, making this system ideal as a human resources administration tool.

The system also features options of multiuser / multi-company and implements a user access policy to restrict the users to see and to do only what they are allowed to.

Pendulum Time and Attendance system is the best tool for you personnel time and labor administration.

GETTING STARTED

PC Requirements

The Pendulum system was created under the Microsoft's Net Framework technology. This is the ultimate Microsoft platform for applications, and in order to run in Windows Operative system, the running PC must meet the following requirements for this platform:

- Computer with processor Intel CORE 2 DUO or higher
- Minimum 2 GB advisable 4 GB
- Minimum 124 hard disk space for Pendulum application and data
- Port USB for USB Key
- Operative System supports:
 - Windows 7 Enterprise
(No versions Starter, Home Basic, Home Premium, Single Language)
 - Windows 8/8.1 Enterprise
(No versions Starter, Home Basic, Home Premium, Single Language)
 - Windows 10 Enterprise
(No versions Starter, Home Basic, Home Premium, Single Language)
 - Windows 2008 Server
 - Windows 2012 Server
 - Windows 2016 Server
- DVD ROM

Additional applications installed for the

- NET FRAMEWORK 3.5x
- CRYSTAL REPORTS NET
- VISUAL STUDIO REPORT VIEWER
- MS SQL SERVER 2008 EXPRESS EDITION

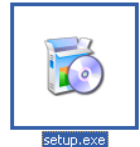
Optional applications installed on Enterprise version only.

User may supply their own copy of Microsoft SQL 2008 R2, SQL 2012 or SQL 2014 either Express versions or Full versions vs. default SQL 2008 R2 Express. The Pendulum Enterprise installer offer you the ability to selection specific Locations / drives to install SQL. Note this selection is not available on Pendulum Standard or Premium

Installation

Follow these steps for installing the system.

- 1) Place the CD in the CD-ROM Unit of the PC, the installing program will start automatically. If the program does not start, open the windows explorer showing the CD root folder and run the setup.exe.

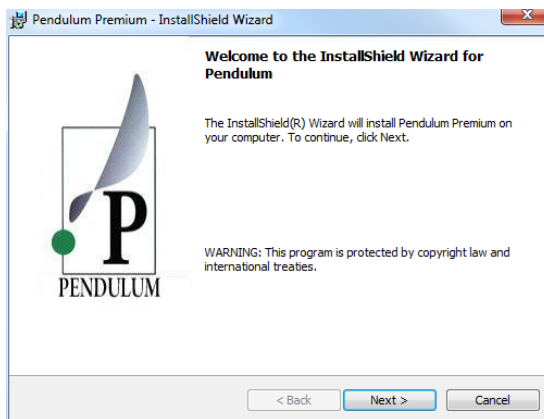


- 2) When the setup program starts verifies all needed programs to run are installed. And if a program is missing, proceeds to install first those programs.
Press Accept to continue on each of the required programs.

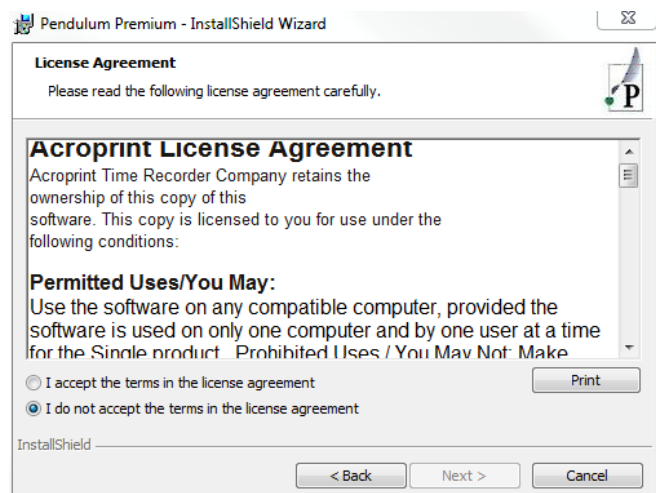
If the system needs to restart, allow restarting and after the PC reboots the setup program will continue automatically.



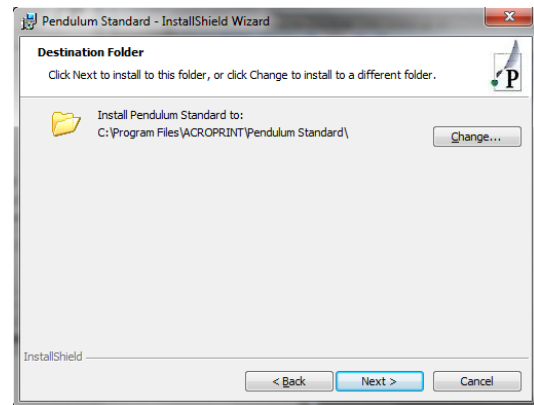
Important: Do not remove the CD from the CD Unit during all installing process completes.



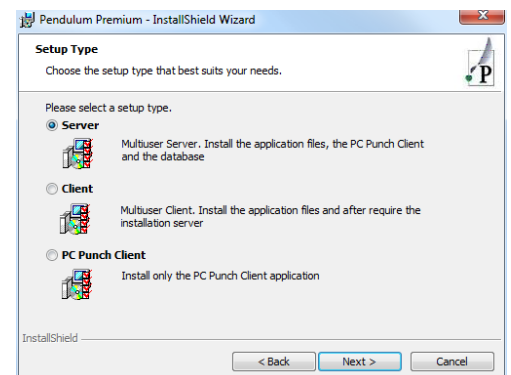
- 3) After the prerequisites programs have been installed/updated the Pendulum installation will continue, press Next to continue with the installation.
Please Accept the terms in the license agreement.



- 4) The next step asks for the folder where the application files will be installed. Enter or select the desired path and press the Next button.



- 5) In base of the version that you are installing, when the setup type selection screen appears, take into account the following information when selecting what to install:



- a. **Complete/ Server.** This option allows installing all required components to run Pendulum in a single computer, including database and application file. A special dongle is necessary for the application to run in single user mode.
- b. **Client:** This option allows installing all required components to run Pendulum in client computer to connect a Server Pendulum; this required a previous Server installation.
- c. **Pc Punch client:** This option will install the component Pc Punch Client. This module allows employees to punch their Attendance from a Computer using the Keyboard or a Fingerprint reader. For more information, verify the section: PC Punch Client.

- 6) On Enterprise version, when select the Server mode, the installer will show the options to select the Source of the database.

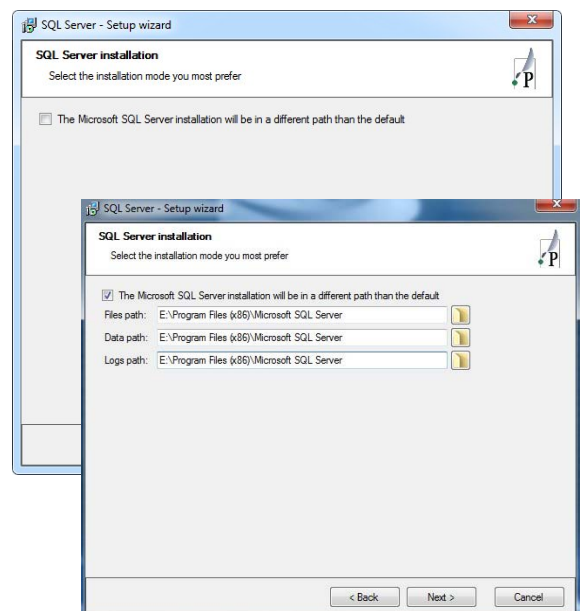
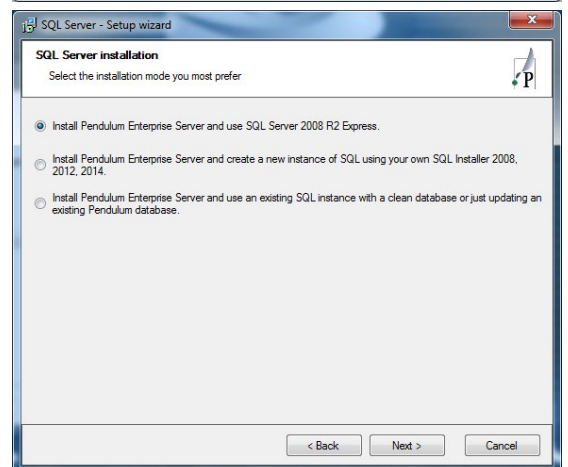
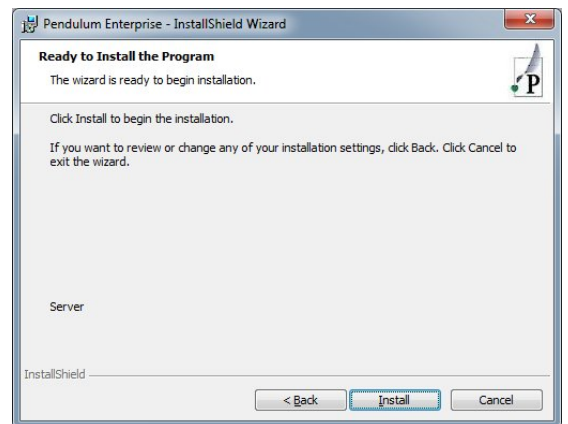
Please select the option to install or access to database:

- i) Use SQL Server 2008 R2 Express:

This option will install the version Express of the MS SQL SERVER 2008R2 with the defaults of the Instance for the application; on this option the user cannot modify the parameters. When complete the installation, the application will connect to the Default Instance for Pendulum.

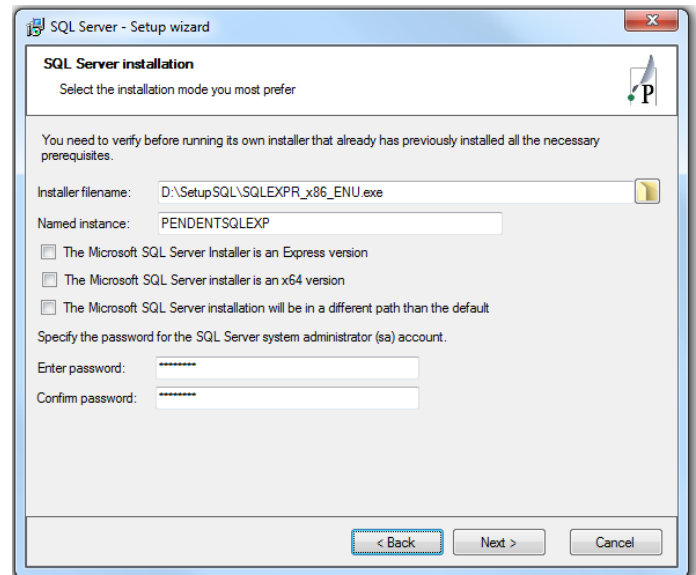
When select this option can define if need to change the default drive (C:) for the application, on this case when select the option the Installer will request the folder for the files, the database files and Log files.

After it the MS SQL Server Express will be installed. When complete continue with the wizard of the installer.



- ii) Create a new Instance of SQL using your SQL installer 2008,2012, 2014

This option can be to use when you need to install a new Instance of SQL Server for some versions of MS SQL Server.



When select this option you need to define:

Installer filename:

You need to select the executable file of the MS SQL Server installer. On this case can be a full installer or an Express version.

Named Instance:

The name of the instance of MS SQL Server where will to install the database.

MS SQL Server is an Express version:

When you use a Express edition, it is necessary you select this option for the command line for the installer.

MS SQL Server is an X64 version:

When you use an installer for X64 edition, it is necessary you select this option for the command line for the installer.

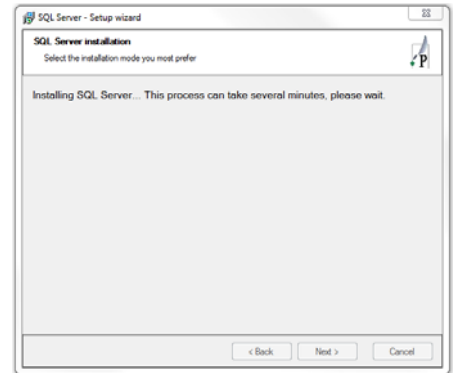
MS SQL Server installation will be in a different path than the default:

You can select a specific folder for each element of the installer. It is important that drive is fixed.

Specify the password for SQL system administrator (sa) account:

You need to define a password for the instance; this password will be to use on the clients connections.

Press Next to continue the process, if the in installer file does not exist, it cannot continue.



- iii) Use an existing SQL instance with a clear database or just updating an existing Pendulum database.

With this option you can attach the database of Pendulum on an existing Instance of MS SQL Server, this server needs to be version MS SQL Server 2008 R2 or higher.

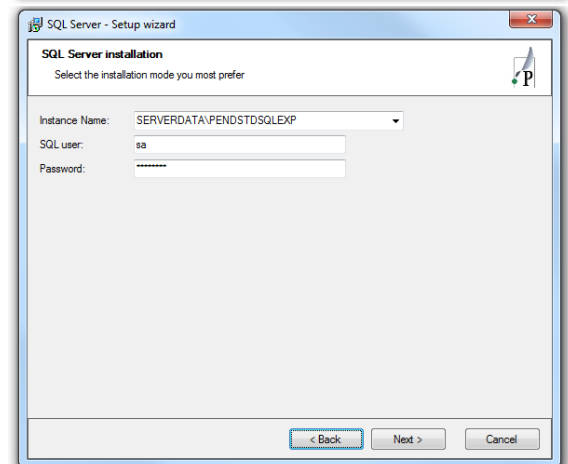
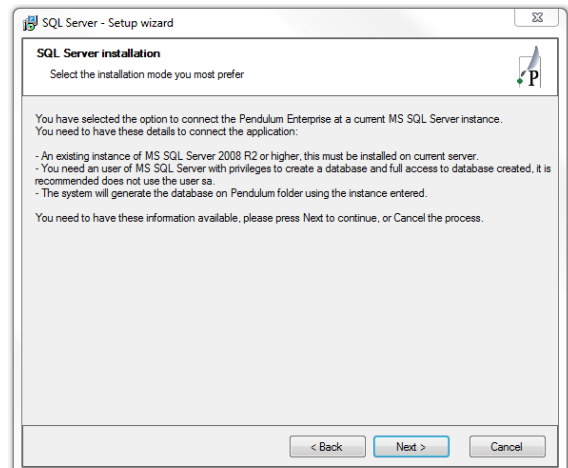
You must indicate the instance name and authentication data of the SQL Server. It is necessary that the SQL Server to use have SQL authentication in order that the setup can connect with this.

You must enter the next information:

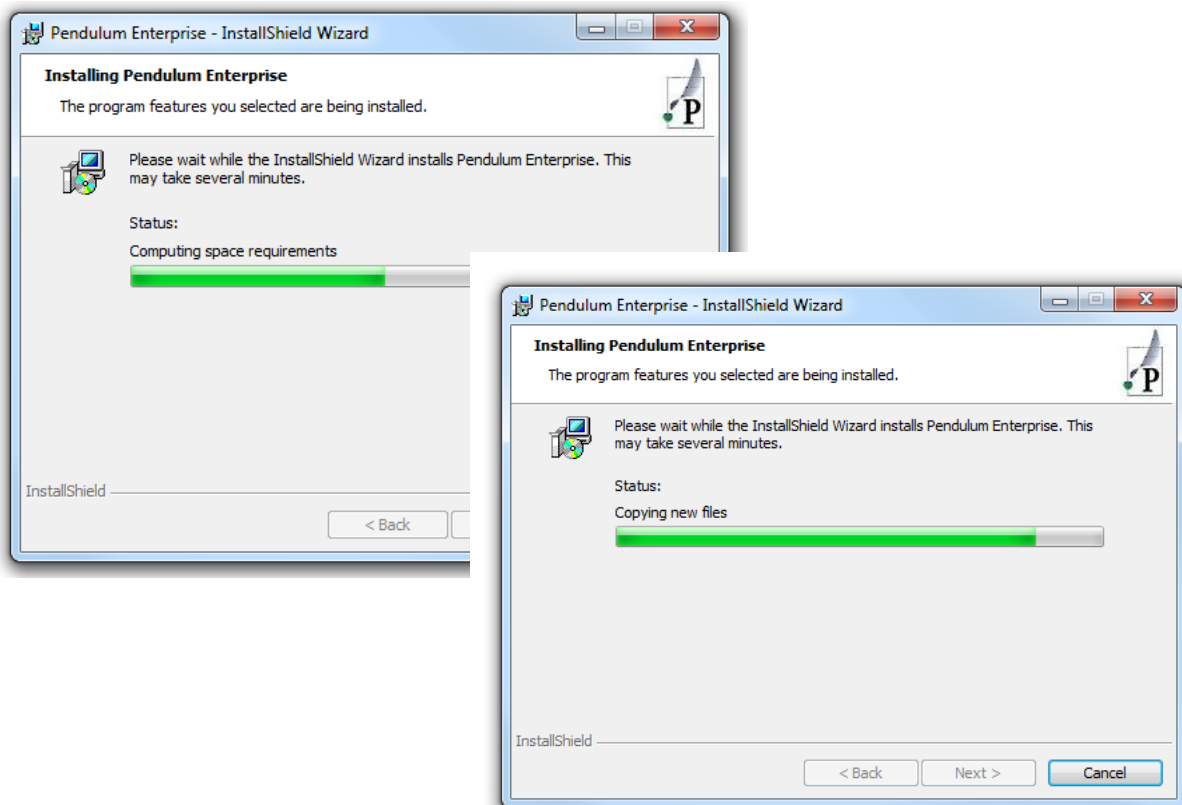
Instance name: Name and optionally instance of SQL Server

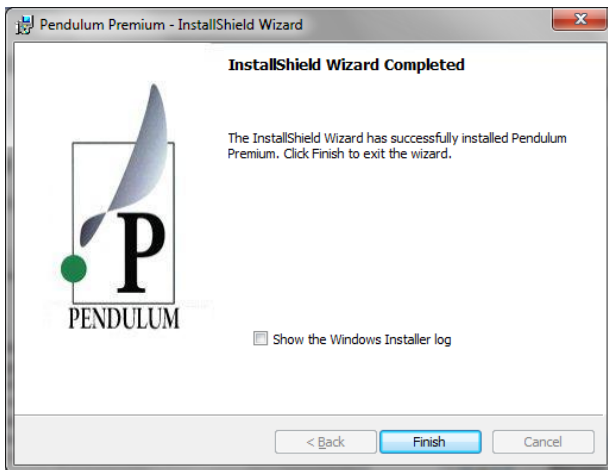
SQL User and Password: Name and password of the SQL Server this user needs to have privileges to create a database and full access to database created.

Contact your database administrator for any question about these parameters.



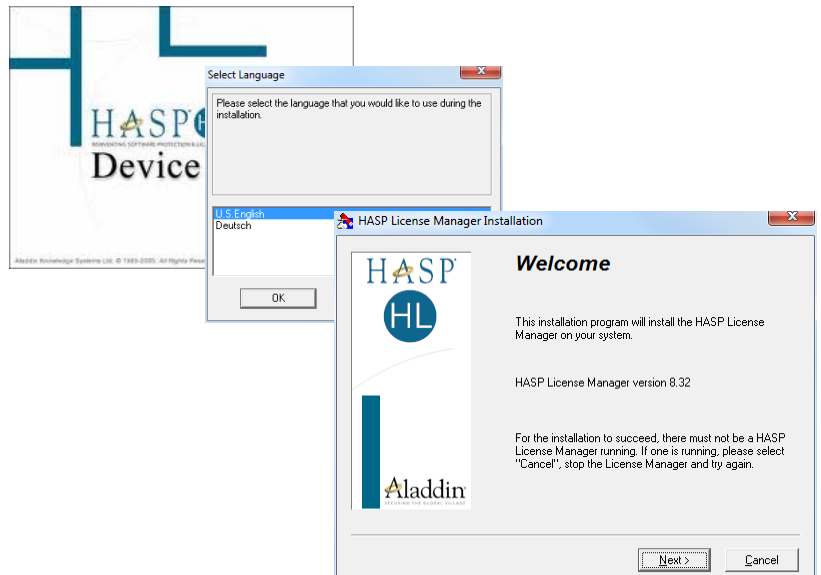
- 7) When you install the version Premium and Standard the application will install a MS SQL SERVER 2008 R2 with internal Instance and database, only you need to continue the process.
- 8) The setup program will continue installing all the required files and components to run the system. Some drivers to access the dongle will be installed at the end of the installation process. Make sure that driver installs correctly, with no errors, or you won't be able to run the system in that computer. If an error occurs, notify your supervisor or report it to technical support to help you to solve any installation problem.





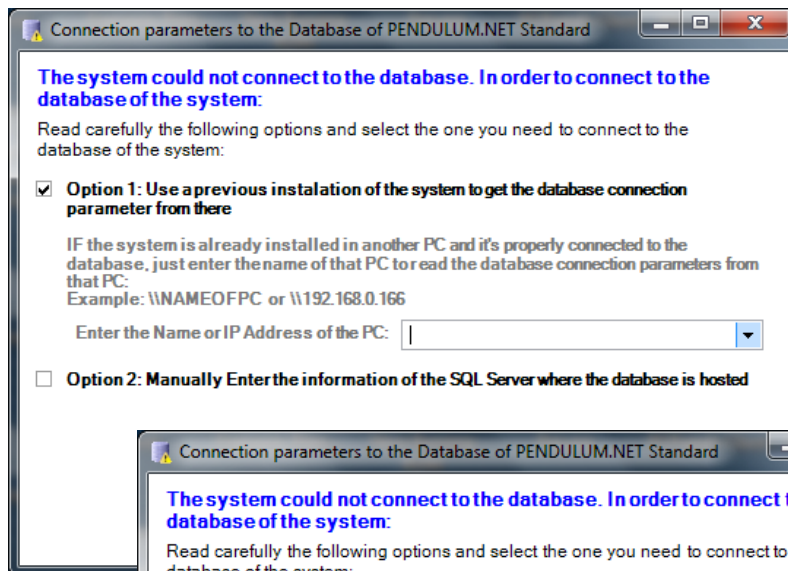
After this, a screen showing that the installation has been completed will be shown at the end of the install process. Now the system is ready to run on that PC.

- 9) When a Server installation is complete, the application License Manager is installer, this application is needed for to use the USB Dongle for network, when request the Installation type it is recommended use the option Service, continues the steps to complete the installation.



To run the program, view the section **Program Execution** ahead. In when executing the application, a screen showing that the evaluation time has expired, proceed to register and activate the application, following the procedure shown in section **Product Activation**.

- 10) When a **Client Installation** is done, the first time that Pendulum is executed the system prompts to choose an option for the connection parameters to the database of the software, which should have been pre-installed with an installation in server mode. The options are:



Connection parameters to the Database of PENDULUM.NET Standard

The system could not connect to the database. In order to connect to the database of the system:

Read carefully the following options and select the one you need to connect to the database of the system:

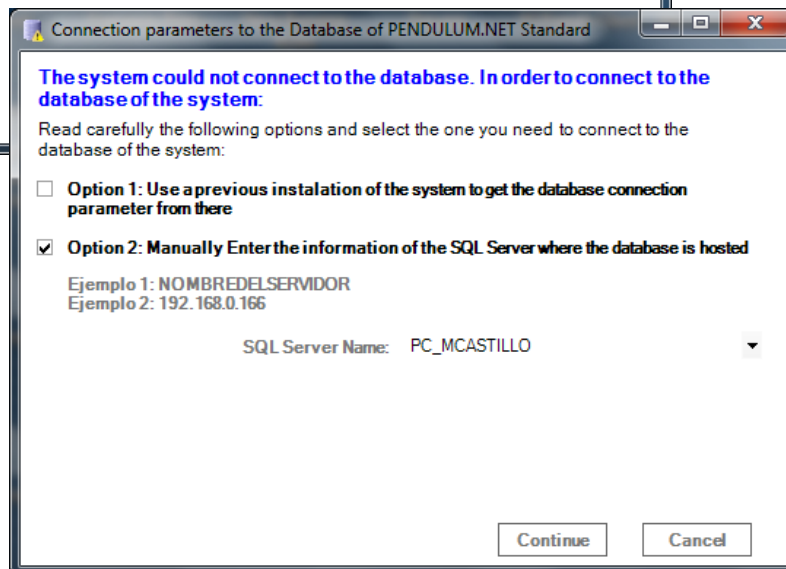
☒ **Option 1: Use a previous installation of the system to get the database connection parameter from there**

IF the system is already installed in another PC and it's properly connected to the database, just enter the name of that PC to read the database connection parameters from that PC:
Example: \\NAMEOFPC or \\192.168.0.166

Enter the Name or IP Address of the PC:

☐ **Option 2: Manually Enter the information of the SQL Server where the database is hosted**

Option 1: Use a previous installation of the system to get the database connection parameter from there. You must indicate the name or IP network of the computer where the Pendulum server software was installed.



Connection parameters to the Database of PENDULUM.NET Standard

The system could not connect to the database. In order to connect to the database of the system:

Read carefully the following options and select the one you need to connect to the database of the system:

☐ **Option 1: Use a previous installation of the system to get the database connection parameter from there**

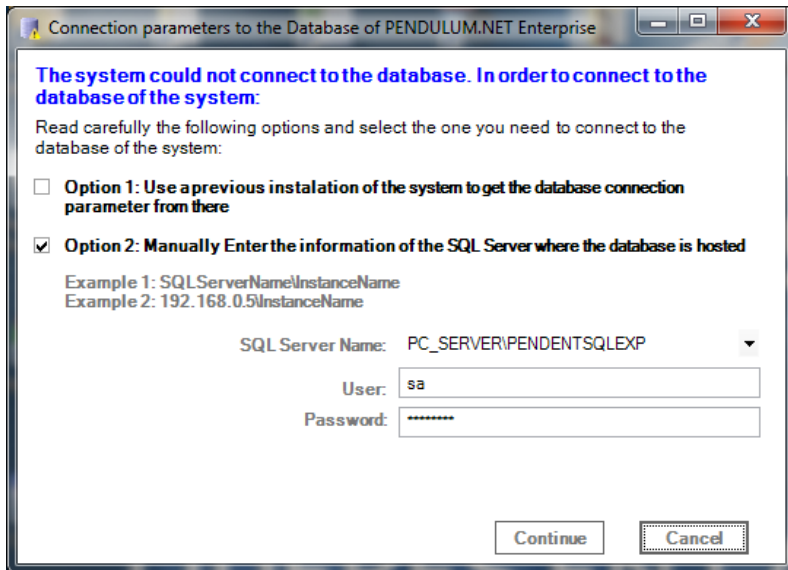
☒ **Option 2: Manually Enter the information of the SQL Server where the database is hosted**

Ejemplo 1: NOMBREDELSERVIDOR
Ejemplo 2: 192.168.0.166

SQL Server Name:

Continue Cancel

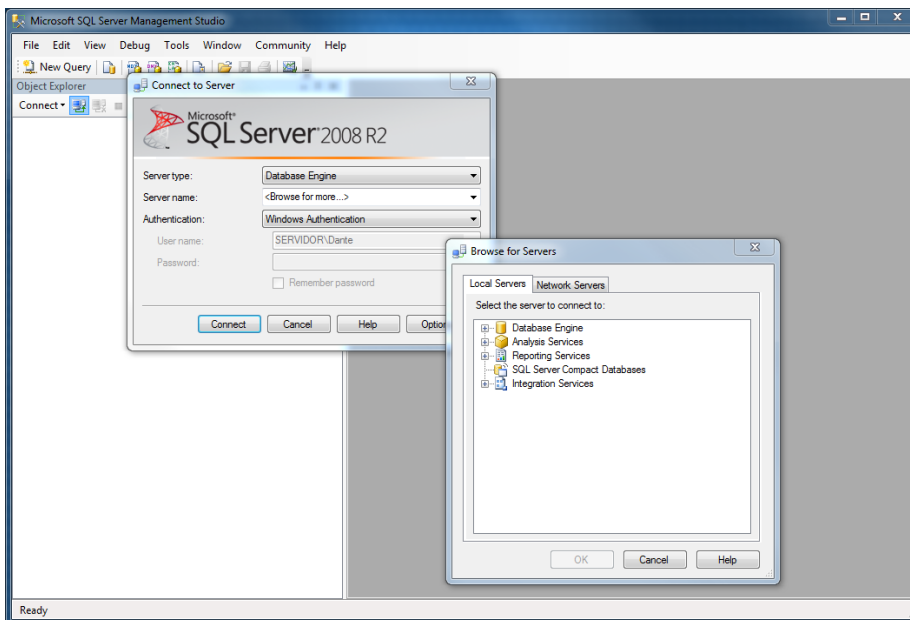
Option 2: Manually Enter the information of the SQL Server where the database is hosted. You must enter or select the name of the SQL server host where the Pendulum database was installed. Generally the Pendulum server and the SQL server are hosted in the same computer.



For Pendulum Enterprise installations the second option need the SQL Server host (and instance if necessary), the user and password of SQL Server for define the connection.

Contact your database administrator for any question about these parameters.

If you need to verify the current Instance for the Enterprise Version, you can use the MS SQL Management Studio from Microsoft. When execute the application can Browse the current instance installed:



Product Activation

The Pendulum System needs to be registered and activated in order to have it working after the evaluation period. After registering the application, an activation code will be issued to you according to the purchased options of the system. The following information is needed to register the application:

System Version:	
Serial Number:	
Company Name:	
Dealer Name:	
Write here the Activation Code:	

System Version and Serial Number will be located in a label on the CD case.

Company Name: Name under the registration of the system will be made.
 Once registered and activated, the company name could not be changed, and will appear as header in all reports of the system.

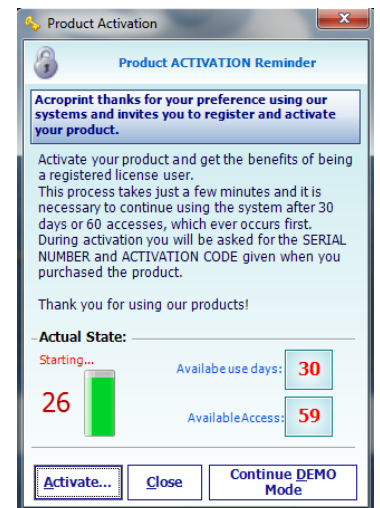
Dealer: Name of the dealer where you purchased the product.

Activation Code: Write and save the given activation code for later use or if required when requesting technical support.

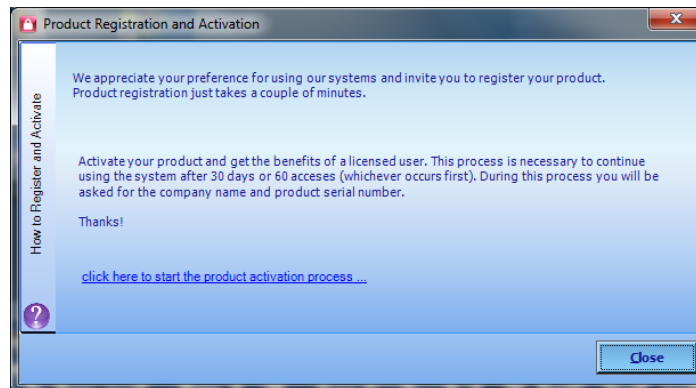
Important: Pendulum system will run without activation for 30 days or 90 accesses after installation. After that 'evaluation period' the system will require activation in order to run.

To activate the system follow this procedure:

- 1) Open the activation screen using either of the these two ways:
 - a) System menu option: **Help -> Product Activation**
 - b) Every time you run the application, a notification will be issued showing that the system has not been activated yet, and will show also the remaining days and accesses. In this screen there is a button to activate the product.

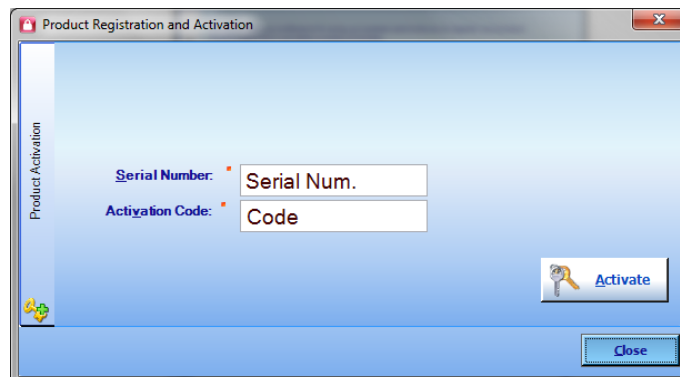


- 2) The activation screen will be displayed to start the activation procedure:



Click the link to proceed activating the product.

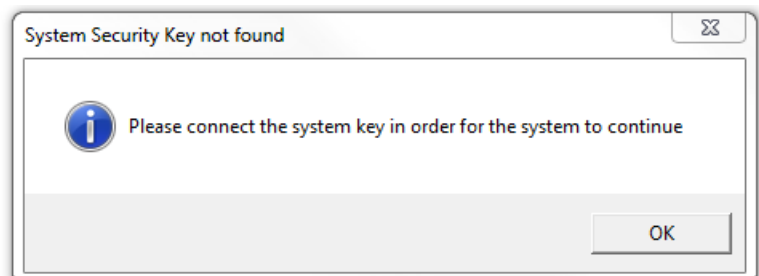
- 3) Enter the registration information you use to register the application. Enter also the activation code your dealer gave to you.



- 4) When all data are entered, press the Activate button to verify the information. If everything is correct a message indicating that activation is successful will be displayed.

If a message showing that information is not correct, then double check the information and re-enter the information again exactly as given by your dealer. If the problem persists, contact your dealer for support.

- 5) After registration, the application must be restarted to refresh all activated options in the system.
- 6) If you do not connect the HASP sentinel, the system will request to connect it.



Program Execution

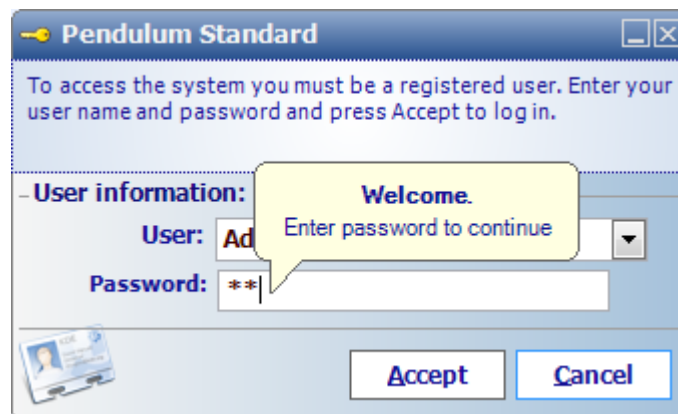
After installation, the Pendulum system can be executed from the Windows menu option: Start → Programs → Pendulum. Or using the shortcut created on the desktop of your PC.

The very first time the system is run in the computer, it is normal to expect a greater delay, 20 seconds approximately, because of the additional tasks the net framework needs to perform on the PC.

The first screen you will see is the login screen. Here you must enter the user and password if the system is configured to use user access control. The default user and password for the very first time are the following (password is case sensitive):



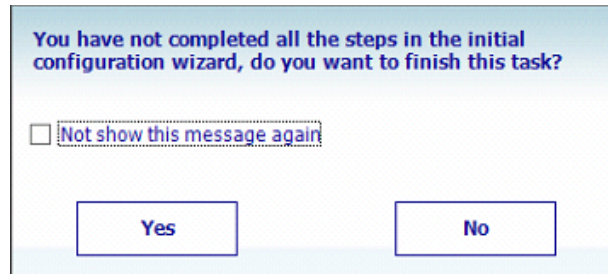
User: Administrator
Password: admin



If the password is not correct you will be notified, as well if the user is being used in another workstation.

In case the password is lost, you always may contact your dealer to provide a backdoor password that will allow accessing the system and reset the password.

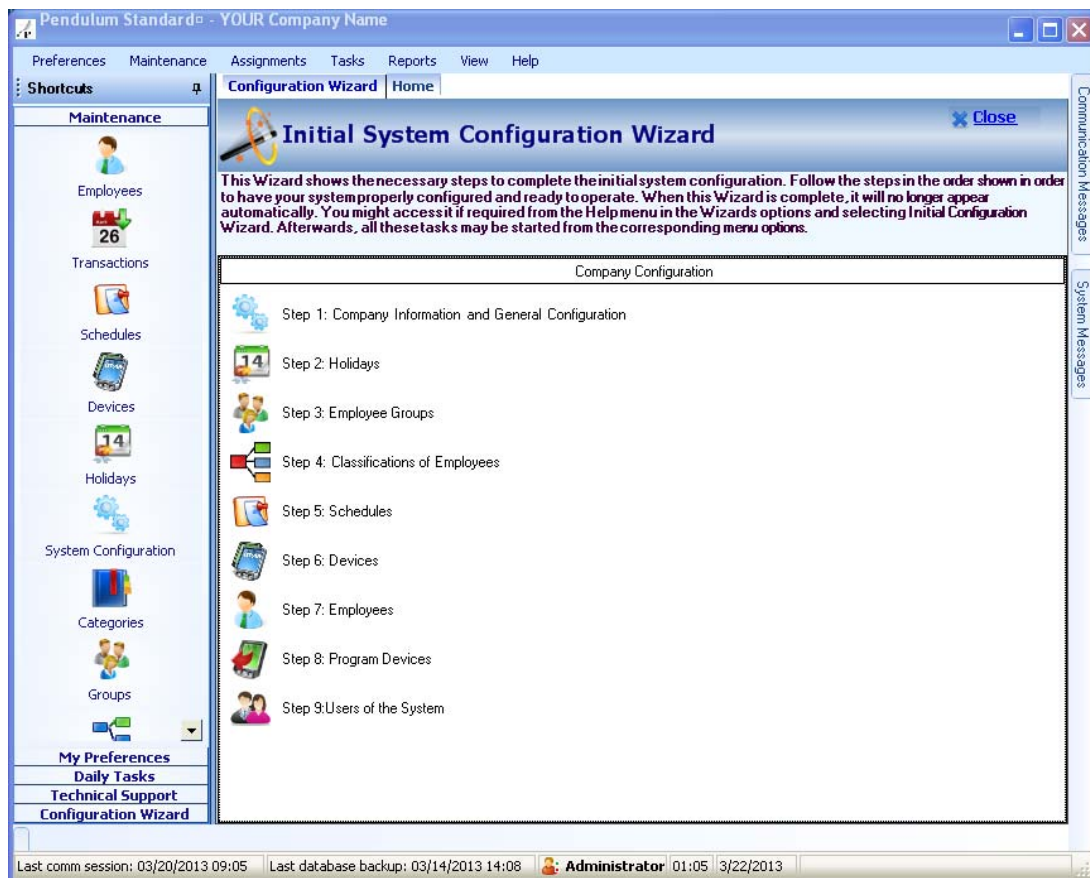
If is the first run, or you did not complete the Initial Setup Wizard, it will show a screen for show the Wizard:



If you select Yes, it will show the Wizard, if select No it will show the Home section. You can select the Not Show this message again, and then will not show it.

For more information, verify Initial Setup Wizard section.

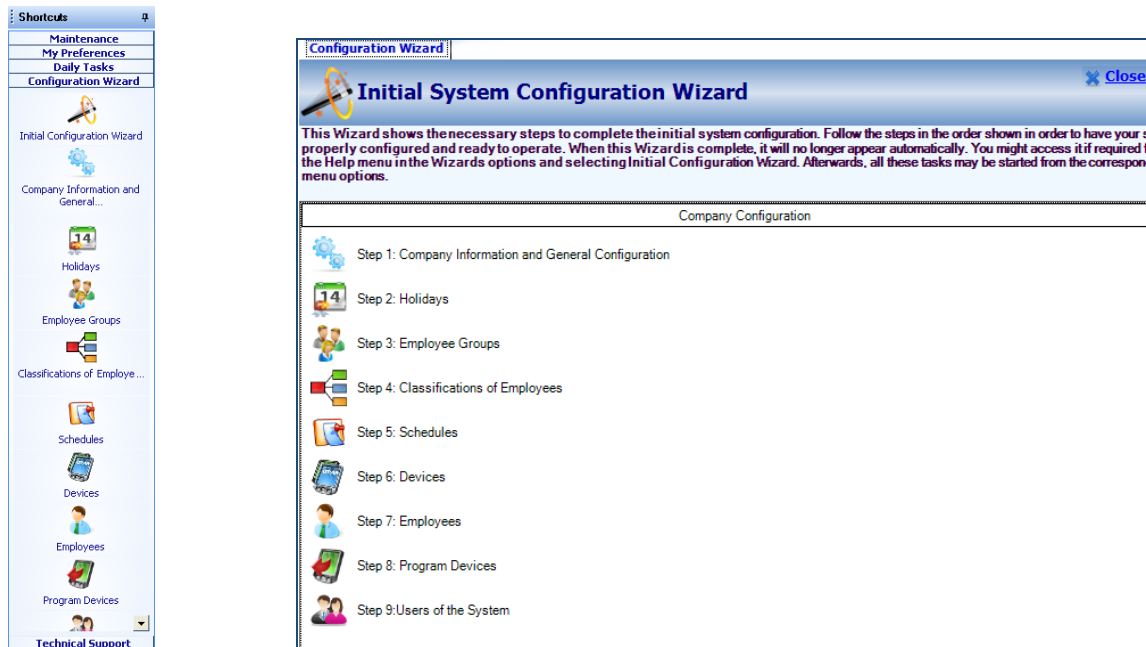
After accessing, the application main screen will appear:



Initial Setup Wizard

The Pendulum Time and Attendance system features an Initial Setup Wizard that will guide you, step by step, to perform the minimum required configuration processes that must be accomplished to have the system up and running.

This wizard is displayed the first time the system runs and every time after if the wizard is not completed. You may access each of the options following the shown order until all options are run at least one time, understanding that once running that option, the step will be completed:



It is important to complete each option to have the system totally configured and ready to work.

Each step that is run will change its appearance, remembering that you already ran that step. This is the way you need to complete each step one at a time, so you won't forget to complete all steps and have your system fully configured.

Once all steps have been completed, this wizard will not show any more automatically afterwards. You may open it again if required with the menu option:

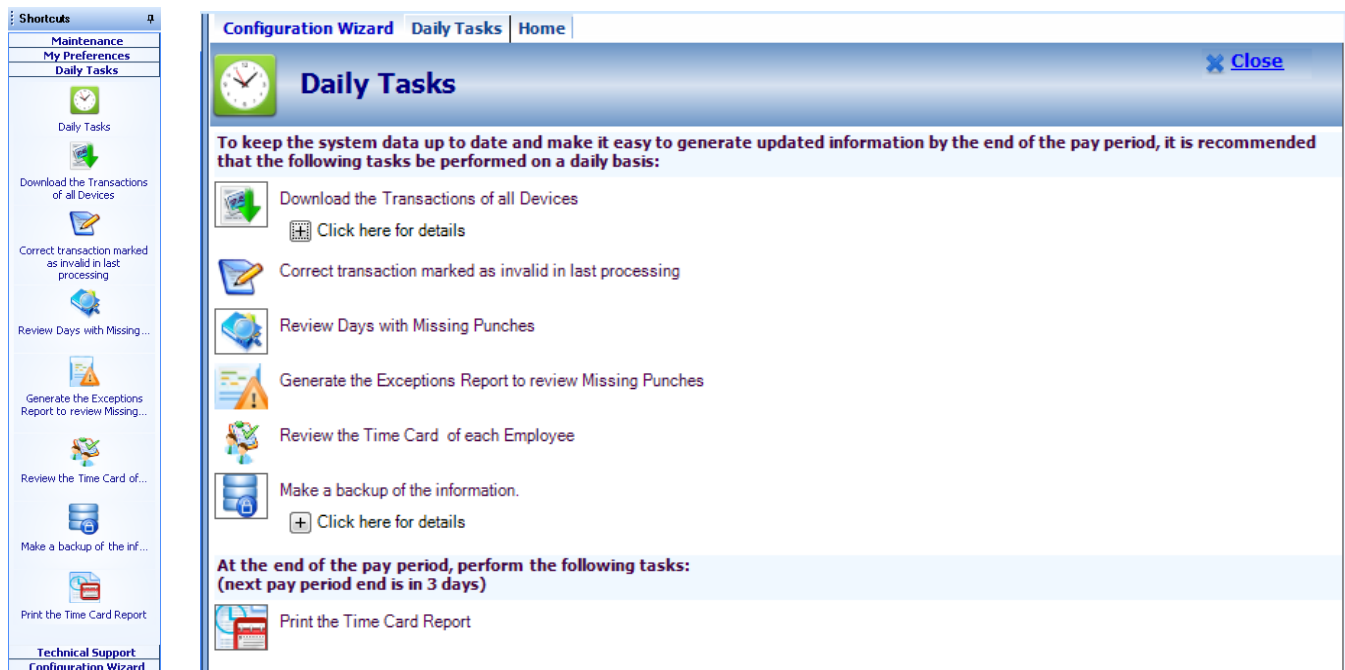
Help-Wizards-Initial Configuration

Also, the options for the Initial Configuration are available in the Shortcuts bar; on it can execute the options available.

You may find details to complete each step on their respective section.

Daily Tasks Wizard

This Wizard will help you remember the daily tasks that must be performed to have your information up to date and to make easy and accurate the report generation. This wizard will be shown automatically after the initial configuration wizard has been completed. It may be closed/reopen in the menu option Help – Wizards – Daily Operation Wizard. Here is an image of this wizard:



The recommended daily tasks are listed in this wizard; each of them is a process in the system and also may be accessed through the system menu. This is a summary of the tasks included in the daily tasks wizard:

Also, the options for the Daily task are available in the Shortcuts bar; on it can execute the options available.

- Download Transaction from all devices.** This operation starts a Communication session with all devices in the system and downloads all transactions from the devices, processes them and gets the system data ready for reporting. You may find more detailed information about this operation in the section **Communication with Devices**, where you may understand all tips and tricks related to this operation.
- Correct Invalid Transactions.** After processing the transactions, some of them may be invalid. So, it is always a good practice to review all these transactions to make the corrections either to the system configuration or these transactions in case they are really valid transactions. You may find more details about correcting invalid transactions in section **Invalid Transactions**. It is also recommended that those transactions that really are invalid, be deleted from the system so they do not interfere with the transaction processing sometime later.
- Review Missing Transactions** This option will review the Employee's data and find all those days within the pay period that have Missing Transactions. Then you may review that information and make the corrections that proceed.
- Generate Exceptions Report** This option will show the Exceptions report to verify all events in the Transactions and missing punches. Can select groups of employees and specific period to verify.
- Review the Time Card** Allow administrator to review the time cards of desired employees to detect possible situations that require user or supervisor attention, such as days with permits or sick or vacation, holidays or so. Or, to authorize overtime or make time adjustments according to the company policies that are not covered with the system configuration. The time card can be viewed or edited in the **Employee Maintenance** screen.
- Backup your Data** A backup of your database should be taken daily so you are prepared in case of a catastrophic event that may cause the loss of your data. Review the section **Database Backup** for more tips related to this operation.
- Print The Time Card Report** At the end of the pay period you may need to print all employee time cards, to allow employees or supervisors to review, validate and sign them. The information shown in the time card is the base of all system operation and reporting. View the section **Time Card Printing** for more information about this operation.



You may require additional tasks that may be done on a daily basis, but these are the minimum required to have your system up to date, and make the maintenance and handling of your time and attendance information easy.

PREFERENCES

This is the general system preferences settings menu. Is where most of the overall configuration of the system may be accessed and maintained. Such as system configuration, language and users and access privileges maintenance.

System Configuration

This option allows you to set the configuration that affects the system operation in a general way. Personalize the system to your company needs and establish policy operation of the system. Most of the options have default values that may fit your needs and generally won't be necessary to change them for normal operation. Anyhow you will always have the option to adapt them to your specific needs. In some cases, changing values of the configuration will require the Pendulum to be rebooted after saving those changes.

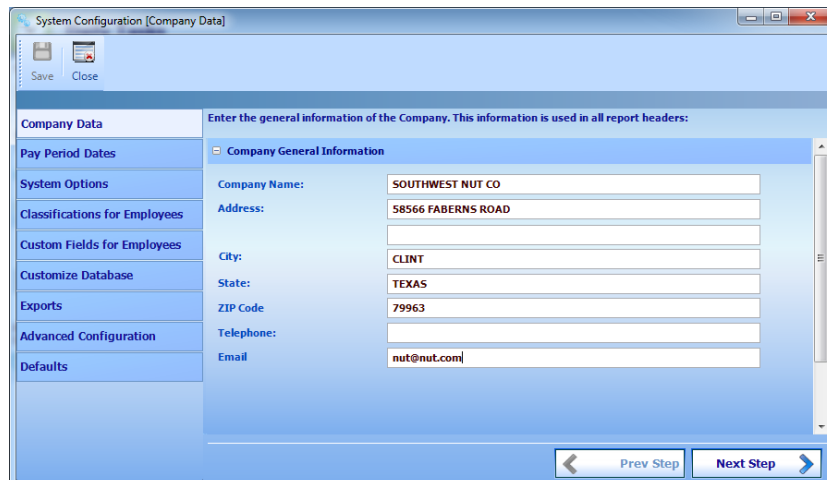
Before changing a system configuration value, you must understand first quite well the way that parameter affects the system operation, so you can select the right value according to your specific needs and do not affect other operations or cause the system to malfunction.

The system configuration is grouped in 7 sections to make it easy to locate a value depending on the operation you need to change. These are the sections:

Company Data

In this section you can set the company's general information. Once the system is registered, the company name cannot be changed.

An important thing to have in mind is the Company Legal Records. You may add all legal records that are required in your country to appear in the time card report. If you want a legal record to appear in the time card report, just mark it as reportable.



The screenshot shows a software window titled "System Configuration (Company Data)". It has a sidebar on the left with a list of sections: "Company Data", "Pay Period Dates", "System Options", "Classifications for Employees", "Custom Fields for Employees", "Customize Database", "Exports", "Advanced Configuration", and "Defaults". The "Company Data" section is selected. The main area of the window contains the text "Enter the general information of the Company. This information is used in all report headers:" followed by a sub-section titled "Company General Information". This section contains several input fields with the following values: "Company Name: SOUTHWEST NUT CO", "Address: 58566 FABERN5 ROAD", "City: CLINT", "State: TEXAS", "ZIP Code: 79963", "Telephone:" (empty), and "Email: nut@nut.com". At the bottom right of the window are two buttons: "Prev Step" and "Next Step".

Pay Periods

The system uses pay periods to report the information or to process information. Depending on the pay period type, a date range is selected. In this section, you will set the starting dates of each of the pay period types supported in the system for the main company. If you use Divisions, each division has their own pay period definition.

It is important that variable pay periods, such as semimonthly pay period, the pay period start date must be in the first pay period of the month.



The weekly pay period starting day is used in the system as the day when the week starts, for purposes of over time calculation and employee assignments.

System Configuration [Pay Period Dates]

Save Close

Company Data	Enter the starting dates for each of the types of pay periods. These dates are used to calculate the dates of the pay period of the Employees assigned to the main Company. If Companies are used, each Company has its own definition of pay period starting dates.	
Pay Period Dates	The variable pay periods, such as 10 days and semimonthly, must start in a day of the first pay period of the month.	
System Options		
Classifications for Employees	Weekly Pay Period (one pay period each 7 days)	domingo , 01 de enero de 2012 ▾
Custom Fields for Employees	Biweekly Pay Period (One pay period each 14 days)	domingo , 01 de enero de 2012 ▾
Customize Database	Semi-Monthly Pay Period (Two pay periods each month)	domingo , 01 de enero de 2012 ▾ Days: 15
Exports	Monthly Pay Period (one period per month)	domingo , 01 de enero de 2012 ▾
Advanced Configuration		
Defaults		

Prev Step Next Step

System Settings

These parameters allow customizing the system accordingly to your need in a general way. These settings apply through all the system.

Category	Option	Value
Company Data	Select the appropriate options to adapt the system accordingly to your company needs. It is possible that when changing some of these parameters the system restarting is required.	
	Use user passwords:	<input checked="" type="radio"/> Y <input type="radio"/> N
Pay Period Dates	Use Companies:	<input checked="" type="radio"/> Y <input type="radio"/> N
	Use wages:	<input checked="" type="radio"/> Y <input type="radio"/> N
System Options	Use Automatic Badges Assignment:	<input type="radio"/> N <input checked="" type="radio"/> Y <input type="radio"/> E
	Next Badge Number to assign:	<input type="text" value="1"/>
Classifications for Employees	Use Automatic Transaction Import:	<input checked="" type="radio"/> Y <input type="radio"/> N
	Format to display Employee Name:	<input type="text" value="Last-Name 1 Last-Name 2 First-Name Seco"/>
Custom Fields for Employees	Format to show Dates:	<input type="text" value="MM/dd/yyyy"/>
	Use Military Format to show Times (24 hours format):	<input type="radio"/> Y <input checked="" type="radio"/> N
Customize Database	Show Inactive Employees in search Lists:	<input checked="" type="radio"/> Y <input type="radio"/> N
	Time in Minutes to Ignore Successive Swipe and Go Transactions:	<input type="text" value="10"/>
Exports	Notify successive Swipe and Go transactions when processing:	<input checked="" type="radio"/> Y <input type="radio"/> N
	Time in Minutes to Ignore Opposing Function Key Transactions:	<input type="text" value="10"/>

This is the way each option changes the way the system works:

Use User Passwords: If set to Y (yes) allow controlling the access to the system on a per user basis. Users are required to enter a password and you may define user access policies to the system, so a user may see only their assigned employees and make only their assigned operations.

Use Companies: If you have active a license for Multi Company, you can active the use of the option for the system.

Use wages: If the Job Costing module installed, this option allows assigning wages to employees in order to have job costing reports using money along with hours.

Use Automatic Badges Assignment: When capture employee, you can define if the Badge number can be capture manually, option N, or if you need if the badge number is generated automatic with the same Employee Number, option Y, or it will generate in base of the Next Badge number, option E

Next Badge Number to assign: When have active the option E in Use Automatic Badges, you can define the next number to assign.

Use Automatic Transaction Import: If you have an external file with the transactions of device, you can define the name file and the time to verify if the file exists to import, this option need to have the same Terminal ID of the file to import the transactions.

Format to Display Employee Name: You may change the way the system shows the employee name through all the system to one of the pre-defined formats selectable in this option.

Format to Show Dates: You may change the way the system uses the dates to any of these selectable formats. This format applies either when showing or capturing dates.

Use military format to show the time: If set to Y (yes) the system will show the hour in a military format. If set to N (no) the time will be shown in AM/PM format. Capturing hours is always in military format.

Show Inactive Employees in Search Lists: This option enables inactive employees to appear in search lists, such as the employee maintenance screen list or any other selection list that include employees.

Time in minutes to eliminate Successive Transactions: It's the time interval to consider successive two S&G punches. In this case the first punch is kept and the second is eliminated as successive transaction.

Notify Successive key transactions when processing: Define if it will show a message of Successive when complete the processing of transactions.

Time in minutes to eliminate Opposite Transactions: It's the time interval to consider two punches as opposite (IN punches versus OUT Punches). In this case the last punch is kept and the first is eliminated as opposite transaction.

Notify opposing function key transactions when processing: Define if it will show a message of Opposing when complete the processing of transactions.

Time in minutes for Duplicate Transactions: It's the time interval to consider two punches of any kind as duplicated. In this case the first punch is kept and the second is eliminated as duplicated. Successive, Opposite and Duplicate punches can be reviewed in the Not Processed Transaction screen, see the respective section for more details.

Notify Duplicate transactions when processing: Define if it will show a message of Duplicate when complete the processing of transactions.

Show Transactions on Time Card (A)ctual (R)ounded : Define what time is showed in the Screen Time Card, the actual is the time generated in the Terminal, the Rounded is the time calculate according the Schedule.

Show Lunch Duration Taken on Time Card (A)ctual (R)ounded : Define what time calculate is applied in for the Lunch time, if Actual active, calculate the time from begin to end the transactions Lunch, if active Rounded will calculate the time define in the Schedule for the Lunch.

Show Break Duration Taken on Time Card (A)ctual (R)ounded : Define what time calculate is applied in for the Break time, if Actual active, calculate the time from begin to end the transactions Break, if active Rounded will calculate the time define in the Schedule for the Break.

Temporary Employees: Define if the application will classify employees on Full time or Temporary time employees. On employee screen can select the type of the employee.

Generates Automatic pay period with no transactions: Define if the employees does not have transactions on the period; it will generate the period for to show on employee's screen.

Allow holidays exceptions by employee: Active the options to capture day exceptions for holidays defined on the system. If some employees did not apply the all holiday, you can use this option.

Classifications for Employees

The pendulum system allows defining any number of classifications to group the employees for an easy administration, filtering or reporting. They are also used for filtering, ordering and grouping employees in the reports. In this section you may define all required classifications. Like, when adding employees you assign the employee to their classifications. All classifications keep a history so you will always track where the employee has been in the company along the years.

If using Job Costing, you must define the intended levels of job costing as classifications first, and then mark these classifications as job costing levels.

Elements to each of these classifications may be added either in the **Employee Maintenance** screen when adding employees or directly in their respective **Employee Classification Edition** screen.

System Configuration [Classifications for Employees]

Save Close

Company Data
Here you may setup the classifications to use for the Employees. These classifications will be used in reports for filtering and grouping of Employees.
The records of each of these classifications may be added directly in the Employee maintenance screen, or, can also be added accessing the catalog of classifications directly in the menu option in Employee menu.

Classifications for Employees

Custom Fields for Employees

From the defined classifications, choose which of them will be used as Job Costing Levels. You may setup up to 6 Job Costing Levels. To each Job Costing Level can assign an ID, that may be a badge number to make level changes in the Devices

Available Classifications	Job Costing Levels	Identification
New Classification 1	Level 0	Department
New Classification 2	Level 1	
New Classification 3	Level 2	
	Level 3	
	Level 4	
	Level 5	

Prev Step Next Step

For the version Premium and Enterprise, can define more Classifications for the system.

When you mouse over the yellow arrow down arrow or right click any entry here in the classifications area, an editing menu appears:

Edit the selected Classification
Add a new Classification
Delete the selected Classification

You can select the proper option to add, edit or delete a classification. When editing or deleting you must first select a classification in the grid. Each classification requires the following information:



Classification Name: The name to use for the classification. No more than 64 characters.

Description: A short text to show when assigning an employee to an element of this classification.

Position: The order this classification will appear on the employee maintenance screen.

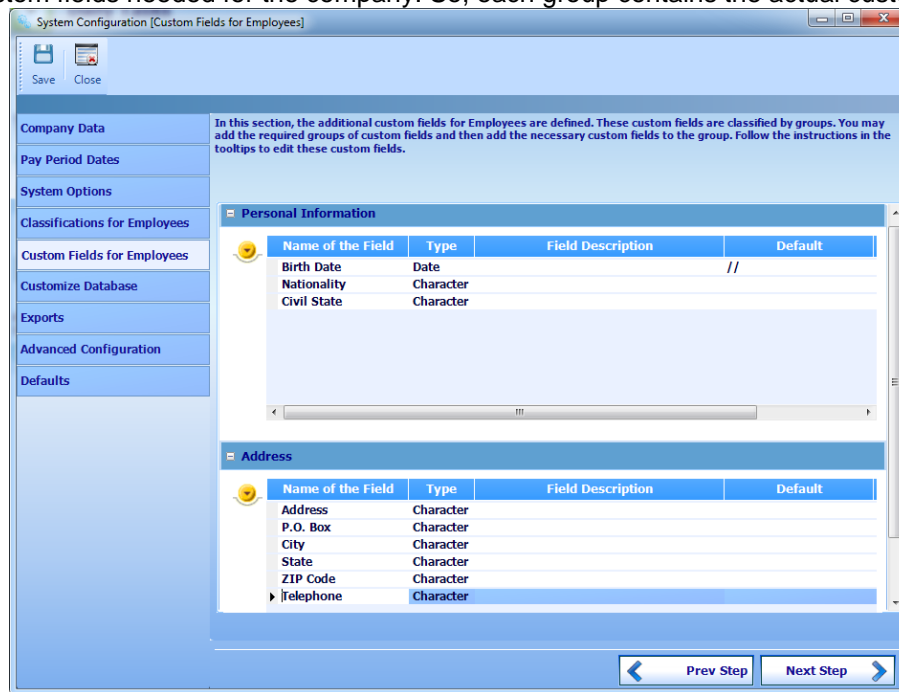
Type: Data type of the code of each element of the classification. If Numeric, the code will be zero padded to the length

Length: The length of the code for each element of the classification.

Custom Fields for Employees

The pendulum system also allows adding any required number of custom fields for employees, where you can store all kinds of information that is needed for your company rules or human resource department. This information is saved in the database and may be used in special reports or when interfacing with other systems. In fact, some of the default data is actually setup using this feature, such as 'Personal Information' group and 'Address' group where several custom fields are grouped.

Custom fields are organized in groups to make it easy to locate information of a similar kind in cases where there are lots of custom fields needed for the company. So, each group contains the actual custom fields.



System Configuration [Custom Fields for Employees]

Save Close

Company Data
In this section, the additional custom fields for Employees are defined. These custom fields are classified by groups. You may add the required groups of custom fields and then add the necessary custom fields to the group. Follow the instructions in the tooltips to edit these custom fields.

Personal Information

Name of the Field	Type	Field Description	Default
Birth Date	Date		//
Nationality	Character		
Civil State	Character		

Address

Name of the Field	Type	Field Description	Default
Address	Character		
P.O. Box	Character		
City	Character		
State	Character		
ZIP Code	Character		
Telephone	Character		

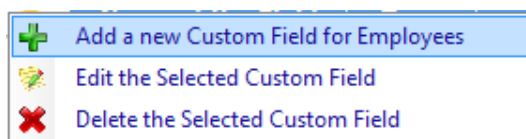
Prev Step Next Step

Adding Custom Field Groups

If you need additional custom fields you would first add a group where your custom fields will be. You may also use any of the actual groups to add there the custom fields in case they will contain information of the same kind. But, it is a good practice to keep similar information in the same group.

To add a group, double click in any group name in the custom field panel, and then a menu will appear like the following:

You will find the option to **Edit the group name**, **Add a new Custom Field Group** and **Delete the selected Custom Field Group**. Just select the proper option according with what you want to do.



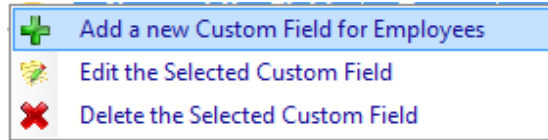
+ Add a new Custom Field for Employees

✎ Edit the Selected Custom Field

✖ Delete the Selected Custom Field

Adding Custom Fields to Field Groups

Once a group has been added, you may add a custom field by hovering the mouse over the yellow down arrow, or, right clicking in the group area. Then a menu will appear like the following, if an element is selected three options will appear:



When adding a custom field, you would need to have at hand the following information for the custom field:

Name of the Field: The name this custom field will be referred to anywhere in the system. IT may have a short description of what the field will store.

Type: The data type the custom field will store. It may be:

- Character, to store any kind of string
- Number, to store a number that would be used for calculations
- Image, to store a picture
- Text, to store a very long string such as a blackboard or any info greater than 255 characters in length
- Decimal, to store a decimal number that would be used in calculations
- Logic, true or false
- Date, to store a date to be used in calculation.

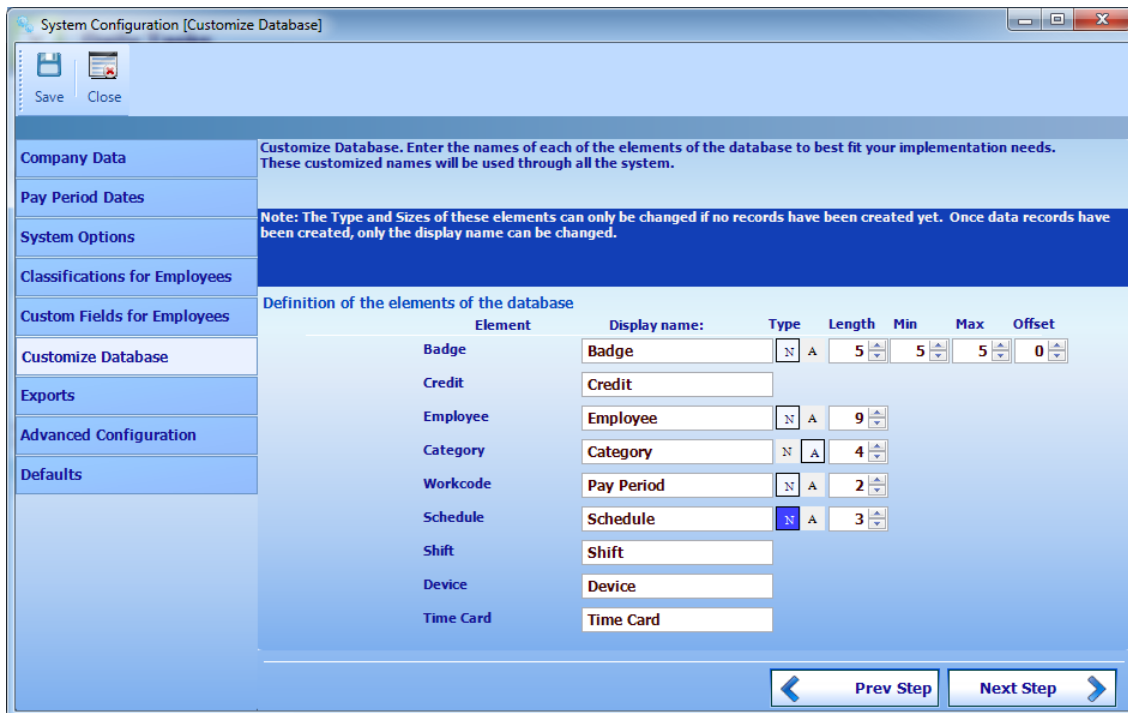
If a custom field is not expected to be used in calculation it is better to leave it as character.

Field Description: Provide a short description of what information is intended to store in this custom field. IT may also contain tips or a guide on how to capture the data for this field. This description will appear as a tooltip when capturing data in this field.

Default: The default value for this field. It may be empty if there is no default value.

Customize Database

The pendulum system allows customizing almost any element name in the system to fulfill your particular needs. The name defined here will be used through all the system when referring to that element.



System Configuration [Customize Database]

Save Close

Company Data Customize Database. Enter the names of each of the elements of the database to best fit your implementation needs. These customized names will be used through all the system.

Pay Period Dates

System Options Note: The Type and Sizes of these elements can only be changed if no records have been created yet. Once data records have been created, only the display name can be changed.

Classifications for Employees

Custom Fields for Employees

Customize Database

Exports

Advanced Configuration

Defaults

Definition of the elements of the database

Element	Display name:	Type	Length	Min	Max	Offset
Badge	Badge	N A	5	5	5	0
Credit	Credit					
Employee	Employee	N A	9			
Category	Category	N A	4			
Workcode	Pay Period	N A	2			
Schedule	Schedule	N A	3			
Shift	Shift					
Device	Device					
Time Card	Time Card					

Prev Step Next Step

For each customizable element you can also define their code length and data type.

Badges are used in the terminals to generate transactions, that is why, they allow a greater customization setting allowing the minimum, maximum and offset of the number in case you already have your badges and want to use them in the system, but only a section of the badge number that has the unique number is used to get a unique number, and don't want to deal with badge with large numbers in the system.. These options are also used as a security measure in order to prevent terminals from reading badges from other companies.

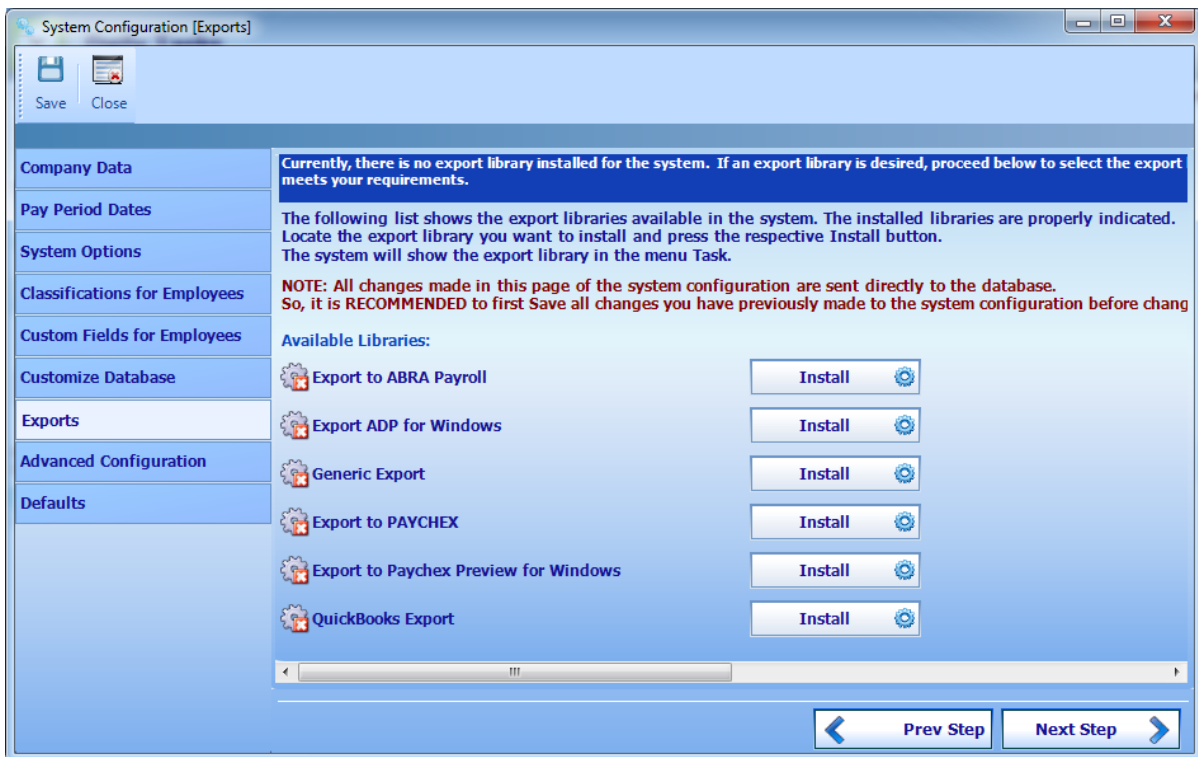


When an element code is defined as numeric, then data captured for that element is padded with zeros to the defined length.

Exports to 3rd Party Payroll systems

The system allows exporting time data to any 3rd party application, such as payroll systems. In the standard installation the system has exports to the most popular and commercial payroll system used where the system has presence. But, any export may be added to the system in any new region the system is used just asking for the export to your authorized dealer. They will quote you for your custom export library.

The system also features a generic export library that contains almost any information needed by the payroll system. So, you may use the generic file layout and convert it to your custom payroll file layout as needed just creating an exe or having your dealer to create that exe for you at a low cost.



In a brand new install, there is no export installed, so if you need an export you must install it and configure it here.

Any export library has its own configuration procedure, so refer to the proper information to configure a particular export. Your dealer may provide you with the appropriate information. Export also adds custom fields for employees that, after installed, you will see them in the Additional Information panel of the Employee maintenance screen, under a group with the name of the export, these fields are frequently required to be filled before running the export library.

If the library you need is not in the list but your dealer has provided you with a library file, then you may have it available to the system using the following link. Click the link and follow the instructions, then install it in the systems described above.

Advanced Configuration

This panel is accessible only if the logged user is a supervisor. Very important configuration parameters are set in this panel. If an unauthorized user changes any of these settings without knowing exactly the effect it will have in the system, it may cause undesired operation, making the system to behave erratic, generate unknown error in the operation and results or data loss.

You must read carefully and understand quite well the way each parameter affects the operation of the system.

System Configuration [Advanced Configuration]

Save Close

Company Data

Pay Period Dates

System Options

Classifications for Employees

Custom Fields for Employees

Customize Database

Exports

Advanced Configuration

Defaults

WARNING: The advanced configuration must be changed only under supervision of technical support personnel to avoid a malfunction of the system. And must understand the effect of each option in the system operation.

[-] Special Parameters

Time to keep the blocking of the records in the database tables (minutes): 10
[click here to release all records actually blocked in all tables.](#)

Initially Selected Pay Period in Time Card Editing Screen: 0

Maximum number of editable pay periods from actual pay period: 0

Timeout to complete the backup and restore of the database (seconds): 60

Starting date to read the assignments of the Employees: 01/01/2000

Use change reason when editing or adding transactions: Y N

Function to use when adding punches in Time Card editing: S F

[+] Parameters of FTP and Mail Server

[-] Advanced Parameters

Legal legend header to show in the Time Card Reports:

Select the file (*.dll or *.exe) used to run special processes before begin processing, for each transaction processed and after processing all transactions:

Network folder where the rawdata files are extracted from Devices are stored:
Format: \\PCNAME\ShareName
.RAWDATA

[+] Dealer Information

Prev Step Next Step

Here is a description of each parameter:

Time to keep the blocking of the records in the database tables (minutes): Each time a record of any catalog is open in their corresponding maintenance screen, a blocking of the record is issued to avoid any other user editing the record. This blocking is kept until the user finishes using the record or, if the user remains more than this time with the record, the blocking is released and the record can be edited for another user.

Another situation that blocks records is when you need to set an item of a catalog in a related screen. When that happens, the item of the catalog you are assigned is also blocked until the related screen is closed or saved.

Other common situation is that an Uncontrollable situation may occur and the application is shut down while the user is using a record, then the record remains blocked until this time is elapsed.

Following this parameter there is a link that says:

Click here to release all records actually blocked in all tables. This action finds all locked records in all tables and shows them to you so you can release them. This operation must be run only if you are certain that there is no other user actually blocking records, because you may unblock a record that other user is editing; and this may cause a data information inconsistency.

Initially selected Pay Period in Time Card editing screen: When you open a time card for editing in the employee maintenance screen, the time cards show a complete pay period. The pay period shown there depends on this value. Some times when the company uses weekly pay period; it is usual than the company pays the previous week to have time to make corrections and process payrolls. In this case, would be useful to set this value to 1 (previous pay period) allowing the time card to open the pay period the company is paying and not the actual pay period to make easier the pay period revision.

Maximum number of editable pay periods from actual pay periods: If this value is set to '0' (Zero), all pay periods in the system may be edited at all times. If this value is for instance set to 2 (two) only current pay period and previous pay period can be edited. This is the recommended value If you do not want to allow users to modify pay period information that has already been paid.

Timeout to complete the backup and restore of the database (seconds): The database server has a default of 30 seconds to accomplish any data access operation. If any operation is not completed in this time, the operation aborts. When the database size increases too much, this time may be insufficient to accomplish the backup or restore of the database. Set the value accordingly to the time that operation takes to complete. If you set a very large timeout this may cause the application to hang when there is actually a data access error condition.

Starting date to read the assignments of employees: When an employee record is read from the database into the PC memory, it is read with all related information, including assignments. After the system has been running for years, the employee assignments may increase in a considerable manner and make the employee data retrieving operation time consuming in excess and affect the performance of the system, not only by the time used but by the memory used to store employee data. It is a good practice to update this value each year and make new assignments to all employees at the beginning of the year to decrease the amount of data the application retrieves from the database server into memory and enhance the performance of the application.

Use change reasons when editing or adding transactions: If set to 'yes', any time a transaction is added or modified a reason for that change will be requested. This change reason may be used in some reports or export utilities. If you don't really care about the reason for modifying time and attendance information, disable this option.

Function to use when adding punches directly in time card editing screen: The system works either with 'swipe and go' mode or having the employees enter the kind of transaction they are making in the device; that we call 'function key entry'. But, the system cannot work with mixed scenarios in a single day. The system may not even know if the employee is using swipe and go or function key entry if the day does not have a previous transaction. For those cases, this value is used. So, when manually adding the first punch of the day, the system can add the correct kind of punch and avoid the mixing situation. If a mixing case occurs the system does not calculate hours for that day.

FTP site address for communication with devices through FTP, FTP User Name and FTP user Password: The system may communicate with devices using a FTP intermediate site. These parameters are used for the Device Station to communicate with another device station that hosts devices that communicate using this way of communication.

Review the Devices Definition section for more information about this way of communication.

Legal Legend Header for the Time Card Report: This text is reflected in the time card report when the signature and legend option is selected. If this value is empty, the default legend in the report is shown.

Library file that contains the process to execute before, each transaction and after processing, in transaction processing: This is a powerful tool the Pendulum system can use to modify the way the transaction processing and pay period processing is done. Sometimes, even then the system is highly configurable; some situations cannot be implemented. But, for those cases, special processing can be added to the system to accommodate very special needs. This is the way to integrate that special processing. If after analyzing all possibilities you and your dealer agree that you need a special a processing library, request a quote from your dealer and we are certain the system will be fit 100% your implementation needs.

Network folder where the RAW data files extracted from Devices are stored: Any time the device station communicates with the devices to download transactions those transactions may be stored outside of the database server in text files anywhere in the network. The folder used here must be a network share who all users have access to. You may later refer to this folder to review the downloaded punches by just opening the text files.

Dealer Information

In the panel Advanced information, is available a section for customize the data for the Dealer; in this section the dealer can capture the information for contact the dealer by the final user.

The screenshot shows the 'System Configuration [Advanced Configuration]' window. On the left is a sidebar with a tree view containing: Company Data, Pay Period Dates, System Options, Classifications for Employees, Custom Fields for Employees, Customize Database, Exports, Advanced Configuration (selected), and Defaults. The main area is titled 'Dealer Information' and contains the following fields:

Company Name:	Acroprint
Contact:	
Phone:	919-872-5800
Fax:	
E-mail address:	sales@acroprint.com
FTP:	ftp://ftp.acroprint.com/Cu
FTP user:	TRUE
FTP password:	
Service Address:	5640 Departure Drive;Raleigh
Schedule:	Monday-Friday 8:00-5:00 E
Support e-mail:	SupportDept@acroprint.co
Support Phone:	919-872-5800
Sales e-mail:	sales@acroprint.com
Remote support link:	http://logmein123.com/
Updates:	

At the bottom right are 'Prev Step' and 'Next Step' buttons.

For each setting can define the specific data, this information will show in the section Technical Support:

The screenshot shows the 'Pendulum Standard - YOUR Company Name' application. The 'Technical Support' section is active, displaying a welcome message and a list of links on the left: Maintenance, My Preferences, Daily Tasks, Configuration Wizard, and Technical Support. The main area shows the 'Dealer Information' section with the same fields as the previous screenshot, but with a 'Close' button at the top right. The status bar at the bottom indicates: 'Last conn session: 03/20/2013 09:05', 'Last database backup: 03/14/2013 14:08', and 'Administrator 02:34 3/22/2013'.

Defaults

With this option can to define Defaults when add a new record on Employee's screen.

You need to define first the Department and Schedule on the catalogs.

Department: Define the Department to assigned by default

Starting date: Define the Date when begin the assignment of the Department.

Schedule: Define the Schedule to assigned by default

Starting date: Define the Date when begin the assignment of the Schedule.

Shift: Define the shift to assigned by default

Days off: Define the days of week that will be Days off by default.

Users

This window provides a tool to administer the users and the user access restrictions. You may add as many users as you need but a user can have only one session at the time.

General Information:

When add or edit a user, you need to define the parameters on General Information.

Code, User Name, email address, alternate email address, password, they are quite understandable. Those that have a red star are mandatory fields.

Limit Date: The user will have access to the system

User Type: Allows setting if the user is an administrator of the system. Administrators are allowed to access user maintenance and system configuration advanced settings. The Supervisor Pc Punch option defines if the user can modify the Configuration or Enroll fingerprint in the Pc Punch Client module.

Groups: Select the employee groups the user will have access to. The user will see only employees that are assigned to the selected groups. If an employee is not assigned to any group, then all users will see that employee. If none is selected the user will have access to all employees.

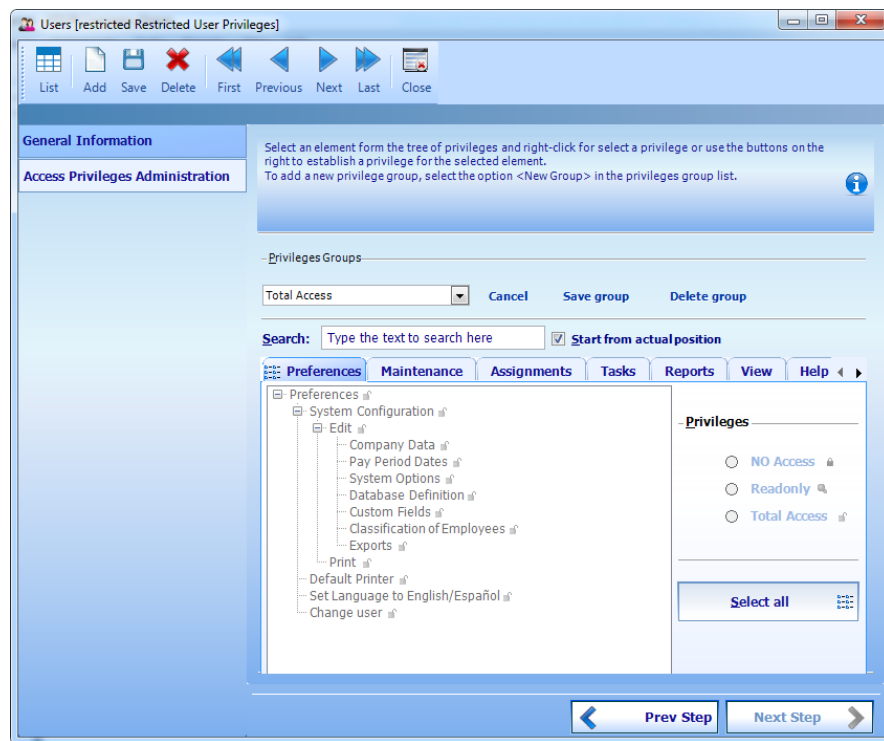
Language: You can define the Language for each employee, you can select English or Spanish.

Access Privileges Administration

Each user need to have the Privileges to access in the options of the system.

On this section you can select or add a new privilege, there is a Total Access and Read only by Default, and you can add new privilege

By default all user will assign to Total Access privilege.



The privileges are link to the menu of the application, and you can define if the option works on Total Access, Read-only or No Access. When you define a new privilege or edit you can store with the Save group. A privilege assigned cannot delete.

MAINTENANCE

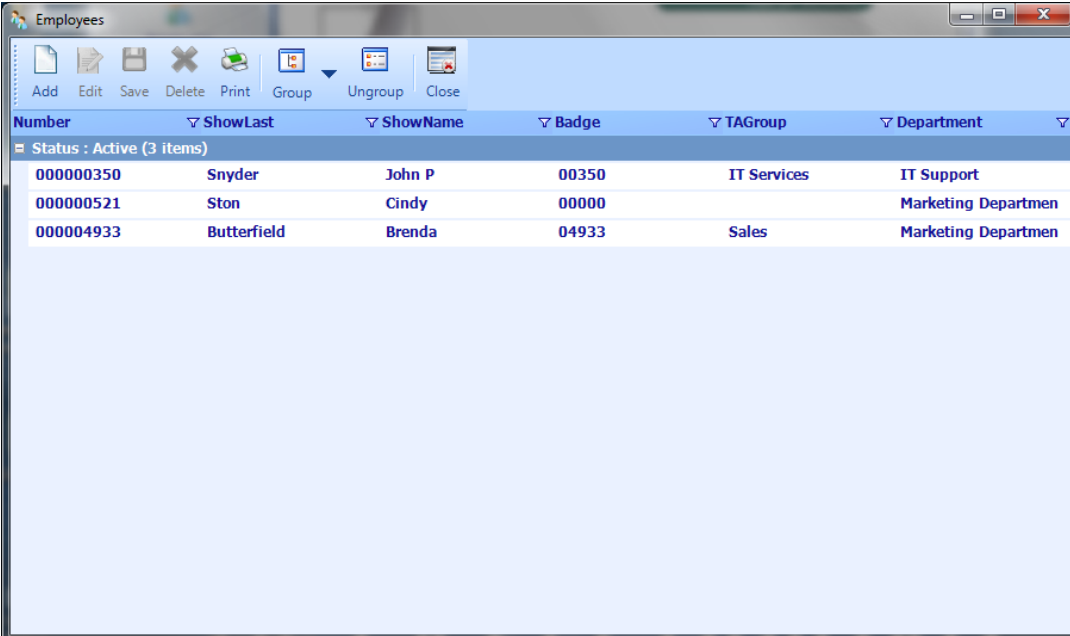
In this Maintenance section you will find information about what information is stored in the catalogs of the system and how they relate to generate the results this system is intended to. There is a menu pad that will contain a menu to access all maintenance screens. First thing we will show you are the topics that apply to all catalogs.

Maintenance Screen General Topics.

All catalog maintenance screens contains a similar structure and functionality. So any time you access a catalog screen you may use the same functionality in all these screens to make the system more user friendly and intuitive. Each screen has the following features:

List of Elements

This list shows all elements of the catalog, showing in columns the most important information that may ease the information lookup.



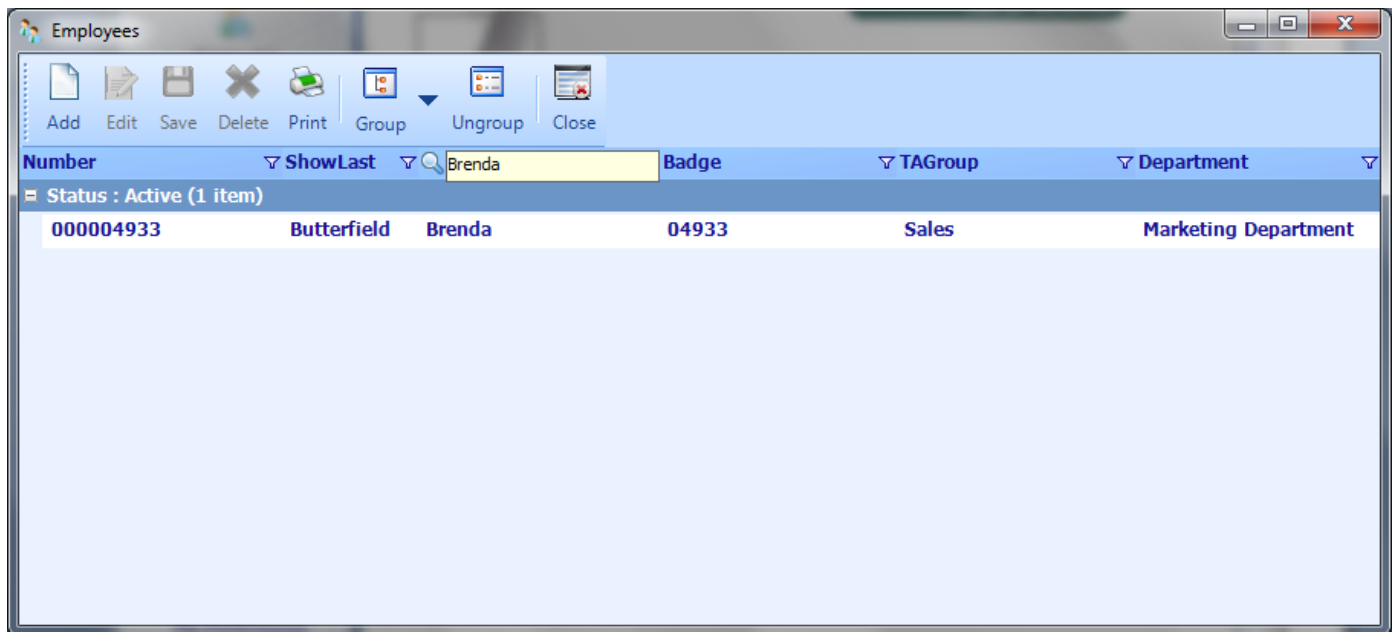
Number	ShowLast	ShowName	Badge	TAGroup	Department
Status : Active (3 items)					
000000350	Snyder	John P	00350	IT Services	IT Support
000000521	Ston	Cindy	00000		Marketing Departmen
000004933	Butterfield	Brenda	04933	Sales	Marketing Departmen

This list of elements provides the following basic features that you may find either in the toolbar button or just right-clicking in the column header:

Preferences

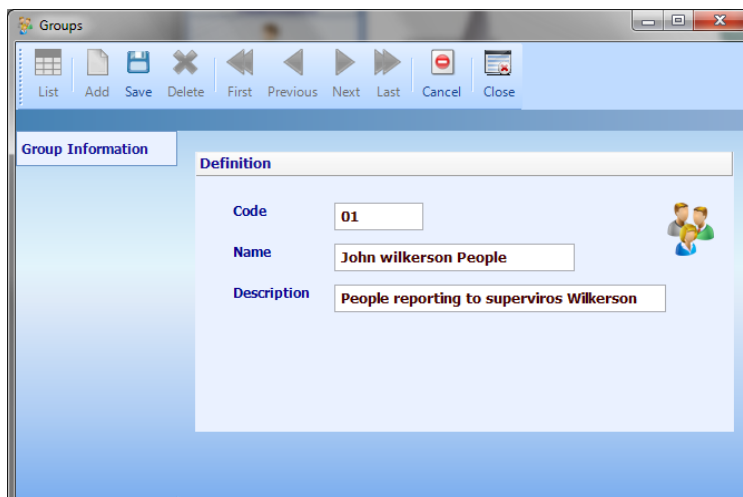
Grouping and Ungrouping

This buttons allows grouping the element by any of the columns in the list, you may find it useful to look at the information that you require grouped by the column. **Sorting and Searching:** With a single click in a header, the information is sorted by that column. If double-click on the column a text box will appear allowing filtering the record in the list that contains the data entered in that text box. That would allow you to lookup information using any column in the list. Once the desired record has been located, then you may proceed to select the record and view and work with the information of that record.



Record Editing

After a record has been selected, then all related information about that record will be shown in the screen and will be ready to edit it if necessary. Each screen features the necessary steps to complete the record editing operation.



This screen has a toolbar that contains the following buttons:

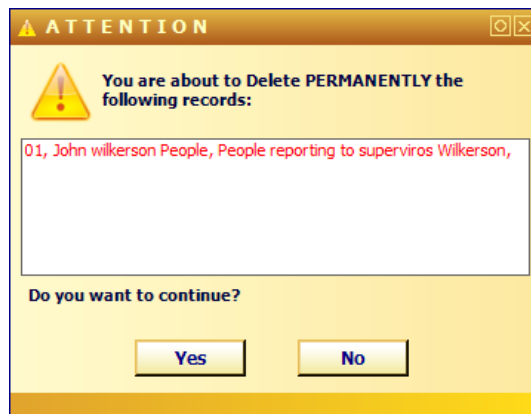
The following button's function is clear enough, so, we only will describe important related information that must be taken into account.

Add record. Create an empty record. The record will be only saved and validated when the save button is pressed.

Edit: Appears only when the screen shows the list of elements. It opens the selected record for editing.

Save: Performs data validation and saves all open records. If an error in the data entered occurs, an error message will be displayed.

Delete: Deletes either the selected records in the list or the currently opened record. A confirmation will be asked before proceeding to delete the record. Deleting records is performed directly in the database, so once the deletion has been confirmed, the data is actually deleted permanently from the database.

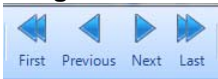


Print: Some screens feature a printing button to allow running the report that will print the information of the actual catalog

List: Return to the list of elements.

Cancel: When adding a record, you may cancel the process and return to the last viewed record.

Navigation: To navigate the records of the catalogs. Data validation is performed before leaving a record and if an error occurs, an error message will be displayed. All records that have been opened remain locked for a short period. Edited records remain locked until the saved button is pressed or closing the screen



Close: Close the screen.

Employees

All information related to employees is accessed through this screen. You can make employee data assignments and also edit the time card directly in this screen. There are 6 information sections in this screen:

Basic Information

All basic information is presented in this section. The data containing a star (*) are required.

The screenshot shows the 'Employees' window with the title bar 'Employees [000000001 Castle Jen sole]'. The left sidebar contains a menu with the following items: Basic Information (selected), Badges, Classifications, Schedules, Additional Information, Time Card, Devices, and Benefits. The main area is divided into several sections:

- Employee Badge**: Contains 'Employee Number *' (000000001) and 'Badge *' (00001).
- Personal Information**: Contains 'First Name *' (Jen), 'Middle Initial' (solei), 'Last Name *' (Castle), and 'e-mail' (Jcastle@hotmail.com). There is a photo of a man and a small '...' button next to it.
- Status**: Has radio buttons for 'Active' (selected) and 'Inactive'.
- Company**: A dropdown menu showing '0000 Main Division'.
- Group**: A dropdown menu showing '01 John Wikelsorn p'.
- Hire Date**: A date field showing '09/02/2015'.
- Status History ...**: A small table with columns 'Assignment Date' and 'Status'. It shows one entry: '09/02/2015' with status '*Activ'.

At the bottom of the window are two buttons: 'Prev Step' and 'Next Step'.

Employee Number: Must be entered according to the database definition. If it is defined as numeric it will be added to the defined length.

Badge: This is the primary badge. Employees may have more than one valid badge assigned. You may add more badges in the Badges Section of this same screen. Accordingly with the system configuration, the badge number may be assigned automatically following the configuration setting. The number must fulfill the database definition settings for the badge.

First Name, Middle Name, Last Name and Second Last Name: Accordingly with the configuration settings about the name format, these fields are used when the name is displayed either through all the system.



Status: The employee status generates a history, so an employee may be active / inactive in several periods and the system will keep track of them.

Group: The group is used to administer the employee, so users can only see employees assigned to the groups the user has been assigned to. It may also be used in the reports for filtering and ordering.

Hire Date: Hire date is used as a reference date to assign the employee. So, all employees must be assigned at least 1 month before their hire date.

Badges

On the Enterprise and Standard version the application can control one or more badges assigned to employee

The primary badge is showed on the Basic Information, and when is modify the Badge, it is define how Primary and the previous badge still on the badge list.

If you need unassigned the badge, you can select the badge, different of the primary, and press the button remove (<<)

The screenshot shows the 'Employees [000000001 Castle Jen solei]' window. The left sidebar contains the following menu items: Basic Information, Badges, Classifications, Schedules, Additional Information, Time Card, Devices, and Benefits. The main area is divided into three sections:

- New Badge number:** A large text area for entering a new badge number. Below it, there is a 'Badge Number' label and a text input field containing '0020'.
- Navigation:** A set of buttons including 'List', 'Add', 'Save', 'Delete', 'Print', 'First', 'Previous', 'Next', 'Last', and 'Close'. Below the input field, there are two buttons: '>' and '<'.
- Badges Currently Assigned:** A table with two columns: 'Number' and 'Assignment Date'.


Number	Assignment Date
00001	09/02/2015 04:44p
00010	09/14/2015 06:49p

At the bottom right of the window, there are 'Prev Step' and 'Next Step' buttons.

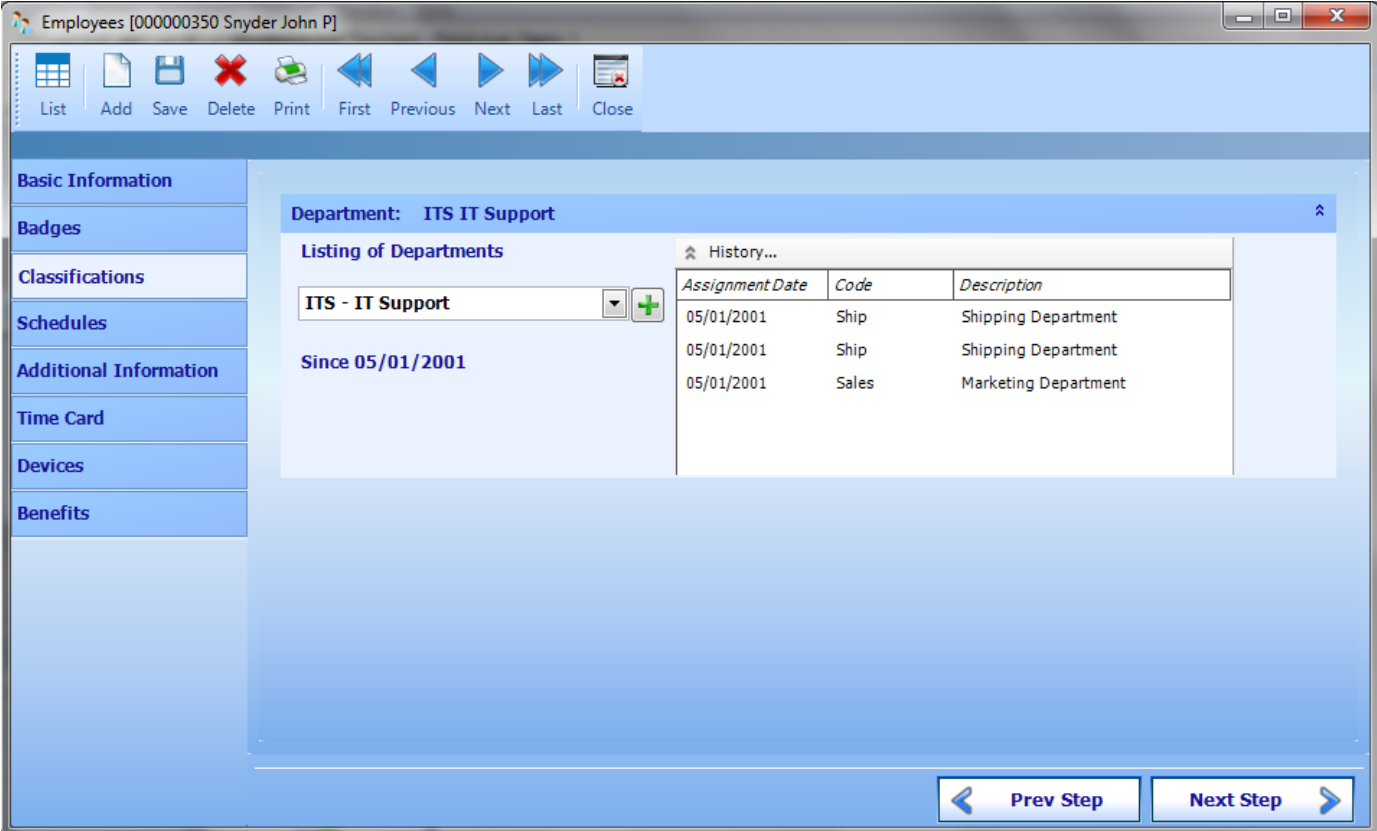
If you need a new badge assign to employee, you can write the badge number, and press the button include (>>)

It is important that the badge number is used to send on devices, if you have more than one badge, the application will send all badges to device.

Classifications of the Employee

This section allows assigning a classification element for each defined classification for the employee. If using Job Costing Module and Schedules, you may also assign the wages for each job costing level in this same section. On each classification, just assign the classification item the employee will have and a starting date. Remember that the system will have a history of each classification, so the assignment date may be relevant for your company. When assigning a classification item, if it is not in the classification list, you may add it directly in this screen, by clicking the button at the right of the list. 

These classifications are used in the reports and in other processes to create a filter of employees. The filter will use current classification assignment to evaluate if an employee is included in the filter or not. They may be used also for grouping, totaling and sorting the report information as well as the group and division.



Employees [000000350 Snyder John P]

List Add Save Delete Print First Previous Next Last Close

Basic Information

Badges

Classifications

Schedules

Additional Information


Time Card

Devices

Benefits

Department: ITS IT Support

Listing of Departments

ITS - IT Support 

Since 05/01/2001

History...

Assignment Date	Code	Description
05/01/2001	Ship	Shipping Department
05/01/2001	Ship	Shipping Department
05/01/2001	Sales	Marketing Department

Prev Step Next Step

Assignments

It is important to assign every employee to schedule policies and pay period. They are the base of the processing of all information of the system. This section shows a schedule of 5 weeks that contains a whole month. Assignments are made by week. Every assignment is valid over the following weeks after the week it is made until a new assignment is found.

Employees [000000350 Snyder John P]

List Add Save Delete Print First Previous Next Last Close

To complete the assignment, must assign the Pay Period and Schedule. Categories assignment may be done also.

Assignments of Employee for March of 2013

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
24 First Shift 8:00-5:00 (1 hr 1st) Dep IT Support	25 First Shift 8:00-5:00 (1 hr 1st) Dep IT Support	26 First Shift 8:00-5:00 (1 hr 1st) Dep IT Support	27 First Shift 8:00-5:00 (1 hr 1st) Dep IT Support	28 First Shift 8:00-5:00 (1 hr 1st) Dep IT Support	1 First Shift 8:00-5:00 (1 hr 1st) Dep IT Support	
3 First Shift 8:00-5:00 (1 hr 1st) Dep IT Support	4 First Shift 8:00-5:00 (1 hr 1st) Dep IT Support	5 First Shift 8:00-5:00 (1 hr 1st) Dep IT Support	6 First Shift 8:00-5:00 (1 hr 1st) Dep IT Support	7 First Shift 8:00-5:00 (1 hr 1st) Dep IT Support	8 First Shift 8:00-5:00 (1 hr 1st) Dep IT Support	
10 First Shift 8:00-5:00 (1 hr 1st) Dep IT Support	11 First Shift 8:00-5:00 (1 hr 1st) Dep IT Support	12 First Shift 8:00-5:00 (1 hr 1st) Dep IT Support	13 First Shift 8:00-5:00 (1 hr 1st) Dep IT Support	14 First Shift 8:00-5:00 (1 hr 1st) Dep IT Support	15 First Shift 8:00-5:00 (1 hr 1st) Dep IT Support	1 First Shift 8:00-5:00 (1 hr 1st) Dep IT Support
17 First Shift 8:00-5:00 (1 hr 1st) Dep IT Support	18 First Shift 8:00-5:00 (1 hr 1st) Dep IT Support	19 First Shift 8:00-5:00 (1 hr 1st) Dep IT Support	20 First Shift 8:00-5:00 (1 hr 1st) Dep IT Support	21 First Shift 8:00-5:00 (1 hr 1st) Dep IT Support	22 First Shift 8:00-5:00 (1 hr 1st) Dep IT Support	2 First Shift 8:00-5:00 (1 hr 1st) Dep IT Support

Day off Scheduled Holiday Category

Prev Step Next Step

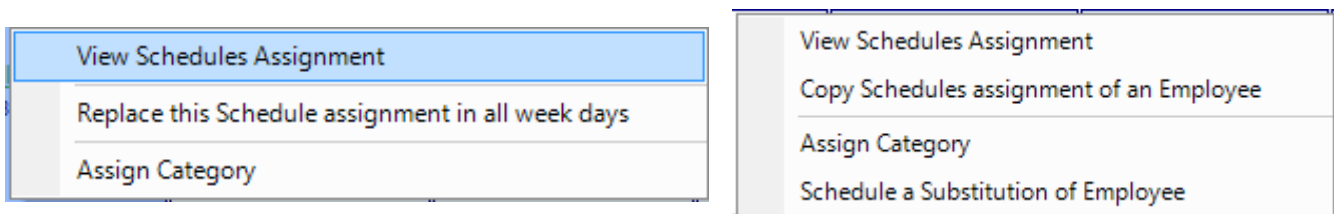
The month is shown at the top of the screen, you may change it clicking in either arrow on the left or right end, or right-clicking on the month name will show a list of months for selecting the month you want to see.

If the employee has not been assigned, a notification will be shown on the top of the screen.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
28	29	30	31	1	2	3
Not Assigned	Not Assigned	Not Assigned	Not Assigned	Not Assigned	Not Assigned	Not Assigned
Not Assigned	Not Assigned	Not Assigned	Not Assigned	Not Assigned	Not Assigned	Not Assigned

In general this section shows the assignment of Schedule Policies, Work codes and days with a category programmed, such as Vacation, Jury Duty or any other incidence the employee will have. Also you may see if the day is forced to be paid in a special time level, such as double overtime, worked holiday, etc.

By right-clicking on a day, a menu will appear that will allow you to make the assignments to employee on this day.



The next thing to assign is the Schedule policy and shift, one for each day of the week. The assignment is also valid for the following weeks until a new assignment is found. When making a new assignment, if you make it on Monday it will be copied automatically to all days of the week and mark the Saturday and Sunday as non-worked days, making the assignment easy.

The Schedule assignment contains the following parameters:

Schedule: The Schedule that will be used this day for time processing,

Shift: The shift the employee is assigned to work this day. It may be any of the shifts defined in the Schedule, or Zero to have a floating shift. Floating shifts means that the shift the employee will work will be assigned with the shift the first IN punch of the day is made, floating between the defined shifts of the Schedule.

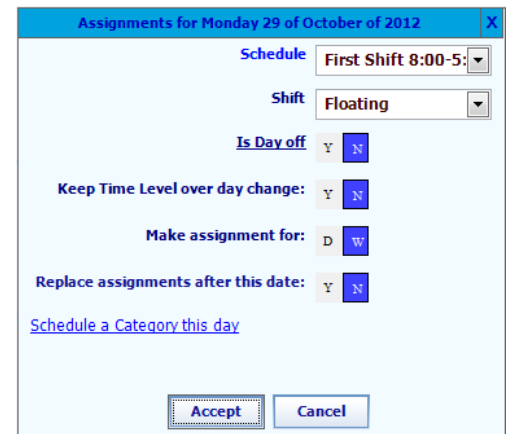
Some Schedules are Open Shift Schedule, which means that the Schedule does not have programmed punches; the worked time is calculated with each pair of transactions made. No exception is generated, because there are no programmed punches.

Is Day off: You need to mark with a 'Y' for yes the days the employee is not scheduled to work.

Force Worked time to: To make all worked time this day to be calculated in the selected time level. This value overrides all time level settings of the Schedule and Shift.

Keep Time Level Over Day Change: When the day is forced to a time level, you may require that the time level is kept for continuous worked time after the midnight. If not, the time level indicated in the assigned policy for the next day is set.

Make Assignment for: Select if the assignment is made only for the day or will be made for all weeks this assignment applies. If set for day, a new assignment is made for this week and duplicated assignment for the next week with the same values before the day was assigned.



Also category days may be programmed in this section. The programmed category will be converted to a transaction for the day when the day is processed. So, if you already know that an employee will be on vacation or on jury duty for a period of time in the future, then you may program those categories and have the system add the transactions when the days are processed.

Review the Category Maintenance section to know more about categories and how they are handled in the system, as well as how the category transaction can be added manually.

Also the current Assignment of first Classification is showed in the day, commonly the Department of the employee. In this section can modify the assignment of the employee for a specific day:

4

Sales 08:00 to 17:00
Shift 1

Dep Sales

Classifications Assignment

Assignments for 02/01/2013

Department: 001 - Sales

Accept Cancel

Custom Fields

This section allows assigning all custom fields values to employees. If an export is installed, this section will show the information needed by the export library.

Employees [000004933 Butterfield Brenda]

List Add Save Delete Print First Previous Next Last Close

Basic Information

Badges

Classifications

Schedules

Additional Information

Time Card

Devices

Benefits

Personal Information

Birth Date 05/15/1965

Address

Address

P.O. Box

City

State

ZIP Code

Telephone

Prev Step Next Step

When you have an Export with additional information, on this section will show the group for the Export, and you can define the values when exports the file.

Time Card Editing

This is perhaps the most significance section of the whole system. It contains the results the system is intended for. After the punched from terminals are manually added or processed, then you may view and edit the time card one period at a time.

Employees [0001415 Buren Martin - Time Card]

List Add Save Delete Print First Previous Next Last Close

Enter the number of the pay period you want to edit and press TAB to bring up the information...

Basic Information Employee: 0001415 Buren Martin Company: Acroprint Time Recorder Co. Print

Badges Pay Period: 6 Sunday 07/19/2015 - Saturday 08/01/2015 Group: Reprocess

Classifications	Date	IN	Lunch Start	Lunch Finish	Out	Totals DEF	LNCH	BRK	REG	OT1	OT2	OT3	---	---
Schedules	Sun 07/19/2015	Not Scheduled												
Additional Information	Mon 07/20/2015	08:02	:	:	15:30	00:30			06:58					
Time Card		Personal Hourly										Details	01:00	
Devices	Tue 07/21/2015	07:00	:	:	15:30	00:30			08:00					
Benefits	Wed 07/22/2015	07:01	:	:	15:30	00:30			08:00					
	Thu 07/23/2015	07:02	:	:	15:30	00:30			08:00					
	Fri 07/24/2015	07:01	:	:	15:30	00:30			08:00					
	Sat 07/25/2015	Not Scheduled												
	Sun 07/26/2015	Not Scheduled												
	Mon 07/27/2015	07:00	:	:	15:30	00:30			08:00					
	Tue 07/28/2015	07:03	:	:	15:30	00:30			08:00					

Attendance Summary		Job Costing Summary		Total Paid Time	
Worked days:	9			Regular	69:56
+ Approved absense:	1			Unpaid Lunch	04:30
Total Attendance:	10			AUTH. EXCUSE	00:00
Not Scheduled Worked:	0			Personal Hourl	02:00
Absent:	0				
Days Scheduled	10				
Total Days to Paid	10				

Prev Step Next Step

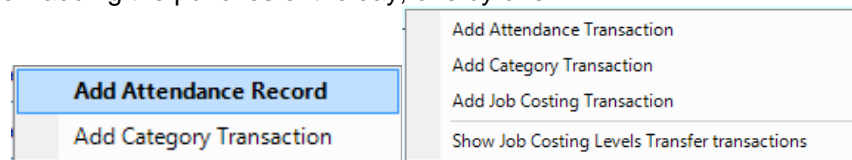
Pay Period: Select the pay period you want to view. Zero means actual pay period, 1 is the previous pay period and so on. You may also select a date and the system will find the pay period the dates belong and show the pay period.

Print: Can print the current time card report.

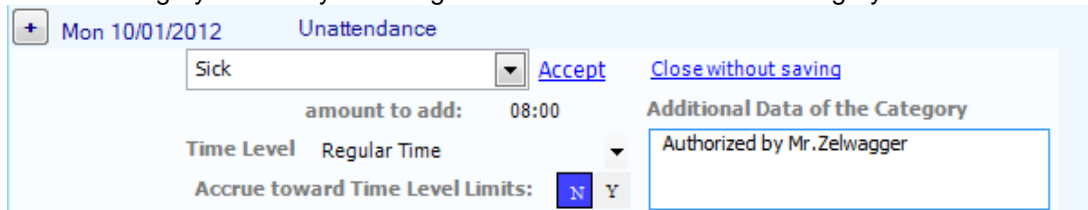
Reprocess: If you need to reprocess the current time card, you can select this command.

The time card shows the punches organized in pairs of IN/OUT either for the shift, lunch, and break or any other IN/OUT pairs made during the work day, along with their punch exceptions generated as programmed in the shift. You will also see the total worked time and subtotal for each time level. At the end you will find a total by category and totals of time levels for each category. An attendance summary is also shown, containing Worked Days, Un-attendance that you have justified, un-attendance not justified, scheduled days, total attendance, and not scheduled worked days.

With a right click on the time card, a menu with editing options will appear as shown. Through this menu you may also add the missing punches of the day; make corrections to the actual punches or add the attendance record if it is not added, this will allow adding the punches of the day, one by one.



You may also add a category to the day including hours and time level for the category.

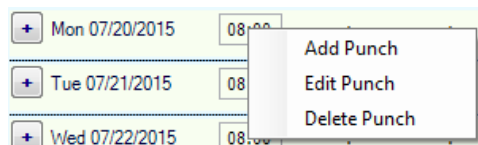


The screenshot shows the 'Add Category Transaction' form for Monday, 10/01/2012. The form includes the following fields and options:

- Category:** Sick (dropdown menu)
- amount to add:** 08:00
- Time Level:** Regular Time (dropdown menu)
- Accrue toward Time Level Limits:** N Y (radio buttons)
- Buttons:** Accept, Close without saving
- Additional Data of the Category:** Authorized by Mr. Zelwagger

When you right click on punch transaction, a menu with editing options will appear as show. Through this menu you may also edit punches or add the missing punches of the day.

On this screen you can:

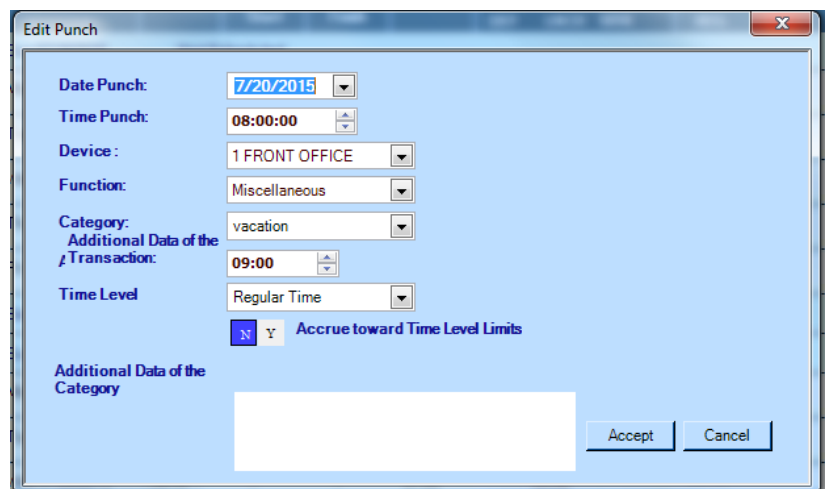


When you edit or add a transaction, you need to define these details

Date Punch: This is the date to apply the transaction.

Time Punch: This is the transaction time, this time can be round when process the transaction.

Device: Device linked to transaction; with this device you can select the function for the transaction.



The screenshot shows the 'Edit Punch' dialog box with the following fields and options:

- Date Punch:** 7/20/2015 (dropdown menu)
- Time Punch:** 08:00:00 (time picker)
- Device:** 1 FRONT OFFICE (dropdown menu)
- Function:** Miscellaneous (dropdown menu)
- Category:** vacation (dropdown menu)
- Additional Data of the Transaction:** 09:00 (time picker)
- Time Level:** Regular Time (dropdown menu)
- Accrue toward Time Level Limits:** N Y (radio buttons)
- Additional Data of the Category:** (empty text box)
- Buttons:** Accept, Cancel

Function: You can select the function for the transaction, this can be: Swipe & Go, IN, OUT, IN Lunch, OUT Lunch, IN Break, OUT Break, or can select the Miscellaneous transaction to add a Category transaction.

Category: When select Miscellaneous; you need to define the category to add.

Add time: Time on hours to add for the transaction.

Time level: Select time level to apply the category.

Accrue toward Time Level limits: Define if the time applies for the limits of the day or period.

Additional Data of the Category: You can define an additional data to this transaction.

When you add a new transaction, you can select the option Multiple days, you can define a date range to apply the transaction or select the days to apply.

If using the job costing module, you may also add job level transfer punches.

When a time card is modified, it is also reprocessed to reflect calculations. After the pay period is modified, you will need to save it.

At the left of each day you may also see a button with a plus sign on it that, when clicking on it, will also display the editing menu. If these buttons show a warning sign, this means that the entry has generated some exceptions, just move the mouse to the warning sign to view these exceptions.

Device Assignments

Some terminals need to be assigned to employees in order to use its features such as lockout profiles, show personal information, and to use the biometric information.

Talking about biometric information, it is captured in a device, backed up to the system and may be later distributed among all biometric devices. That is why terminal assignment is needed, for the system to know where to send this information.

Basic Information	Assn.	Description	Assignment
Badges	<input checked="" type="checkbox"/>	1 - Main Entrance	
Classifications			
Schedules			
Additional Information			
Time Card			
Devices			
Benefits			

[Click here to open the communication window and take actions only with this Employee](#)

[Prev Step](#) [Next Step](#)

Each assignment is different depending on the type of device you are using. Even, some terminals do not need assignment to employees, and some of them that need assignments may work without any assignment at all. So, it is recommended to learn the features of each device to know how assignments work for that device.

You will find 3 columns in this section:

Asg. Mark this box to assign the employee to this device. The description of the terminal is shown as a reference.

Assignment Parameters:

You must see the device maintenance section of this manual to know about how to setup the parameters in each type of terminal.

The assignment required for Biometric Terminals, such as HandPunch are the Time zone, Authority level and it will show if the employee has a hand template backed up and the date when the template was backed up.

You may also find two buttons to send this employee's template to the terminal or to backup the template from the terminal.

Benefits

Pendulum can control the number of Category available and used for an employee. These apply for version Premium and Enterprise.

For this option, you need to define on category screen the elements to apply how Benefit.

General Information Each Category is used to classify, report and export the worked time. The system has all necessary Categories already defined. You may modify or add more as needed.

Export Codes

Category Code: VAC

Description: Vacation

Category Type: Vacation

Type of units in this Category... ☒ H ☐ U

Is this Category Exported to other systems? ☒ Y ☐ N

Override Unattendance for the day it is used? ☒ Y ☐ N

Valid for Holidays and not scheduled days? ☒ Y ☐ N

Is this Category paid? ☒ Y ☐ N

Is this Category a Benefit? ☒ Y ☐ N

Initialize the benefit annually? ☒ Y ☐ N

Annual amount to initialize the benefit: 40:00

Exception generated when apply this Category: No Exception

You can define of the Limit will Initialize annually and the amount to apply it,
When you access to this option on employee, it will show the current available amount and the category used:

Basic Information Here you may update the benefits record for this Employee. You may also add or subtract hours of the assigned benefits, as well as establishing some values for the system to have the benefits control updated.

Badges Benefits Record is Updated up to the day:

Classifications 10/13/2015

Schedules Click here to update the benefits taken in Category Transactions

Additional Information

Code	Description	Allowed	Taken	Availa	Annual
VAC	Vacation	40:00	08:00	32:00	00:00

Date	User	Allowe	Taken
06/01/2015	Administrator	40:00	
07/20/2015	Transaction Event		08:00

Code	Description	Allowed	Taken	Availa	Annual
FGH	Furlough	00:00	00:00	00:00	

Select a benefit, then right click for editing options

Prev Step Next Step

If the last category added is not showed on the current benefits, you have to options to update the screen, first on the screen you can select the link [Click here to update the benefits take in Category](#), and the table will update from the last update until today; second you can execute the Report Benefits in the date range selected and update the current category.

On the screen you can execute this actions:

[Click here to update the benefits taken in Category Transactions](#)

Code	Description	Allowed	Taken	Availa	Annual ▲
VAC	Vacation				
	<u>Date</u>				
	06/01/2015	Adm			
	07/20/2015	Tran			

Add record of Allowed benefit
Add record of Taken benefit
Assign an amount for annual initialization of the benefit

Add record of Allowed benefit: You can add more benefit to employee in base to need allow to employee take more category time.

Add record of Taken benefit: You can add a used benefit with out add a new category from time card.

Assing an ammount for a annual initialization of the benefit: You can define a new the annual benefit for the employee.

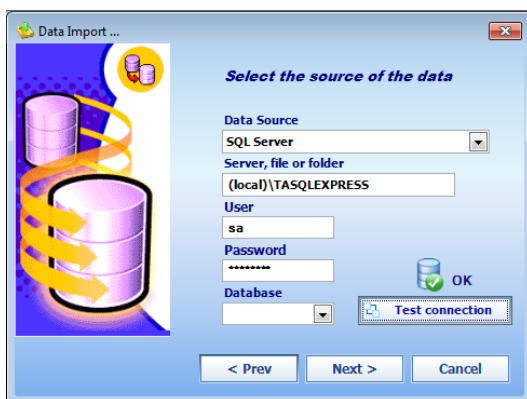
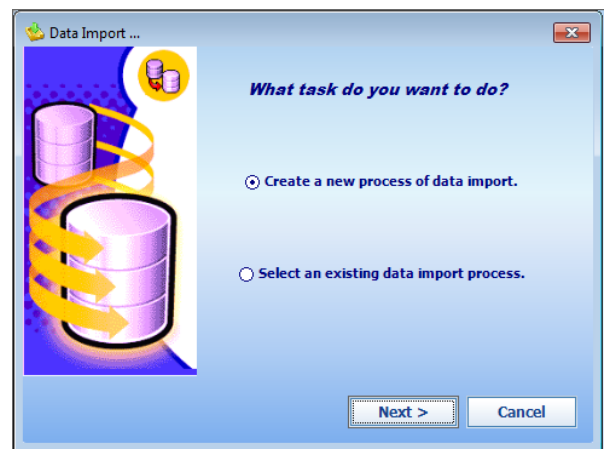
When is update the benefit the table will show the total Allowed, Total taken and the Available for the employee.

Employee Import

In most of the implementation, companies already have a database of employees in any format. The Pendulum system features an Employee Import tool that will allow importing employee information to the system with the least effort possible and relieve the user from employee data capturing. You will find the option Employee Import under the Maintenance-Employee menu.

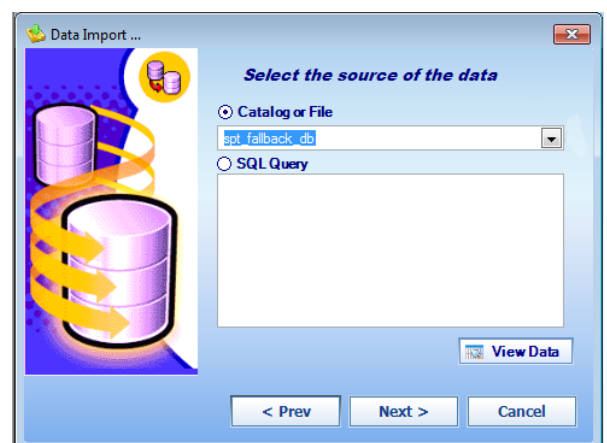
You may run a previously made import process or create a new one. The following paragraphs will explain how to create a new import process.

To start creating a new import process, the first step is to select the source of the employee information you already have. The system supports most of the data sources that are supported on the Windows operating system. But, using the experience over the years, the most reliable and easy is to use a text file as source of information. Anyhow, you may use any source if you are familiar with the use of that source, as they require more knowledge of different database technologies in order to be successful in this task.

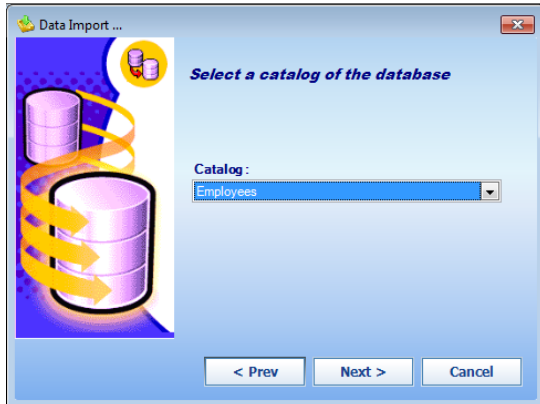


When the data source is just a single file, such as an excel file or a text file, the only required parameter are the path and file name. But, if using a database server, you will be required to provide the server name, database, and in most cases users and passwords to have access to the database server. You may also test the connection to make sure all information for the connection to the source is fine.

Then select either a table, view or an SQL sentence to retrieve the information you will import. At this point you may view the data to retrieve just to verify if the source is correct.

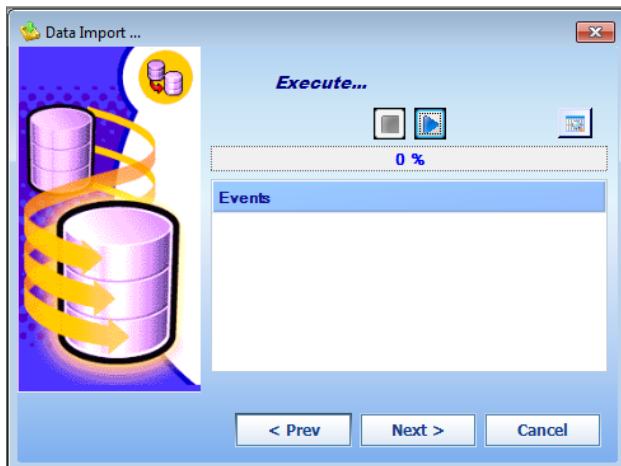
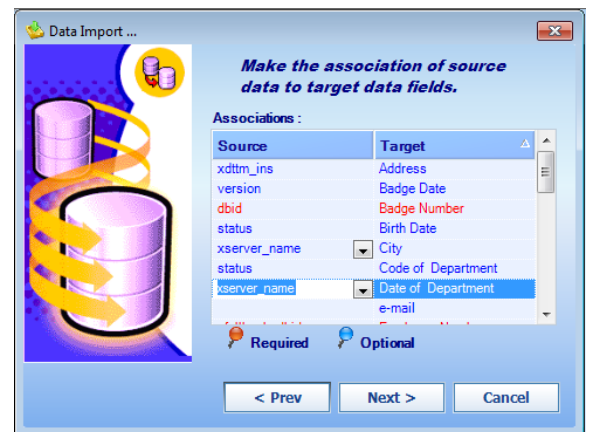


Next step, select the target, in this case, the target must be Employee Catalog, as you are importing employees.



Then you will see the columns of the target catalog in the column on the right, and in the column of the left, you may select the source column to map to each datum of the employees catalogs. The employee data shown in red are mandatory. But try to map the most fields as possible to minimize data capture in the future.

Once everything has been mapped, and then you may run the import process recently created. If an error occurs, it will be shown in the event list. You may also save the process to reuse it in the future.

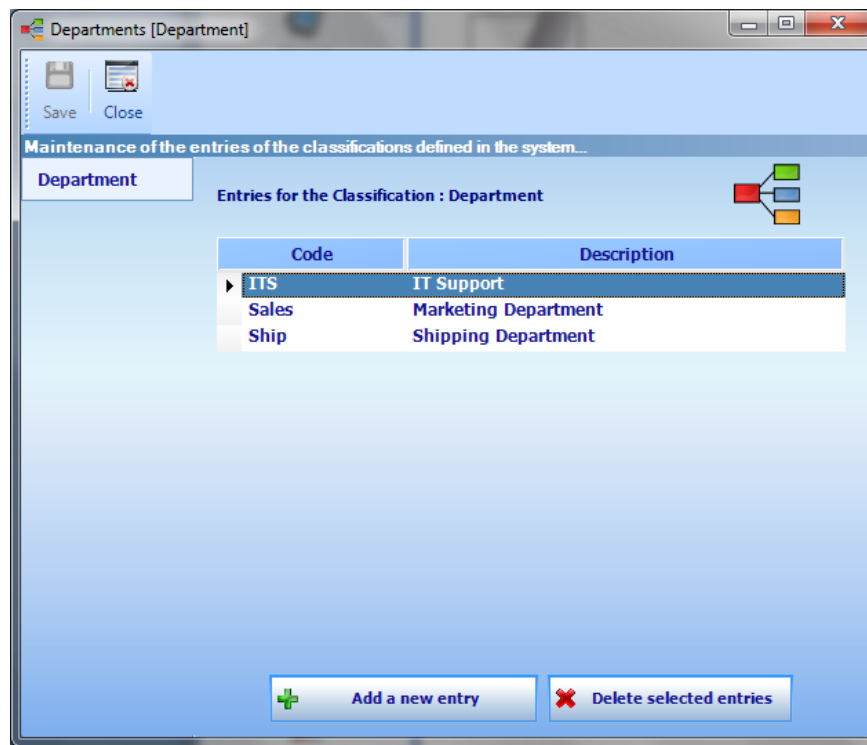


When the process is run again, the system validates the information and eliminates duplicated values, but it may update the employee catalog using this same process.

You may also include classification assignment and status update. The system will validate this data properly and maintain the respective history.

Editing Classification for Employees

Even though pendulum system allows entering classification elements directly in the classification assignment to employees; it features a classifications maintenance panel, where you may add, delete and edit the classification elements to all classifications defined in the system.



This screen shows classifications defined in the company setup under the Classification for Employees. Clicking on each classification tab, the list of elements for that classification will be shown. There you may add, delete or edit the items. There are two buttons at the bottom of the screen, but if you select the item, then right-click on it, a menu with editing options will appear.



When finalizing editing the items, you must press the save button on the toolbar at the top to save all changes made to the classification.

Groups Catalog

Groups are used to classify employees and to administer them, with the ability of being able to view employees that have been assigned to groups. They are also used in reports to filter and group employees.

The screenshot displays the 'Groups [6260 REGIONAL SALES]' window. The interface includes a toolbar with icons for List, Add, Save, Delete, and navigation buttons (First, Previous, Next, Last, Close). The 'Group Information' tab is active, showing the 'Definition' section with the following fields:

Code	6260
Name	REGIONAL SALES
Description	REGIONAL SALES
E-Mail	sales@company.com

A small icon of three people is visible next to the Name field.

This screen is used to define and describe the group. Then each employee will be assigned to a single group and the groups are assigned to users, see **Users** section.

Each group only needs a code, a name and a short description.

On this screen can define the email for each group, this email will use to send reports by groups assigned of the employee.

Categories

Categories are the element of classification of worked time or events on the system. All time is always placed in a category. Categories are also used to justify and summarize un-attendance, as incidences. They may be used in hours, for time, or in units, to add any unit to the employee attendance record, a unit may be one day or one dollar.

Categories [REG Regular]

List Add Save Delete First Previous Next Last Close

General Information

Each Category is used to classify, report and export the worked time. The system has all necessary Categories already defined. You may modify or add more as needed.

Export Codes

Category Code: REG

Description: Regular

Category Type: Regular

Type of units in this Category... H U

Is this Category Exported to other systems? Y N

Override Unattendance for the day it is used? Y N

Valid for Holidays and not scheduled days? Y N

Is this Category paid? Y N

Is this Category a Benefit? Y N

Initialize the benefit annually? Y N

Annual amount to initialize the benefit: 00:00

Exception generated when apply this Category: No Exception

Prev Step Next Step

There are some built in categories the system uses. Such as Regular, Lunch, Break, Vacation, Un-attendance, Substitution, Holiday, Sick, Tips. But also any other required category may be added and used in the system to add time or units to employees. Categories may be also used as benefits and keep track of them in the system. As categories are the basic unit to accumulate time and incidences, then they are used to export worked time.

General Information

Categories, like all other elements of the system require a **Code** and **Description** to identify the category. They also need a Type of Category that applies to the type of concept, for example: Regular Day, Time for Lunch, Holliday and others. This will be used for the system to identify the categories it needs. So, built in categories should

never change its type. Even though, code and description may be changed. All additional categories that you may require must only have any of the types: Configurable, Unattendance and Swap.

Each category type is used as follows:

Configurable: Used for all custom categories.

The following types have an obvious name and must exist in only one category in each of them:

Regular, Lunch, Break, Holiday, Tip Cash, Tip Charge, Vacation, Sick.

The following types are reserved for future use: Personal, Pay per Day 1, Pay per Day 2.

The type **Unattendance** is used to force a worked day as un-attendance. The Time added in an un-attendance category transaction will be deducted from worked time, and force the day to be un-attendance.



PLEASE DO NOT USE unattendance categories to export UNATTENDANCE days. A custom category must be added to export unattendance, and select that custom category in the export configuration to export unattendance.



The type **Swap** is used when the substitution of an employee for another in one day is made. So the time worked for the employee will be accumulated in the substituted employee. The time added in a swap transaction will be deducted from the worked time of the employee and added to the substituted employee as regular time.

Type of Units: Select if this incidence is used as hours or units. Hour categories are used to accumulate time and unit categories are used to accumulate events or money.



Do not mix hours categories in configuration values that needs units categories and do not mix unit categories in configuration values that need hour categories, or an unpredictable result may be obtained from the system.

Export Category: if this category is being exported to a third party pay system, the export codes section will be enabled. All categories marked exportable and have time or units will be available for exports. Generic export will export all exportable categories with values on them.

Override Unattendance for the day: If the day is unattendance (there is no punch on it) but a category selected for override attendance is added in the day, then the day will be treated as justified unattendance day.



For categories of type Unattendance (UNAT), this value has a different effect. If in the day there is a unattendance category transaction marked to NOT override unattendance, the day will be forced to be unattendance.

Valid for Holidays and Not Scheduled Days: Select if this category may be used in holidays or not scheduled to work days. If a global category transaction is made, the transaction will not be added to holidays and not add to scheduled days.

Is this Incidence paid: The accumulated hours in this category will be marked payable hours. You can use this setting in custom exports or custom reports. In the system hours not payable appears colored in red.

Is this Category a Benefit: To make this category a benefit. The benefits are used to track the number of hours or times employees use these benefits. The system will report how many benefits the employee has taken and how

many benefits the employee has available to use. If the employee is where the benefit control takes place and there is a report to generate information about benefits. Check the benefits section for more information.

Initialize benefit annually: If benefits are used, then this option ensures that every anniversary, users get an amount of hours or unit's benefits in addition of those already defined.

Annual amount to initialize the benefit: The amount to add each anniversary.

Exception to generate with this Category: An entry is selected that will be used every day this category is added to the employee, an exception will be generated as well. So, categories may be used in Exception Rules or be included in exception reports.

Export Codes

Export codes are used to export the amount accumulated in the category to third party payrolls or the generic export. Amounts are partitioned by time level and shift and each partition is assigned an export code. In the export library these export codes are translated to the concepts the third party payroll uses. This section is enabled when the category is marked to be exported.

Categories [New Record]

General Information
Export Codes

The Categories amount may be exported to other systems using the export codes that are defined here. Either time or units of this Category is assigned to an export code according to the shift and time level it is accumulated. These are the codes that are finally exported.

The following export codes are actually defined for this Category:

Time Level	Export Code
REG	11
OT1	12
OT2	13

+ Add an Export Code
X Delete this Export Code

Prev Step Next Step

The first time the category is added, default export codes are added to all time levels defined in the system. They can be modified or deleted in accordance with your company needs. An editing menu appears if the mouse is hovered over the yellow down arrow or when right clicking in the export codes list.

Each export code consists of the following:



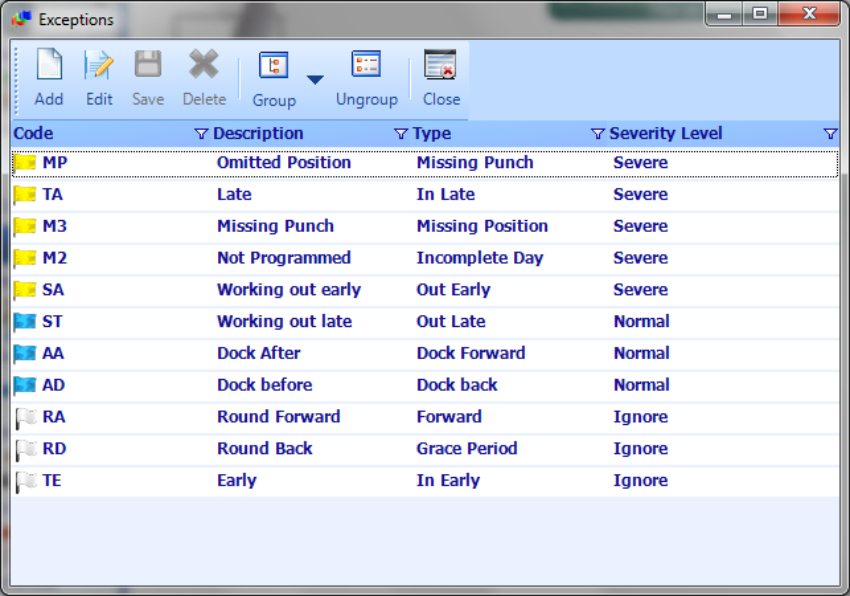
Time Level: This export code will be used if the category has an amount of this time level. If time level is set to ALL then this export code will be used for all time levels.

Shift: The worked time may be split by the shift it was worked in. So you may export regular time worked in the first shift differently than regular time worked in the second shift. So, select the shift this export code will apply to. If 'All' is selected, then the export code will be used for all shifts.

Export Code: The code to be used to export any amount of time that fits in the time level and shift selected.

Exceptions

Exceptions are events linked to the transactions or a specific condition on the attendance, the exception can define on the Shifts, link to the IN or OUT transaction, or can be apply for the all day.
By default the application have a list of Exception for the common events:



Code	Description	Type	Severity Level
MP	Omitted Position	Missing Punch	Severe
TA	Late	In Late	Severe
M3	Missing Punch	Missing Position	Severe
M2	Not Programmed	Incomplete Day	Severe
SA	Working out early	Out Early	Severe
ST	Working out late	Out Late	Normal
AA	Dock After	Dock Forward	Normal
AD	Dock before	Dock back	Normal
RA	Round Forward	Forward	Ignore
RD	Round Back	Grace Period	Ignore
TE	Early	In Early	Ignore

This list can be edit in base of the company needs.
There is no limit in the number of Exceptions, can define customize and define of type User.

General data

In this section you define the parameters for identify the Exception, the Code and Description is used for identify in the Shift definition or when is apply in the Time Card.

The screenshot shows a software window titled "Exceptions [MP Omitted Position]". It has a toolbar with icons for List, Add, Save, Delete, First, Previous, Next, Last, and Close. The "General Data" tab is selected, displaying a "Definition..." form. The form contains the following fields:

Code	MP	Yellow Flag Icon
Description	Omitted Position	
Type	Missing Punch	
Severity Level	Severe	

Type: The type of the exception define how will apply to the attendance, with this Type of exception the system will calculate or apply to the transaction or attendance day, for example the In Late type is assigned when an employee punch after the IN punch.

Severity Level: Can define the level of Severity for display or evaluate the Exception, based on the severity a color flag is placed on the Time card, the Severity levels are: Ignore, Normal, Middle, Severe, High

Schedules

Schedules are the most important element of the system. They define the policies to handle the transactions and the rules to calculate the worked time. So, the correct functioning of the system depends in great part on the correct configuration and assignment of the schedules.

Schedules contains general parameters for time calculation, transaction processing and shift definition, where the programmed transaction, time rounding and automatic adjustments of the worked time are defined.

There is no limit in the number of Schedules as well as no limit in the number of shifts with in each schedule.

That is why configuration possibilities are endless.

A combination of a Schedule and Shift is assigned each day of the week to employees.

assigned to a schedule for every day of the week, even if they do not work on certain days. See Employee maintenance, Schedule Assignment for details.

General Information

Schedule #:

Description:

Company:

Frequency: ☒ W ☐ E ☐ S ☐ M

Start Date:

Parameters for Transactions Processing

Use Time Rounding: ☐

Automatic Deductions: ☐ E ☐ W ☒ N

Break Punches: ☐

Round Break Punches: ☐

Lunch Punches: ☐

Round Lunch Punches: ☐

Pay Over-Time: ☐

Pay Non-Worked Holidays: ☐

Fixed Shift Windows: ☐

Exception Report Parameters: ☐

California OT: ☐

Day change offset:

Move to the Next Day the transactions of type:

If they are made after:

Keep together the transactions of type:

If the time between them does not exceed:

Missing Punch Limit over Day Change:

Category to add, for Missing punch in a Day?:

Hours to add in Missing Punch Days:

Time Level for Missing Punch Hours:

Accrue towards Time Level Limits:

Delete Intermediate Pairs of Punches:

Prev Step Next Step

General Information

Schedule # - Click on the New Icon or the Open Icon to choose an existing Schedule.

Description - Enter the Schedule Description

Frequency - Select the Pay Period Frequency, either Weekly, Biweekly, Semi-monthly or Monthly. The Start Date will appear after the Pay Period is selected. The Pay Period Dates were previously setup in the Company, Pay Periods Screen or under the Divisions screen.

Start Date - The Start Date is a view only field. This date is accessed from the Company or Divisions Pay Periods Start date.

Day Change - Select the Day Change. Normally the default of 1:00am is acceptable for all setups. This is an offset for the natural day change. So the punches are moved to the previous day if they are made before the time specified here. Usually 1:00 is the commonly used day change offset to take into account employee leaving after 00:00 on 2nd shift. The result is all punches between 00:00 and 01:00 are moved to the previous day. If you are unsure of this setting leave the default of 1:00 am.

Move the - Select all the punch types Move the IN Punch... to the Next day Starting at XX:XX. This feature is normally used when running a 3rd shift operation and you need to move transactions to the next day, i.e. normally just the IN PUNCH. If you are running 1st and 2nd shifts only, leave the defaults (no punches selected) and continue to step 5. If you are running a 3rd shift operation and an employee arrive on Sunday night at 22:00 pm to start Monday's work and you want all the hours credited to Monday you must check IN PUNCH on the list of available punches and specify ...to the Next Day Starting at 21:45. All IN Punches occurring at 21:45 would be credited to Next Day. If an OUT PUNCH occurs at 22:00 the punch will show up on Sunday, as it was NOT flagged to be moved to the next day.

Missed Punch Limit - Select the Missing Punch Limit. This feature determines when an employee forgets to punch and once this limit is reached the system will automatically insert a missing punch flag on a time card report and will show up on the missing punch report. If this time has elapsed since the first IN punch of the day and the LAST OUT hasn't arrived, then the day is flagged as Missing Punch.

Category to add, for missing punch in a day. If the employee only punch one time on the day, the application will add automatic the Category selected, in base to justify the day and apply an automatic time.

Hours to add in missing punch days. Define quantity of hours to apply on the day when missing a punch.

Time level for missing punch hours. Define Time Level to use when add hours on the day when missing a punch.

Accrue towards time level limits. Define if the hours added to employee on missing punch will accumulate for limits of day and period.



Delete intermediate pairs of punches. If the system include several transactions, and only need the first and last transaction on the day, you can active this option to delete the intermediate transactions; if the Schedule defines time for lunch, it will leave on the day.

Use Time Rounding - The Time Rounding parameters allows define rounding periods for all punches during the day. If Fixed Shifts are being used, then all punches that fall out of the pre-defined Fixed Shift parameters would apply. These parameters are used to divide one hour into even intervals that punches will be moved to. With Time Rounding disabled employees assigned to this schedule are paid minute to minute. If you wish to use a feature, check the appropriate box.

Automatic Deductions E, W, N - The time for breaks and lunches automatically deducted, enter E for elapsed time. This allows for a deduction after a given amount of time is worked W for deduct window allows for a deduction at a certain time of day. N for not used turns off auto deducts.

Break Punches - The Break Punches feature allows the employee to swipe their badge and press a designated key Out for Break & In from Break. Swipe & Go Employees simply swipe their badge and system automatically knows if the transactions are Break punches If you wish to use a feature, check the appropriate box.

Round Break Punches - The Round Break Punches feature allows the employee's Break punches are rounded. Rounding of Break Punches is normally not used as an employee could lose part of their allowed Break period. If you wish to use a feature, check the appropriate box.

Lunch Punches - The Lunch Punches feature allows the employee to swipe their badge and press a designated key Out for Lunch & In from Lunch. Swipe & Go Employees simply swipe their badge and system automatically knows if the transactions are Lunch punches If you wish to use a feature, check the appropriate box.

Round Lunch Punches - The Round Lunch Punches feature allows the employee's Lunch punches be rounded. Rounding of Lunch Punches is normally not used as an employee could lose part of their allowed Lunch period. If you wish to use a feature, check the appropriate box.

Pay Overtime - The Pay Overtime feature allows the system handles up to three overtime levels plus the regular time, which is addressed as Overtime level 0. If you wish to use a feature, check the appropriate box.

Pay Non-Worked Holidays - The Pay Non-Worked Holidays feature allows you to widely configure the system to pay all time related to a holiday, based on days worked before and after the holiday, day of service prior to the holiday, non-worked and worked holidays. If you wish to use a feature, check the appropriate box.

Fixed Shifts - The Fixed Shifts feature, allows you to accommodate up to 3 shifts (1,2 and 3) in every schedule. When fixed shifts are defined in a schedule, a specific shift is assigned later to the employee in Schedule assignments. If your company has specific Start & Stop times for the day and needs to control employee early arrivals or late departures Fixed Shifts will control these issues. If you require an open schedule do not select Fixed Shifts. If you wish to use a feature, check the appropriate box.

California Overtime - The California Overtime feature will allow you select 7th day Overtime currently required in California.

Deductions

Schedules [001 First Shift 8:00-5:00 (1 hr Lunch)]

List Add Save Delete First Previous Next Last Close

General Information	Automatic Deduction Parameters
Deductions	<p># 1 After Elapsed Time Worked (hhmm): 00:00</p> <p>Amount of Time to Deduct.....(mm): 0</p> <p># 2 After Elapsed Time Worked (hhmm): 00:00</p> <p>Amount of Time to Deduct.....(mm): 0</p> <p># 3 After Elapsed Time Worked (hhmm): 00:00</p> <p>Amount of Time to Deduct.....(mm): 0</p>
Time Level Limits	<p>Punch Break/Lunch Parameters</p> <p>Break Duration.....(mm): 15</p> <p>Minimum.....(mm): 5</p> <p>Maximum.....(mm): 15</p> <p>Grace: 5</p> <p>Paid Break <input type="checkbox"/> Y <input checked="" type="checkbox"/> N</p> <p>Min. Work Time.....(hhmm): 00:00</p> <p>Maximum Allowed: 2</p> <p>Lunch Duration.....(mm): 60</p> <p>Minimum.....(mm): 15</p> <p>Maximum.....(mm): 60</p> <p>Grace: 5</p> <p>Paid Lunch <input type="checkbox"/> Y <input checked="" type="checkbox"/> N</p> <p>Min. Work Time.....(hhmm): 00:00</p> <p>Maximum Allowed: 1</p>
Fixed Shifts	<p>Break/Lunch Punch Rounding</p> <p>Round OUT: Every 0 Minute, Round Back 0 -> 0 Grace Forward 1 -> 0</p> <p>Round IN: Every 0 Minutes, GraceBack 0 -> 0 Round Forward 1 -> 0</p>
Holiday and Exceptions	

Prev Step Next Step

Automatic Deductions Parameters - With Automatic Deductions, when a set amount of time is worked (Elapsed time worked), this time is deducted (amount of time to deduct) from an employee worked time. Up to three deductions can be made in a single work period. Elapsed time starts from a clock IN and is reset upon a clock OUT.

#1 After Elapsed Time Worked (hhmm) - Enter elapsed time as the amount of time that must pass before this deduction will be taken.

Amount of Time to Deduct (mm) - Enter deduct time as the amount of time to deduct from the total hours worked the elapsed time.



#2 After Elapsed Time Worked (hhmm) - Enter elapsed time as the amount of time that must pass before this deduction will be taken.

Amount of Time to Deduct (mm) - Enter deduct time as the amount of time to deduct from the total hours worked the elapsed time.

#3 After Elapsed Time Worked (hhmm) - Enter elapsed time as the amount of time that must pass before this deduction will be taken.

Amount of Time to Deduct (mm) - Enter deduct time as the amount of time to deduct from the total hours worked the elapsed time.

Punched Break Parameters - If Punched Break Deduction was enabled in the Schedule's First Page, then the Punched Break Deduction parameters will be shown in this screen.

Break Duration (mm) - Enter the Break Duration. This is the amount of Break that will be deducted when you meet the criteria listed below for unpaid Break.

Minimum (mm) - Enter the Minimum number of minutes an employee would punch out for Break and you want the system to recognize the punch as a OUT to Break. When the employee Punches Out on Break for the minimum the full Duration for the Break will be deducted. In the Default Break example, if the employee punches out for 5 minutes, they will be charged for the full 10 minute Duration.

Maximum (mm) - Enter the Maximum number of minutes an employee would be out for Break. The Maximum minutes used to control long Breaks. In the default Break, if an employee is out for 15 minutes the employee is charged for the full 15 minutes for Break. All Break hours that exceed the Maximum Allowed, are deducted from the worked time.

Grace (mm) - Enter the Grace number of minutes an employee can arrive late from Break and not be penalized. In the default Break example, if the employee is out for 12 minutes the employee will not be penalized because there was a 2 minute Grace available. Duration + Grace would tell how long an employee can take a Break / Lunch with NO penalty. If the employee exceeds the Duration + Grace time, but doesn't exceed the Maximum, they are paid for the Duration and the difference is deducted from work time. In the Break example the employee punches out for 15 minutes, the employee is paid for the Duration of 10 and 5 minutes is deducted from the work time.

Paid Y/N - Select if the Break is Paid Yes or No. To qualify for Paid Breaks, you must punch for at least the Minimum and not exceed the Break Duration. If you have a Grace available for late arrive from Break, you will be paid for the Break / Lunch as long as did not exceed the Break Duration + Grace time. If you exceed the Grace on return from Break, then you are paid the difference between the Break Duration and the time out up to and including the Maximum. Once you exceed the Maximum, the entire Break is NOT paid.

Min. Work Time - Select the Minimum Work Time that an employee must work in order to qualify for a paid break. In the default Break setup the employee must work a minimum of 2:00 to qualify for a Paid Break.

Maximum Allowed - Select the Maximum Allowed for Breaks. In the default Break setup the employee is allowed 2 Paid Breaks and if they take a third Break it would not be paid.



Punched Lunch Parameters - If Punched Lunch Deduction was enabled in the Schedule's First Page, then the Punched Lunch Deduction parameters will be shown in this screen.

Lunch Duration (mm) - Enter the Lunch Duration. This is the amount of Lunch that will be deducted when you meet the criteria listed below for unpaid Lunch.

Minimum (mm) - Enter the Minimum number of minutes an employee would punch out for Lunch and you want the system to recognize the punch as a OUT to Lunch. When the employee Punches Out for Lunch for the minimum the full Duration for the Lunch will be deducted. In the Default Lunch example, if the employee punches out for 16 minute, they will be charged for the full 60 minute Duration.

Maximum (mm) - Enter the Maximum number of minutes an employee would be out for Lunch. The Maximum minutes used to control long lunches. In the default Lunch, if an employee is out for 70 minutes the employee is charged for the full 70 minutes for Lunch. All Lunch hours that exceed the Maximum Allowed, are deducted from the worked time.

Grace (mm) - Enter the Grace number of minutes an employee can arrive late from Lunch and not be penalized. In the default Break example, if the employee is out for 12 minutes the employee will not be penalized because there was a 2 minute Grace available. Duration + Grace would tell how long an employee can take a Lunch with NO penalty. If the employee exceeds the Duration + Grace time, but doesn't exceed the Maximum, they are paid for the Duration and the difference is deducted from work time. In the Lunch example the employee punches out for 15 minutes, the employee is paid for the Duration of 10 and 5 minutes is deducted from the work time.

Paid Y/N - Select if the Lunch is Paid Yes or No. To qualify for Paid Lunches, you must punch for at least the Minimum and not exceed the Lunch Duration. If you have a Grace available for late arrive from lunch, you will be paid for the Lunch as long as did not exceed the Lunch Duration + Grace time. If you exceed the Grace on return from Lunch, then you are paid the difference between the Lunch Duration and the time out up to and including the Maximum. Once you exceed the Maximum, the entire Lunch is NOT paid.

Min. Work Time - Select the Minimum Work Time that an employee must work in order to qualify for a paid lunch.

Maximum Allowed - Select the Maximum number of allowed for Lunches. In the default Lunch setup the employee are allowed 1 and lunches are not paid.

Break Lunch Punch Rounding - If Round Break/Lunch Punches are enabled in the Schedule's First Page, then the Round Break/Lunch Punch parameters will be shown in this screen. The Break/Lunch Punches rounding feature is normally used when you have ridged Break and Lunch times. If you require a flexible Break/Lunch schedule then disable this feature. When using Break/Lunch Punches rounding (not supported if using Swipe and Go), then the Rounding parameters for Break/Lunch punches are shown in this screen. Use this feature if you want to round Employee Break and Lunch punches. Break/Lunch Punch Rounding will round all PUNCHED Break and Lunch transactions.

Round Out Every _ Minute - The Round OUT: Every X Minutes must be a number that evenly divides 60 minutes of an hour (1, 2, 3, 4, 5, 6, 10, 12, 15, 20, 30) interval. Normally what every you choose for the Round Out the same should be used for the Round In.

Round Back - The Round Back 0=> must be a number that equal to or less than the interval selected for Round OUT. With a Round Back of 7 minutes and Rounding OUT Every 15 minutes, employees who punches OUT for Break/Lunch from 1 to 7 minutes into the 15 minute interval are rounded back to the previous interval. Example, an employee punches OUT to Lunch at 12:07 their punch will calculate as 12:00.

Grace forward - The Grace 0=> will be automatically selected based on the Round OUT & Round Back values. Round OUT – Round Back = Grace. Example, an employee punches OUT at 12:08 their punch will calculate as 12:15.

Round In Every _ Minute - The Round IN: Every X Minutes should be a number that evenly divides 60 minutes of an hour (1, 2, 3, 4, 5, 6, 10, 12, 15, 20, 30) interval. Normally what every you choose for the Round In the same should be used for the Round Out.

Grace Back - The Grace 0=> will be automatically selected based on the Round IN & Round Back values. Round IN – Round Back = Grace. Example, an employee punches OUT at 13:09 their punch will calculate as 13:15.

Round Forward - The Round Back 0=> must be a number that equal to or less than the interval selected for Round IN. With a Round Back of 8 minutes and Rounding IN Every 15 minutes, employees who punch IN for Break/Lunch from 1 to 8 minutes into the 15 minute interval are rounded back to the previous interval. Example, an employee punches IN from Lunch at 13:08 their punch will calculate as 13:00.

Time Level Limits

#1 Pay Rate Multiplier - Select a Pay Rate Multiplier. This value is to let the user know which type of overtime is dealing with. Select the #1 Pay Rate Multiplier, normally 1.50, select the # 2 Pay Rate Multiplier, normally 2.00 (leave 0.00 if not used) and select # 3 Pay Rate Multiplier, normally 3.00 (leave 0.00 if not used).

OT Cycle W,B,S,M - Select the Overtime Cycle either Weekly, Bi-weekly, Semi-Monthly or Monthly. This is the type of OT cycle you calculate the period limits. Ex: You pay overtime after 40 hours has been worked, a week. Set OT Cycle to w for weekly. This OT Cycle entry is independent from the schedule pay period, but must not exceed the schedule pay period. ex: The current schedule you are working on is a Biweekly schedule. You may choose w for weekly or b for biweekly overtime, but you cannot choose s for semimonthly or m for monthly since these overtime cycles are longer than the schedule pay period. Enter the OT Cycle used for the bases of paying overtime. NOTE: If the schedule you are working on is semimonthly you may choose both weekly and biweekly overtime. The system is



designed to carry overtime passed the schedule pay period stop date/time and correctly calculate the overtime into a semimonthly or monthly pay period.

Daily Limit (hhmm) - Select the Day Limit as the threshold at which the overtime will start to accrue for the day. Select the Daily Limit for each Overtime setup on the system. An example of three daily limits would be Daily limit for Overtime 1 would occur after 08:00, Overtime 2 would occur after 12:00 and Overtime 3 would occur after 16:00. An employee who worked 18.00 hours with the three overtime limits would receive 8 hours Regular, 4 hours Overtime 1, 4 hours Overtime 2 and 2 hours Overtime 3.

Period Limit (hhmm) - Select the Weekly Limit as the maximum worked time (total of previous overtime levels) in a week after which the overtime starts accruing for that level. Select the Weekly Limit for each Overtime Setup. The time that already qualified for that overtime level (when the daily limit was applied) is not considered in the calculation of the weekly overtime. An example would be a Weekly limit of 40:00 for OT1, 48:00 for OT2 and 54:00 for OT3.

#2 Pay Rate Multiplier - Select a Pay Rate Multiplier. This value is to let the user know which type of overtime is dealing with. Select the #1 Pay Rate Multiplier, normally 1.50, select the # 2 Pay Rate Multiplier, normally 2.00 (leave 0.00 if not used) and select # 3 Pay Rate Multiplier, normally 3.00 (leave 0.00 if not used).

OT Cycle W,B,S,M - Select the Overtime Cycle either Weekly, Bi-weekly, Semi-Monthly or Monthly. This is the type of OT cycle you calculate the period limits. Ex: You pay overtime after 40 hours has been worked, a week. Set OT Cycle to w for weekly. This OT Cycle entry is independent from the schedule pay period, but must not exceed the schedule pay period. ex: The current schedule you are working on is a Biweekly schedule. You may choose w for weekly or b for biweekly overtime, but you cannot choose s for semimonthly or m for monthly since these overtime cycles are longer than the schedule pay period. Enter the OT Cycle used for the bases of paying overtime. NOTE: If the schedule you are working on is semimonthly you may choose both weekly and biweekly overtime. The system is designed to carry overtime passed the schedule pay period stop date/time and correctly calculate the overtime into a semimonthly or monthly pay period.

Daily Limit (hhmm) - Select the Day Limit as the threshold at which the overtime will start to accrue for the day. Select the Daily Limit for each Overtime setup on the system. An example of three daily limits would be Daily limit for Overtime 1 would occur after 08:00, Overtime 2 would occur after 12:00 and Overtime 3 would occur after 16:00. An employee who worked 18.00 hours with the three overtime limits would receive 8 hours Regular, 4 hours Overtime 1, 4 hours Overtime 2 and 2 hours Overtime 3.

Period Limit (hhmm) - Select the Weekly Limit as the maximum worked time (total of previous overtime levels) in a week after which the overtime starts accruing for that level. Select the Weekly Limit for each Overtime Setup. The time that already qualified for that overtime level (when the daily limit was applied) is not considered in the calculation of the weekly overtime. An example would be a Weekly limit of 40:00 for OT1, 48:00 for OT2 and 54:00 for OT3.

#3 Pay Rate Multiplier - Select a Pay Rate Multiplier. This value is to let the user know which type of overtime is dealing with. Select the #1 Pay Rate Multiplier, normally 1.50, select the # 2 Pay Rate Multiplier, normally 2.00 (leave 0.00 if not used) and select # 3 Pay Rate Multiplier, normally 3.00 (leave 0.00 if not used).

OT Cycle W,B,S,M - Select the Overtime Cycle either Weekly, Bi-weekly, Semi-Monthly or Monthly. This is the type of OT cycle you calculate the period limits. Ex: You pay overtime after 40 hours has been worked, a week. Set OT Cycle to w for weekly. This OT Cycle entry is independent from the schedule pay period, but must not exceed the schedule pay period. ex: The current schedule you are working on is a Biweekly schedule. You may choose w for

weekly or b for biweekly overtime, but you cannot choose s for semimonthly or m for monthly since these overtime cycles are longer than the schedule pay period. Enter the OT Cycle used for the bases of paying overtime. NOTE: If the schedule you are working on is semimonthly you may choose both weekly and biweekly overtime. The system is designed to carry overtime passed the schedule pay period stop date/time and correctly calculate the overtime into a semimonthly or monthly pay period

Daily Limit (hhmm) - Select the Day Limit as the threshold at which the overtime will start to accrue for the day. Select the Daily Limit for each Overtime setup on the system. An example of three daily limits would be Daily limit for Overtime 1 would occur after 08:00, Overtime 2 would occur after 12:00 and Overtime 3 would occur after 16:00. An employee who worked 18.00 hours with the three overtime limits would receive 8 hours Regular, 4 hours Overtime 1, 4 hours Overtime 2 and 2 hours Overtime 3.

Period Limit (hhmm) - Select the Weekly Limit as the maximum worked time (total of previous overtime levels) in a week after which the overtime starts accruing for that level. Select the Weekly Limit for each Overtime Setup. The time that already qualified for that overtime level (when the daily limit was applied) is not considered in the calculation of the weekly overtime. An example would be a Weekly limit of 40:00 for OT1, 48:00 for OT2 and 54:00 for OT3.

Forced Overtime for IN Punches between xx:xx and yy:yy - We can make the system Force Overtime for IN Punches that occur between windows of time. This mean that if an IN Punch is issued in the defined time window, all the time up to the next OUT Punch is sent directly to the OT Level specified in at Overtime Level parameter. Select the beginning of the window and the end of the window.

at Overtime Level - Select the Overtime Level to pay for forced Overtime for IN punches that occur between windows of time.

Force Overtime for Time Outside Defined Shifts y/n - Another form for calculating Overtime is to Force Overtime for Time Outside Defined Shifts. This causes any time accrued outside of the employees defined shift start and stop time to be accrued as overtime, at the overtime level specified. For ex. Their schedule has one shift 08:00 to 17:00. They clock in at 07:00 and clock out at 18:00. They will accrue 2 hours of overtime (07:00 - 08:00 and 17:00 - 18:00).

at Level - Select the Overtime Level to pay for Time outside defined shifts. 0 = Regular, 1 = Overtime 1, 2 = Overtime 2 and 3 = Overtime 3.

Calculate OT if Regular exceeds xx:xx hours in the previous 24 Hrs. - If Regular hours exceed a defined threshold of HH:MM in the previous 24 hours, calculate Overtime at defined level. Once this threshold all hours are paid at the listed level.

at Level - Select the Overtime Level to pay for time exceeding defined threshold. 0 = Regular, 1 = Overtime 1, 2 = Overtime 2 and 3 = Overtime 3.

Forced Overtime by Day of the Week SMTWTFS - The Force Overtime by Day of the Week option, forces any time accrued on the selected day to be accrued as the overtime level specified. You may instruct the system to Keep OT Level over day change to accrue to the same OT level after the day has changed, or calculate regular time after the day has changed. Select the days of the Week you want forced to Overtime, select the overtime level and do you wish to keep the OT level over the Day Change.

at Overtime Level - Select the Overtime Level to pay for the specific day of the week. 0 = Regular, 1 = Overtime 1, 2 = Overtime 2 and 3 = Overtime 3.

Keep IN OT Level Over Day Change - Keep Overtime Level over a Day Change allows to maintain the current OT rate otherwise it will reset at the day change.

Fixed shifts

Schedules [001 7:30 TO 5:00 \ 11:25 LUNCH]

List Add Save Delete First Previous Next Last Close

General Information

Deductions

Time Level Limits

Fixed Shifts

Holiday and Exceptions

Fixed Shift and Time Rounding

Shift START and STOP Window

Shift	Start	Cut-Off	Stop	Diff.
# 1	07:30	17:00	17:00	Y N
# 2	00:00	00:00	00:00	Y N
# 3	00:00	00:00	00:00	Y N

Late Arrival IN-Punch Grace Back (mm): 15

Early Arrival Round Forward (mmm): 60

Late Arrival Dock Forward (mm): 15

Early Departure OUT-Punch Grace Forward (mm): 0

Late Departure Round Back (mmm): 10

Early Departure Dock Back (mm): 0

Shift IN/OUT Punch Rounding (Outside of Start/Stop Window)

Round IN: Every 15 Minutes, Grace Back 0 -> 7 Round Forward 8 -> 15

OUT: Every 15 Minutes, Round Back 0 -> 7 Grace Forward 8 -> 15

Prev Step Next Step

Shift start and stop window.- Define the 3 shifts available on the Schedule, You define the Star Time of the Schedule (IN), the Cut Off for each shift, it will limit the change of the Shift and the Stop of the shift (OUT). When assignment the Schedule to employee, you can select the fix Shift or can select Floating shift, on this case the Shift will calculate in base to the first punch on the day, and the limit for each shift is the Cut off.

Late arrival In-Punch Grace Back (mm): Define the time limit of grace on minutes to arrive late on this Schedule. If the employee punches on this limit the transaction will round to the IN time defined.

Early Arrival Round Forward (mmm): Define the time limit on minutes to arrive early on this Schedule. If the employee punches on this limit the transaction will round to the IN time defined.

Late Arrival Dock Forward (mm): Define the time limit to dock forward on minutes to arrive late on this Schedule after the Round late arrival. If the employee punches on this limit the transaction will round to the IN plus late grace and dock forward time defined.

Early Departure OUT-Punch Grace Forward (mm): Define the time limit of grace on minutes to departure early on this Schedule. If the employee punches on this limit the transaction will round to the OUT time defined.

Late Departure Round Back (mmm): Define the time limit to back on minutes to departure early on this Schedule. If the employee punches on this limit the transaction will round to the OUT time defined.

Early Departure Dock Back (mm): Define the time limit to dock back on minutes to departure early before the early departure on this Schedule. If the employee punches on this limit the transaction will round to the OUT less early departure and dock back time defined.

Shift IN/OUT Punch Rounding (Outside of start/ Stop window)

When then employee punch out of the range for the IN and OUT programed transaction, the application apply a general round in base these options for the IN and OUT Punch.

For the IN transactions:

The every time defines the cycle for the round, for example 1, 6, 10, 15, 30, 60 minutes

The Grace back defines when the time will round the initial cycle for example 0 to 7 minutes will round to 0.

The Round back defines when the time will round the initial cycle for example 8 to 15 minutes will round to 15.

For the OUT transactions:

The every time defines the cycle for the round, for example 1, 6, 10, 15, 30, 60 minutes

The Round back defines when the time will round the initial cycle for example 0 to 7 minutes will round to 0.

The Grace back defines when the time will round the initial cycle for example 8 to 15 minutes will round to 15.

Holiday and Exceptions

Schedules [001 7:30 TO 5:00 \ 11:25 LUNCH]

List Add Save Delete First Previous Next Last Close

General Information

Holiday Parameters for Paying Non-Worked Holidays

Pay-Rate Multiplier if Holiday is Worked: 0 1.000

Minimum Days of Employment to Qualify: 0

Required To Work Both The Schedule Day Before and After Either The Day Before Or After, Or None: B O N

Number of Days Before Posting Holidays: 0

Hours to Add for Each Worked Holiday: 09:00

Accrue Towards Overtime: Y N

At Level: 0 1.000

Hours to Add for Each Non-Worked Holiday: 09:00

Accrue Towards Overtime: Y N

At Level: 0 1.000

Prev Step Next Step

Holiday Parameters for Paying Non-Worked Holidays

Pay-Rate Multiplier if Holiday is worked: Define the time level to apply if the employee punch on the day and generate time worked.

Minimum Days of Employment to Qualify: Define the number of day that needs the employee active on the company to apply the Holiday.

Required to Work Both The Schedule Day Before and After Ether the days Before or After, Or none: Define if need to validate if the employee worked before, or before and after to apply the Holiday, on this case the application will verify the days define, if the employee have an absent, the holiday will not add. If define No, always will add the Holiday

Number of Days before Posting Holidays: Define the number days needed to add holiday.

Hours to Add for each Worked Holiday: If the employee worked on the day, define the number of hours to add on the day for Regular category.

Accrue Towards Overtime: Define if the time added applies for limits of day.

At Level: Define the time level to apply the time.

Hours to Add for Each Non-Worked Holiday: If the employee did not work on the day, define the number of hours to add on the day for Regular category.

Accrue Towards Overtime: Define if the time added applies for limits of day.


At Level: Define the time level to apply the time.


Holidays

The system must know which days of the year are holidays, to make the proper handling of these days. That is why a catalog of holidays is needed. These holidays are applied to all employees. So, if all your employees do not have the same holidays, then you cannot use this feature. You would need to assign the holiday transactions to the employees in their holidays.

Each holiday dates include the year, so, you must add the holidays each year.

Date	Description
02/01/2012	New Years Holliday
06/04/2012	Good Friday
28/05/2012	Memorial Day
04/07/2012	Indemendance Day
03/09/2012	Labor Day
22/11/2012	Thanksgiving Day
23/11/2012	ATR Holiday
24/12/2012	ATR Holiday
25/12/2012	Christmas Day

To add a holiday, just hover the mouse over the yellow arrow  and an editing menu will appear to add, delete or edit a holiday. You may also right-click on the holiday list to open this editing menu. It is recommended to add the holiday of the whole year at the beginning of the year. The Date and a Description of the holiday are needed.

 [Add a new holiday record](#)

Devices

The Pendulum system uses data collection terminals of different types. Continuously, new devices are integrated to the system. Currently, the following devices brands are integrated:

- ADCT
- DC 7000
- HANDPUNCH all models
- FACE AXS
- TQ600 all models
- PC Punch, that is a computer-based data collection system.

The system supports any combination of the supported devices. There is no limit on the number of devices.

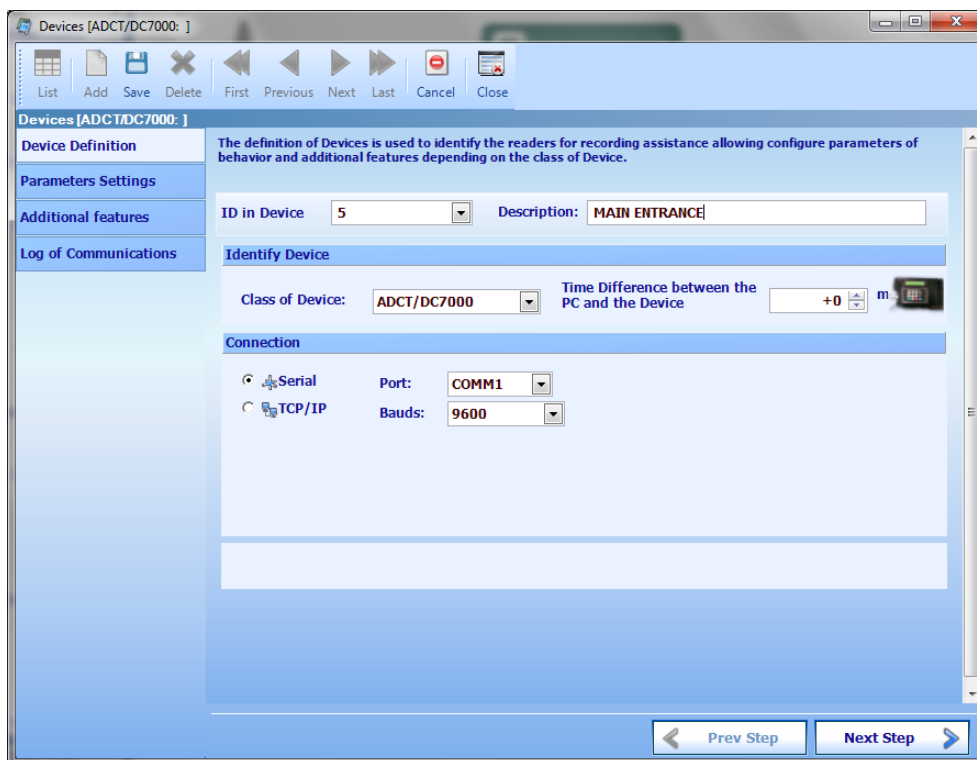
There are basic settings that apply to all devices, and depending on the device type there will be different configuration options.

Device Definition

In this section, the general information of the device is defined.

ID in Device: Each device must have a unique id. This ID is used in the communication with the device.

Description: A short description for the user to identify this terminal. It is recommended to use a description such as the location of the device to make easy to identify them if required



Class of Device: Select the model of the device. Depending on the model of the device some other parameters may be required.

Type of Device: This parameter tells to the system where to send the transactions downloaded from this device, either access or attendance, or if the terminal is Inactive it will not be included in communications.

Division: If the system uses divisions, each terminal must be assigned to a division. User has access only to their assigned divisions.

Time Difference between PC and Device: When the device is updated its time, the PC time

is sent to the device, so, if the device is in a different time zone than the PC the time may be wrong in the device.

Connection

Select the connection type with this device. Not all devices support all connection types, so select right the connection type the devices uses.

Serial: For RS232, RS422 or RS485 serial communication. When this option is selected the serial port and the communication speed is required. Make sure to select the proper speed the device is configured to.

TCP/IP: For TCP communication. When this option is selected, the IP Address, Net mask and the IP port is required. Make sure these values are the same values set in the device. Some devices allow setting this parameter directly from the PC; some require these values to be set directly in the device.

Pend Drive Access: Some models can download transactions to PEN DRIVE, and you can get these transactions by the application, when the model include the option it will show and you can select if will get transactions and users by PEN DRIVE.

Is this Terminal ONLINE: If the module 'Online Transaction' is installed; then some terminals may communicate on line with the PC. Setting this value enables the terminal to work on line. When a transaction is communicating on line, transactions appear almost automatically in the system.

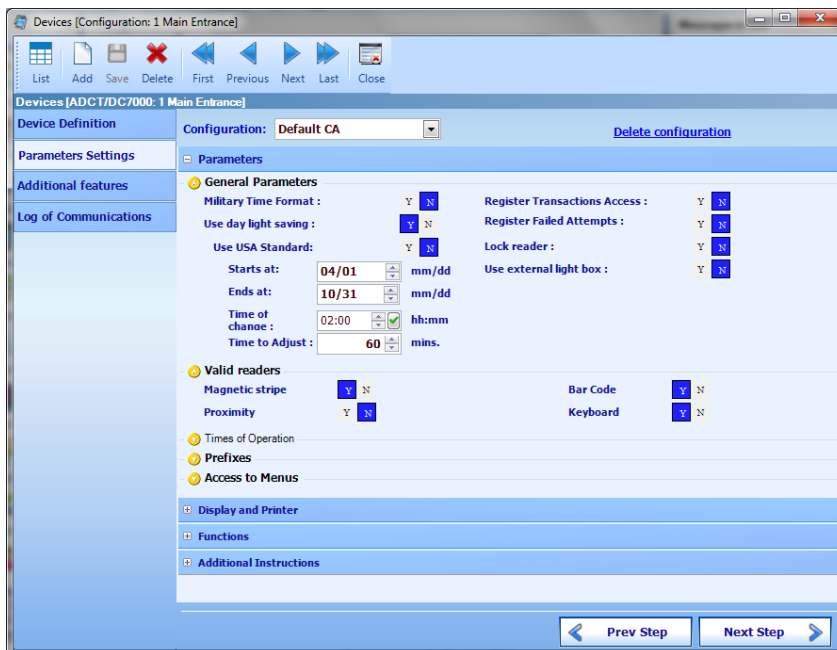
Connection using a FTP: This option allows the system to communicate with devices using a common FTP site. This feature is intended to be used in implementation where the devices reside in remote offices but those offices do not have a direct connection with the main office, but they do have access to internet. In those cases, an FTP Site is setup as a temporary storage where the devices and the main application communicate to either send or receive information. If you are interested in this option, you need a specific manual with instructions for setting this feature up properly.

Parameters Settings

The parameters required in this section depend on the device type. Just identify the device model you are using to set the correct parameters. The system allows setting Configurations Groups. Typically you will create configuration groups and then set a configuration to each device. Most of the devices use the same configuration group. Each configuration group is identified by a name. You may add as many configuration groups as you require in this section. There is a default configuration for each device type. This configuration may also be changed as required. in this document for more information.

ADCT/DC7000 devices

Both device types use the same configuration parameters. Even though they are physically different. These devices are highly configurable; almost any element can be configured. Most of the parameters are self-explained, so we will focus only on those parameters that may affect the system performance or results. Others will just be mentioned.



transactions.

Enabled Readers: Select the readers that can be used to punch in the device

Timeouts for Operations: Enter the timeout to complete the indicated operation

Prefixes: The prefixes badges must have to be read by this device. All badges used in this device must have the security prefix.

Menu Access through Keypad: Enable this feature and enter the passwords to enter to the supervisor and configuration menu using the keypad. Normally, these menus are only accessed through configuration and supervisor badges. To enter these menus with the keypad, you must first enter a key combination and then the password for the required menu. Check the device manual for more information about this topic.

Military Time format: To set the time either in AM/PM format or in 24 hours format.

Use Day Light Saving: Some regions use a different time zone for summer or winter. This device may adapt automatically the time depending on the defined dates for starting and ending of the summer time zone. The International standard establishes to start the first Sunday of April and finishes the last Sunday of October. If this is not your case, you must enter these dates each year.

Save Access Transactions: If set, access transactions will be saved in the terminal and recorded in the system when polled.

Save Failed Attempts: if for any reason the device rejects a transaction, this failed attempt will be saved.

Use Semaphore: Use the external light signal enhancer for accepted or rejected

HANDPUNCH Devices

There are several models of HandPunch readers. All of them use the same configuration values. These values are:

Model: The model of the reader. Depending on the model some features may be available for configuration. If you mix configuration model with device model, then some features would not take effect in the device operation. Try not to do that to avoid confusion.

Parameters

Badge Length: HandPunch readers need to know the length of the badge to be used in order to accept or reject numbers. This value is also used to pad the badge numbers when punches are downloaded from the device.

Number of Tries: The maximum successive times an employee may attempt to punch in the device. If this number is reached, the device is locked until a new valid punch is made in that device.

Reject Level: This is a value used for the device to know if a validation is positive or not. The value of 40 (most restrictive) does not allow any variations between the enrolled template and the validation template. The value of 200 (less restrictive) may confuse two different templates. If the default value causes the terminal to give false positive or false negative punches, then this number must be adjusted and the templates for employees being affected to be enrolled again.

Use Daylight Saving: To use the automatic time adjustment in summer. Enter the starting and Ending date of the summer time zone.

Show user name in device: When the employee punches, the employee name is displayed in the device screen. This is a feature of the HP4000 only.

Message in Display: The prompt message the device will be displaying while in idle mode.

Password: Access password to any of the menu options in the device. A supervisor employee validates and then may enter a password. Depending on the password, the menu will be shown.

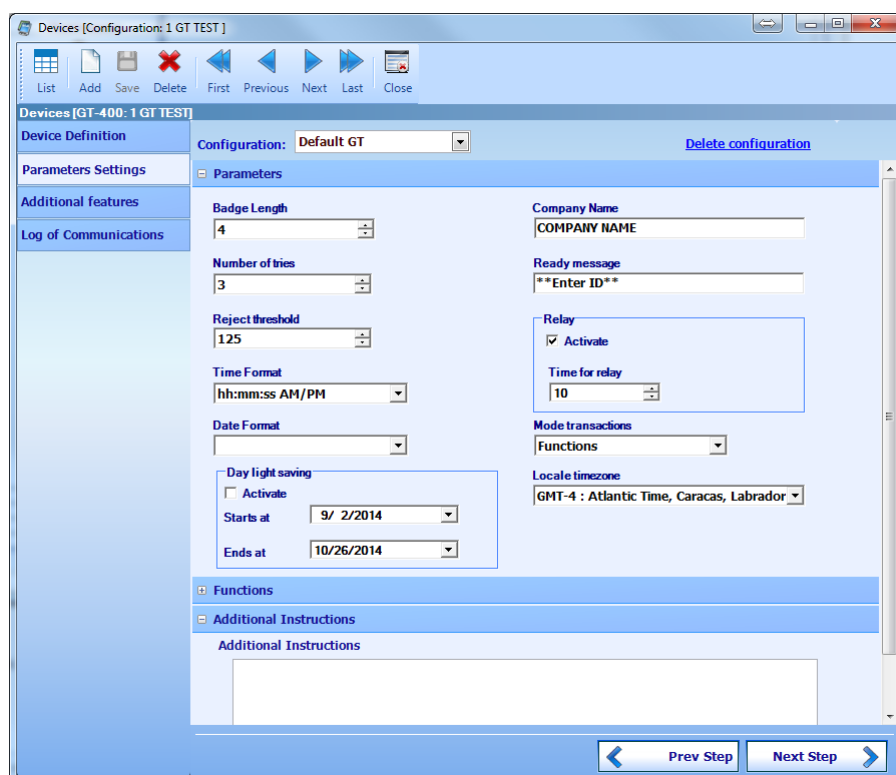
Use external light box: To use the external light box signal enhancer.

Signal Duration: The time the external light will remain on.

Access Signal Time: The time the access signal will be on to allow the door to be open.

HandPunch GT 400

This device is a Hand reader with new capacity for unlimited employees and 30,000 transactions, and can be define the parameters for the correct operation



The screenshot shows the 'Devices [Configuration: 1 GT TEST]' window. The left sidebar contains 'Device Definition', 'Parameters Settings', 'Additional features', and 'Log of Communications'. The main area is titled 'Parameters' and includes fields for 'Badge Length' (4), 'Number of tries' (3), 'Reject threshold' (125), 'Time Format' (hh:mm:ss AM/PM), 'Date Format', 'Day light saving' (with 'Activate' checkbox and start/end dates), 'Company Name' (COMPANY NAME), 'Ready message' (**Enter ID**), 'Relay' (with 'Activate' checkbox and 'Time for relay' of 10), 'Mode transactions' (Functions), and 'Locale timezone' (GMT-4 : Atlantic Time, Caracas, Labrador). At the bottom, there are 'Functions' and 'Additional Instructions' sections, and 'Prev Step' and 'Next Step' buttons.

Badge Length: Specifies the length of the ID numbers of employees who handle, this parameter indicates that when information is downloaded to the terminal is filled with zeros to obtain the specified length.

Number of tries: The number of attempts to Terminal level to validate an employee ID, should exceed the number indicated Terminal that ID will block until it registers a valid ID.

Reject threshold: The level of validation of the terminal, which determines the sensitivity of the Terminal to validate one hand, this value ranges from 40 to 200, 40 being the most restrictive

Time Format: allows you to define the format in which the time is displayed on the terminal.

Date Format: allows you to set the date format that will appear in the terminal.

Daylight Saving: If the Terminal performs automatic DST adjustment.

Start: the start date of DST.

Ends: The date on which summer time ends.

Company Name: The name of the CIA. That appears on the terminal screen.

Ready Message: The message displayed on the screen of the terminal.



Relay: Specifies whether the relay is activated for this should enable the checkbox.

Time of relay: the time in minutes that will last for opening access.

Mode Transactions: the mode how will operate the device, if you select Swipe & Go, the device only will request the hand verification, if select the option Function the device will request the hand verification and the type of transaction to generate, it can be IN, OUT, Out Lunch, In Lunch, Out Break, In break and change department.

Face Axis

This device includes the option to verify by facial recognition.

Devices [Configuration: 4 FACE AXIS]

List Add Save Delete First Previous Next Last

Devices [FACE AXIS:]

Device Definition Configuration: **Default FA** [Delete configuration](#)

Parameters Settings Parameters

Use day light saving : ☒ Y ☐ N Time between transactions : mins.

Starts at: mm/dd Volume :

Ends at: mm/dd

Time of change : hh

Functions

Additional Instructions

Additional instructions :

The configuration for device is:

Use Daylight Saving: Set whether the device will automatically change the DST.

Starts: You must enter the day and month in which DST starts

Ends: You must enter the day and month in which DST ends.

Time for change: You must enter the time the change is made.

Transaction Time: The time that passes from one to another transaction.

Volume: The volume of the terminal.

TQ 600

This device has some options to verify, it includes Proximity card, Biometric, Magnetic Stripe, Barcode and facial options,
When you select this model you can set these parameters:

The screenshot shows the 'Devices [Configuration: 2 TQ600 PROX]' window. The left sidebar contains a tree view with 'Device Definition', 'Parameters Settings', 'Additional features', and 'Log of Communications'. The main area is titled 'Parameters' and contains the following settings:

- Configuration:** Default TQ (dropdown menu)
- Model:** TQ600B Fingerprint (dropdown menu)
- Use day light saving:** ☒ Y ☐ N
- Use USA Standard:** ☐ Y ☒ N
- Starts at:** mm/dd (calendar icon)
- Ends at:** mm/dd (calendar icon)
- Change time:** ☒ ☐ hh:mm
- Military Time Format:** ☒ Y ☐ N
- Language:** English (dropdown menu)
- Message in display:** Welcome (text field)
- Use voice:** ☒ Y ☐ N
- Source for transfer of workcodes:** None (dropdown menu)
- Use Workcodes by:** E ☒ D ☐
- Display worked hours:** ☒ Y ☐ N
- Time Zone:** None (dropdown menu)
- Date Format:** month/day/year (dropdown menu)
- Display info options:** ☒ Y ☐ N

At the bottom, there are buttons for 'Prev Step' and 'Next Step'.

The configuration for device is:

Model: Define the mode in use.

Use Daylight Saving: Use Day Light Saving: Some regions use a different time zone for summer or winter. This device may adapt automatically the time depending on the defined dates for starting and ending of the summer time zone. The International standard establishes to start the first Sunday of April and finishes the last Sunday of October. If this is not your case, you must enter these dates each year.

Starts at: You must enter the day and month in which DST starts

Ends at: You must enter the day and month in which DST ends.

Change time: You must enter the time the change is made.

Military time Format: The format of time that to show on device

Language: Can select the language of operation of device.

Message to display: Define the message to display on main screen's device.

Use voice: Define if device will play voices message to users.

Source for transfer of work codes: Define the Classification level for transfer on device, the classification level needs be active.

Use Work codes by: define how Work codes will be assigned, (E) by employee, (D) to device.

Display worked hours: Define if device will show the worked hours in the current period.

Time Zone: Define the UTC time zone where device is located, it is necessary to show the current time.

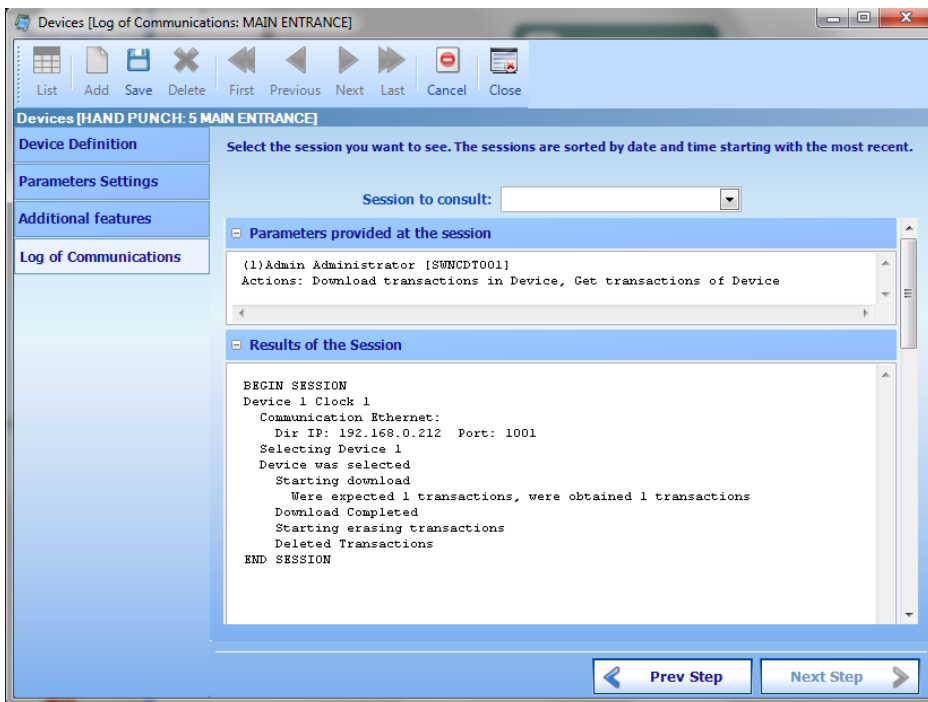
Date format: Define the format to show the date on main screen's device.

Display info options: Define if the device will show the information options of device.

Communication Log

Pendulum saves a log of all communication sessions with the devices. Saving the operations made, the information generated and the results of that session. This log is saved in a per-session basis. Each device has its log and may be reviewed to know if everything in the device is working fine. Each communication session stores the following information:

Session: Each session is stored with the date and time it was made. Select the session here and the information related to this session will be shown. The last communication session is shown by default.



Parameters provided for the communication session: This section records how the session was initiated. The user and PC requesting the communication session and the operations requested in this session.

Results of the session: This section records the result values of each operation. This is like an audit of what actually was made and how it was completed, from beginning to end of the session.

Transactions Downloaded in this section: This section stores valid transactions downloaded from the device. These transactions were processed by the system either for time and attendance or access control.

Other information Generated: Store all other transaction information that was generated in the device, but is not being used in time and attendance or access control. Each device type may generate additional transactions not used in the system.

Last programming of the device: Stores the last configuration values sent to the device. This is not necessarily made in this session, but was made in the last programming session that was successfully completed.

Utilities

The Pendulum system includes several utility tools that will help you accomplish tasks that may not be an essential part of the software operation, but eventually are required in order to make the daily work easy and safe.

Database Backup and Restore

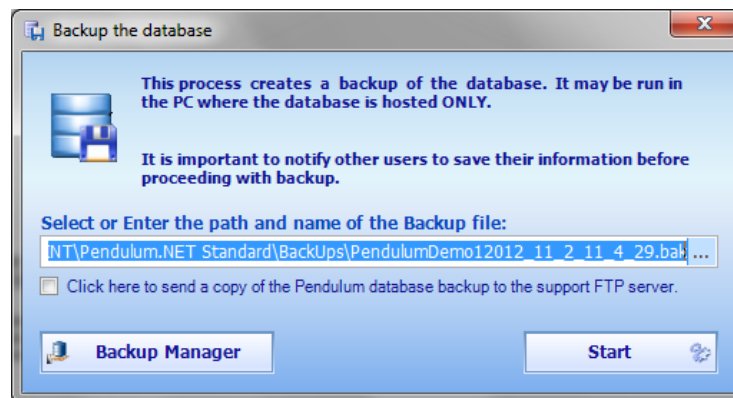
A tool to back up the database and restore any backup when needed is available. This generates a backup file of the whole database then may be used either to share the information with the technical support department or to keep your database safe in case of a catastrophic event. The systems already have a backup file of a blank database you may use any time you need to start over.



For multiuser environments, the backup of the database must be done directly in the computer hosting the database. This tool will not work on a workstation if the windows user does not have full control of the network folder that stores the backups, which is located in the folder where the system was installed in the server pc. The backup folder is a subfolder of the pendulum installation folder of the PC that hosts the database, named BACKUPS

When backing up the database, the name of the file will be required. The systems defaults this name to the date and time when the backup is made. Given the backup file name the backup is processed. Some times when the database has increased its size, the backup may take more time than the SQL operation is expected to wait. In this case, you need to increase this timeout in the advanced panel of the System Configuration screen.

When restoring a database, a list of all previous backups will be shown. You just select the file you want to restore and the restore process starts.



TASKS

This menu groups most of the tasks that must be done to maintain your information up to date. This menu also gives access to the export utilities installed on the system.

Not Processed Transaction

This task shows a screen that contains all transactions that have not been processed for any reason, either because they are invalid or because they are just downloaded from the devices. Immediately after the transactions are downloaded from the devices, they are sent to the not processed transaction table and then they are processed. The processing of the transactions may find some of them invalid and placed in the invalid transaction table. You may see all these transactions and make corrections if necessary to invalid transaction to have them available for future processing. The pending transaction list, does not allow editing the transactions, but you may delete transactions from the list that you know do not need to be processed.



It is important that you maintain this list the smallest possible in order to speed up the transaction processing operation. Each list features an option to delete the transactions.

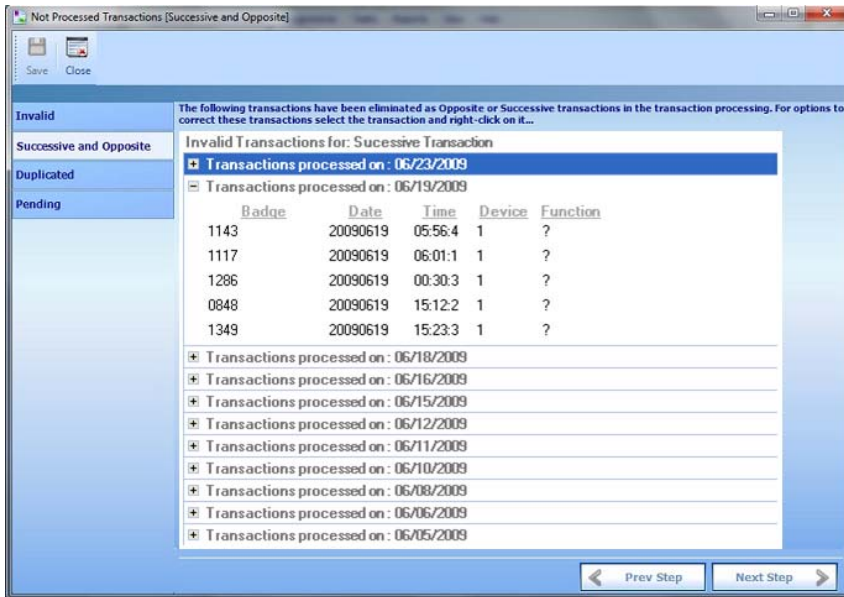
The not processed transaction screen shows four sections:

Invalid: These are the transactions that were found invalid when they were processed. There are several reasons why a transaction may be invalid. You may see the transaction grouped by the reason they are invalid. Each allows some possible correction options and helps you to make the required corrections easily. Just right click on any transaction and the available correction options

- Mark as Corrected the selected transactions
- Delete Selected Transactions
- Other Correction Options

Invalid Transactions for: Badge Number does not exist									
Transactions processed on : 05/16/2012									
KeyTransaction	Badge	Date	Time	Device	Function	Prompt1	Prompt2		
15841	05255	20120120	081742	2	0	00103			
15842	05255	20120120	082125	2	1	000103	000002		
15843	05255	20120120	082153	2	1	000004	000005		
15844	05255	20120120	082211	2	0	00103			
15845	05255	20120120	082331	2	0	00103			
15846	05255	20120120	082348	2	1		000002		
15847	05255	20120120	082405	2	4				
15848	05255	20120120	082424	2	6				
15849	05255	20120120	082449	2	0	00103			
15852	05255	20120120	082641	2	1	000010	000002		
15853	05255	20120120	083633	2	1	000103	000052		
15854	05255	20120120	083708	2	0	00103			
15855	05255	20120120	083740	2	6				
158910	2	1	000002	000003					
155028	2	0	00103						
155205	2	1	000008	000008					
155258	2	1	000004	000004					
155341	2	0	00103						
155436	2	1	000002	000001					
15865	05255	20120120	090840	2	0	00103			

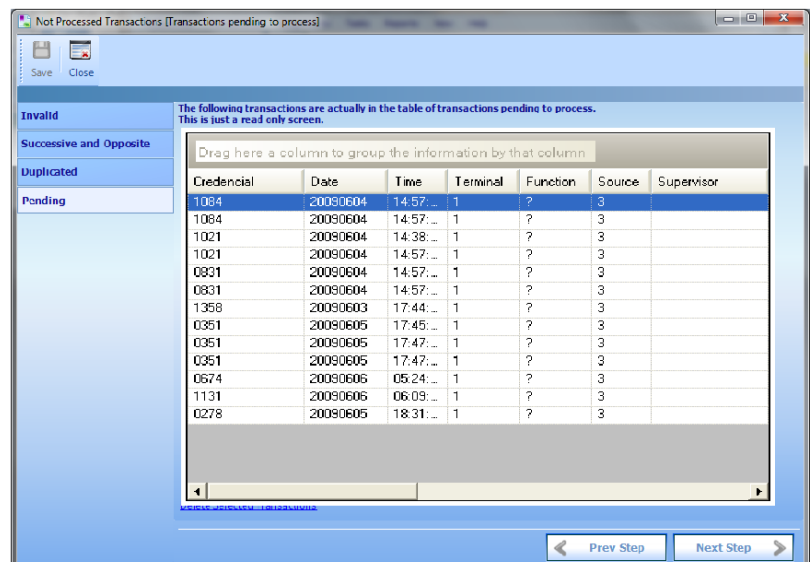
Duplicated, Successive and Opposite: These are transactions that were eliminated because they were considered either duplicates or successive and opposite transactions accordingly with the parameters set in the system configuration. These transactions do not actually require any correction.



But if you find that some transactions must not be eliminated, then you need to make the adjustments in the system configuration and then mark those transactions as corrected. The next time the system processes transactions, corrected transactions will be included in the processing.

Pending Transactions: This is a list of recently downloaded transactions. Typically, after transactions are downloaded or imported from a file, they are processed and this list will be empty most of the times. Just in case an error occurred either in processing or when importing transactions, this list will contain all transactions that were not processed.

Sometimes, the system cannot identify invalid transactions but they are actually invalid, and those transactions will not be processed either, they will be in this list. This list offers the option of delete pending transaction but does not allow editing these transactions.




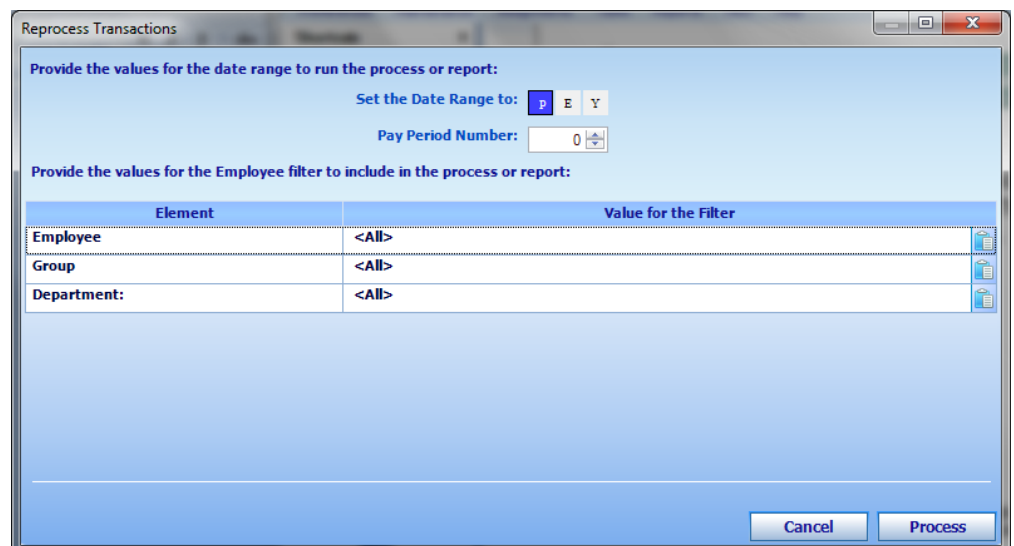
Reprocess Transactions

Sometimes the Schedule or Workcodes rules or any other configuration setting changes and the transactions need to be reprocessed to reflect those changes. This menu offers several options for reprocessing transactions. The Reprocess transaction menu offers these options:

Select with a Filter of Employees

This option reprocesses the transactions belonging to employees included in a given filter. Typically, you will create an employee filter based in the filter screen and provide a date range or pay period to reprocess. Transactions currently processed and new transactions, either recently added or corrected invalid transactions will be included in the processing.

 This process also creates pay periods included in the date range even if there is no transaction for the employees to be processed. That is why you must take this into account when creating a filter in order to not generate empty pay periods.



Reprocess Transactions

Provide the values for the date range to run the process or report:

Set the Date Range to:

Pay Period Number:

Provide the values for the Employee filter to include in the process or report:


Element	Value for the Filter
Employee	<All>
Group	<All>
Department:	<All>

Cancel Process

Review the section 'Creating an Employee Filter' later in this document for more information about how to create an employee filter.

Pending Transactions

This option processes all pending transactions, including recently added transactions and corrected transactions in invalid transactions. Actually an instruction to process pending transactions is issued and the system starts processing the transactions. This is done in a background process, so you may perform other activities while transactions are being processed.

 The system will not allow the panel to be closed while processing transaction. So DO NOT TRY TO LEAVE the system because if the system is forced to shut down, then transactions may be lost.

From raw data in communication log

Sometimes reprocessing the punches downloaded directly from the communication log is required to apply rules that only can be used when the transactions are processed the very first time. Some other times, errors may occur and the attendance information may be rebuilt from scratch. Then you will need to reprocess the transactions from the communication log.

This process, reviews all sessions in the communication logs and extracts the transaction belonging to employees and dates included in the given filter and creates bulk file with all those transactions. That file is then imported to the system and reprocessed.

Review the section 'Creating an Employee Filter' later in this document for more information about how to create an employee filter.

Import Transactions File

This option imports into the system a transaction file. This is used when transactions are downloaded separately in files and they need to be integrated to the system.

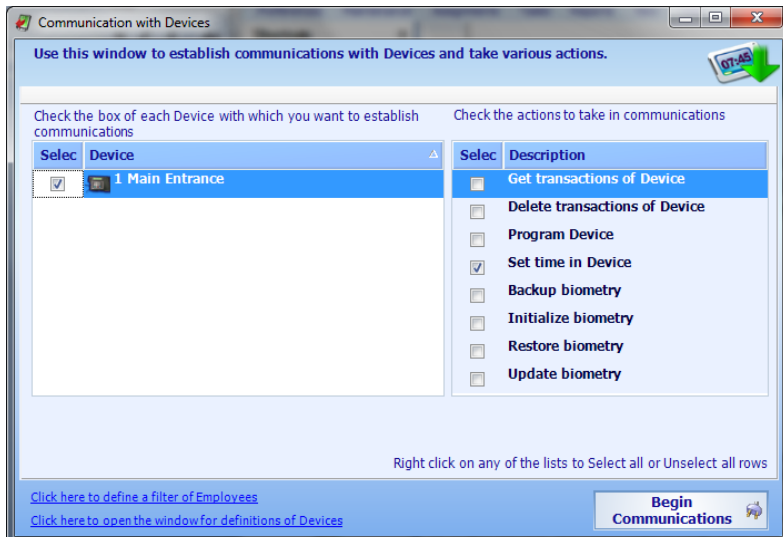
The file to be imported must be in one of the supported formats for transaction import.

If you have a format that is not supported by this process, you still may import that file creating an import process in the data Import utility.

Communicating with Devices

The pendulum system uses a separate application; the Device Station, to communicate with devices. This application is run once when a communication session is started and it remains running until either the PC is shut down or when the application is terminated. In multiuser environments, it is recommended that only the PC that has access to the devices be used to communicate with them, especially if there are devices connected through serial ports, and the device station remains running in that PC.

When a communication session is requested, the application looks for the device station application in any computer of the network; if it's not running anywhere, then the PC starts the device station application and proceeds with the communication session. The device station remains running.



When starting a communication session there you will see the following screen:

At the left side list the devices will be listed with a check box to select those devices you will communicate with.

At the right side list the operations that may be run with their respective check box.

Select the devices and operations and start the communication session.

Obviously, not all devices support all operations, anyhow, the communication session is started and the device station knows which operations are supported on each device. See the **Devices** section for more information about communication log.

When the communication session is completed, a message will be shown in the message panel with the results of the session and a link to review the communication log.

Some other operation may follow to a communication session, such as processing transactions when polling the devices.

REPORTS

The Pendulum system has a variety of base reports. Each report can be configured with certain options to obtain the information in different formats. All reports have an employee filter screen and an options screen, where you may configure the report as you want. Also each report may be viewed on screen, printed or exported to a file in one of the built in document formats. Each set of options may also be saved and later retrieved to create a specific report.

Employee Filter Screen

All reports as well as some system processes use an employee filter screen that is intended to create a filter for the employees to include in the process or report. This screen shows a field to enter an employee range, all classifications defined in the system, and the group and division. All of them use the same format to create a range to evaluate the filter.

This is the employee filter screen:

Element	Value for the Filter	Grouping	Page Break
Employee	<All>	<input type="checkbox"/>	<input type="checkbox"/>
Company	<All>	<input type="checkbox"/>	<input type="checkbox"/>
Group	<All>	<input type="checkbox"/>	<input type="checkbox"/>
Department:	<All>	<input type="checkbox"/>	<input type="checkbox"/>
Level2:	<All>	<input type="checkbox"/>	<input type="checkbox"/>
Level3:	<All>	<input type="checkbox"/>	<input type="checkbox"/>
Level4:	<All>	<input type="checkbox"/>	<input type="checkbox"/>

First thing to select is the **date range** to run the report, this may be one of the following option: **P** – for pay period, where a value of zero means the current pay period, a value of 1 is previous pay period, and so on. **E** - For a special date range, where a date range must be entered. **Y** – For including only the date of yesterday.

The filter of employees shows a list of the elements that can be used in the filter. You must enter either a single value for the element or a range. The range of values may be a list of elements, such as: Element1, Element2, Element3; or a range

of two elements such as Element1 – ElementX. Only one form is allowed. But more than one filter element may contain values, so you may filter Division 0004 and Department 5532. Only employees containing those two values will be included in the filter.

Each element may contain also two columns; one for grouping the report and one for cutting the page.

Up to 6 groups may be selected for the report. The order for the selected grouping elements is selected in the in the report options panel.

Each group may have totals by group. Cutting allows changing the page every time a new group is found, so, all records of the same group are kept together.

In the filter can also contain the Active or Inactive employees.

Include employees Active, Inactive or Both can use to define the employees on the Status selected.

If you define the values for email server, you can send the report by email to a specific mail or a manager of group.

Saving and Retrieving Custom Reports Configurations

Some reports configuration options can be saved to be run in the future. Once the report has been run the saving report option is enabled. Provide a name for the report that will identify it and it will be saved. These reports are saved in the user folder, so only the user that made the report can use it.

Save the filter data and options of this report to the user's personalized reports with the name of:

Systems Department Report

Provide a brief description related to the options selected for this report

Report with people of Systems Department

Before saving this report configuration, the report must be processed to ensure the configuration is correct

View Options View Filter Save

These reports are called custom reports and you may run it later in the Custom Report menu.

The system offers a Custom Reports Maintenance when you may run the report or delete them if it is no longer in use.

The custom report maintenance screen shows a list containing all the report the current user has created.

Custom Reports Maintenance for this user

These are the custom reports generated for the user. Select a report and use the command buttons of the desired action.

Report Name	Open	Delete
Systems Department Report		

Close

Employee Report

This generates a report including the information of the employees. The options panel for this report will modify the content of the report as follows:

Select the options to process the Employees Report.

Order Report by: ☒ H ☐ B ☐ N
Options for Schedule assignments: ☐ D ☒ N ☐ U
Include Employee Classifications: ☒ Y ☐ N
Include Employee Custom Fields: ☒ Y ☐ N

Select the Custom Fields to include in report:

Include	Custom Field Name
System	
<input type="checkbox"/>	Fotografia
<input checked="" type="checkbox"/>	e-mail
Personal Information	
Address	
<input checked="" type="checkbox"/>	Address
<input type="checkbox"/>	Suburb
<input checked="" type="checkbox"/>	City
<input checked="" type="checkbox"/>	State

Order Report By: The employees may be ordered by Number, Badge or Name.

Options for Schedule Assignment: You may include the employee assignment of the day, not include them or show only employees not assigned to a schedule today.

Include Employee Classifications: Current employee classification assignments may be included in the report.

Include Custom Fields: if selected, you may select the custom fields to include in the report.

This is a sample report with schedule assignments, classifications and some custom fields.

SOUTHWEST NUT CO

Tue 06/30/2009

11:41:23

Page 1

Employees Report

Number	Badge	Employee Name	Group	Hire Date	Status
1131	1131	Gardea Raul	01	11/07/2007	Active

Today Assignments:
Schedule: 5-Warehouse Day
Shift: 1 Scheduled Day

Department: 04-Warehouse

-----System-----
E-MAIL: rgardea@snut.com
-----Address-----
ADDRESS: 3515 Kemp
CITY: Socorro
STATE: Texas
TELEPHONE:

Total of Employees: 1

Employee Badge Assignment Report

This report shows a list of the badges assigned to the employees. Sometimes you would like to know if an invalid transaction has a badge number that the system does not know or it is invalid. This report may help you as a tool for knowing if really the badge is in the system or not.

These are the options to generate this report. Just select the ordering of the report; Number, Name or badge and select what kind of badges to include.

Select the options to process the Transactions Report...

Order Employees by Number, Name or Badge ☒ N ☐ C

Include only Badges with status Active, Inactive or Both ☐ A ☐ I ☒ B

[View Filter](#) [View Report](#)

This is a sample of the badge assignment report. It is showing if each badge is valid or invalid and the date when the badge was assigned to the employee.

SOUTHWEST NUT CO						Date 30/06/2009
Badge Assignments Report						Page 1
Number	Name	Badge	Primary	Valid	Assignment	
0001	Lindquist Donald	0001	Yes	Yes	06/05/2009	
0012	Castaneda Maria	0012	Yes	Yes	06/05/2009	
0022	Garza Lorenzo	0022	Yes	Yes	06/05/2009	
0060	Segoviano Luis	0060	Yes	Yes	06/05/2009	
0064	Trevizo Maria Carmen	0064	Yes	Yes	06/10/2009	
0069	Villalobos Rosalia	0069	Yes	Yes	06/05/2009	
0082	Castañeda Raul	0082	Yes	Yes	06/05/2009	
0096	Fraire Nicolas	0096	Yes	Yes	06/05/2009	
0106	Hernandez Julia	0106	Yes	Yes	06/05/2009	
0140	Chavez Armando	0140	Yes	Yes	06/05/2009	
0278	Castaneda Eduardo	0278	Yes	Yes	06/05/2009	
0332	Portillo Anel	0332	Yes	Yes	06/05/2009	
0345	Aranda Lina	0345	Yes	Yes	06/04/2009	
0351	Walker Robert	0351	Yes	Yes	06/05/2009	
0388	Trejo Emma	0388	Yes	Yes	06/05/2009	
0465	Reyes Martina	0465	Yes	Yes	06/05/2009	
0483	Castañeda Patricia	0483	Yes	Yes	06/05/2009	
0489	Sarinana Rita	0489	Yes	Yes	06/04/2009	
0533	Chavez Cristina	0533	Yes	Yes	06/05/2009	

Time Card Report

The time card report seems to be the most important output of the Pendulum Time and Attendance System. It shows basically all the punches the employee made in each day in the pay period and the worked time, the exceptions and the incidences of the pay period. In addition the options to generate this report also add some other information to the report.

Typically the timecard report is run on a pay period basis. If the date range you select includes more than one pay period, the time card will be generated by pay period, so, you may have more than one time card for the whole date range selected.

These are the options to generate the time card.



Order Report by Number or Name: Select the order you desire the report to be printed.

Hide Daily Details: If selected, only worked totals for the pay period will be shown. All transactions of the day will be hidden.

Include Transaction Exceptions: Each transaction may generate an exception accordingly with the exception programmed in the shift. This option displays the exception code generated for each transaction. The exception code is shown next to the transaction and a line showing the code and description of all exception in the time card will be shown at the bottom of the report.

Print Rounded or Real Punch Hours: Each transaction is rounded to a time according to the rounding settings of the shift. Real punches are the time the transaction was actually made.

Include Attendance Summary: The report will include at the end of the pay period a summary of the attendance of the employee, showing the number of worked days, un-attendances, not scheduled worked days, justified un-attendances and the scheduled days of the pay period.

Include legends and signature line. Includes the text entered in the advanced panel of the system configuration and signature lines for the supervisor and the user. Typically time cards used for user acknowledgments have this option for the employee to sign the time card.

Print One Employee per Page. If set to **N** for No; the time card information will be printed continuously. This kind of report may be used for reviewing the information while saving printing space.

Print Company Headers on each Employee: When not printing one employee on each page, there is the option of printing the company header on each employee, no matter they are printed continuously.

Include Employee Classifications. To include current assigned classifications of the employee at the header of the time card.



Include Company Legal Records. The legal records added in the company setup configuration are printed in the header of the time card

Print totals in decimal format: Define if the total hours are show on decimal

Exclude zero hours Employee: Define if did not show the employees with zero hours calculate.

On line per Day format: Define to show the time card on line format.

Include notes of category and Transactions: Define if show the note added to transaction.

The following is a sample of a time card report with some options enabled.

In the structure of the report you may notice the employee and company header information, the punches made each day of the pay period, the total worked time each day, the total time levels each day. At the bottom the total worked time and the total worked time by time level as well as the attendance summary.

Time Card Report

Employee Filter | Report Options | Save Report

1 of 16 Page Width Find | Next

Acroprint Time Recorder Co. 10/14/2015

Time Card

Number: 0001408
Employee: Washington George
Group: 6240
Department: 6240-SYSTEMS\OEM -
Level2: -
Level3: -
Level4: -

Date Range: Sunday 07/19/2015 - Saturday 08/01/2015

Date	IN	OUT to Lunch	IN from Lunch	OUT	REG	OT1	OT2	OT3	Time Level Details	BRK	LNCH
Sun 07/19/2015	Not Scheduled										
Mon 07/20/2015	Vacation										
Tue 07/21/2015	08:00a			05:00p	08.00						01.00
Wed 07/22/2015	08:00a			05:00p	08.00						01.00
Thu 07/23/2015	08:00a			05:00p	08.00						01.00
Fri 07/24/2015	08:00a			05:00p	08.00						01.00
Sat 07/25/2015	Not Scheduled										
Otl Period End:					40.00	00.00	00.00	00.00			04.00
Sun 07/26/2015	Not Scheduled										
Mon 07/27/2015	08:00a			05:00p	08.00						01.00
Tue 07/28/2015	08:00a			05:00p	08.00						01.00
Wed 07/29/2015	08:00a			05:00p	08.00						01.00
Thu 07/30/2015	08:00a			05:00p	08.00						01.00
Fri 07/31/2015	08:00a			05:00p	08.00						01.00
Sat 08/01/2015	Not Scheduled										
Otl Period End:					40.00	00.00	00.00	00.00			05.00
Total by Employee:					80.00	00.00	00.00	00.00			09.00
Category Hours Summary: Total REG OT1 OT2 OT3											
Unpaid REG: 72.00 72.00											
LNCH: 09.00											
VAC: 08.00 08.00											
Employee Summary											
Worked: 9 Overriden: 1											
Not Sched: 4 Total Attend.: 10											
Scheduled: 10 Unsch Worked: 0											
To Pay: 10 Absent: 0											
Supervisor Signature						Employee Signature					

Hours Report

With the reports based on Hours you can report the total hours in base a define report selected:

- Hours report
- Shift report
- Category Summary
- Group Hourly Summary
- Department Summary
- Division Summary

On these reports you can select the options:

Select the options to process the Category Report.

Order Employees by Number or Name	<input checked="" type="radio"/> #	<input type="radio"/> N
Print hours in decimal format	<input checked="" type="radio"/> Y	<input type="radio"/> N
Exclude zero-hours Employee	<input type="radio"/> Y	<input checked="" type="radio"/> N

Order Employees by number or name: Define the order to sort the report.

Print hours in decimal format: Define if it will show the hours on format Decimal, by default report on HH:mm

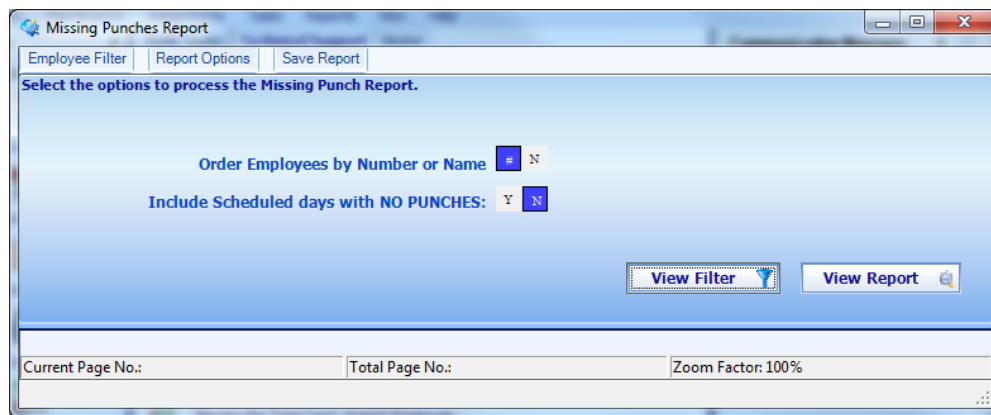
Exclude zero-hours Employee: Define if it will not show the employees with total hours in zero

Hours Report								
Employee Filter		Report Options		Save Report				
Main Report								
<div> <div>Acroprint Time Recorder Co.</div> <div>Hours Report</div> </div>					<div>Date 10/14/2015</div> <div>Time 10:57:10AM</div> <div>Page1</div>			
Date Range: 07/19/2015 to 08/01/2015								
Employee Name	REG	OT1	OT2	OT3	Total			
0001408 Washington, George	80.00	0.00	0.00	0.00	80.00			
0001409 Adams, John	80.00	2.50	0.00	0.00	82.50			
0001410 Jefferson, Thomas	80.00	0.00	0.00	0.00	80.00			
0001411 Madison, James	80.00	2.50	0.00	0.00	82.50			
0001412 Monroe, James	80.00	2.50	0.00	0.00	82.50			
0001413 Adams, Quincy	80.00	2.50	0.00	0.00	82.50			
0001414 Jackson, Andrew	80.00	2.50	0.00	0.00	82.50			
0001415 Buren, Martin	71.93	0.00	0.00	0.00	71.93			
0001416 Harrison, William	80.00	2.48	0.00	0.00	82.48			
0001417 Tyler, John	50.25	0.00	0.00	0.00	50.25			
0001418 Polk, James	80.00	2.50	0.00	0.00	82.50			
0001419 Taylor, Zachary	77.93	0.00	0.00	0.00	77.93			
0001420 Fillmore, Millard	80.00	0.00	0.00	0.00	80.00			
0001421 Lincoln, Abraham	76.36	0.00	0.00	0.00	76.36			
0001422 Grant, Ulvsses	0.00	0.00	0.00	0.00	0.00			
0009000 Harrison, Benjamin	90.00	0.00	0.00	0.00	90.00			
Report Totals	1166.47	17.48	0.00	0.00	1183.95			
Total of Employees	16							
<div> <div>Current Page No.: 1</div> <div>Total Page No.: 1</div> <div>Zoom Factor: 100%</div> </div>								

Missing Punches Report

The Missing Punches Reports helps to identify the employees with missed transactions on the period.

You can select these options:



The screenshot shows a window titled "Missing Punches Report" with three tabs: "Employee Filter", "Report Options", and "Save Report". The "Report Options" tab is active, displaying the text "Select the options to process the Missing Punch Report." Below this, there are two options: "Order Employees by Number or Name" with a radio button set to "N", and "Include Scheduled days with NO PUNCHES:" with radio buttons set to "Y" and "N". At the bottom right, there are two buttons: "View Filter" and "View Report". At the bottom of the window, there are three fields: "Current Page No.:", "Total Page No.:", and "Zoom Factor: 100%".

Order Employees by number or name: Define the order to sort the report.

Include Scheduled days with no Punches: Define if it will include days defined who scheduled and it did not have any transactions.

SOUTHWEST NUT CO Missing Punches Report

Page 1
18/09/2015
05:06:55p.m.

Date Range: 08/18/2015 to 08/18/2015

Employee	Name	Probable Corresponding Punch			Missing Punch
		Date	Time	Badge	
0001416	EVANS RACHEL	08/18/2015	08:00	00328	INSERT OT PUNCH
Global Total:					1 Exceptions
Total Of Employee Processed:					1

Who is in report

With this report can verify the current employee on the company, or define the employees that punch in before a Reference day. Also, can use the report by Shift on the menu options

Select the options to process the Who is In Report..

Order Employees by Number or Name: ☒ # ☐ N

Reference Time:

[View Report](#)

Order Employees by number or name: Define the order to sort the report.

Reference Time: Define a hour time on the day to report the employees who punches before this time.

Acroprint Time Recorder Co.							Date
Who Is In Report (07/21/2015) Reference Time:12:00							10/14/2015
							Hour
							11:06:35AM
							Page
							1
Number	Name	Punches IN Date	Time	Department	Last Transaction	Function	Last
0001408	Washington George	Tue 07/21/2015	08:00		7/21/2015 05:00p	OT	
0001409	Adams John	Tue 07/21/2015	08:00		7/21/2015 05:15p	OT	
0001410	Jefferson Thomas	Tue 07/21/2015	08:00		7/21/2015 05:00p	OT	
0001411	Madison James	Tue 07/21/2015	08:00		7/21/2015 05:15p	OT	
0001412	Monroe James	Tue 07/21/2015	08:00		7/21/2015 05:15p	OT	
0001413	Adams Quincy	Tue 07/21/2015	08:00		7/21/2015 05:15p	OT	
0001414	Jackson Andrew	Tue 07/21/2015	07:00		7/21/2015 03:45p	OT	
0001415	Buren Martin	Tue 07/21/2015	07:00		7/21/2015 03:30p	OT	
0001416	Harrison William	Tue 07/21/2015	08:00		7/21/2015 05:15p	OT	
0001417	Tyler John	Tue 07/21/2015	08:00		7/21/2015 01:02p	OT	
0001418	Polk James	Tue 07/21/2015	08:00		7/21/2015 05:15p	OT	
0001419	Taylor Zachary	Tue 07/21/2015	08:00		7/21/2015 05:00p	OT	
0001420	Fillmore Millard	Tue 07/21/2015	08:00		7/21/2015 05:02p	OT	
0001421	Lincoln Abraham	Tue 07/21/2015	09:00		7/21/2015 05:00p	OT	
0009000	Harrison Benjamin	Tue 07/21/2015	08:00		7/21/2015 05:00p	OT	
Report Totals				Attendance	Employees		
				15	15		

Daily Hours Report

Daily Hours Report show the time worked by week of the employees
This report include the hours by time level

Select the options to process the Daily Hours report..

Order Employees by Number or Name ☒ N

Separate regular time from over time: ☐ Y ☒ N

View Filter

View Report

Order Employees by number or name: Define the order to sort the report.

Separate regular time from over time: Define if it will report the hours on regular and over time.

SOUTHWEST NUT CO										Date	18/09/2015		
Daily Hours Report										Time	05:58p.m.		
										Page	1		
Employee	Name	Sun	Mon	Tue	Wed	Thu	Fri	Sat	REG	OT1	OT2	OT3	Total
0001374	ANDERSON STEPHANIE												
	Worked	0.00	8.00	8.00	8.00	8.00	8.00	0.00					
	Worked	0.00	8.00	8.00	8.00	8.00	8.00	0.00	80.00	0.00	0.00	0.00	40.00
0001387	PARKER STEVE												
	Worked	0.00	8.00	8.00	8.00	8.00	7.75	0.00					
	Worked	0.00	8.00	8.00	8.00	8.00	8.00	0.00	79.75	0.00	0.00	0.00	40.00
0001390	SMITH DAVID												
	Worked	0.00	8.10	7.60	8.75	0.00	7.81	0.00					
	Worked	0.00	8.05	9.34	8.40	3.73	7.97	0.00	69.75	0.00	0.00	0.00	37.49
0001396	GRIF EMILY												
	Worked	0.00	8.00	8.00	8.00	8.00	8.00	0.00					
	Worked	0.00	8.00	8.00	8.00	8.00	8.10	0.00	80.10	0.00	0.00	0.00	40.10
0001397	ROBERTS TIM												
	Worked	0.00	7.75	8.00	8.00	8.00	8.06	0.00					
	Worked	0.00	8.14	8.00	8.00	8.00	8.00	0.00	79.95	0.00	0.00	0.00	40.14

Attendance Report

This reports shows information related to the attendance of the employees. It is intended to review the employee attendance record and generate the information accordingly with the options. You may basically generate this report for two most used cases: Generate a list of the days the employees worked and generate a list of the employees that are currently working, something like "Who is IN today?". Additional Options allow adding some other information items to the report as described here:

Order by Employee Name or Number. Select the order of the employees included in the report.

Select the options to process the Attendance Report..

Order Employees by Number or Name	<input checked="" type="checkbox"/> N
Show Employee Details	<input checked="" type="checkbox"/> N
Show Daily Attendance Details	<input checked="" type="checkbox"/> N
Include only transactions made before:	<input type="text" value=""/>
Show in the report the First, All or Last transaction:	<input checked="" type="radio"/> F <input type="radio"/> A <input type="radio"/> L
Include Employees that Punched OUT	<input checked="" type="checkbox"/> N
Select the Categories to accumulate the hours	NOT Showing Hours <input type="button" value="v"/>

Show Employee Details. If not showing employee details, only totals by group and by report will be printed

Show Daily Attendance Details: You may select to show the detail of each day or just the totals by employee.

Include only Transaction Made before: This is a reference time to filter only punches made before this time to be analyzed by the report. If this time is set to 9:00 am, then punches made after 9:00 will not be considered in the report, so, if an employee punched in after 9:00 then that employee will not appear in the report because he punched after the reference hour. This value may be left empty to not apply any limit to the transactions and all punches are reviewed.

Show in the report the First, All or Last transaction: The report will show the transactions made in the day accordingly with this value. You may generate the attendance report with this option set to First, to know the time the employee punched IN every day.

Include Employees that Punched OUT: If set to No, the report will not include employees that punched OUT before the reference time no matter if the employee came to work. If set to yes, the employee will also show employees that punched IN and OUT before the reference time.

Select the categories to accumulate the hours: The report may show the total hours either of the day or totaled by employee or any group selected. Only hours classified in this category will be shown. If this value is empty, no hours will be included in the report

To obtain the Who IS IN today report, use the actual time as reference time and the set to NO the option to Include Employees that punched OUT. This will generate a report of the employees that punched IN but have not punched OUT yet at the reference time.

This is a Sample Attendance Report showing all transactions each day and not showing hours.

SOUTHWEST NUT CO				Date 30/06/2009
Attendance Report (06/12/2009 - 06/18/2009) up to 09:00 hours				Hour 11:58:11AM
				Page 1
Number	Name	Date	Transactions	Hours
0012	Castaneda Maria	Fri 06/12/2009	05:32 IN, 18:22 OT	12:20
		Sat 06/13/2009	05:25 IN, 16:02 OT	10:07
		Sun 06/14/2009	05:28 IN, 16:40 OT	10:42
		Mon 06/15/2009	05:27 IN, 19:04 OT	13:07
		Tue 06/16/2009	05:21 IN, 16:50 OT	10:59
		Wed 06/17/2009	05:15 IN, 18:09 OT	12:24
		Thu 06/18/2009	05:35 IN, 17:31 OT	11:26
	Attendance total for Employee		7	81:05
0022	Garza Lorenzo	Fri 06/12/2009	05:58 IN, 19:42 OT	13:14
		Sat 06/13/2009	05:52 IN, 19:17 OT	12:55
		Sun 06/14/2009	05:52 IN, 18:21 OT	11:59
		Mon 06/15/2009	06:02 IN, 20:12 OT	13:40
		Tue 06/16/2009	06:02 IN, 21:24 OT	14:52
		Wed 06/17/2009	06:01 IN, 20:50 OT	14:19
		Thu 06/18/2009	06:01 IN, 19:09 OT	12:38
	Attendance total for Employee		7	93:37
0060	Segoviano Luis	Fri 06/12/2009	06:00 IN, 18:09 OT	11:39
		Sat 06/13/2009	06:01 IN, 15:56 OT	9:25
		Mon 06/15/2009	05:56 IN, 19:05 OT	12:39
		Tue 06/16/2009	05:59 IN, 16:27 OT	9:58
		Wed 06/17/2009	05:54 IN, 18:02 OT	11:38
		Thu 06/18/2009	06:03 IN, 18:08 OT	11:35
	Attendance total for Employee		6	66:54
Totals for			Attendance 20 Employees 3	Hours 241:36
Report Totals			Attendance 20 Employees 3	Hours 241:36

Absentee Report

This report shows information related to the un-attendance of the employees. It is a counterpart of the attendance report. It is intended to review the employee attendance record and generate un-attendance information according with the options. You may basically generate this report for two of the most used cases: Generate a list of the days the employees did not work and generate a list of the employees that are not currently working, something like 'Who is NOT IN today?'. Additional Options allow adding some other information items to the report as described here:

Order by Employee Name or Number. Select the order of the employees included in the report.

Show Employee Details. If not showing employee details, only totals by group and report totals will be printed

Show Daily Un-attendance Details: You may select to show the detail of each day or just the totals by employee.

Select the options to process the Attendance Report...

Order Employees by Number or Name	#	N
Show Employee Details	Y	N
Show Unattendance Daily Details	Y	N
Include only transactions made before:	:-	
Include Employees that punched OUT	N	Y
Include days with override Unattendance:	N	Y U

[View Report](#)

Include only Transactions Made before:

This is a reference time to filter only punches made before this time to be analyzed by the report. If this time is set to 9:00 am, then punches made after 9:00 will not be considered in the report, so, if an employee punched in after 9:00 then that employee will appear in the

report because he punched after the reference hour, so before the reference hour the employee was not in the company. This value may be left empty to not apply any limit to the transactions and all punches are reviewed.

Include Employees that Punched OUT: If set to Yes, the report will include employees that punched OUT before the reference, because it is not working at the reference time. If set to No, employees punched OUT before the reference time will not be shown because the day is not a un-attendance day, as they came to work.

Include Days with Overridden Un-attendance: If set to Yes; days with a category transaction that overrides the un-attendance will also appear in the report. If Set to NO, those days will not appear because it is considered a Justified un-attendance.

To generate the Who is NOT IN report, select a reference time and set to 'Yes' the option Include Employees that punched OUT. Employees not currently in the company at the reference time will be show in the report.

This is a sample Un-attendance report showing daily details and showing also overridden un-attendance. The report will also show the IN punch as a reference for employees that punched IN and OUT but they are not currently IN the company.

SOUTHWEST NUT CO					Date
Unattendance Report (06/12/2009 - 06/18/2009 up to 10:00 hours)					30/06/2009
					Time 12:24:25PM
					Page 1
Number	Name	Date	Assignments	IN Punch	
0060	Segoviano Luis	Sun 06/14/2009	3,Open Shift		
Unattendance Total for Employee					1
0064	Trevizo Maria Carmen	Fri 06/12/2009	3,Open Shift	17:29 IN	
		Sat 06/13/2009	3,Open Shift	14:37 IN	
		Sun 06/14/2009	3,Open Shift		
Unattendance Total for Employee					3
0069	Villalobos Rosalia	Fri 06/12/2009	3,Open Shift		
		Sat 06/13/2009	3,Open Shift		
		Sun 06/14/2009	3,Open Shift		
		Mon 06/15/2009	3,Open Shift		
		Tue 06/16/2009	3,Open Shift		
		Wed 06/17/2009	3,Open Shift		
		Thu 06/18/2009	3,Open Shift		
Unattendance Total for Employee					7
Report Totals			Employees	Unattendance	
			3	11	

Exceptions Report

This report shows all exceptions generated in the system, either transaction's programmed exception or day exceptions. When exceptions are programmed in the shift, transactions that fall within an exception range generate that exception. You may then review exceptions to see how the employees have been punched along the shift. Some exceptions are linked to the day, such as Missing Punch exception, Un-attendance exception or any other system exception that informs, by example; that the employee is not assigned to a policy in a day. These are called day exceptions. You may review the Exception Definition Section in this manual to understand how automatic exceptions are handled in the system.

The options to generate this report are:

Order by Employee Name or Number. Select the order of the employees included in the report.

Show Employee Details. If not showing employee details, only totals by group and report totals will be printed

Select the options to process the Exceptions Report...

Order Employees by Name or Number	<input checked="" type="radio"/> Y <input type="radio"/> N
Include Employee Details	<input checked="" type="radio"/> Y <input type="radio"/> N
Include Day Exceptions	<input type="radio"/> Y <input checked="" type="radio"/> N
Include All Transactions or Ignore Transaction Exceptions	<input type="radio"/> Y <input checked="" type="radio"/> N <input type="radio"/> I
Select the Transaction Types to Include in the report	<input type="checkbox"/> I <input type="checkbox"/> L <input type="checkbox"/> R <input type="checkbox"/> O
Select the Exceptions to include in the report	<input type="text" value="All"/>

[View Report](#)

Include Day Exceptions: Select if you want to include day exceptions in the report. First the exceptions are filtered using the exception selection. Those day exceptions from selected exceptions may or may not be included in the report.

Include All Transactions or Ignore Transactions Exceptions: Select if the transactions to be included to find for exceptions, will be all of them or just a selected type of transactions. You also may ignore transaction's exceptions and show only day exceptions.

Select the Transaction Types to include in the Report: if not all transaction will be included, then select the type of transactions to include, they may be IN, Out To Lunch, IN from Lunch or Out Punches. So you may get a report of 'Late' exception on IN punches to know the employees that punched IN late.

This is a sample Exceptions Report showing Late exception on IN Punches. Each exception also totals the time of the exception starting from the beginning of the exception interval to the time the transaction was made or if the exception is linked to a transaction, then the time will be the absolute difference between the linked transaction and the time the transaction was made. The time is useful, in this case, to know the tardiness time for an employee.

SOUTHWEST NUT CO					Page 30/06/2009	
Exceptions Report (06/12/2009 - 06/18/2009)					Hour 12:28:53PM	
					Page 1	
Number	Name	Date	Exception	Transaction	Time Programmed	
<hr/>						
0096	Fraire Nicolas					
	<i>Day Exceptions</i>					
		Sat 06/13/2009	MP Omitted Position	OT 18:00		
			M2 Not Programmed	OT 15:51		
		Tue 06/16/2009	M2 Not Programmed	OT 16:34		
	<i>Transactions Exceptions</i>					
		Fri 06/12/2009	RA Round Forward	IN 05:58	-2	06:00
			RD Round Back	OT 18:11	11	18:00
		Sat 06/13/2009	RA Round Forward	IN 05:59	-1	06:00
		Sun 06/14/2009	TE Early	OT 17:45	-15	18:00
		Mon 06/15/2009	RA Round Forward	IN 05:59	-1	06:00
		Tue 06/16/2009	RA Round Forward	IN 05:57	-3	06:00
		Wed 06/17/2009	RA Round Forward	IN 05:43	-17	06:00
			RD Round Back	OT 18:04	4	18:00
		Thu 06/18/2009	RA Round Forward	IN 05:49	-11	06:00
			RA Round Forward	OT 17:52	-8	18:00
Employee Totals					Exceptions	Time
					13	1:13
0106	Hernandez Julia					
	<i>Day Exceptions</i>					
		Sat 06/13/2009	MP Omitted Position	OT 18:00		
			M2 Not Programmed	OT 15:38		
		Sun 06/14/2009	M2 Not Programmed	OT 16:44		
	<i>Transactions Exceptions</i>					
		Fri 06/12/2009	RA Round Forward	IN 05:53	-7	06:00
			RD Round Back	OT 18:05	5	18:00
		Sat 06/13/2009	RA Round Forward	IN 05:47	-13	06:00
		Sun 06/14/2009	RA Round Forward	IN 05:51	-9	06:00
		Mon 06/15/2009	RA Round Forward	IN 05:52	-8	06:00
			RD Round Back	OT 18:10	10	18:00
		Thu 06/18/2009	RA Round Forward	IN 05:48	-12	06:00
			RD Round Back	OT 18:05	5	18:00
Employee Totals					Exceptions	Time
					11	1:09
				Employees	Exceptions	Time
Report Totals				2	24	2:22

Categories Report

This report is another important output of the Pendulum Time and Attendance System. It totals worked time grouped by employee and category. The time accumulated on each category may also be split in time levels.

It also has an option to show not authorized time. This is the only report that shows not authorized time. To know about time authorization, review the Time Levels description in this menu and how to authorize time in the time card editing screen.

The options for this report are the following:

Order by Employee Name or Number. Select the order of the employees included in the report.

Show Employee Details. If not showing employee details, only totals by group and report totals will be printed.

Select the options to process the Category Report.

Order Employees by Number or Name	#	N
Show Employee Details	Y	N
Show Category Daily Details	Y	N
Show Time Level Details	Y	N
Select the Time Levels to include in report	<All>	
Select Categories to Include in Report	<All>	

View Filter View Report

Include Time Authorized, Not Authorized or Both: The report will only include the selected type of time on each category. Use this option only if any of your time levels requires authorization and want to know how much time is not being authorized

Show Category Daily Details: Select if you want the report to show daily category details or just category totals by employee. If daily details option is

selected, the reports show the categories found on each day of the pay period.

Show Time Level Details: You may want to split the category total time in the time levels. If 'NO' is selected; only the categories grand total will be shown.

Select Time Levels to include in report: This value is used to filter the report by certain time level. You may want to obtain an overtime report then you may only select the overtime time level. If you want to know a whole worked time, select all time levels.

Select Categories to include in the report: This value is used to filter the report by certain categories. You may want to get a vacation report. Then filter by the vacation category.

Just remember that the worked time is grouped first by category and then by time level. So if you select a specific category and all time levels, then you will get the amounts of that category in all time levels.

This is a sample category report showing daily details and time levels detail.

SOUTHWEST NUT CO
Category Report

Date 30/06/2009
Time 12:33:17PM
Page 1

Pay Period from 06/12/2009 to 06/18/2009

Categories: REG

0064 - Trevizo Maria Carmen		REG	OT1	OT2	OT3
Fri 06/12/2009	REG Regular	13:35	13:35	0:00	0:00
Mon 06/15/2009	REG Regular	10:31	10:31	0:00	0:00
Tue 06/16/2009	REG Regular	9:16	9:16	0:00	0:00
Wed 06/17/2009	REG Regular	11:43	8:38	5:05	0:00
Thu 06/18/2009	REG Regular	11:30	0:00	11:30	0:00
Employee Totals		REG	OT1	OT2	OT3
REG Regular		56:35	40:00	16:35	0:00
0082 - Castañeda Raul		REG	OT1	OT2	OT3
Fri 06/12/2009	REG Regular	11:53	11:53	0:00	0:00
Sat 06/13/2009	REG Regular	10:42	10:42	0:00	0:00
Mon 06/15/2009	REG Regular	11:57	11:57	0:00	0:00
Tue 06/16/2009	REG Regular	10:30	5:28	5:02	0:00
Wed 06/17/2009	REG Regular	12:08	0:00	12:08	0:00
Thu 06/18/2009	REG Regular	12:23	0:00	12:23	0:00
Employee Totals		REG	OT1	OT2	OT3
REG Regular		69:33	40:00	29:33	0:00
0096 - Fraire Nicolas		REG	OT1	OT2	OT3
Fri 06/12/2009	REG Regular	11:30	11:30	0:00	0:00
Sat 06/13/2009	REG Regular	9:20	9:20	0:00	0:00
Sun 06/14/2009	REG Regular	11:15	11:15	0:00	0:00
Mon 06/15/2009	REG Regular	11:30	7:55	3:35	0:00
Tue 06/16/2009	REG Regular	10:03	0:00	10:03	0:00
Wed 06/17/2009	REG Regular	11:30	0:00	11:30	0:00
Thu 06/18/2009	REG Regular	11:22	0:00	11:22	0:00
Employee Totals		REG	OT1	OT2	OT3
REG Regular		76:30	40:00	36:30	0:00
Report Totals		REG	OT1	OT2	OT3
REG Regular		202:38	120:00	82:38	0:00
				Total of Employees	
				3	

Category Count Report

This report is very similar to the Categories report. Except that this report shows the number of events of each category instead of hours accumulated in each category. Also shows a total time for all events, but does not give details of the time, just totals.

The options for this report are the following:

Order by Employee Name or Number. Select the order of the employees included in the report.

Group by Employee or Category: select if you want to know the number of category events by employee or you want to know which employees have a category event, grouping either by Employee or Category, respectively.

Select the options to process the Category Count Report

Order Employees by Number or Name ☒ N

Group by Employee or Category ☒ C

Show Category details ☒ Y

Show totals for each Category ☒ Y

Select Time Levels to Include in Report

Select the Categories to Include in Report

Show Category Details: Select if you want the report to show daily category details or just category count totals by employee. If daily details option is selected, the reports show the categories found on each day of the pay period.

Show total for each Category: The report may show a total time of the selected categories in addition to the number of events.

Select time levels to include in report:

If you want to show the time accumulated on each category then select the time levels you want to include.

Select Categories to include in report:

This is a filter of the categories you want to include in the report. By example, you may want to know the number of days having Jury Duty then select the category Jury Duty.

This is a sample category count report grouped by Employee, showing daily details and regular hours.

SOUTHWEST NUT CO				Date	30/06/2009
Category Count Report				Time	12:43:38PM
Pay Period from 06/19/2009 to 06/25/2009				Page	1
Categories: SICK					
Employee:		Fecha		Time	Amount
SICK Sick					
0012 - Castaneda Maria		Mon 06/22/2009		8:00	
Employee Totals	Total of Events	1	Total	8:00	
0022 - Garza Lorenzo		Tue 06/23/2009		8:00	
Employee Totals	Total of Events	1	Total	8:00	
0060 - Segoviano Luis		Sun 06/21/2009		8:00	
Employee Totals	Total of Events	1	Total	8:00	
Totals for SICK Sick			Total	24:00	
Total of Employees	3	Total of Events	3		
Report Totals			Total	24:00	
Total of Employees	3	Total of Events	3		

Transactions Report

This report shows a list of the transactions already in the system, when the transactions have been already classified and inserted into the system database. Each transaction may be either an employee punch or a category transaction. If using the job costing levels, then it shows the job costing level transfer transactions too. The options of this report offer a variety of filters and grouping so you may get several formats of this report.

These are the options of this report:

Print report grouped by Employee or by Date: You may see all the transactions of an employee or all the employees that have transaction on a date.

Order by Employee Name or Number. Select the order of the employees included in the report.

Select the options to process the Transactions Report

Group Information by Employee or Date:	<input checked="" type="button" value="E"/> <input type="button" value="D"/>
Order Employees by Number or Name:	<input checked="" type="button" value="#"/> <input type="button" value="N"/>
Include Transactions: All or Modified Only:	<input type="button" value="A"/> <input checked="" type="button" value="M"/>
Include only transaction with Access Granted:	<input checked="" type="button" value="N"/> <input type="button" value="Y"/>
Include only the following Function Types:	<All> 
Show only transaction from Device:	<All> 

Include Transactions: All or Modified Only: Select modified only if you want to see the transactions that have been modified by a supervisor.

Include Transactions Change Reason: If using change reason, you may see the reason why each transaction was modified. The change reason is requested when the user modifies a transaction in the time card editing.

Include only transactions with

Access Granted: Show only transactions that granted access to the employee. This is used to obtain an Access Report. Some time and attendance punches also grants access, depending on the device and the device configuration.

Include only the following Transaction Types: This is a filter by transaction type. You may want to view only IN and OUT Punches and ignore all others.

Show only transaction from devices: This is a filter by device. Only transactions generated on the selected devices are shown. Manually added transaction will not show if this option contains a value, so those transactions were not made on any device.

This is a sample transaction report grouped by employee and filtered by one device.

SOUTHWEST NUT CO										Date	30/06/2009
Transactions Report										Page	1
Pay Period from 06/19/2009 to 06/25/2009											
Date	Time	Badge		Function		Device		Supervisor	Chg		
Employee: 0012 Castaneda Maria											
Fri 06/19/2009	05:35	0012	3	? IN		1 Clock 1			No		
Fri 06/19/2009	17:46	0012	3	? OUT		1 Clock 1			No		
Sat 06/20/2009	05:27	0012	3	? IN		1 Clock 1			No		
Sat 06/20/2009	15:28	0012	3	? OUT		1 Clock 1			No		
Sun 06/21/2009	05:25	0012	3	? IN		1 Clock 1			No		
Sun 06/21/2009	18:08	0012	3	? OUT		1 Clock 1			No		
Mon 06/22/2009	00:00	0012		Manual M Category					Si		
Tue 06/23/2009	05:28	0012	3	? IN		1 Clock 1			No		
Total of Transactions of Employee:											8
Employee: 0022 Garza Lorenzo											
Fri 06/19/2009	06:04	0022	3	? IN		1 Clock 1			No		
Fri 06/19/2009	20:25	0022	3	? OUT		1 Clock 1			No		
Sat 06/20/2009	06:02	0022	3	? IN		1 Clock 1			No		
Sat 06/20/2009	19:27	0022	3	? OUT		1 Clock 1			No		
Sun 06/21/2009	05:50	0022	3	? IN		1 Clock 1			No		
Sun 06/21/2009	14:08	0022	3	? OUT		1 Clock 1			No		
Mon 06/22/2009	05:49	0022	3	? IN		1 Clock 1			No		
Mon 06/22/2009	20:40	0022	3	? OUT		1 Clock 1			No		
Tue 06/23/2009	00:00	0022		Manual M Category					Si		
Total of Transactions of Employee:											9

PC Punch Client

In conjunction with Pendulum you can use the module of communications PC Punch Client which is a tool that improves mobility and usability for controlling the employees' attendance.

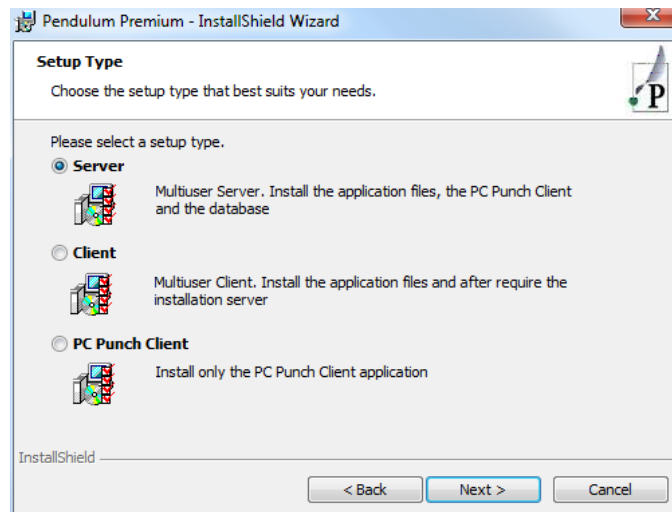
This application relates to the PC Punch Client.

With the PC Punch Client your employees can mark the attendance from a remote PC different from where the Pendulum is installed which will be the server and should not necessarily be the same PC that the client module.

Installing the PC Punch Client

For install the module PC, you can select for this options

- a) When install a Server or Client of the Pendulum, the installer will install the module PC Punch Client, with these options will to have the application Pendulum and module Pc Punch Client.
When install this option, the module is installed on the folder PCPUNCH
- b) You can select only the PC Punch client, this option will install the module on your PC, it is important that you need a Server/Complete installation of the Pendulum application to work with this module.



Add a PC Punch device.

From the main menu enter the Devices window and select the Add option.

Enter the parameters that you requested.

In Device ID: The ID number assigned to the device.

Description: The description of the device.

Class of Device: Select the device PC Punch.

Division: Select the division to which the device belongs.

Communications Group: Select the group to which it communicates.

Type of Device: select the type of device in question.

Time Difference between the PC and the device: Enter in minutes the time difference between the PC and the device.

TCP / IP, check the box.

Direction: Enter PC Punch for the server IP address.

Port: Enter the server Punch for the PC port.

Assigned Employee to PC Punch

Enter the Employee catalog to assign staff to the appropriate device.

Number	Last Name	Name	Badge	Group	Department
Status : Active (1 item)					
000000001	MICHEL	FRANK	00001		

Select the employee and enter the Device option from the window of employees

Assn.	Description	Assignment
<input checked="" type="checkbox"/>		PIN

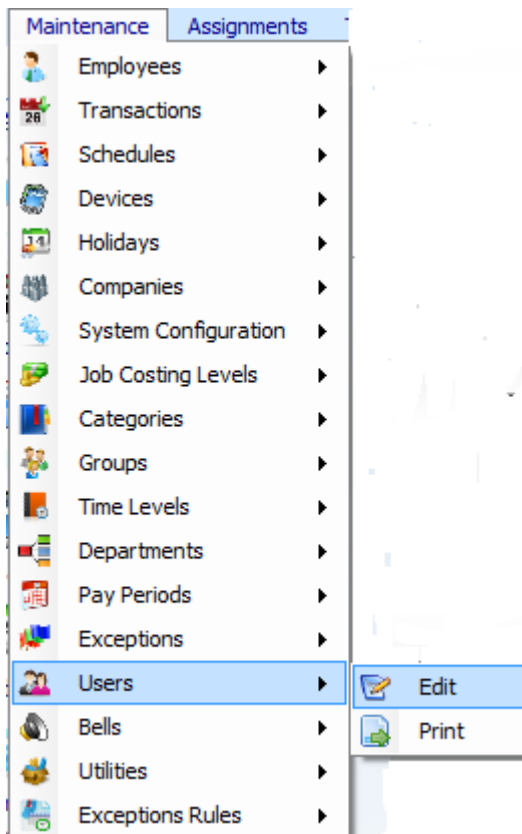
[Click here to open the communication window and take actions only with this Employee](#)

Prev Step Next Step

Select the column punch assignment PC terminal, and so this device remain allocated to the employee that was previously selected.

For define the Supervisor users for the PC Punch client, you can Access to the menu Utilities -> Users and select the user that will be Supervisor PC Punch

To use PC Punch device is necessary to assign the user usage allowance, this should be done from the Maintenance menu in the Windows users.



In the Windows users must select the user who will be assigned for the use of pc punch checking the box.

The screenshot shows the 'Users [Admin Administrator]' window. The left sidebar has 'General Information' and 'Access Privileges Administration'. The main area is titled 'Enter or modify the information of the user:' and contains the 'User Information' tab. The form fields are as follows:

Field	Value
Code	Admin
User name	Administrator
Time Max of Edition	0
Email	some@home.com
Alternate email	some@home.com
Startup URL	www.acroprint.com
Initials	adm
Password	*****
Validation	
Limit Date	

At the bottom, the 'User Type' section has three checkboxes: ☒ Administrator, ☐ Exclusive User, and ☒ Supervisor PC Punch.

Configure PC Punch Client

For configure the Pc Punch Client it is necessary that your license have the option to use this module, please confirm with your reseller that it is active on your system.

First it is necessary you define the Pc Punch device on the Pendulum, follow these steps:

- 1) Access to the Pendulum application and select

Configuration

Server

☐ File INI. Select file .INI

☒ Manual Configuration Server IP Port: 1001

Server IP Address: 192.168.0.125

Parameters

☒ Validate Employee.

☒ Validate Fingerprint Number of retries for fingerprint validation: 3

☐ Active Search Mode

☒ Adjust Badge Number Length to 6 chars

Ok Close

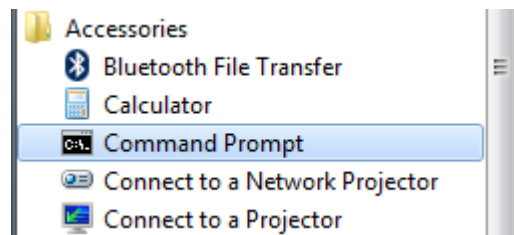
First, you must define the initial connection to the PC server (that where Pendulum is installed) with the module, the server window shows the following parameters.

Server

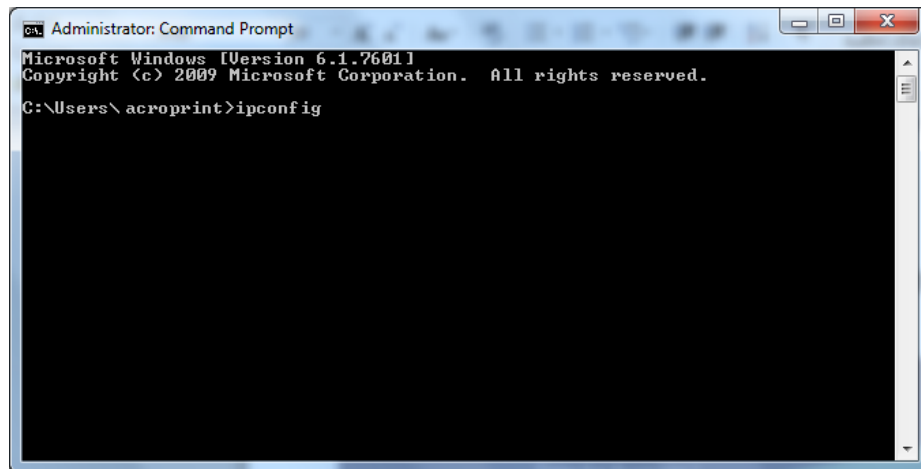
File INI. - Enter the name of the INI file. This File is received from the administrator.

Manual Configuration. - Enter the port number and the IP address of the PC Server.

To find the IP address of your database server, you can get it from your Windows Explorer / Accessories / Command Prompt or by typing in the search "cmd".



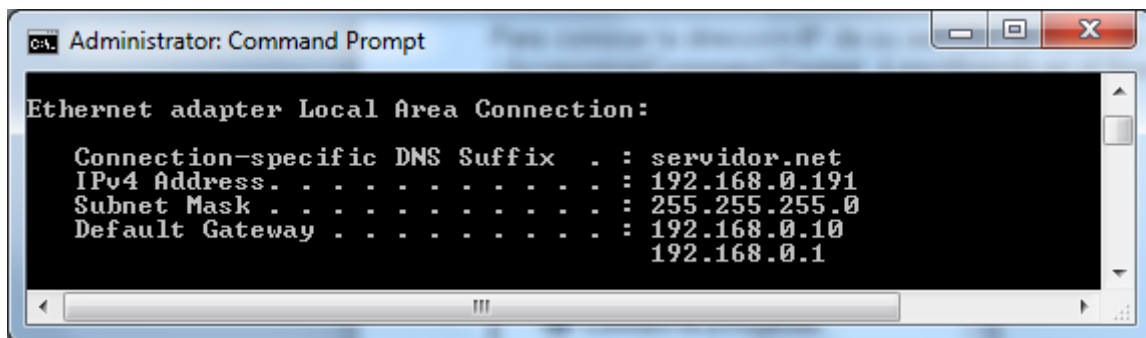
In this window you must type "ipconfig" to help him find the IP for your server command



```
Administrator: Command Prompt
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\acroprint>ipconfig
```

Running this command will show the details of your server.



```
Administrator: Command Prompt

Ethernet adapter Local Area Connection:

    Connection-specific DNS Suffix  . : servidor.net
    IPv4 Address. . . . . : 192.168.0.191
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 192.168.0.10
                                192.168.0.1
```

Use the IP Address showed to assigned the IP Server on the Pc Punch client configuration.

Parameters

Validate Employee. - Validate if the employee exist in the Pendulum.

Validate Fingerprint. - Validate the employee's fingerprint previously enrolled.

Number of retries... - Define the number of retries to validate the fingerprint validation when is bad captured or validated.

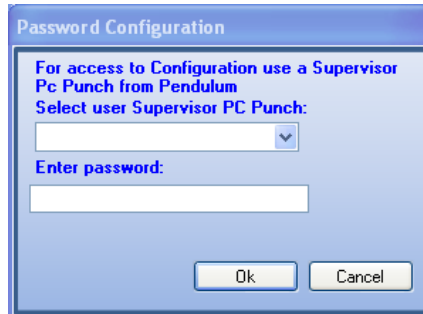
Active Search Mode. - Enable search mode.

Adjust Badge Number Length to __ Chars. - Set the number of characters for the badge when transmit the

transaction to Pendulum.

Press Ok to confirm.

When need to change the parameters will request a user and password from the Pendulum. It is necessary to define users with the flag Supervisor Pc Punch on the catalog user.



Password Configuration

For access to Configuration use a Supervisor
Pc Punch from Pendulum
Select user Supervisor PC Punch:

▼

Enter password:

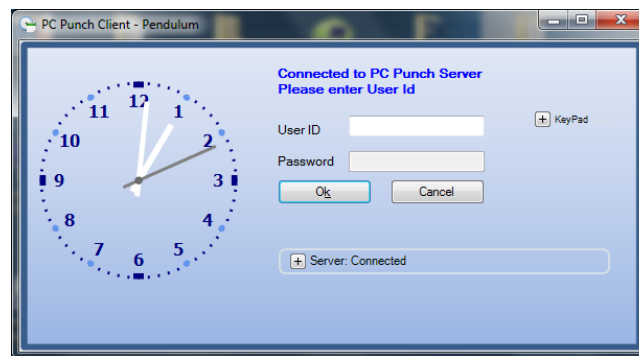
Ok Cancel

Execute the PC Punch Client

You can start this module application from your desktop by double click the icon below.



When you start the PC Punch client where your employees mark their attendance, you will see the following window

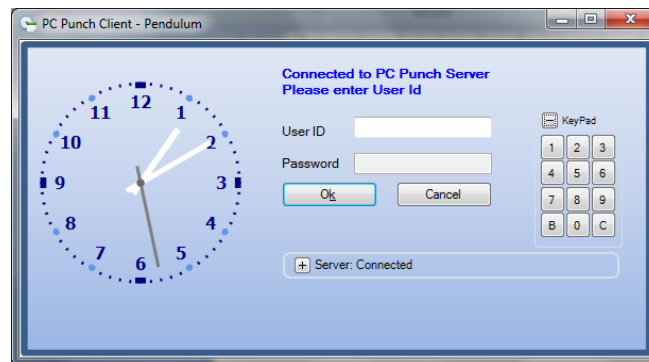


This initial window shows a clock with the current time used to record all transactions, also indicates whether the module is connected.

The first step is to enter your ID which you can enter directly in the provided field or you can press the Key Pad option which will provide a numeric keypad where you can type the ID.

Is important note, the ID number must be entered with the same number of digits that was registered in the employee's record in the Pendulum.

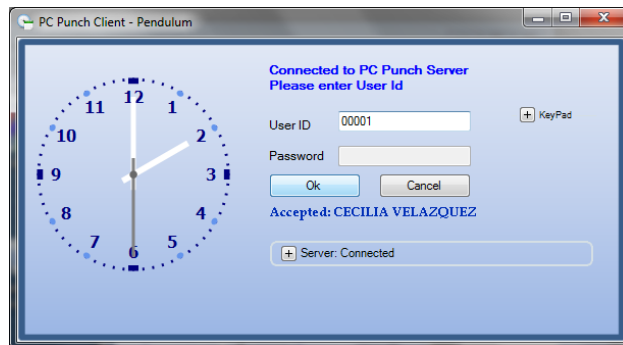
Press Ok to confirm.



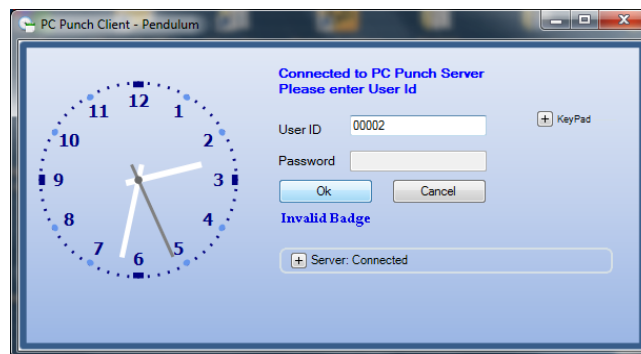
In the Password field you must enter the corresponding data in case the option of password in the Pendulum has been enabled and assigned to the employees; otherwise you can leave the field empty.

The password is obtained when the password is predefined in the server.

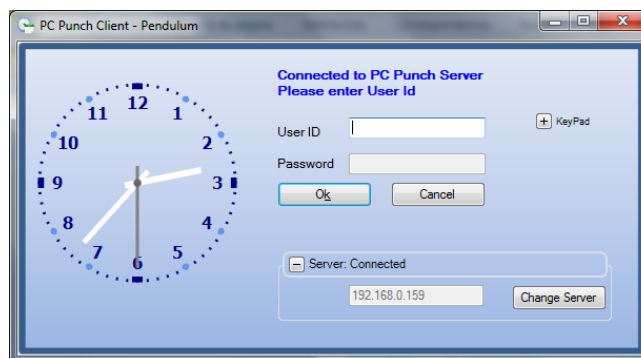
If the authentication is successful you will be issued a confirmation message.



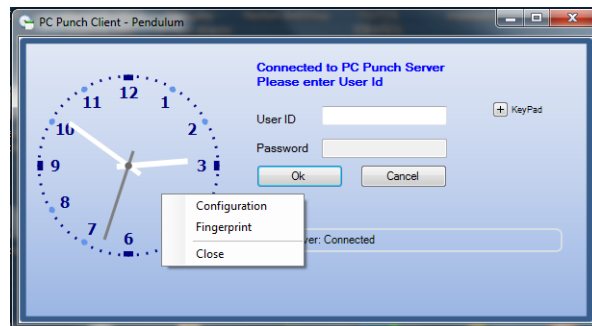
If you enter an incorrect ID the software will show an error message.



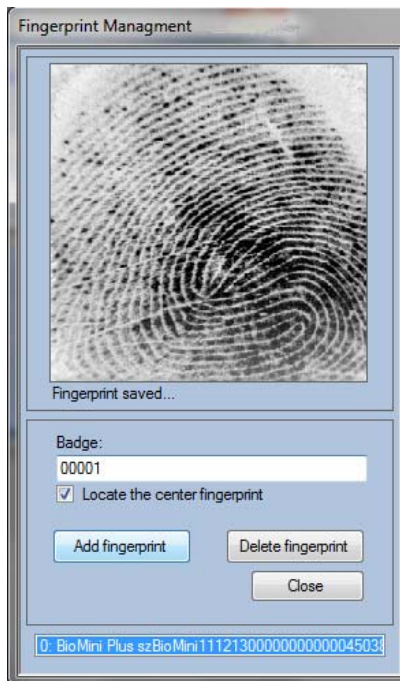
To verify the connection to the server you can expand the Server Connected area at the bottom of the Window, if you want to change the server PC just type the IP number and press the button for change server.



Also you can right click over the clock area of the window in order to access a menu which allows you to access the Server Configuration window and enroll fingerprints.



When you select the fingerprint option, first request a Supervisor user from Pendulum, when is validated it shows the window where you can register a finger. This window show at the bottom the name of the enroll reader and you must **enter the next information**.



Badge: The ID number that was previously assigned to the person.

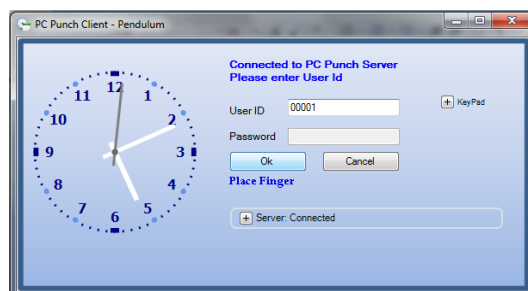
Locate the center of the finger: Allows to the fingerprint reader to locate the center of the finger for a better validation.

Add Fingerprint: Pressing this button will start to read a fingerprint of the reader for enrolling.

Delete Fingerprint: Deletes the captured fingerprint to enter a new one.

Cancel: Pressing this button will exit the window without saving the data

It is important to note that to use this method of authentication is important to enable the option to validate fingerprint in the server configuration.



Appendix 1

Configure device GT 400

For the integration of the terminal it is necessary define the parameters to connect to Pendulum Application. Please, follow the next steps

1) Access the Configuration Main Menu

To enter the Menu, in the hold status of the terminal, press ESC + ENTER

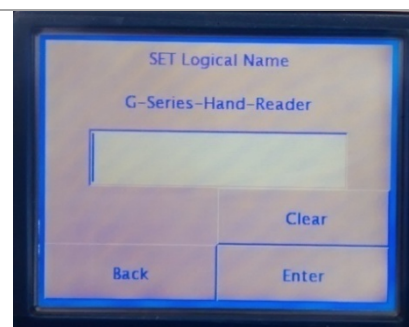


To use the terminal you must enter configuration parameters initially show the main menu of the terminal, with these available options:



2) Logical Name

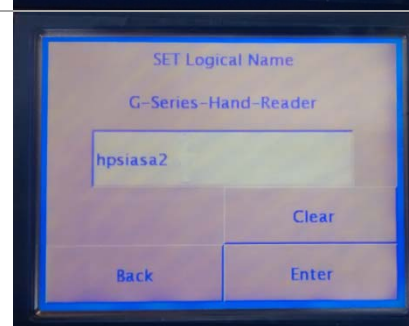
First the Set Logical Name option prompts you to enter the number of the terminal identified that allow you to communicate with Pendulum.



To enter the requested parameter from the terminal keyboard input the data "gtdevXXX" where the last digit or number is the ID that corresponds to the terminal, press Enter to continue.

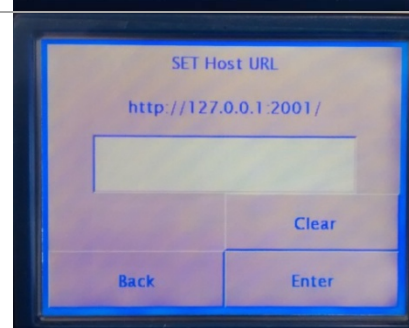
gtdevXXX

Where: gtdev = fixed value
XXX = ID corresponding to the terminal on Pendulum app.



Host URL

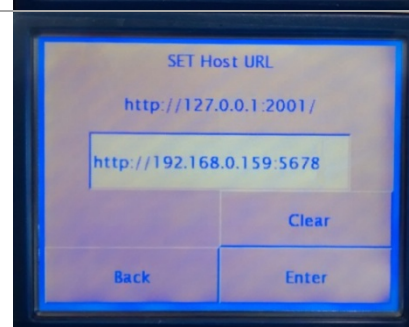
Second, select the Set Host URL option, where displays the IP number device by default.



You must enter the IP number of the PC where the communications module of Pendulum, and finish with the number of connection port, this values is fixed to: 5678.

http://ip_host:5678

Where: ip_host Ip of the Host for communications
:5678 = fixed value



When finished press Enter to save the data URL

It is important that this step cannot be skipped or not functional PC communication with the device.

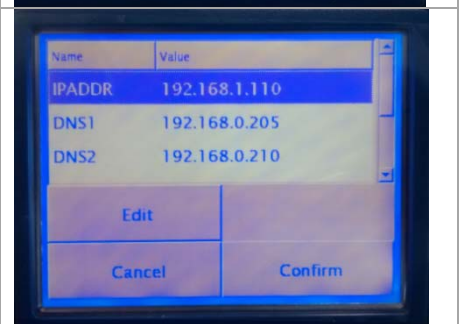
2) IP Static

Third step, select in the main menu the MORE option, this option will display the current IP received from the DHCP, then you can select the button Static IP to define the new IP.

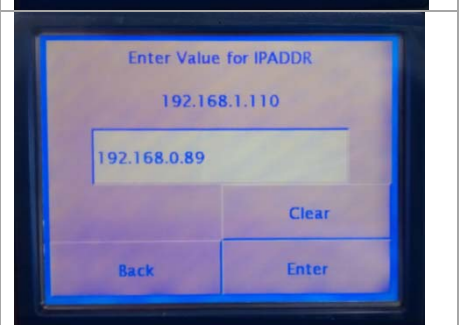


It will show the IP number that the terminal has previously assigned
To edit it, select on the IPADDR option.

The terminal will display the IP number that previously assigned, select and press the "Edit" option.

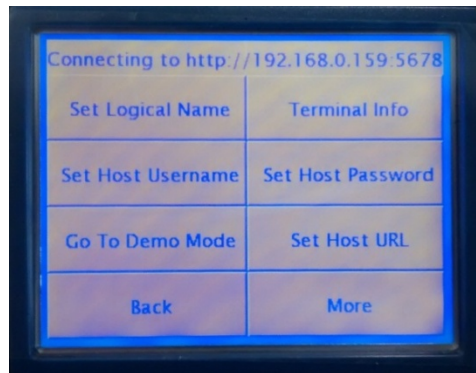


As shown in the example image, you can enter the IP number you want to assign to the terminal, and then press Enter.



2) Host Username and Password

It is important that the options contained in the main menu "Set Host Username and Set Password" should not be modified.



If any of these options changed, the device will not communicate, then you can releases must enter the correct settings for each option.

SET Host Username = admin

SET Host Password = password



Press Enter to confirm each option.

Enroll User Template on GT 400

To enroll the Template for the users must have previously added in Pendulum software, and assign them to the terminal (see manual).

After entering employee data, must send data to the terminal GT400 from the Device Communication option on the program.

In the first enrollment on the terminal, it will be enrolled as Administrator.

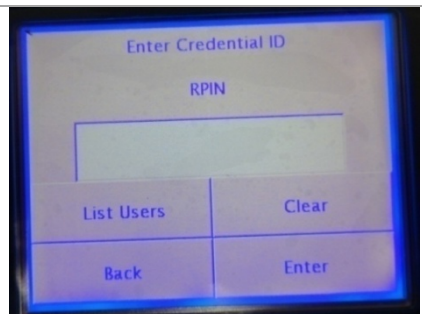
To start the enrollment of users in the terminal, you must authenticate with your administrator user ID and template, and allow you to access the Edit Menu and select the User Management option.



In the next menu select the Edit option User.



You will be prompted to enter the User ID number to enroll.



Or, you can select List Users; it will show the employees sent from software Pendulum, there must select user data to enroll.

User Name	RPIN	User Auth	InOutStatus
Cortes,Dante Ariel	100	1	OUT
Velazquez,CECY	26	5	OUT
jd		1	OUT
tjm	28	1	OUT
	30	1	OUT
	35	1	OUT
	99	1	OUT

Then it will show the user data you select.
To Enroll the Hand Template select the option Enroll User

First Name	Dante Ariel
Last Name	Cortes
Language Preference	EN
Enroll User	Last Booking
Back	More

When begin the process, it will request you put your hand in the platen of the terminal. The LED under the screen will go blue.
Please repeat the same step two times



When complete the device will request Remove Hand and it will complete the process.

Having already enrolled users can authenticate it, and begin punch transactions.



It is important after enroll their employees, from Pendulum application need to back up the Templates, please select the menu Tasks ->Communication Devices.

It is very important that before backup biometric each enrolled person must authenticate at least once

Delete User.

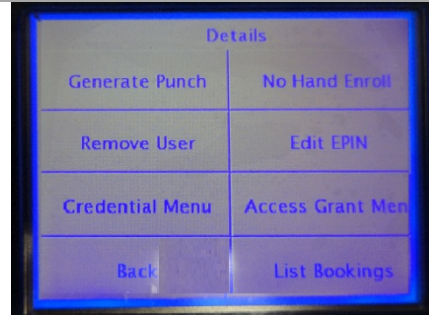
To delete a user on the menu select list users



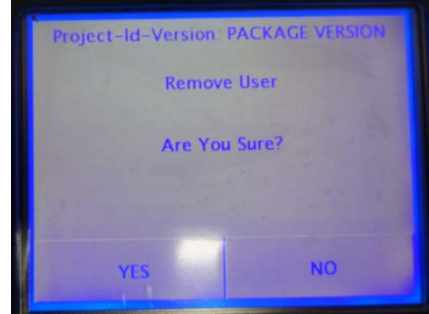
The device will display users data enrolled.
Select the user that requires delete

User Name	RPIN	User Auth	InOutStatus
Cortes,Dante Ariel	100	1	OUT
Velazquez,CECY	26	5	OUT
		1	OUT
		1	OUT
		1	OUT
		1	OUT
		1	OUT

Then select the Remove User option.



It will be prompted to confirm to delete the record.
Press Yes to confirm



Reset Default Factory the terminal GT 400

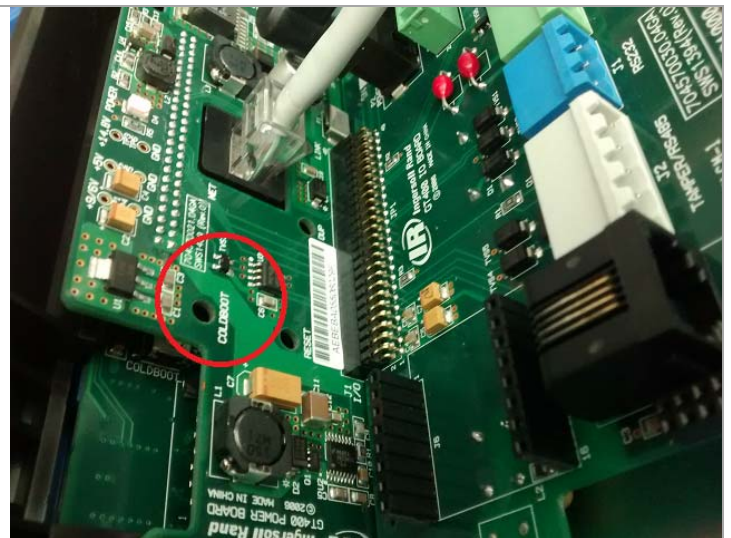
If you need to Delete All information contained in the device, or you did not have Admin Password, you can reset from factory the device, it is necessary dismount the device from wall and need to have a small screwdriver.

Please, follow the next steps:

1) Disconnect the device from the power source

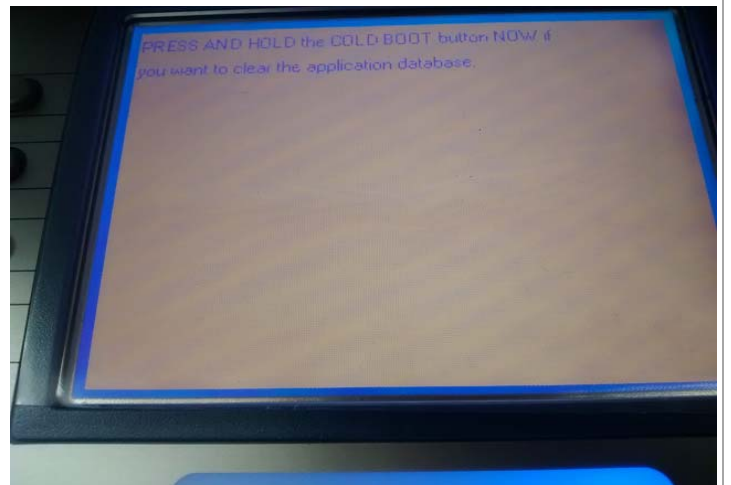
Dismount the device from the wall, on position that you can see the network wired, how the image.

On the left corner or the main board, you will see a hole with a legend: COLD BOOT.

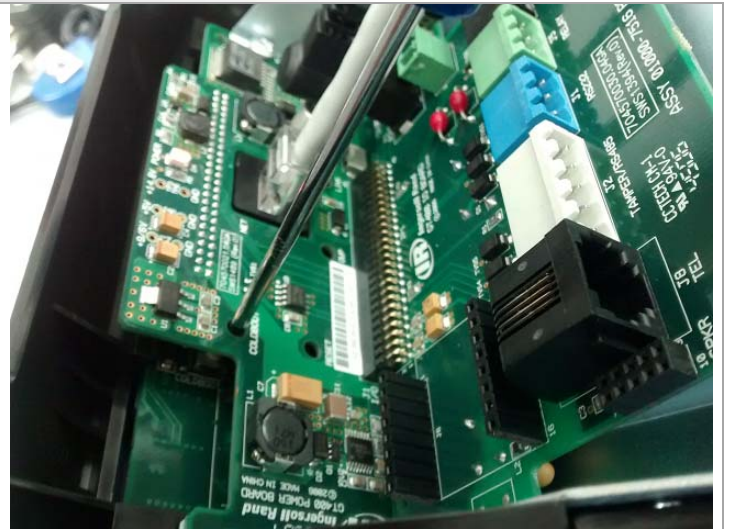


Please, move the device front you to see the display, and Turn ON again the device

The device will display initialization screens, and when the device show:
PRESS AND HOLD the COLD BOOT
You need to press the button on the hole on the main board



2) Press COLD BUTTON located in the back of the terminal for 20 seconds and the terminal returns to the initial programming and eliminating all transactions. Now you need define the parameters to communicate.



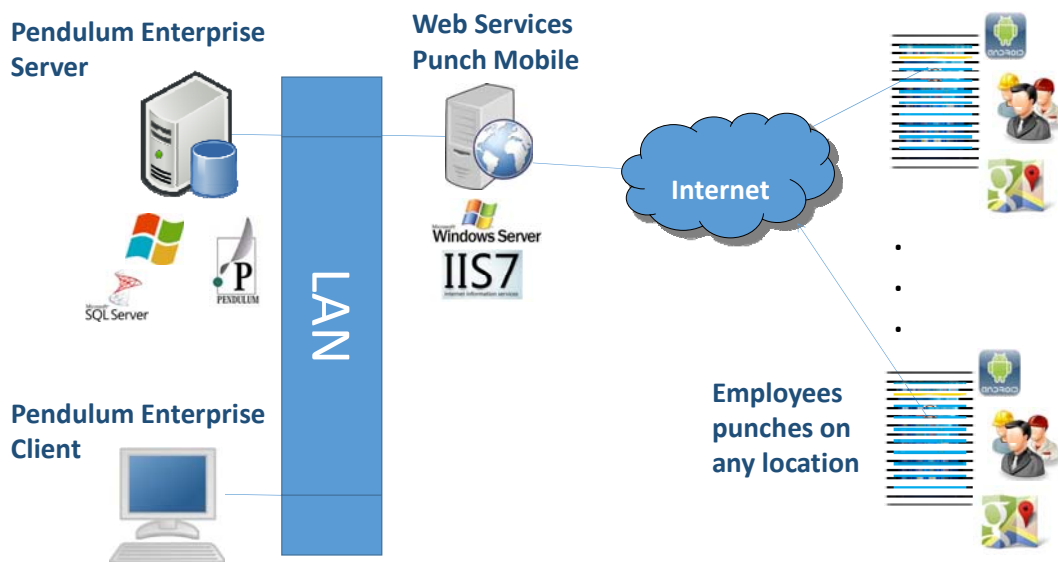
Punch Mobile

Pendulum can include a custom option to punch transactions by a mobile device, the additional module is an application for Android device where the employees can punch her transactions IN and OUT.

Punch Mobile is a module of Pendulum Time and Attendance system and works as an innovative solution Attendance Control for mobile devices, which allows keeping track of the attendances and locations of your staff through online transactions on all or specific places.

This module completes Pendulum software providing complete functionality of an attendance system allowing the employees to punch in a friendly and direct way using cell or tablet devices. The interface and configuration on mobiles and Pendulum is very simple, making it easy to use.

The general architecture is based on this diagram:



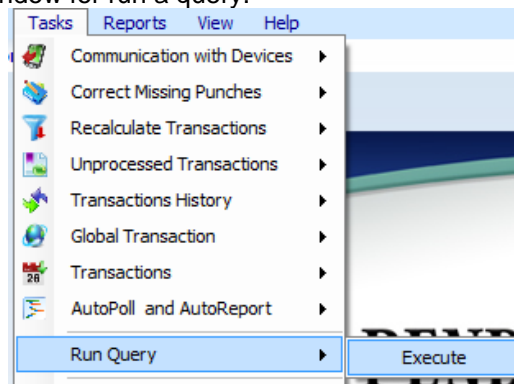
To install the project, you need to have a Pendulum Enterprise on a server, and you need to have an additional server where will install the services to register the transactions from Punch mobile application.

These all the item to install the module:

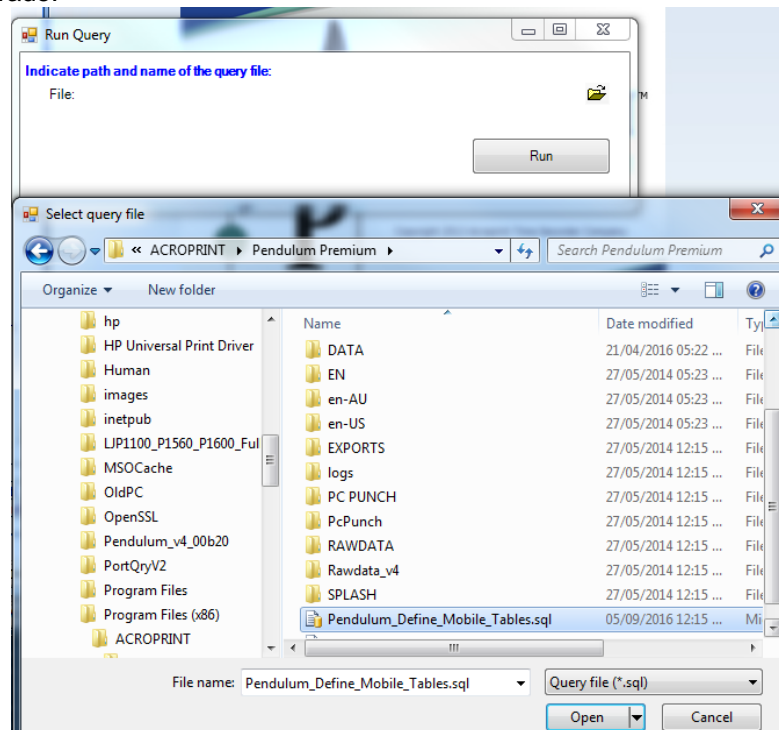
Upgrading Pendulum Software

These are the steps to upgrade the Pendulum application for use with the Punch Mobile module:

1. Verify that you have the correct version of Pendulum, 5.1.50h or 5.1.50i release.
2. Replace the corresponding files included for Punch Mobile module, adding the news and overwriting those that already exist.
3. After that, run the Pendulum Software and in the tasks menu you will see a new option 'Run Query'. Select the Execute item to open the window for run a query.



4. In this window press the open file button and select the file *Pendulum_Define_Mobile_Tables.sql* included with the files for upgrade.



5. Finally press the Run button and verify the successful result of execute the selected file.

How to use Settings and Maintenance

Once you add the Punch Mobile module to Pendulum the first step is to define a general Punch Mobile device on the device screen:



Devices [Punch Mobile: 10 GENERAL PUNCH MOBILE]

List Add Save Delete First Previous Next Last Close

Devices [Punch Mobile: 10 PUNCH MOBILE 1]

Device Definition
The definition of Devices is used to identify the readers for recording assistance allowing configure parameters of behavior and additional features depending on the class of Device.

Parameters Settings

Additional features

Log of Communications

Identify Device

ID in Device: 10 Description: GENERAL PUNCH MOBILE

Class of Device: Punch Mobile Type of Device: ATTENDANCE

Division: + Main Division

Communications Group: 0 [OK] [Cancel]

You can define only one punch mobile device on Pendulum and is necessary for the processing of punch mobile transactions.

Next, you must proceed to the assignment of mobile devices to the appropriate employees registered on Pendulum. Open the employee screen and on the Mobile Device panel you will find the options for assign a mobile device.

Employees [00027 Carrington Cecilia - Mobiles assignments]

List Add Save Delete Print First Previous Next Last Close

Basic Information Screen to assign one or more mobile devices to Employee (only 5 active mobiles) . You can also optionally define up to 10 locations where you can use the mobiles for attendance record.

Badges General parameters of assignments

Classifications Validate Ubications: ☒ Y ☐ N

Schedules Assigned mobiles

Number	Description	Active
<div> <div>+</div> Add <div>↔</div> Edit <div>✖</div> Delete </div>		

Additional Information

Time Card

Devices

Benefits

Mobile devices

If you want to force the employee to punch near some specific “UBICATIONS” you need to activate the Validate Location option allowing for each defined mobile to specify locations where the employee may punch.

Doing right-click you will see a popup menu for add, edit and delete the mobiles to assign to the employee.

After select add a new mobile assignment or edit an existing one you will see the next screen:

Employees [00027 Carrington Cecilia - Mobiles assignments]

List Add Save Delete Print First Previous Next Last Close

Basic Information Information of mobile device

Number: Type: Active: ☒ Y ☐ N

Description:

Classifications Information of installation

Allow new installation: ☒ Y ☐ N Identifier:

Additional Information

Time Card

Devices

Benefits

Mobile devices

☒ Accept

Where:

Number.- Cell number or tablet ID.

Type.- Select the mobile device type, cell or tablet. If select tablet and is a new assignment you will see a button for define a random number to use with the tablet.

Active. - Specify if the assign is active or not. For each employee you can assign until 5 active mobile devices. If you want to assign an existing mobile number to another employee first need to deactivate the number for the current employee and after that reassign the number to the respective employee.

Allow new installation. - Indicate yes if this mobile assign is for a new installation on the mobile device application or when you reassign the mobile number to a different employee.

Identifier. - Internal id defined when the employee badge is assigned on the mobile device application. Read only.

After define the mobile is necessary to press the Accept button to confirm the changes and assign to the employee.

When you indicate to validate locations this same screens change to allow to define until 10 locations for each mobile device.

Doing right-click you will see a popup menu for add, edit and delete the locations to assign to the current mobile device.

After select add a new location assignment or edit an existing one you will see the next screen:

Geolocator

Description: Office

Ubication 5640 Departure Dr, Raleigh, NC 27616, USA

Radius(meters) 50

Map Satellite

Latitude 35.860218 Longitude -78.590606

Accept Cancel

Where:

Description.- A text related to the location used as a general definition of the location

Ubication.- Specific description of the location related directly to the coordinates.

Radius.- Indicate the zone in meters where the employee can generate a transaction around the location.

Latitude and Longitude. - Global position of the location ant related directly with the location. Read only.

You can specify a location in two ways, entering a text with the location and allow the window to suggest the possible options or move the red pin to the exactly position.

After define the location is necessary to press the Accept button to confirm the changes and assign to the mobile device.

Finally, after assign the valid locations, if apply, and assign the mobile devices you will have to save the employee changes so the employee be updated.

Additionally, in case the employees generate punches on different days on the same period (bus drivers for example) the schedule definition has a new option to allow attendance for more than a day:

Schedules [001 Operators]

List Add Save Delete First Previous Next Last Close

General Information The Schedule file defines and stores basic information including the pay period, breaks and lunches, time rounding, overtime, holiday rules, and more. Schedules determine the basis for all employee time reports and must be carefully defined. The system will support any combination of pay-periods working at the same time. ie: some employees may work a weekly schedule and some on a biweekly schedule. However, an individual employee can be assigned to different schedules provided the pay period and overtime rules are kept consistent. After the work schedules have been defined, ALL Employees MUST be assigned to a schedule for every day of the week, even if they do not work on certain days. See Employee maintenance, Schedule Assignment for details.

Deductions

Time Level Limits

Fixed Shifts

Holiday and Exceptions

Parameters for Transactions Processing

Schedule #: 001

Description: Operators

Company: Main Division

Frequency: W B S M

Start Date: 02/01/2000

Use Time Rounding: ☒

Automatic Deductions: E W N

Break Punches: ☐

Round Break Punches: ☐

Lunch Punches: ☐

Round Lunch Punches: ☐

Pay Over-Time: ☒

Pay Non-Worked Holidays: ☒

Fixed Shift Windows: ☒

Exception Report Parameters: ☐

California OT: ☐

Extended Work Days: ☒

The Extended Work Days allow the employees to punch in and after punch out on different days calculating all the worked time covered between days according the punches.

Tasks and Use

Once the employees start to use the Punch Mobile application on their mobile devices the generated transactions are almost automatically processed and reflected in their attendance. In the time card screen you can see where the employee does a transaction on the tooltip of the transaction:

Employees [00010 Carrington Cecilia- Time Card]

List Add Save Delete Print First Previous Next Last Close

Enter the number of the pay period you want to edit and press TAB to bring up the information...

Basic Information Employee: 00010 Carrington Cecilia Company: Rockland Flooring Company Print

Badges Pay Period: 3 Sunday 08/21/2016 - Saturday 09/03/2016 Reprocess

Classifications	Date	IN	Lunch Start	Lunch Finish	Out	DEF	Totals LNCH	BRK	REG	OT1	OT2	OT3	Time Level Details	
Schedules	Dom 08/21/2016	Día de descanso												
Additional Information	Lun 08/22/2016	Inasistencia												
Time Card	Mar 08/23/2016	08:15	:	:	17:31		00:30		08:45					
Devices	Mié 08/24/2016	Inasistencia												
Benefits	Jue 08/25/2016	07:30	:	:	:				16:30					
Mobile devices	Vie 08/26/2016	:	:	:	18:45				14:45	04:00				
		Regular	Details											
		Transaction Rounded:08/26/2016 18:45:00 Device: 10 Mobile 9197611583, Ubic: Perif. de Mérida Lic. Manuel Berzunza, Temozón Norte, Mérida, Yuc.,												
	Sáb 08/27/2016	Día de descanso												

Or you can see more specific information right-clicking the transaction and selecting Show Location:

Geolocator

Description:

Ubication Perif. de Mérida Lic. Manuel Berzunza, Temozón Norte, Mérida, Yuc.,

Map Satellite

Google

Latitude 21.046448 Longitude -89.617517

Accept

In a similar way, on the time card report you can see all the mobile transactions selecting the report option Include details for transactions of Punch Mobile:



TA Enterprises Co.

11/10/2016

Time Card

Number: 00010
Employee: Carrington Cecilia
Group: Not Assigned

Date Range: Sunday 08/21/2016 - Saturday 08/27/2016

Date	IN	OUT to Lunch	IN from Lunch	OUT	REG	OT1	Time Level Details		BRK	LNCH
							OT2	OT3		
Sun 08/21/2016	Not Scheduled									
Mon 08/22/2016	Absent									
Tue 08/23/2016	08:15a			05:31p	08:45					00:30
Wed 08/24/2016	Absent									
Thu 08/25/2016	07:30a			- MP -	16:30					00:00
	Regular									
Fri 08/26/2016	- MP -			06:45p	14:45	04:00				00:00
	Regular									
Sat 08/27/2016	Not Scheduled									
Oti Period End:					40:00	04:00	00:00	00:00		00:30
Total by Employee:					40:00	04:00	00:00	00:00		00:30
Transaction List from Punch Mobile										
Date	Time	Function	Location							
08/25/2016	07:30a	IN	Destino 1							
08/26/2016	06:45p	OT	Perif. de Mérida Lic. Manuel Berzunza, Temozón Norte, Mérida, Yuc.,							

Global Totals: REG: 44:00 40:00 04:00 00:30
Total Employees: 1

Punch Mobile Web Service

DESCRIPTION OF REQUIREMENTS

Before starting with the installation of Punch Mobile Web service, it is necessary first to verify that the IIS is installed.

- ✓ **Internet Information Services (IIS)**

In the WCFPunchMobileServices installer folder, it is also included the prerequisite used for the proper functioning and configuration of WCFPunchMobileServices:

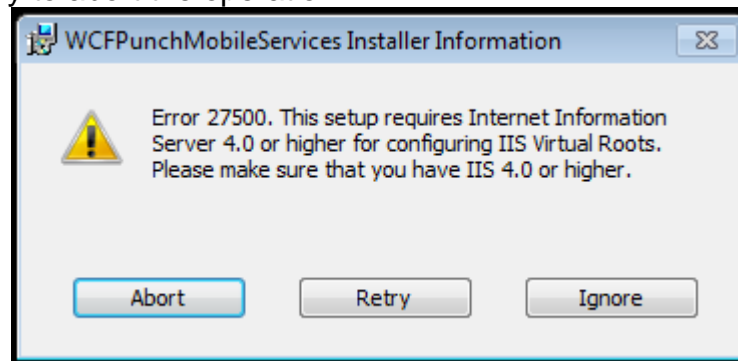
- ✓ **Framework 4.0**

The installation must be done in a 64 bits' operative system

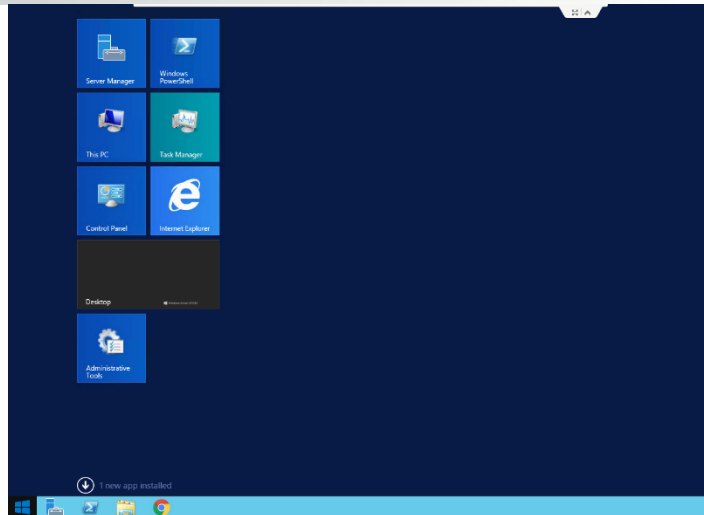
INSTALLATION PROCESS

1. INSTALLATION OF INTERNET INFORMATION SERVICES (IIS)

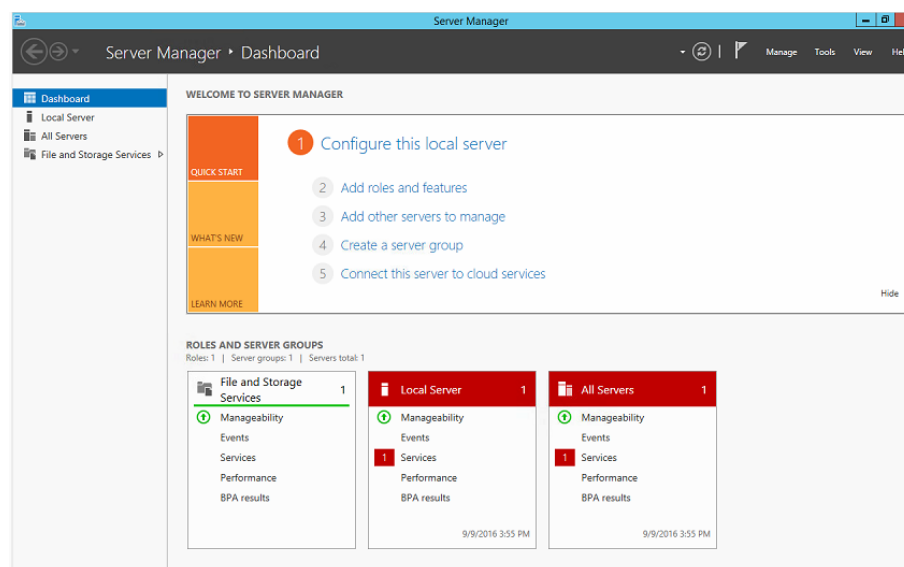
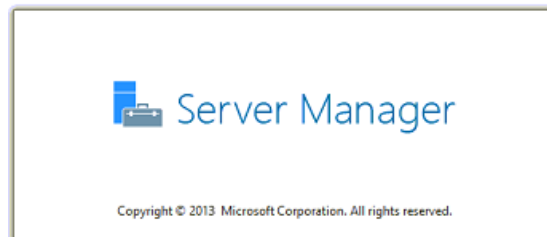
It is very important that the IIS is installed before starting the “WCFPunchMobileServices” web service, otherwise the installation will not be able to continue and an error message will be shown and it will be necessary to abort the operation.



1.1 USING MICROSOFT WINDOWS SERVER 2012 R2 STANDARD OS

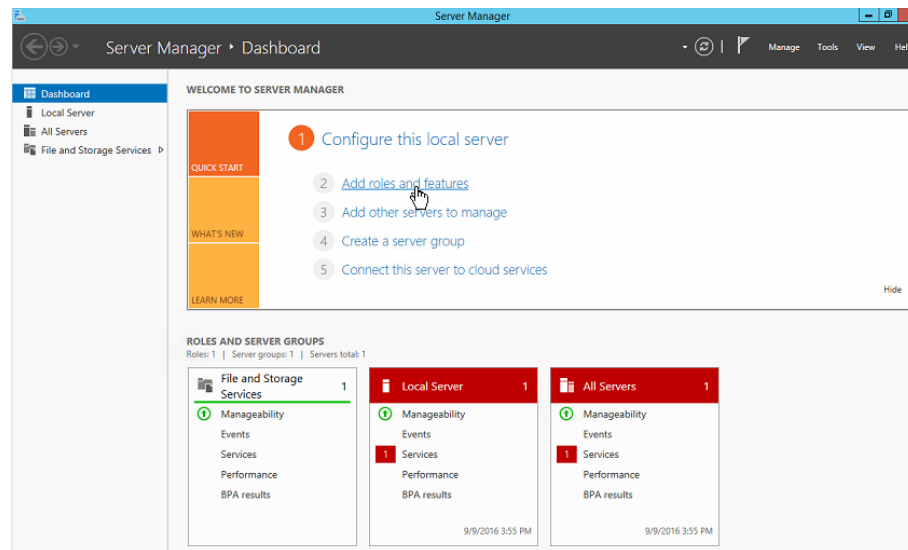


1. Open the server manager to add roles to the IIS

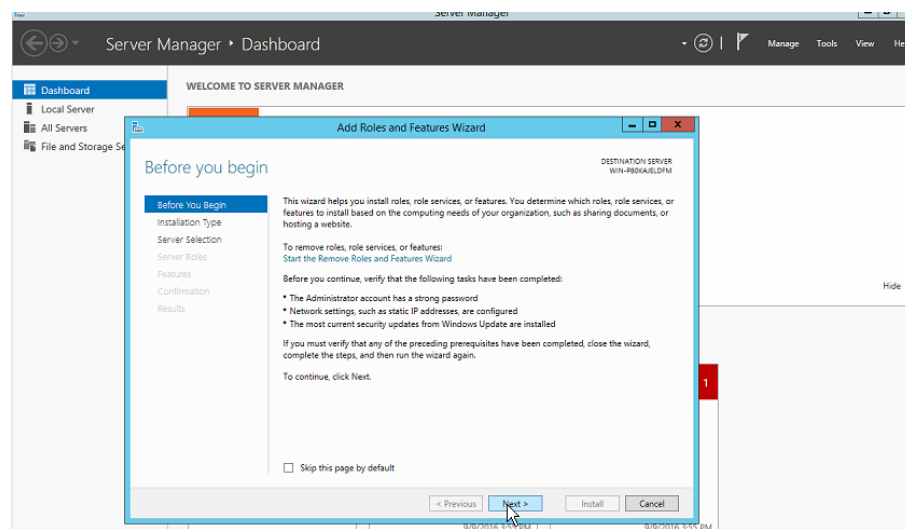




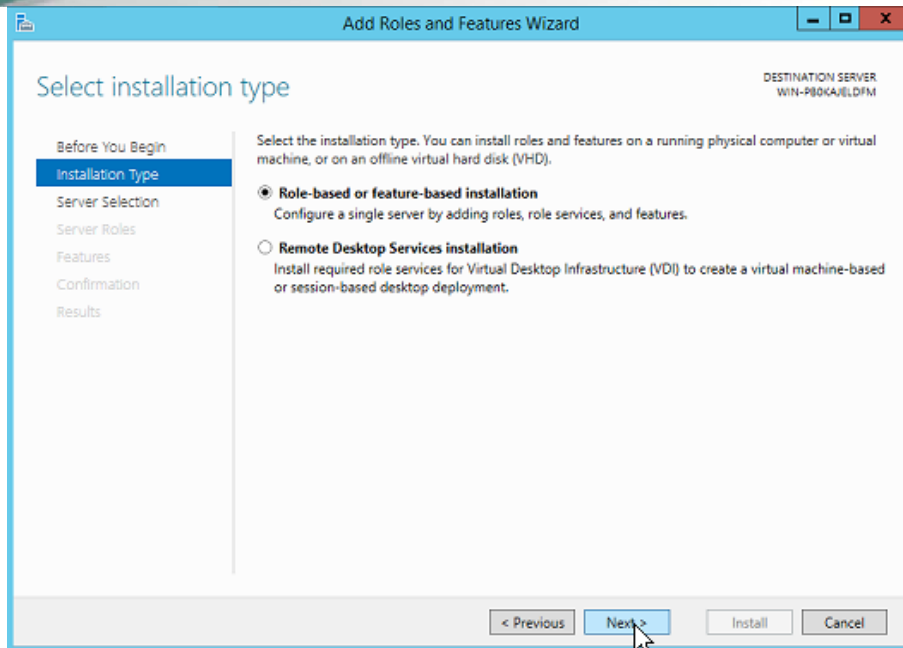
2. At the “Dashboard” main tab, click at the “Add roles and features” option.



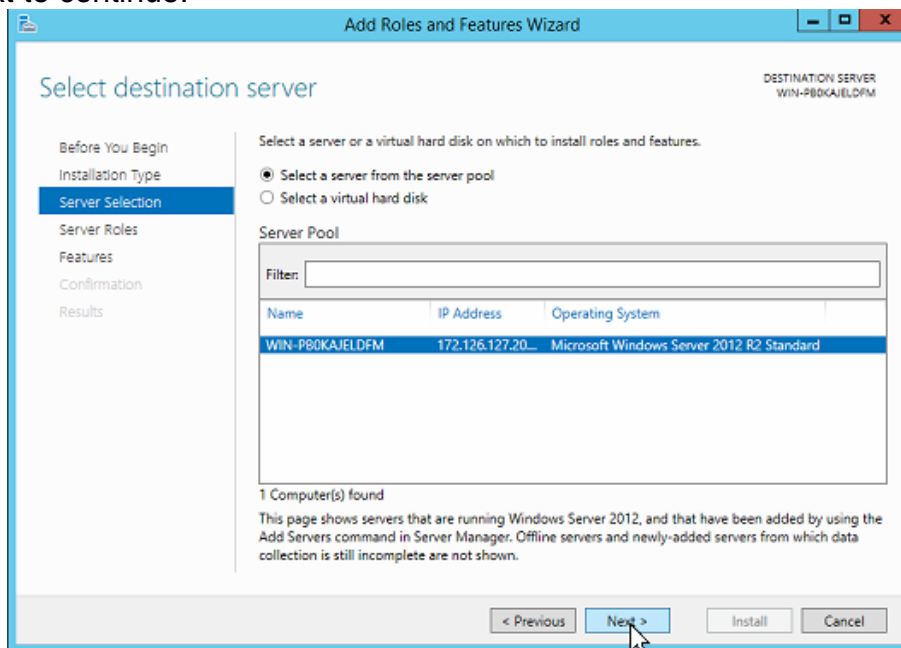
3. The window “Before you begin” will be shown, click at the next button to continue.



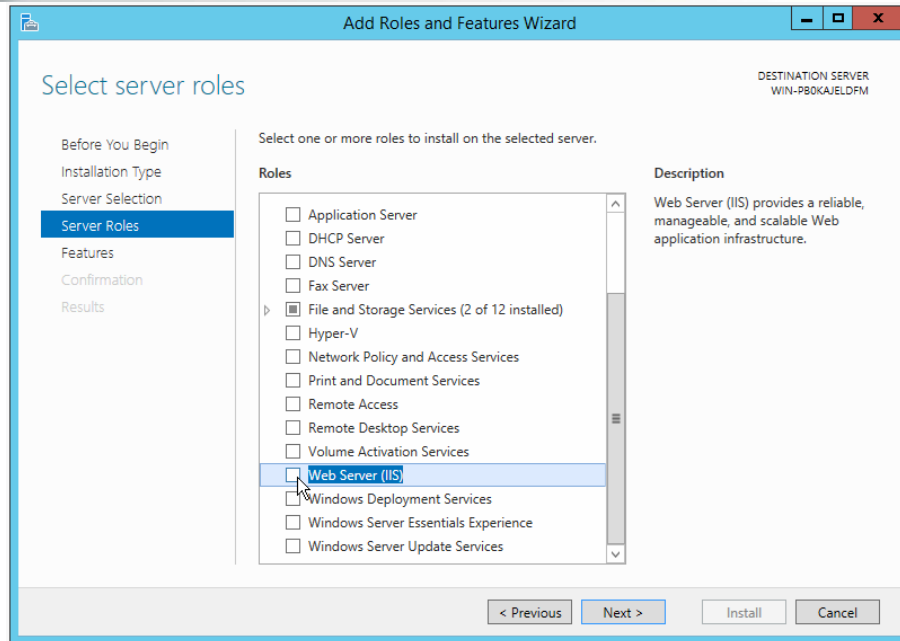
4. At “Installation Type” window, select the option “Role-based or feature-based installation”, click the next button to continue.



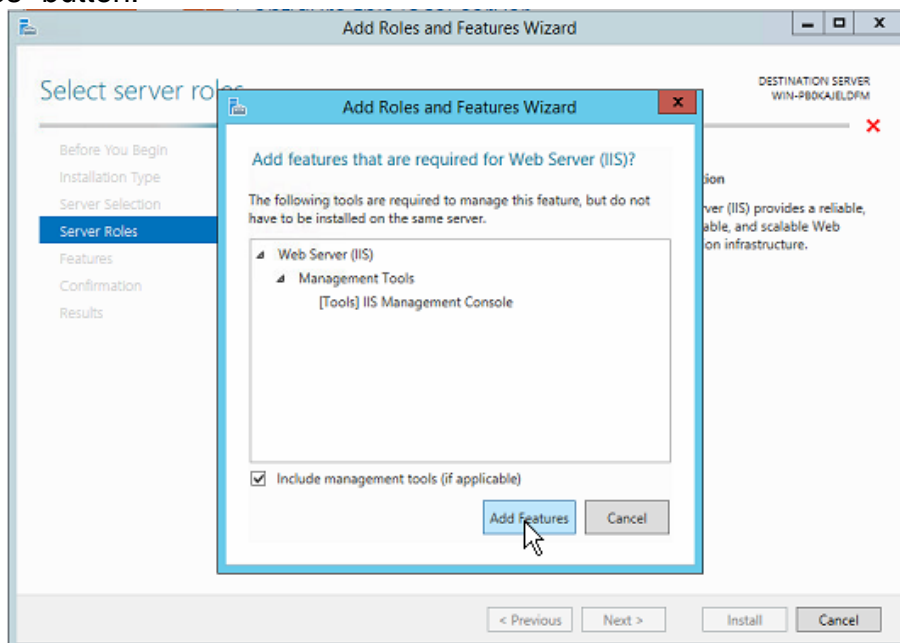
5. In the “Server selection” window, select the option “Select a server from the server pool” and click next to continue.



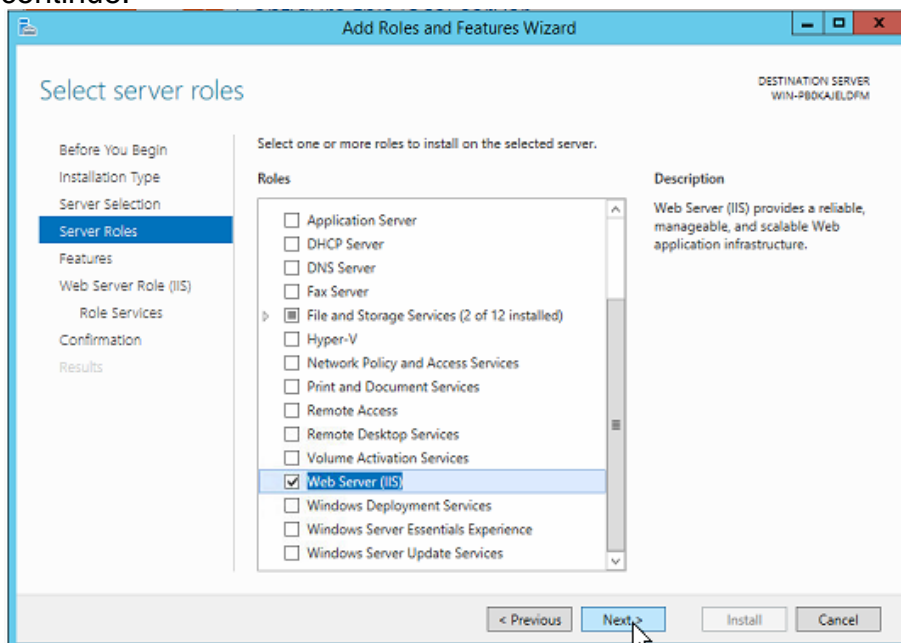
6. At the “Server Roles” window, select the option “Web Server (IIS)”.



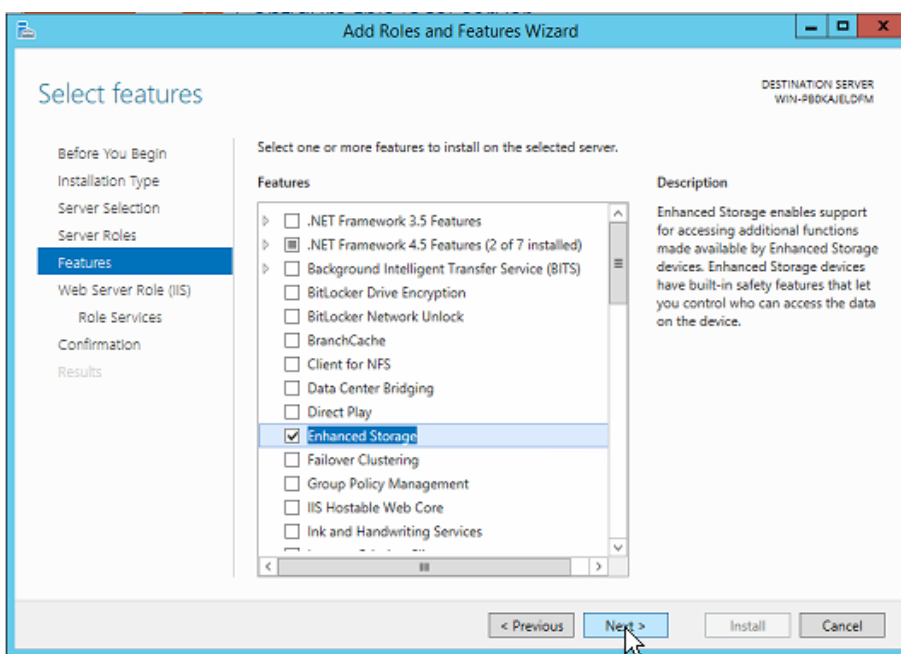
7. By selecting the option in the previous step, the “Add Roles and Features Wizard” window will be shown, select the “Include management tools (if applicable)” option and click the “Add Features” button.



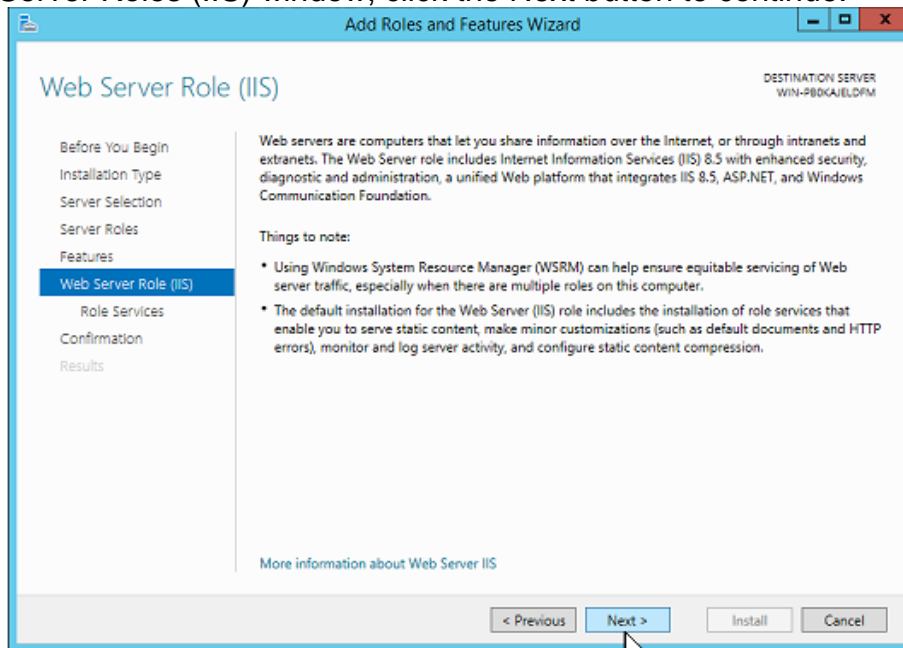
8. Click next to continue.



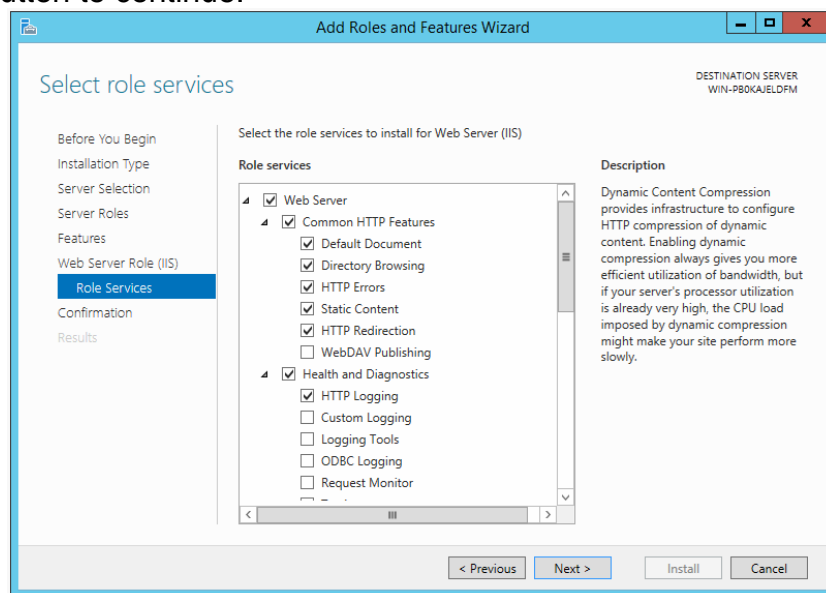
9. At the “Features” window, select the option “Enhanced Storage”, click the Next button to continue.

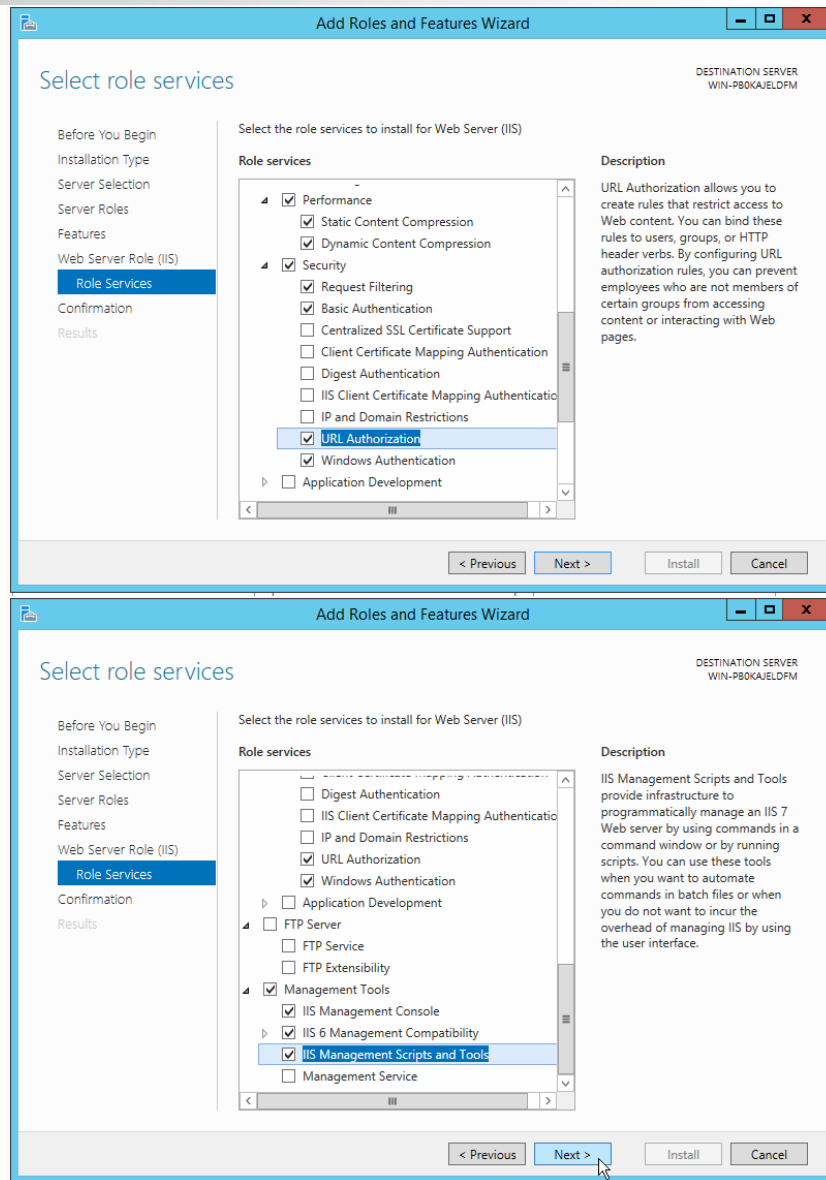


10. At the “Web Server Roles (IIS) window, click the Next button to continue.

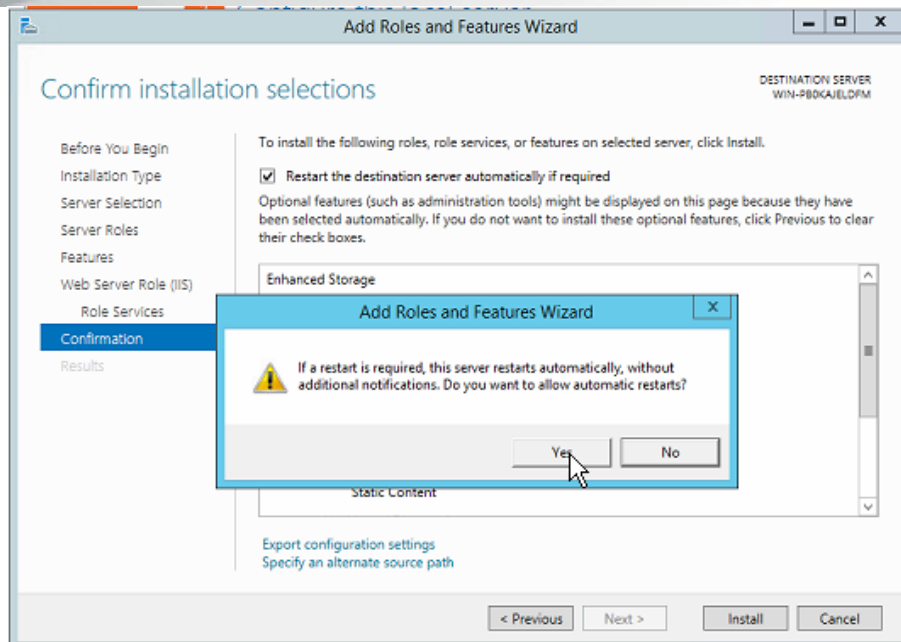


11. At the “Role Services” window, select all the options that belong to web server and then click the Next button to continue.

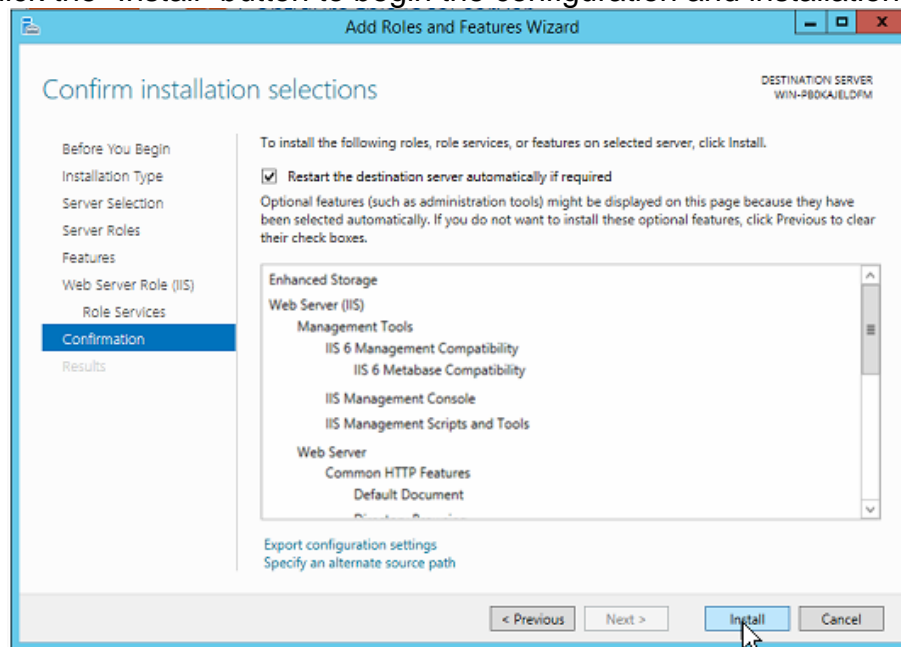




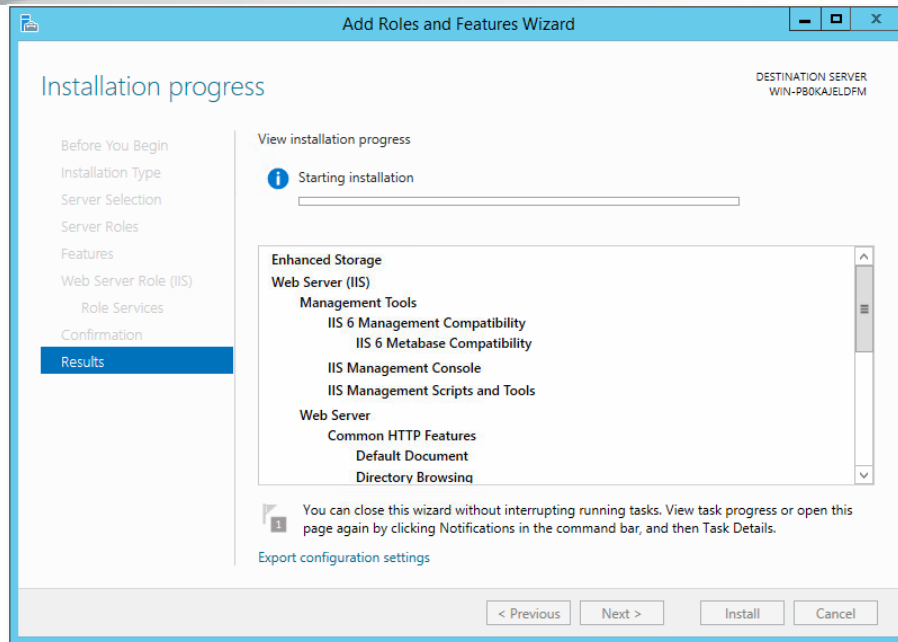
12. At the “Confirmation” window, select the “Restart the destination server automatically if required” option, in order to update all with the new configuration. A warning message will be shown, informing that the computer must be restarted, click on the “Yes” option.



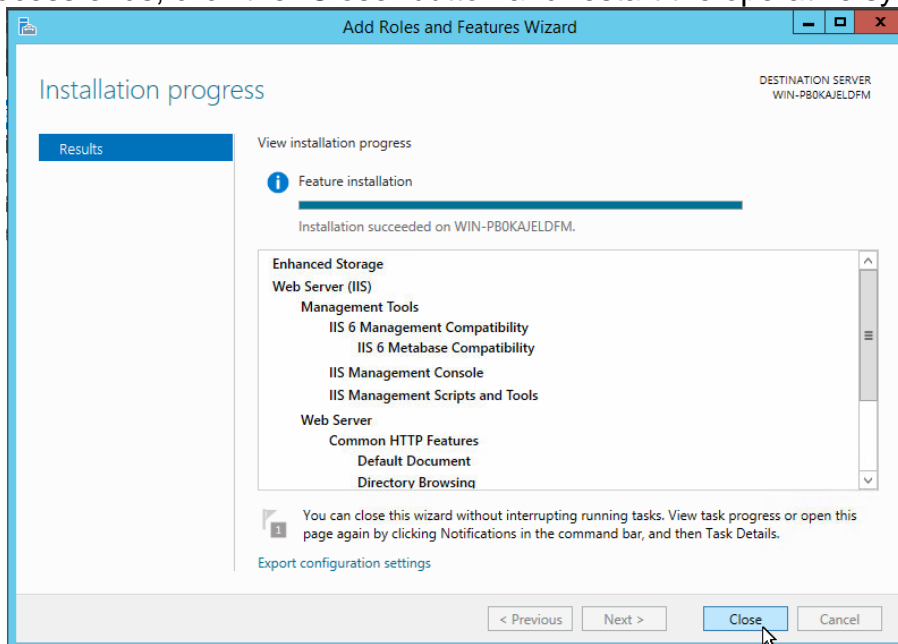
13. Afterwards click the “Install” button to begin the configuration and installation of the roles



14. The installation progress will be shown.



15. When the process ends, click the “Close” button and restart the operative system



16. Start the server manager again and add roles by enabling the necessary options, as it is shown in the pictures below.

a) Server Roles

Add Roles and Features Wizard

Select server roles

DESTINATION SERVER
WIN-P80KAJELDFM

Before You Begin
Installation Type
Server Selection
Server Roles
Features
Confirmation
Results

Select one or more roles to install on the selected server.

Roles	Description
<input type="checkbox"/> Active Directory Certificate Services	
<input checked="" type="checkbox"/> Active Directory Domain Services (Installed)	
<input type="checkbox"/> Active Directory Federation Services	
<input type="checkbox"/> Active Directory Lightweight Directory Services	
<input type="checkbox"/> Active Directory Rights Management Services	
<input checked="" type="checkbox"/> Application Server (1 of 11 installed)	
<input checked="" type="checkbox"/> .NET Framework 4.5 (Installed)	
<input type="checkbox"/> COM+ Network Access	
<input type="checkbox"/> Distributed Transactions	
<input type="checkbox"/> TCP Port Sharing	
<input type="checkbox"/> Web Server (IIS) Support	
<input type="checkbox"/> Windows Process Activation Service Support	
<input type="checkbox"/> DHCP Server	
<input checked="" type="checkbox"/> DNS Server (Installed)	

File and iSCSI Services provides technologies that help you manage file servers and storage, reduce disk space utilization, replicate and cache files to branch offices, move or fail over a file share to another cluster node, and share files by using the NFS protocol.

< Previous Next > Install Cancel

Add Roles and Features Wizard

Select server roles

DESTINATION SERVER
WIN-P80KAJELDFM

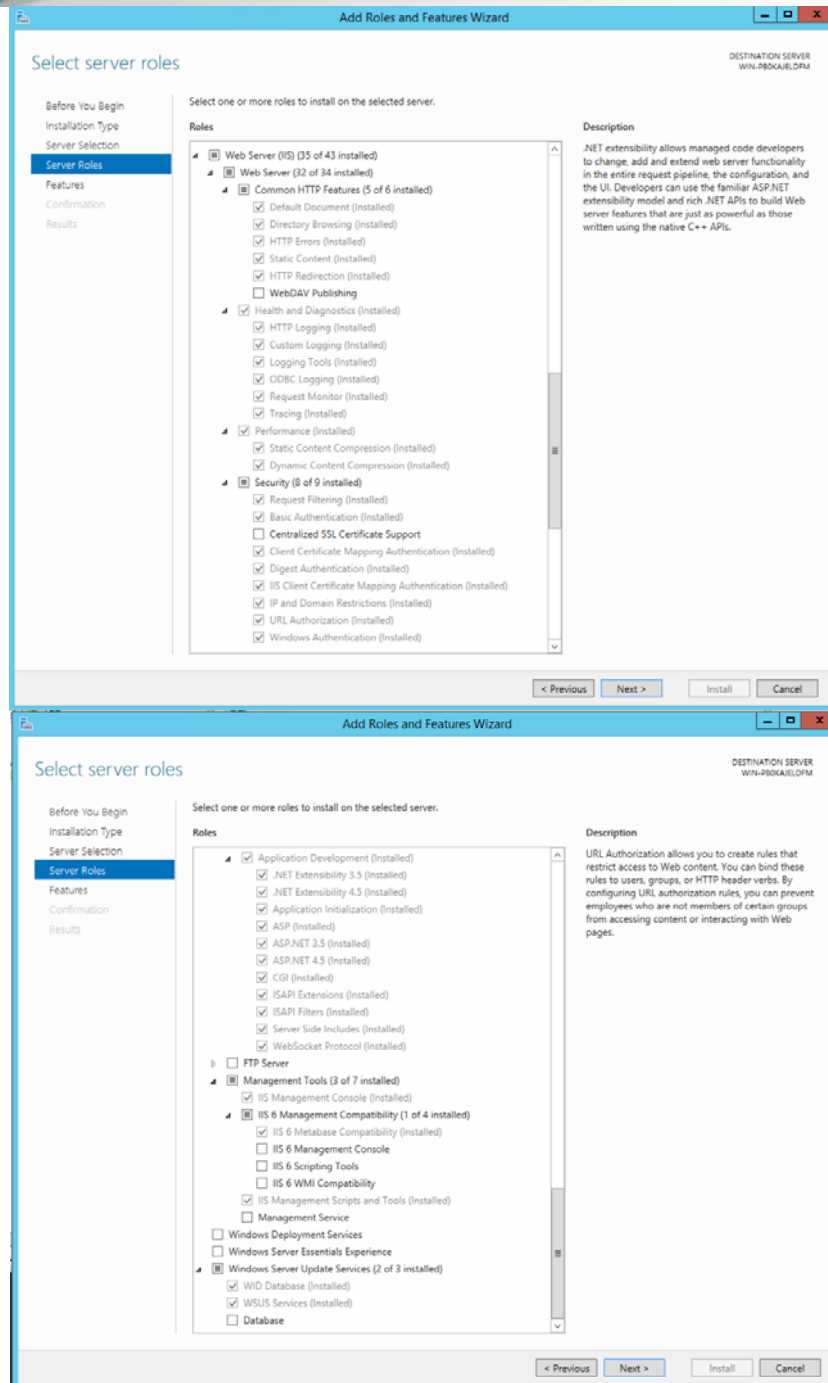
Before You Begin
Installation Type
Server Selection
Server Roles
Features
Confirmation
Results

Select one or more roles to install on the selected server.

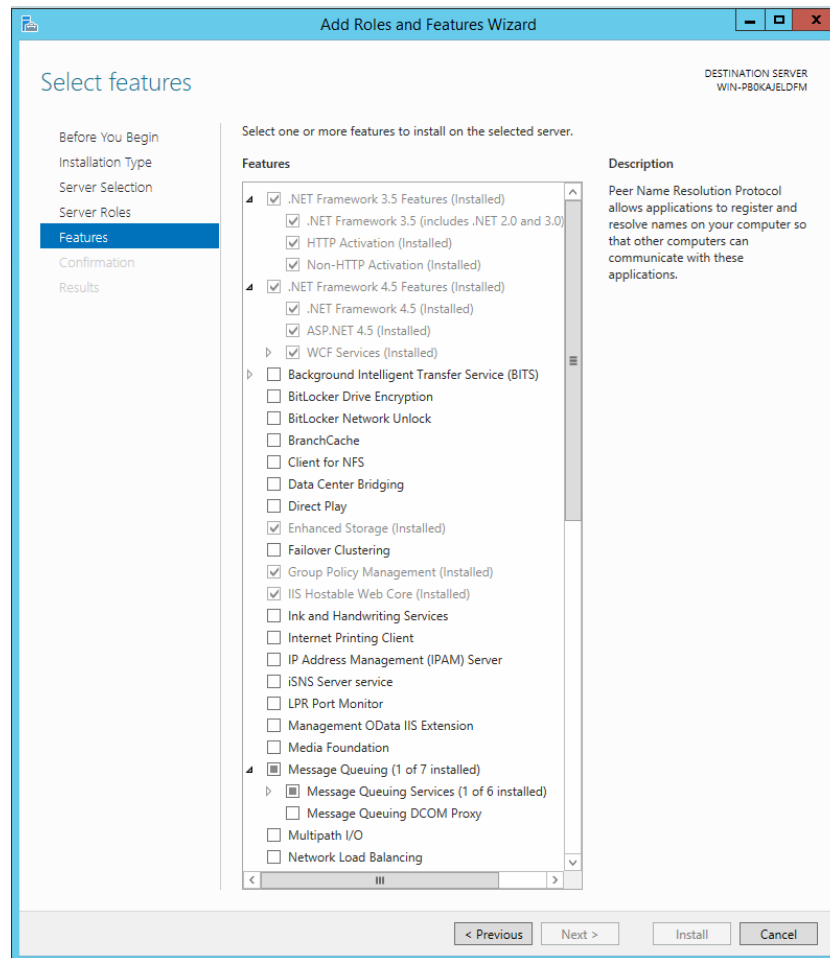
Roles	Description
<input type="checkbox"/> Fax Server	
<input checked="" type="checkbox"/> File and Storage Services (2 of 12 installed)	
<input checked="" type="checkbox"/> File Server (Installed)	
<input type="checkbox"/> BranchCache for Network Files	
<input type="checkbox"/> Data Deduplication	
<input type="checkbox"/> DFS Namespaces	
<input type="checkbox"/> DFS Replication	
<input type="checkbox"/> File Server Resource Manager	
<input type="checkbox"/> File Server VSS Agent Service	
<input type="checkbox"/> iSCSI Target Server	
<input type="checkbox"/> iSCSI Target Storage Provider (VDS and VSS hardware providers)	
<input type="checkbox"/> Server for NFS	
<input type="checkbox"/> Work Folders	
<input checked="" type="checkbox"/> Storage Services (Installed)	
<input type="checkbox"/> Hyper-V	
<input type="checkbox"/> Network Policy and Access Services	
<input type="checkbox"/> Print and Document Services	
<input type="checkbox"/> Remote Access	
<input checked="" type="checkbox"/> Remote Desktop Services (1 of 6 installed)	
<input checked="" type="checkbox"/> Remote Desktop Connection Broker (Installed)	
<input type="checkbox"/> Remote Desktop Gateway	
<input type="checkbox"/> Remote Desktop Licensing	
<input type="checkbox"/> Remote Desktop Session Host	
<input type="checkbox"/> Remote Desktop Virtualization Host	
<input type="checkbox"/> Remote Desktop Web Access	
<input type="checkbox"/> Volume Activation Services	

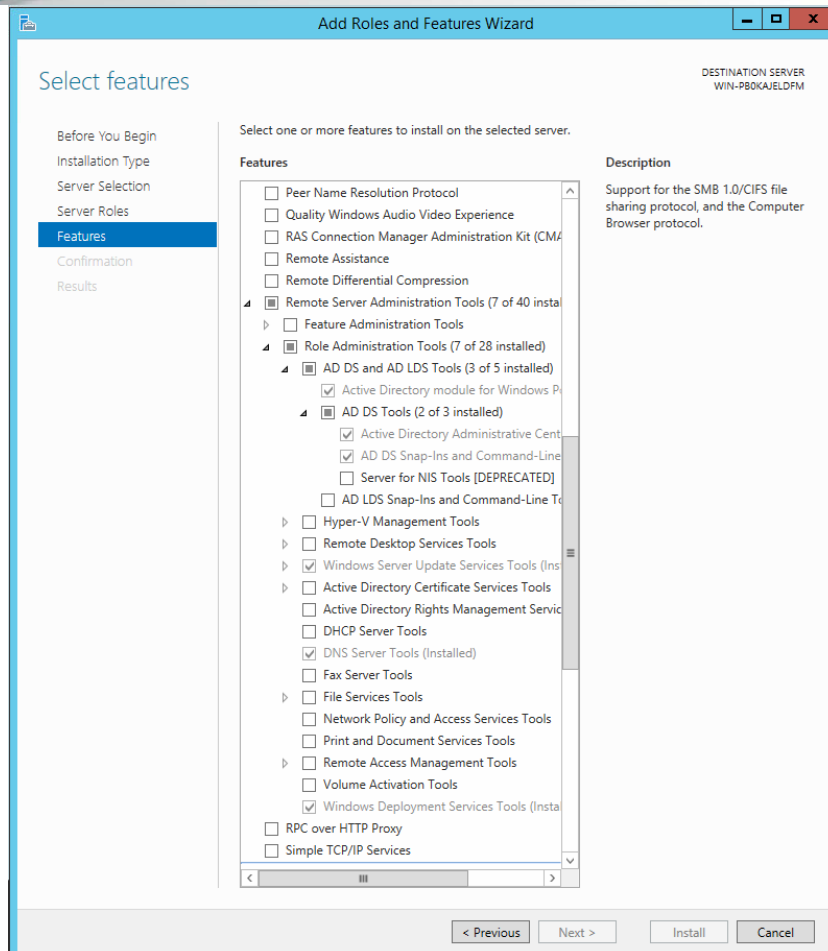
Web Server provides support for HTML Web sites and optional support for ASP.NET, ASP, and Web server extensions. You can use the Web Server to host an internal or external Web site or to provide an environment for developers to create Web-based applications.

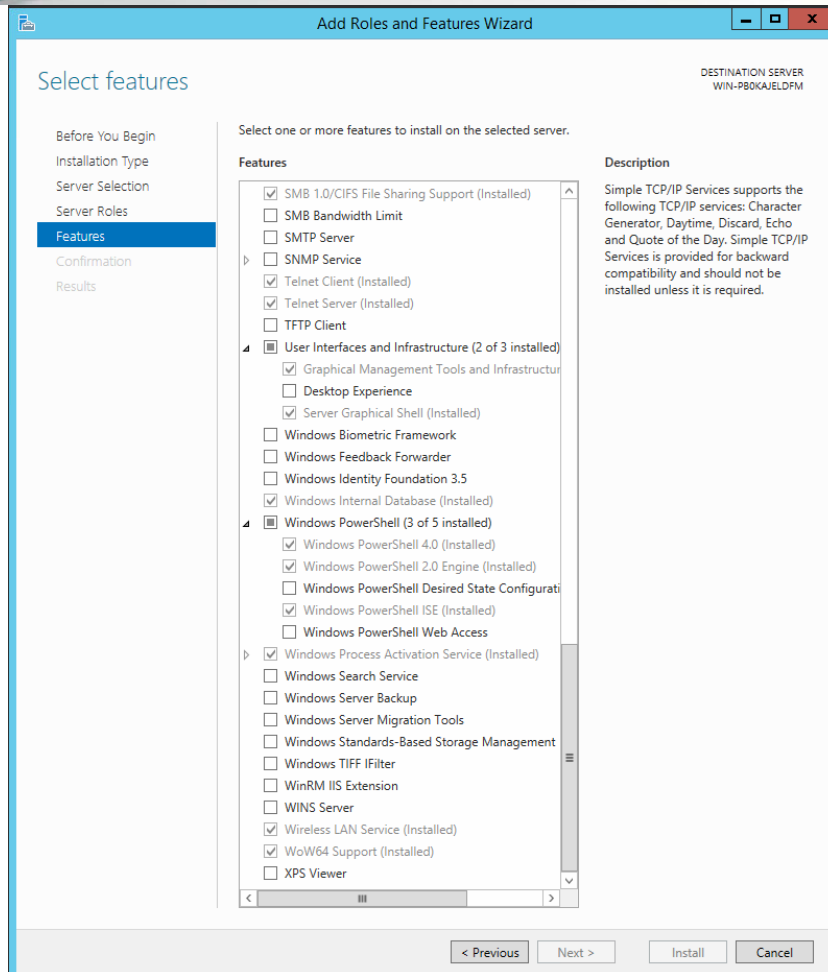
< Previous Next > Install Cancel



b) Features



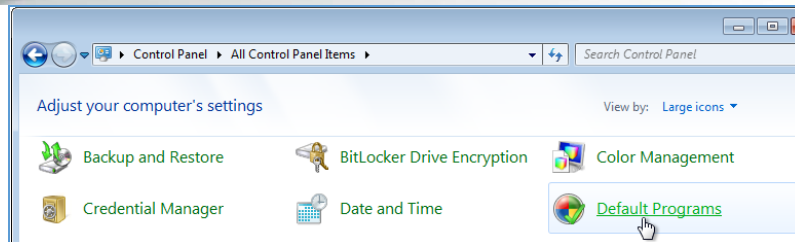




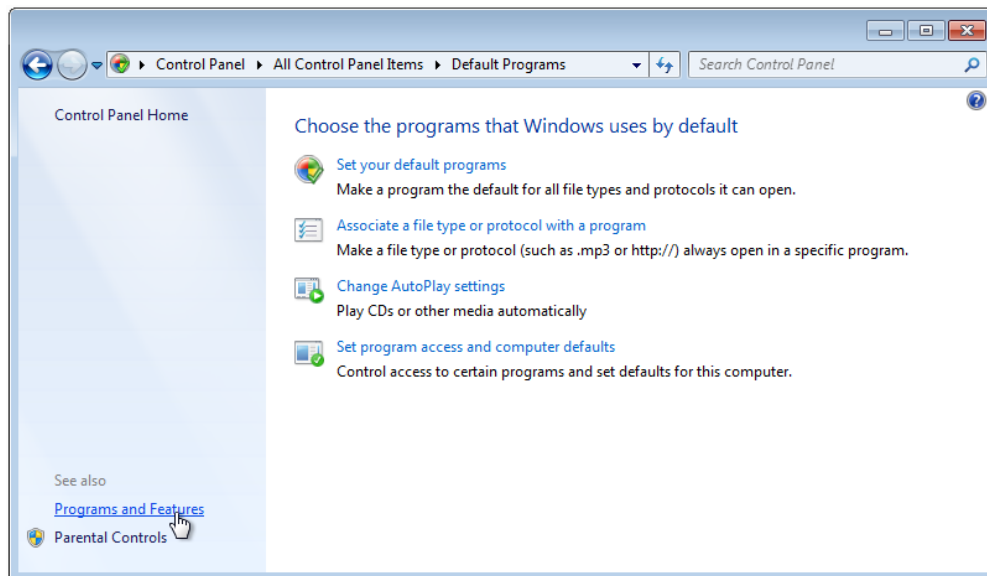
1.2 USING WINDOWS 7 OS

1. Before starting with the installation of Punch Mobile Web service it is first necessary to verify that the IIS is installed. In order to verify this, open the control panel and go to the "Default Programs" option:

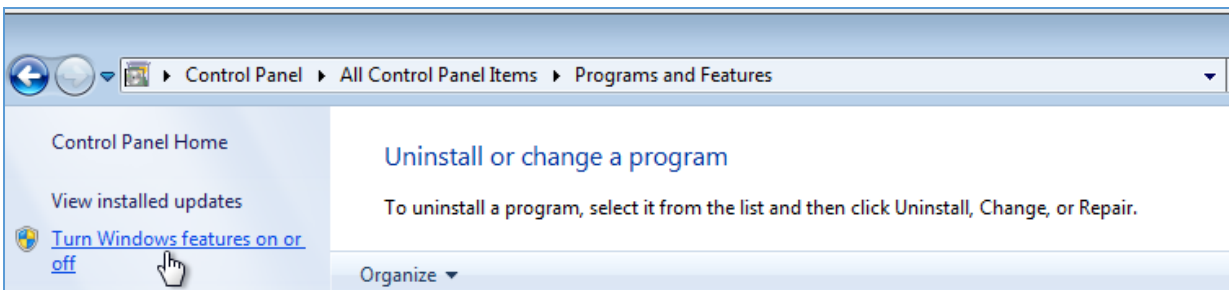
Control panel --> All Control Panel Items --> Default programs



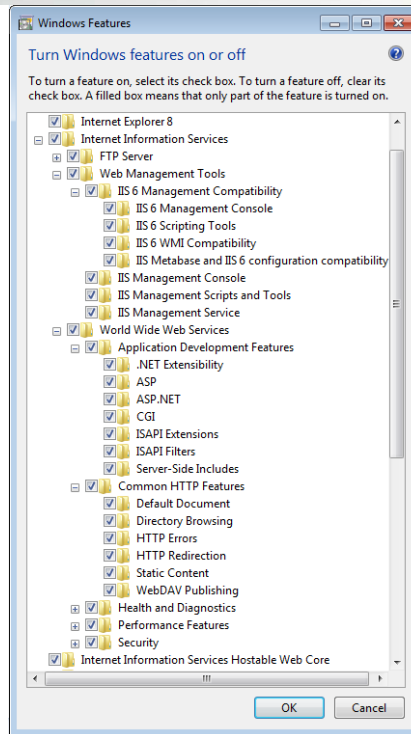
2. Click on "Programs and Features"



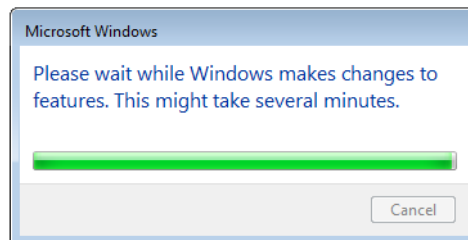
3. Now click on the "Turn Windows features on or off" option



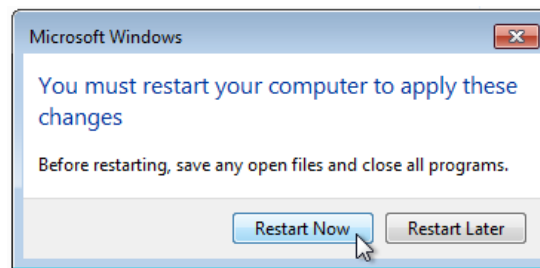
4. Activate all the checkboxes as it is shown in the image below and click on the "Ok" button



5. Wait a few minutes while the changes are completed



6. Once the process is finalized, click on “Restart Now” button.

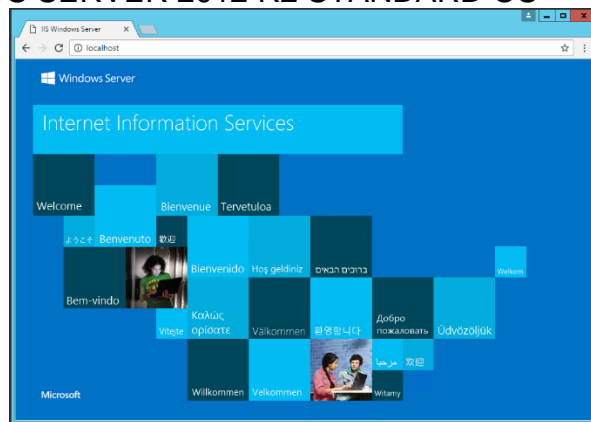


2. ACCESS TO INTERNET INFORMATION SERVICES (IIS) MANAGER

7. To verify that the IIS was correctly installed, open the Internet Explorer browser and enter the following address:

<http://localhost/>

- MICROSOFT WINDOWS SERVER 2012 R2 STANDARD OS



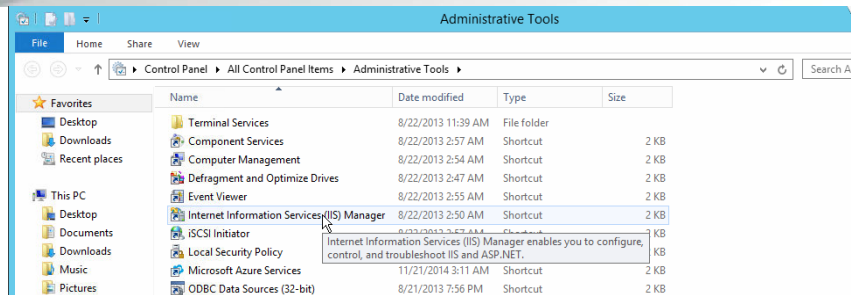
- WINDOWS 7 OS



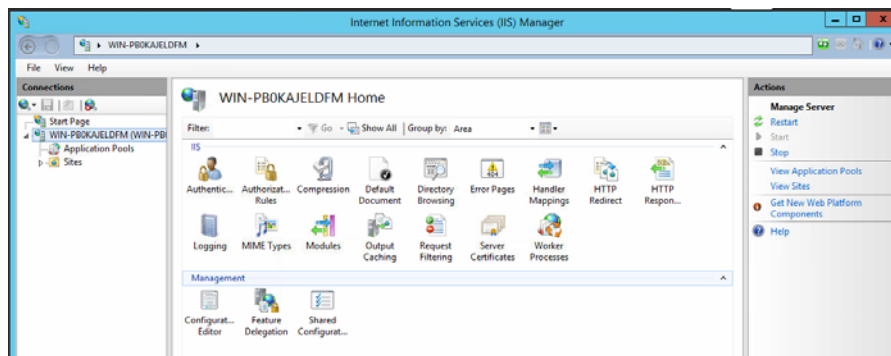
8. To open the IIS manager, go to the control panel, then to “All control panel items” and finally to “Administrative tools”.

Control panel --> All Control Panel Items --> Administrative Tools

Click to open the “Internet Information Services (IIS) Manager” tool.

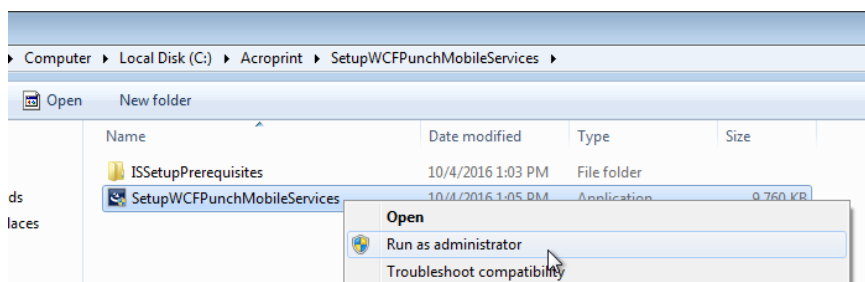


9. The IIS Manager's main window will be opened.

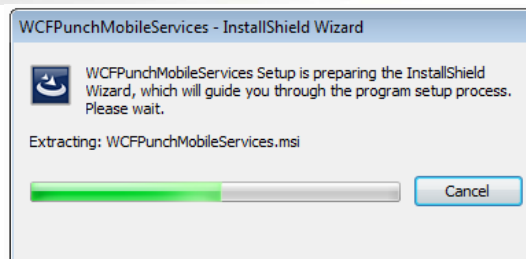
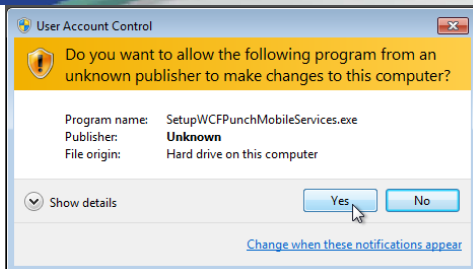


3. INSTALLATION OF WEB SERVICE FOR PUNCH MOBILE (WCFPunchMobileServices)

1. Inside the "SetupWCFPunchMobileServices" folder that contains all the necessary files for the installation process, run as administrator the file "SetupWCFPunchMobileServices.exe"

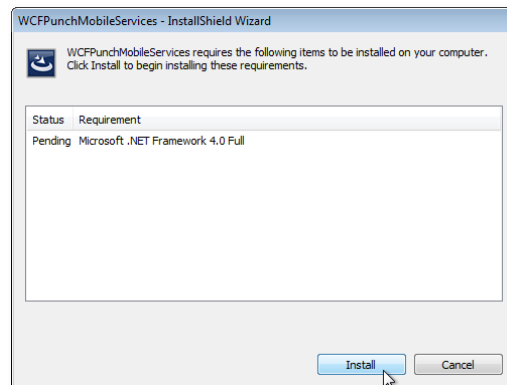


2. Click "Yes" to run the installer under the administrator mode.

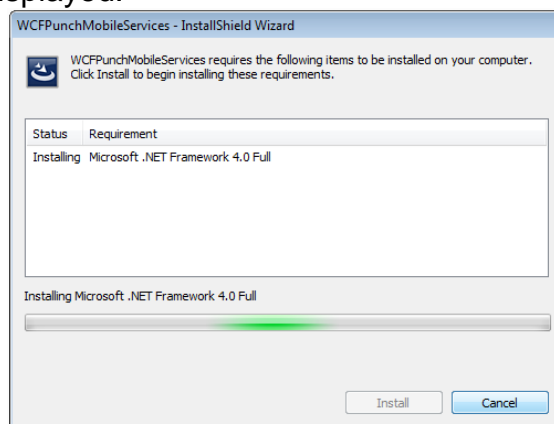


3. The installer will show the following window, indicating the needed requirement for the correct functioning of "WCFPunchMobileServices". Click on "Install" to start the process.

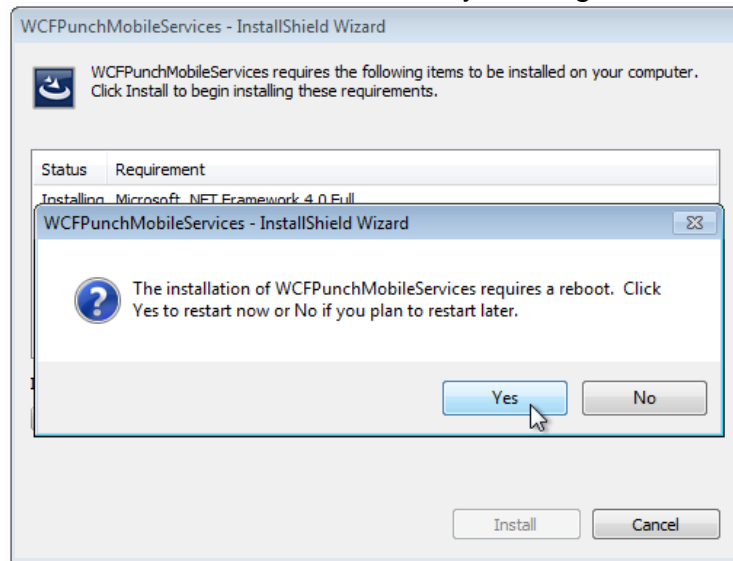
NOTE: Following the case that the Framework 4.0 is already installed in the system, instead of the prerequisites installing window, the installation's welcome window will be shown directly.



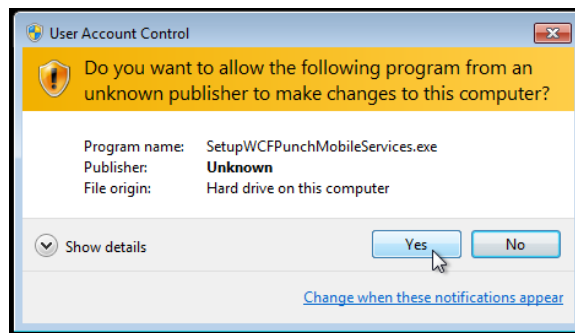
4. Immediately, the installing process for the .Net Framework 4.0 prerequisite will start and the progress will be displayed.



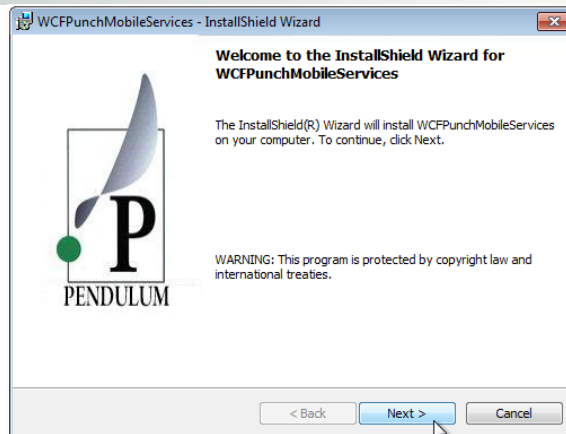
5. Once the installation is completed, the following window will be shown, indicating that the operative system needs to be restarted. Continue by clicking on the “Yes” button.



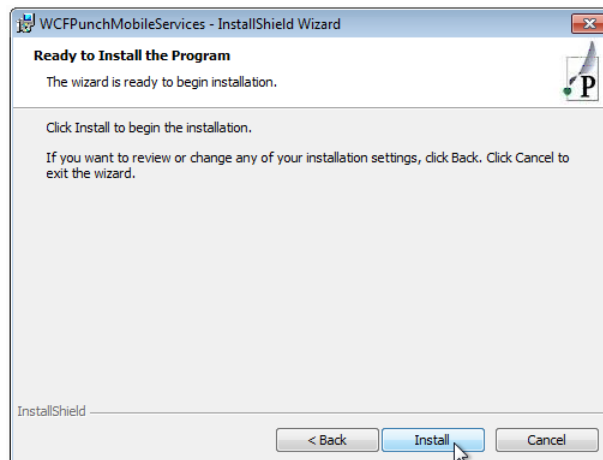
6. After the system restart, the installation process will automatically continue.



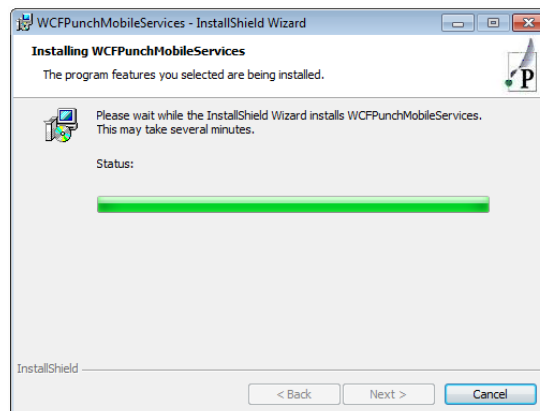
7. Once the prerequisites are installed, the installation and configuration of the “WCFPunchMobileServices” web service will continue. A welcome window will be displayed, click on the “Next” button.

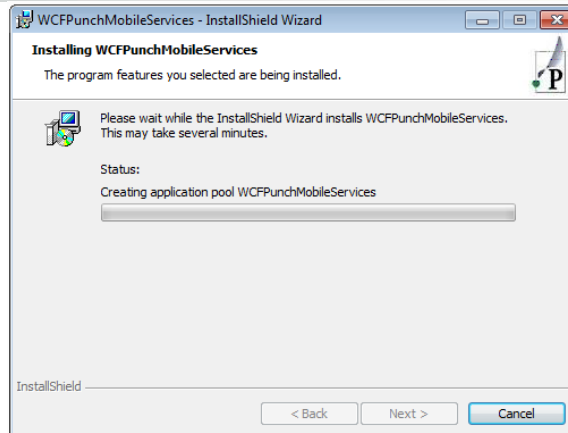


8. A window to start the installation process will be shown, click on the “Install” button to begin.

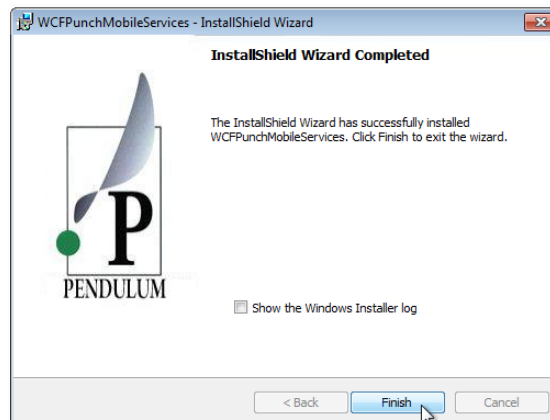


9. The progress of the “WCFPunchMobileServices” installation will be displayed.

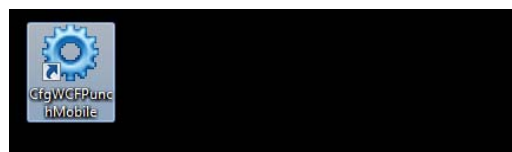




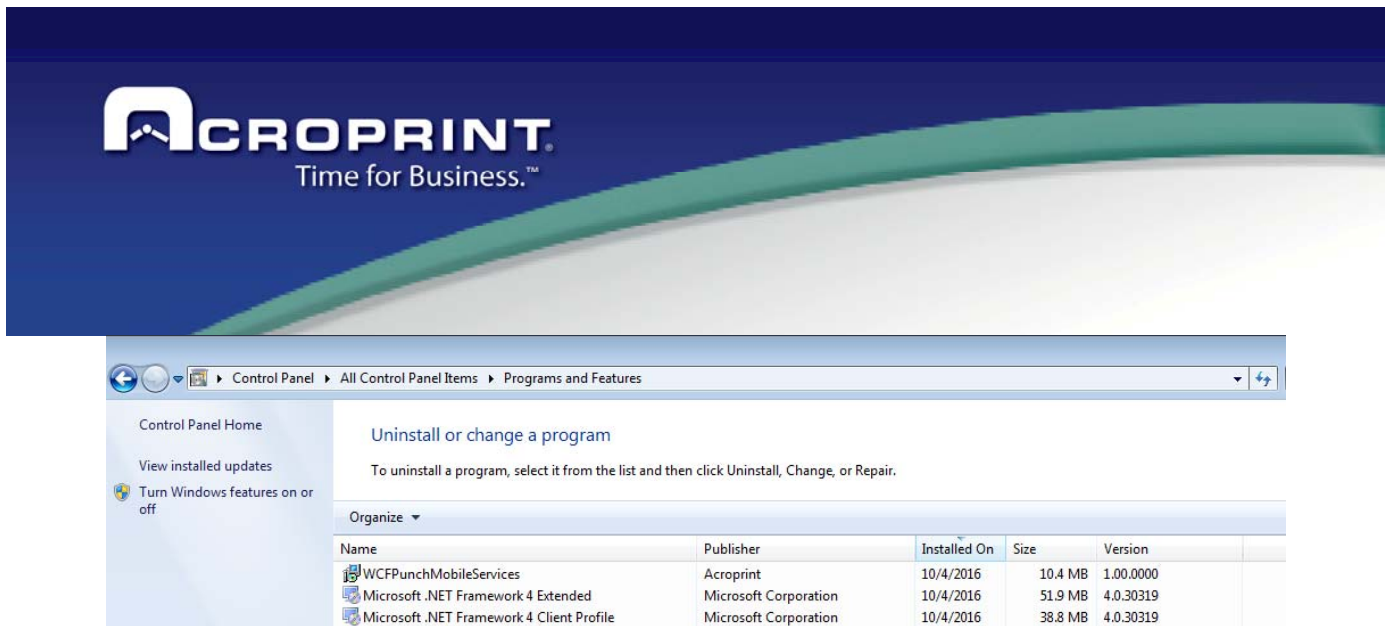
10. When the installation is completed, you will be informed about the successfully process, click on the “Finish” button.



11. Now the “WCFPunchMobileServices” web service is installed and its shortcut is now created at the desktop



12. You can verify in the “Program and Features” at the Control Panel, that the Framework 4.0 and the “WCFPunchMobileServices” web service are now installed.



13. Before accessing to the “WCFPunchMobileServices” web service, it is necessary to configure some parameters for its right functioning. Continue with the next step to begin.

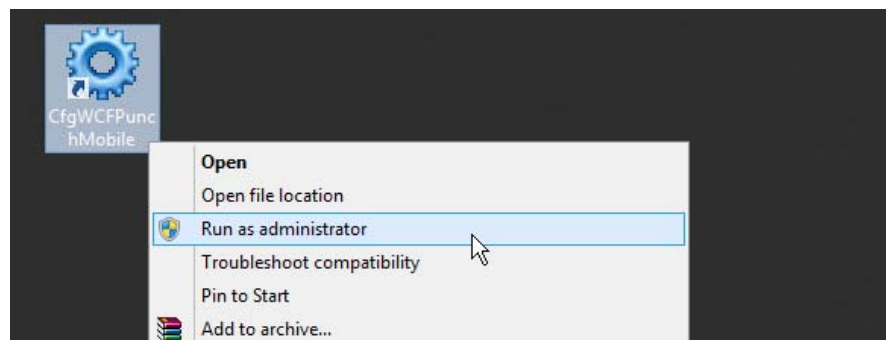
CONFIGURATION PROCESS

Once the web service WCFPunchMobileServices is installed, it is mandatory to establish the settings for 3 important aspects, all needed to connect to the service and ensure a right functionality.

1. DATABASE CONFIGURATION PROCESS

14. Before accessing to the WCFPunchMobileServices, it is necessary to configure the connection string to the database engine, once it is configured, the web service will be able to connect, consult and/or update the required information. These parameters are stored as configuration values.

Right click on the shortcut “**CfgWCFPunchMobile**” present at the system desktop and select the option “Run as administrator”.

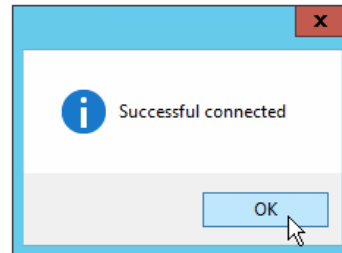
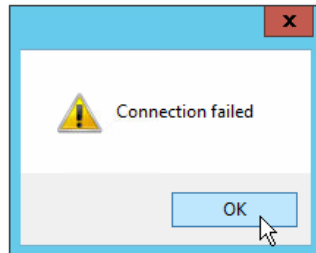


15. In the configuration window that is displayed, set each one of the requested parameters. Then click on the “Save” button to store the provided values.

- **Server Name:** Name that was given to the server and database instance to which the web service will connect.
- **Database Name.** Database name to which will connect the web service.
- **Password.** Authentication password to establish the connection to the database. The default user is: “sa.”

A través del botón “Test connection” puede verificar si los parámetros configurados son correctos y si es posible establecer conexión a la base de datos. Si son

inválidos se mostrará un mensaje “Connection failed”, en caso contrario si son correctos “Successful connected”.



2. SECURITY SETTINGS

- **Security:** Enable the **HTTPS security** protocol if you wish to implement a security schema with digital certificate to indicate that the web service is trusted.
 - ✓ If this option is not activated, the **http** protocol will be used as default.
 - ✓ If the option is activated then the protocols “**http and https**” must be added to the web service settings along with a digital certificate. (See *SSL CERTIFICATION INSTALL AND HTTPS SERVICE CONFIGURATION*)



3. CREDENTIAL FOR RAWDATA

In order to the web service is able to save information in the registry all the transactions generated by the employees through the Punch Mobile application, the shared directory where the files are wished to be saved, must be previously defined.

This directory it is defined in the desktop attendance system advanced settings “Pendulum.Net” at the “Advanced Parameters” section. It is necessary to indicate the full path to access to the directory.

Network folder where the rawdata files are extracted from Devices are stored:
Format: \\PCNAME\ShareName

Verify that the shared folder has the read and write permissions granted and that the user account can access to it.

Now you must indicate in the web service configuration the account that must be used to be identified and through it obtain access to the directory and store the transaction using its files.

- **Is account of domain:** Indicate if we are working with a local or domain account.
- ✓ If the domain account option is checked, please make sure that the server or Workstation it is currently added to a domain. The account that you enter must belong to the domain and the parameter "Domain Name" must be indicated.

☒ **Is account of domain**

Username Administrator

Password

Domain name WIN-PBOKAJELDFM

- ✓ If the option is unchecked then the account to enter must be a local one in the Workstation and parameter "Machine Name" must be indicated.

☐ **Is account of domain**

Username Administrator

Password

Machine name WIN-PBOKAJELDFM

- **Username:** Name of the account user.
- **Password:** User account password.
- **Machine name/Domain Name:** Indicate either "Machine Name" or "Domain Name" according to the selected option.


Additionally, the help section "**Current physical server information**" is showed with the server or Workstation data.

Current physical server information

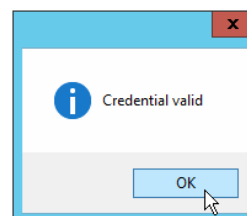
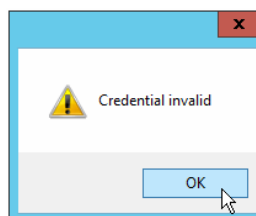
User name: Administrator

Machine name: WIN-PBOKAJELDFM *Domain name:* WIN-PBOKAJELDFM

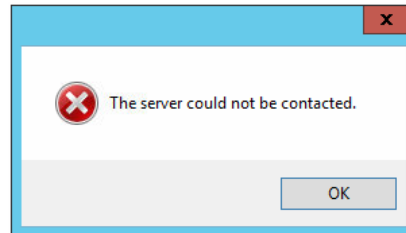
- ✓ **User name:** Name of the user of the current session.
- ✓ **Machine name:** Server's defined name or current workstation.
- ✓ **Domain name:** When the server or workstation belongs to a domain, the name of it will be showed, if that's not the case, only the workstation's name will be displayed.

Through the button "Test credential"  you can verify if the configured parameters to authenticate the account are valid. The validation is generated depending on the account type (local or server).

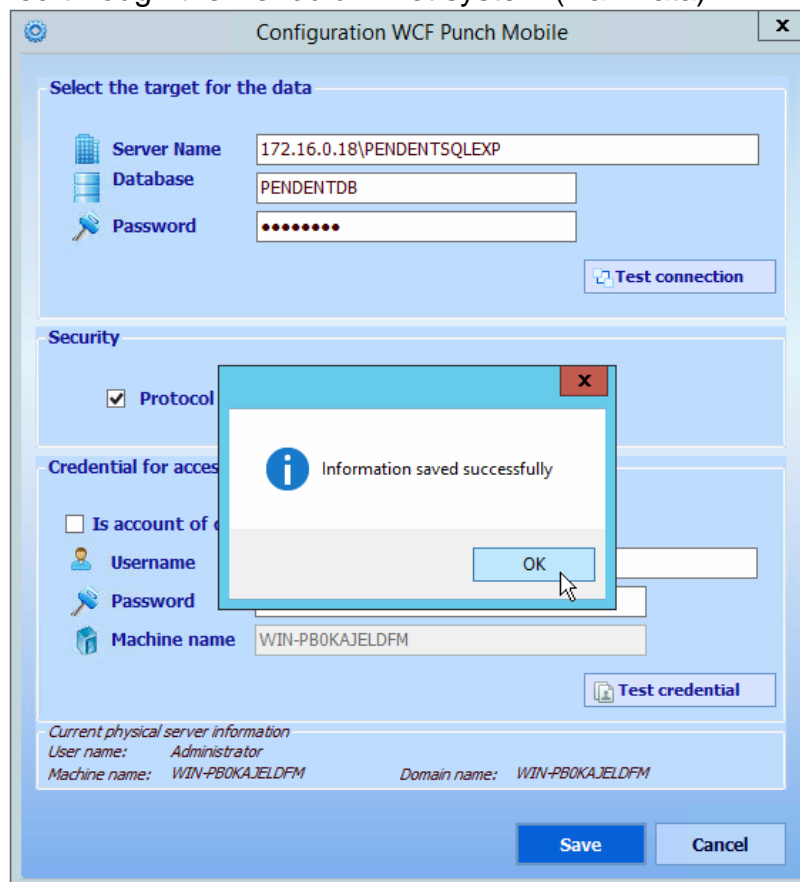
If the parameters are invalid, the message: "*Credential invalid*" will be shown; if they are correct then the message "*Credential valid*" will be shown instead.



Given the case that the account belongs to a domain and the server or workstation is not currently part of it, when performing the test, the message “*The server could not be contacted.*” Will be shown.

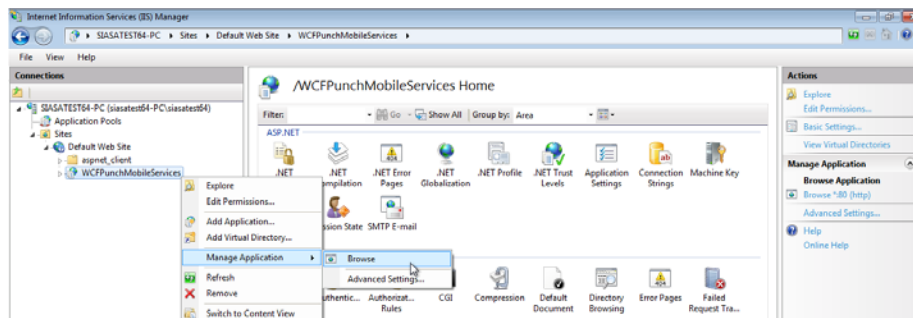
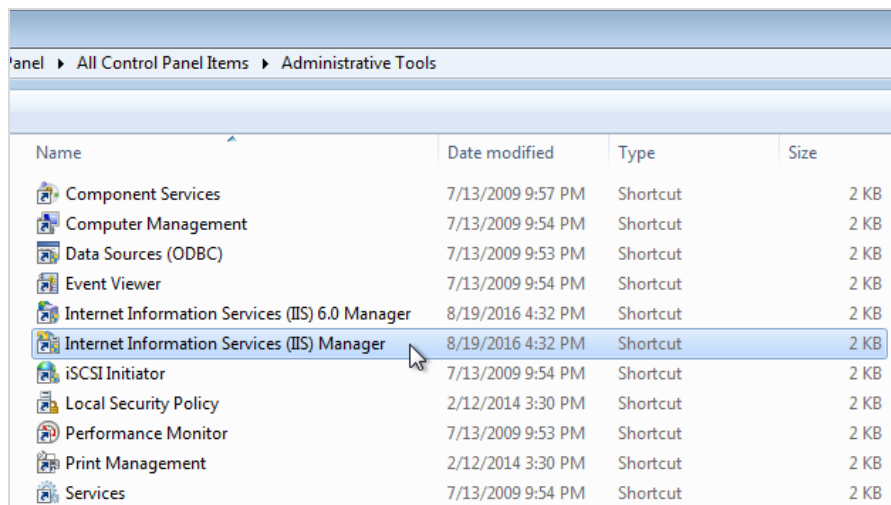


The indicated information in the settings window must be valid in order to successfully connect to the database engine and get the WCFPunchMobileServices web service working. Also the given credential must be valid so the service can authenticate, access and store the transactions in the path previously defined through the Pendulum.Net system (RawData).



ACCESS TO WCFPUNCHMOBILESERVICES

1. If you wish to access to the “WCFPunchMobileServices” using the same computer where the web service is installed, open the IIS manager and right click on the site, then click on the “Manage Application” option and finally on “Browse”.

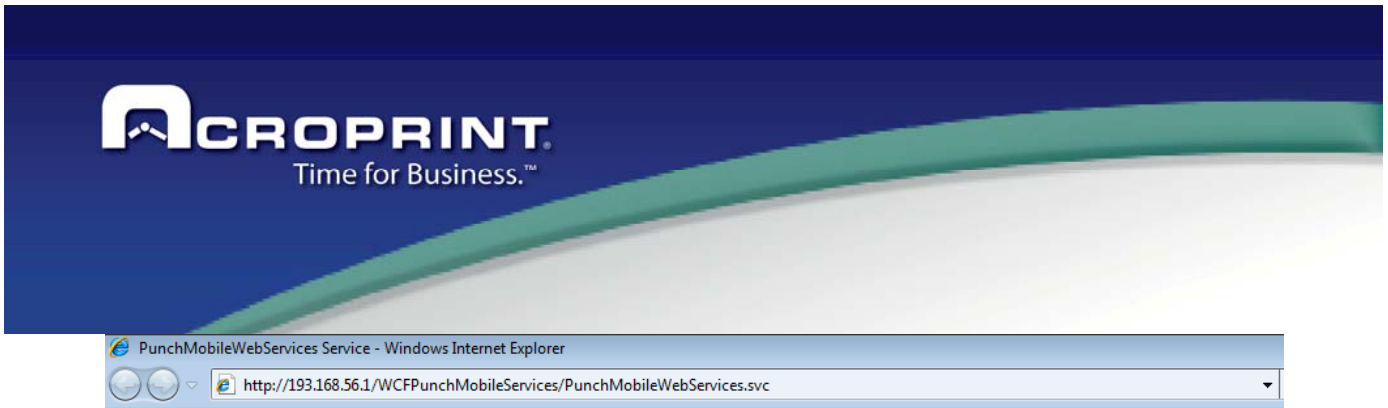


2. In order to access to the “WCFPunchMobileServices” run the internet browser and write the URL address to the page.

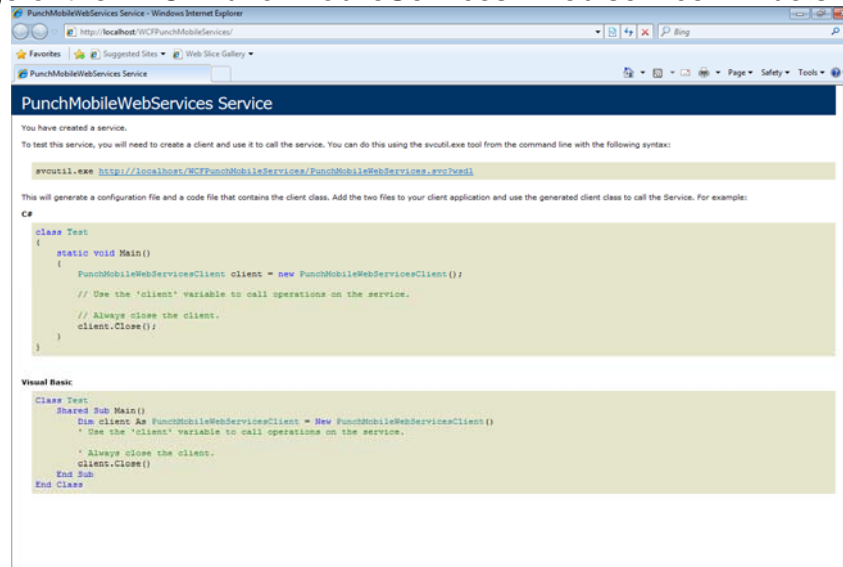
From the same computer where the service is installed:



From other computer, replace “localhost” for the IP address of the pc where the web service is installed.



3. The start page of the “WCFPunchMobileServices.” web service will be shown.

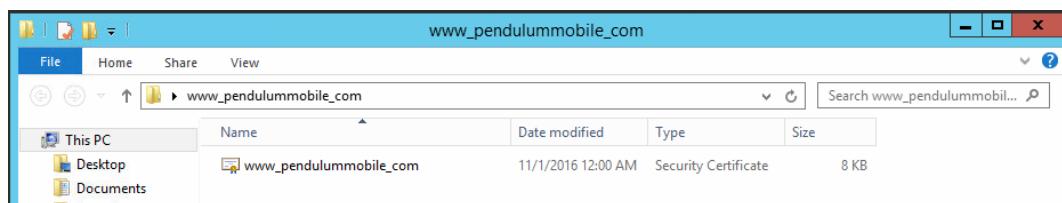


SSL CERTIFICATION INSTALL AND HTTPS SERVICE CONFIGURATION

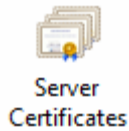
HTTPS is a way to stablish communications in a safe way by interchanging information between the client and the server using a Secure Sockets Layer (SSL). To enable the SSL in the IIS, first must be obtained a certificate that will be used to encrypt and decrypt the information that is transferred through the net.

1. SSL CERTIFICATE INSTALL

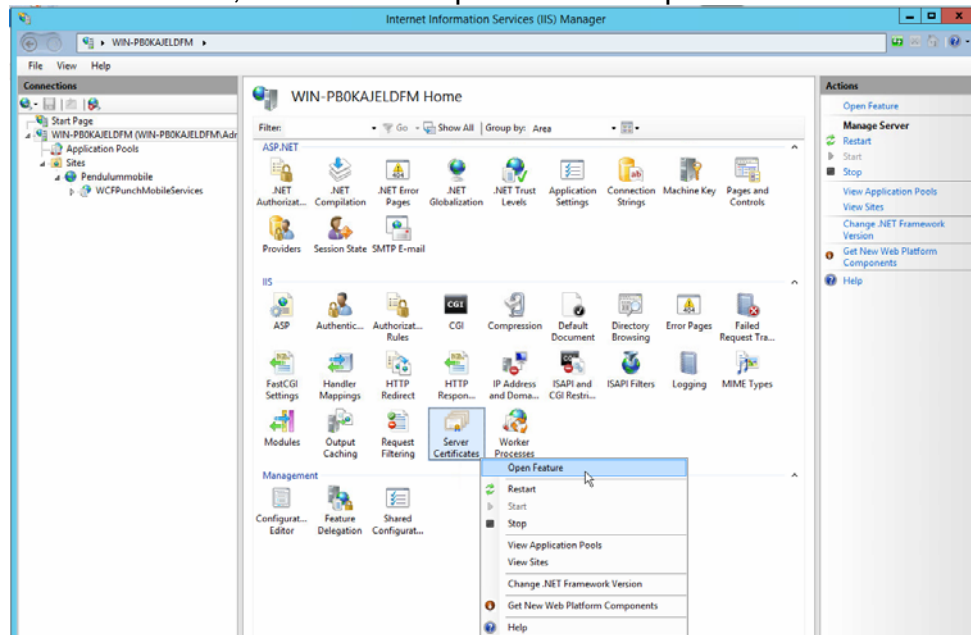
1. First you must have a trusted certificate, it is a file with the “.cer” extension.



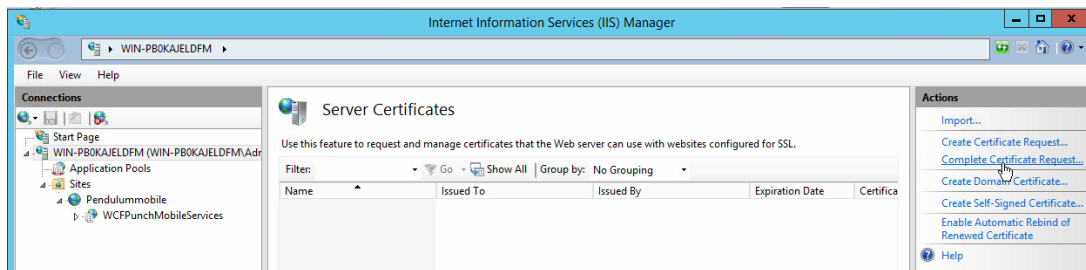
2. In the ISS manager, select the server and in the panel select the option “**Server Certificates**”.



3. Right click and in the menu, click on the “Open Feature” option.

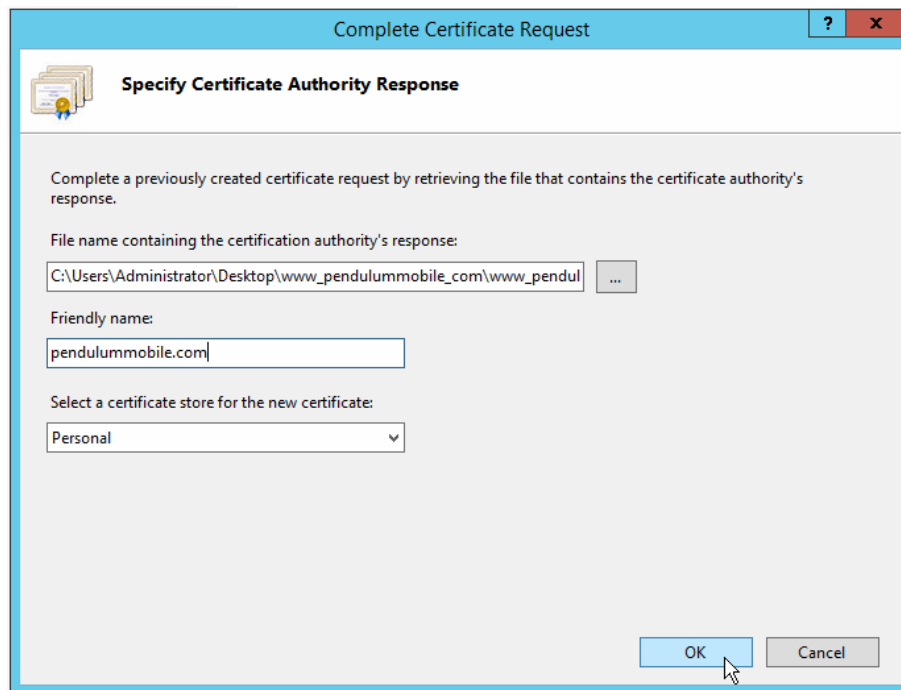


4. In the “Actions” menu (to the right) of the window “Server Certificates”, click on the option “**Complete Certificate Request**”.

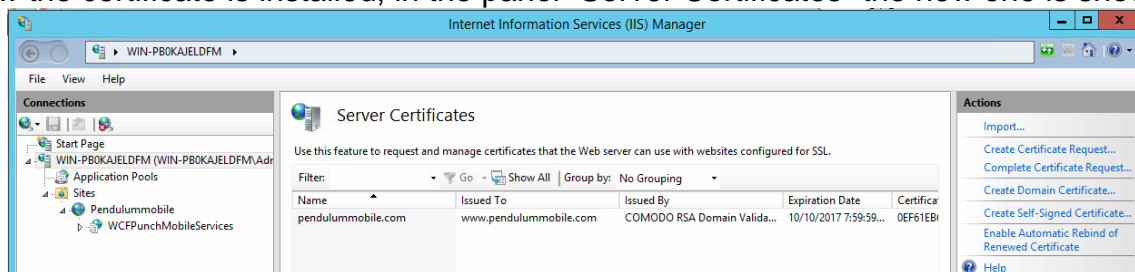


5. In the window “**Complete Certificate Request**” that is shown, indicate the requested information and then click on the “OK” button.
 - **File name containing the certification authority’s response.** Path where the certificate file (“.cer” extension) is located.

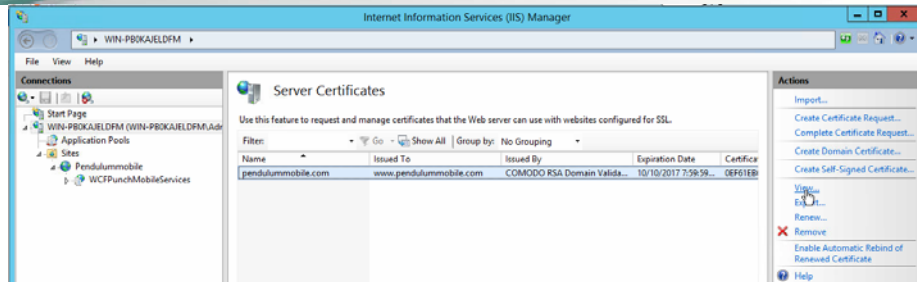
- **Friendly name.** Name that the server manager will use for an easy identification.
Example: pendulummobile.com
- **Select a certificate store for the new certificate.** “Personal” type must be indicated.



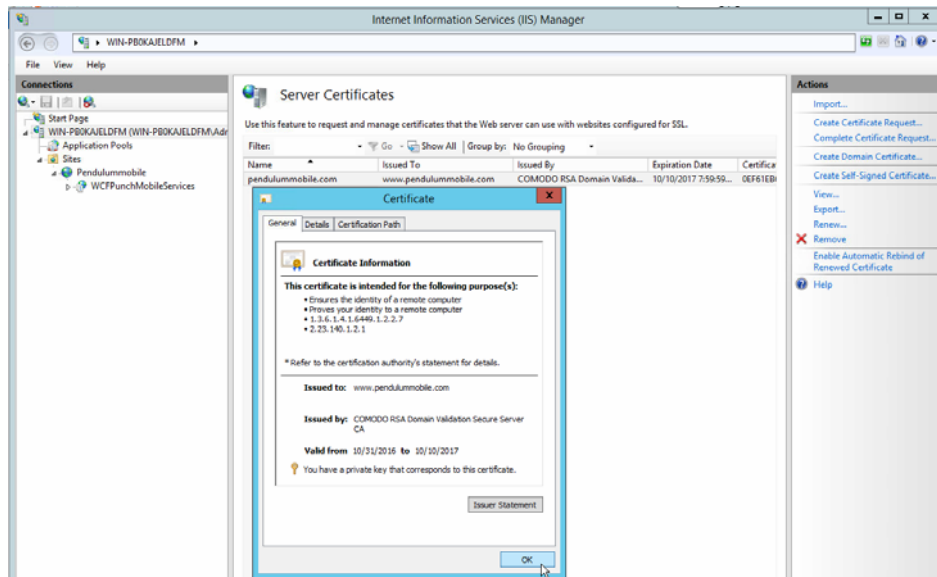
6. Now the certificate is installed, in the panel “Server Certificates” the new one is shown.



7. In order to view the added certificated details, in the “Actions” menu (to the right) of the “Server Certificates” window, click on the “View” option.



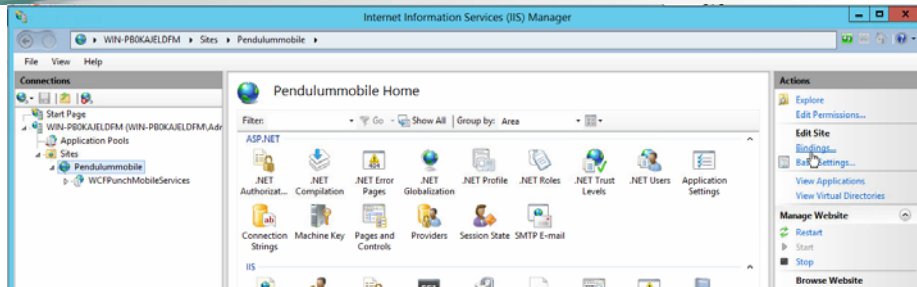
8. The “Certificates” window will be immediately shown with the corresponding information. Click on the “OK” button to close.



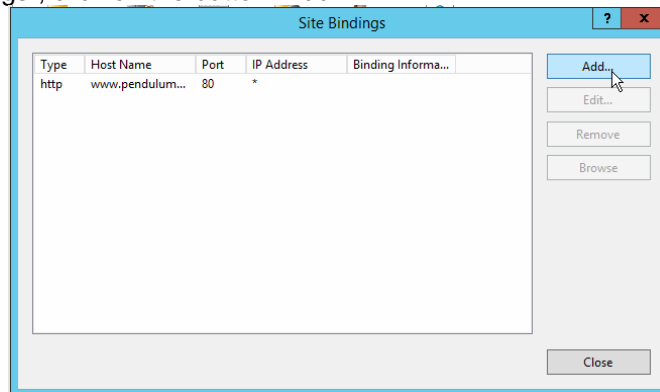
9. Once the SSL certificate is successfully installed in the server, you must have assigned it to the corresponding web site using the IIS.

2. HTTPS SERVICE SETTINGS

10. In the IIS manager, select the server name where the certificate was installed.
11. In the “Sites” node, select the main site that will be protected with SSL: “Default Web Site” or “Pendulummobile”.
12. In the menu “Actions” (to the right), click on “Bindings”.

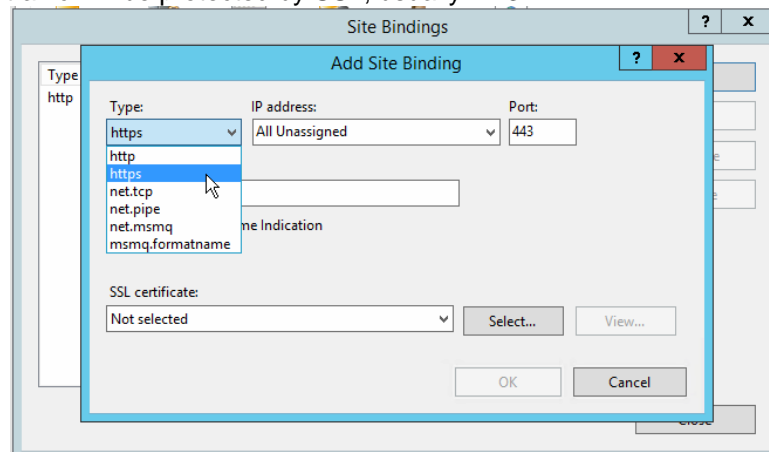


13. In the window "Site Bindings", click on the button "Add".

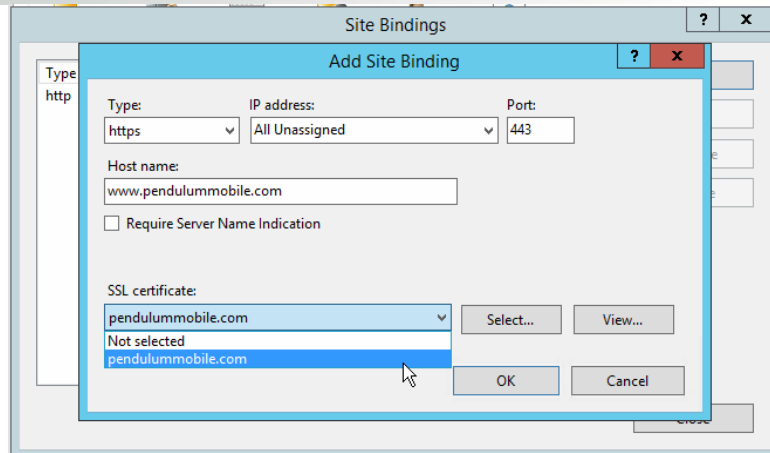


14. The window "Add Site Binding" will be shown immediately to add https:

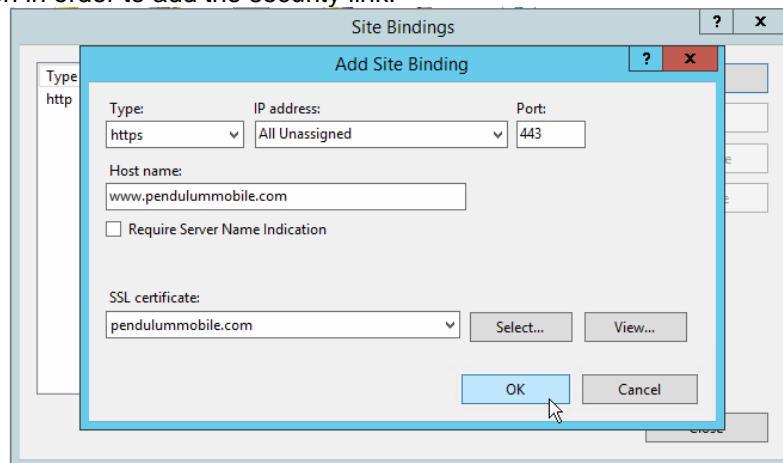
- ✓ **Type.** Select the "https" option.
- ✓ **IP address.** Select the option "All Unassigned" or the site's IP address.
- ✓ **Port.** Port where the traffic will be protected by SSL, usually: 443.



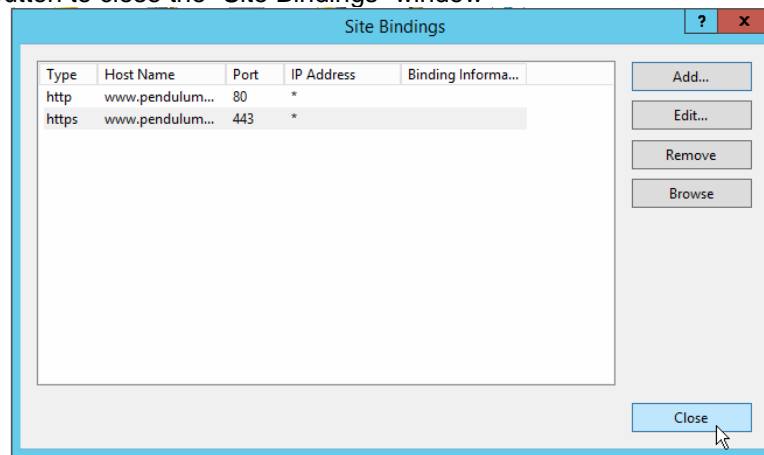
- ✓ **Host Name.** Complete domain name. Example: www.pendulummobile.com
- ✓ **SSL certificate.** Select the certificated that was installed.
Example: pendulummobile.com



15. Click on the “OK” button in order to add the security link.



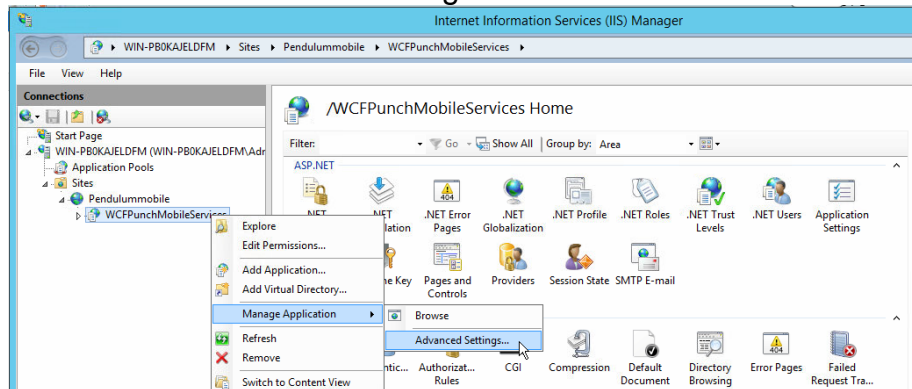
16. Click on the “Close” button to close the “Site Bindings” window



3. PROTOCOLS ACTIVATION

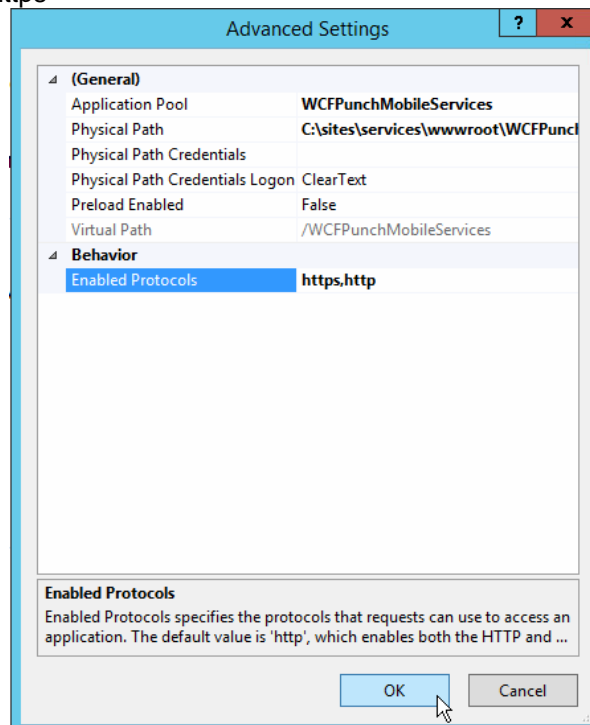
17. It is necessary to configure the protocols for the web service.

18. In the ISS manager, select the web service and right click on it, select the “Manage Application” and click on “Advanced Settings”.



19. In the advanced settings Windows, in the “Enabled Protocols” section, besides of “http” add also the “https” security protocol (comma separated). This is done in order to give to the service the ability to respond the requests for both protocols.

✓ **Enabled Protocols:** http,https



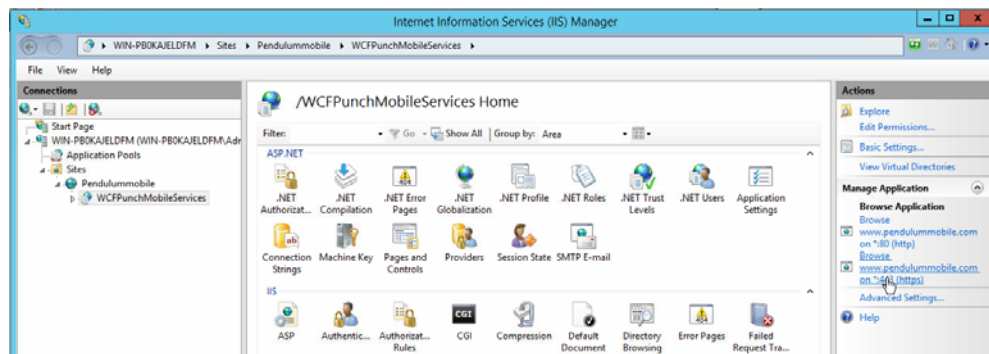
20. The SSL certificate is not installed and the web site is configured to accept trusted connections.

4. WCFPUNCHMOBILESERVICES ACCESS BY HTTPS

21. In order to verify and open the web service, in the “Actions” menu (to the right) of the web service, go to the “Manage Application” section of the “Browse Application” area, click on the URL to open as https through the port 443.

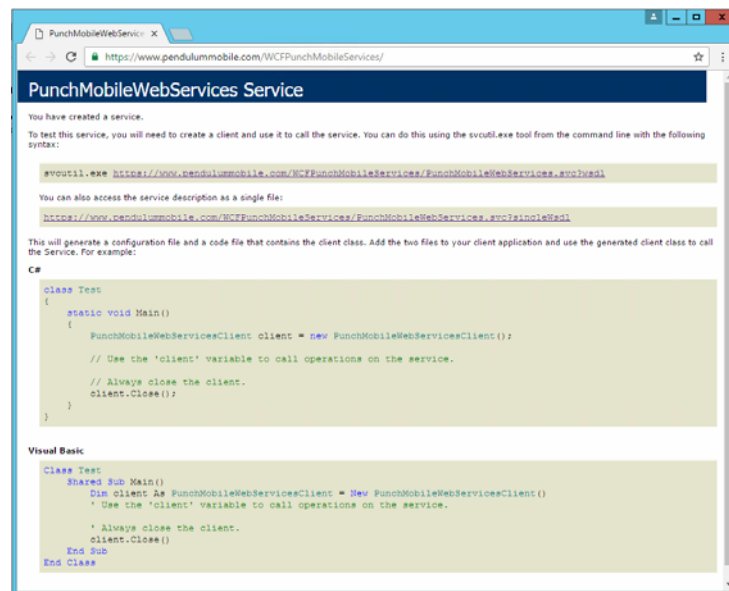
Example:

www.pendulummobile.com on *:443 (https)



NOTE: It is very important to activate the option “Protocol HTTPS” of the Security are in the settings console of “CfgyWCFPunchMobile”. (See Security Settings).

22. Now the certificate is linked to the web service and you can access through the safe mode.



Punch Mobile Application

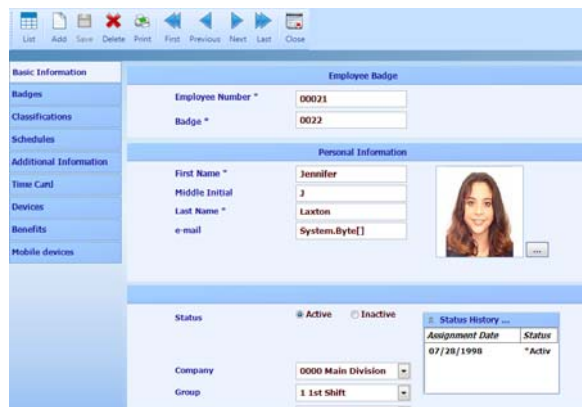
Punch Mobile is an Android application, the main function is the control of the employee attendance via mobile device, including checking IN and OUT transactions of the employee. When punching the employee specific information is showed, including full name, photo, number, badge, status, pay period, schedule, schedule 2 and classifications.

The application allows to set the server via IP or DNS, reassign the mobile from one employee to another, a tutorial and tips for better interaction with the mobile application experience.

Configuration

Configure the device in to pendulum employee

Open Pendulum and go to employee's screen selects an employee and assign a device. So we go to the menu of employee / Mobile devices.



The screenshot shows the 'Employee' configuration window in the Pendulum application. The window has a sidebar menu on the left with options: Basic Information, Badges, Classifications, Schedules, Additional Information, Time Card, Devices, Benefits, and Mobile devices. The main area is divided into sections: 'Employee Badge' with fields for 'Employee Number *' (00021) and 'Badge *' (0022); 'Personal Information' with fields for 'First Name *' (Jennifer), 'Middle Initial' (J), 'Last Name *' (Laxton), and 'e-mail' (System.Byte[]), along with a photo; 'Status' with radio buttons for 'Active' (selected) and 'Inactive'; and 'Company' (0000 Main Division) and 'Group' (1 1st Shift). A 'Status History' table is also visible, showing a record for '07/28/1998' with status 'Active'.

In this window the employee information is displayed. badges, standings, schedules, additional information, time card, devices, benefits and Mobile devices that is what we will use in order to register the phone or tablet.

Once we enter the option fill the data indicates, as the 10-digit number, the type of device can be mobile or tablet and enter the description.

If it is necessary, we will give right click in the light blue space that looks and we will instantly add to see the browser location.

Configure location restriction

To set the location valid for Punch Mobile is necessary to add a description, radius in meters, and position the pin in the place where the employee must make its attendance record in the Mobile Punch.

The maximum of locations supports the Punch Mobile is 10 for device.

Once the device has been configured in the Pendulum employee, we can now proceed with the installation at Punch Mobile.

Installation Punch Mobile Application on Mobile device

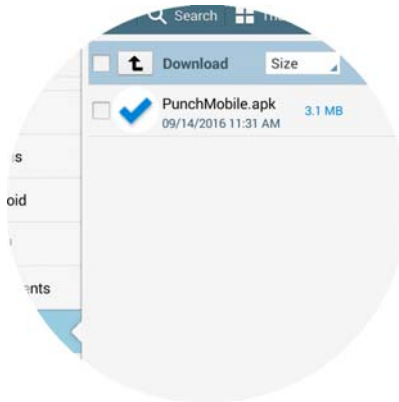
System Requirements to install the application

- Android Version: Android 4.1 (Jelly Bean / API Level 17) or above.
- Wi-Fi.
- GPS.

- Pendulum Service Running.
- IP or DNS Server Registration.

Put the Punch Mobile in to device

First we need to have the installer Punch Mobile on our device, once added, we look for the path where the apk is stored. Select and will request the install. You need to be connected as a media device to put the apk Punch Mobile in to the device.



Allow to install apk

Once the APK is on the device, it is necessary to install, if your device does not have permissions to install apk's unknown sources applications, you have to go to settings / security and there is an option called unknown source. if disable proceed to select it and enable, you need to accept to save the changes.

You may now install the Punch Mobile apk without any problem.



What i need to continue with my Punch Mobile

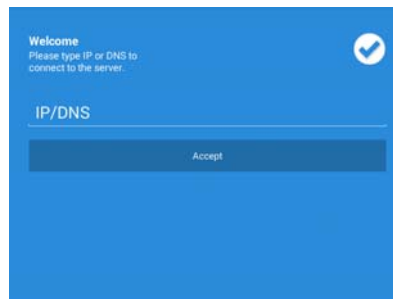
You have to check a few things:

1. Wi-Fi or mobile network connection available.
2. GPS Location Active.

If the device doesn't have these 2 requirements Punch Mobile does not work properly.

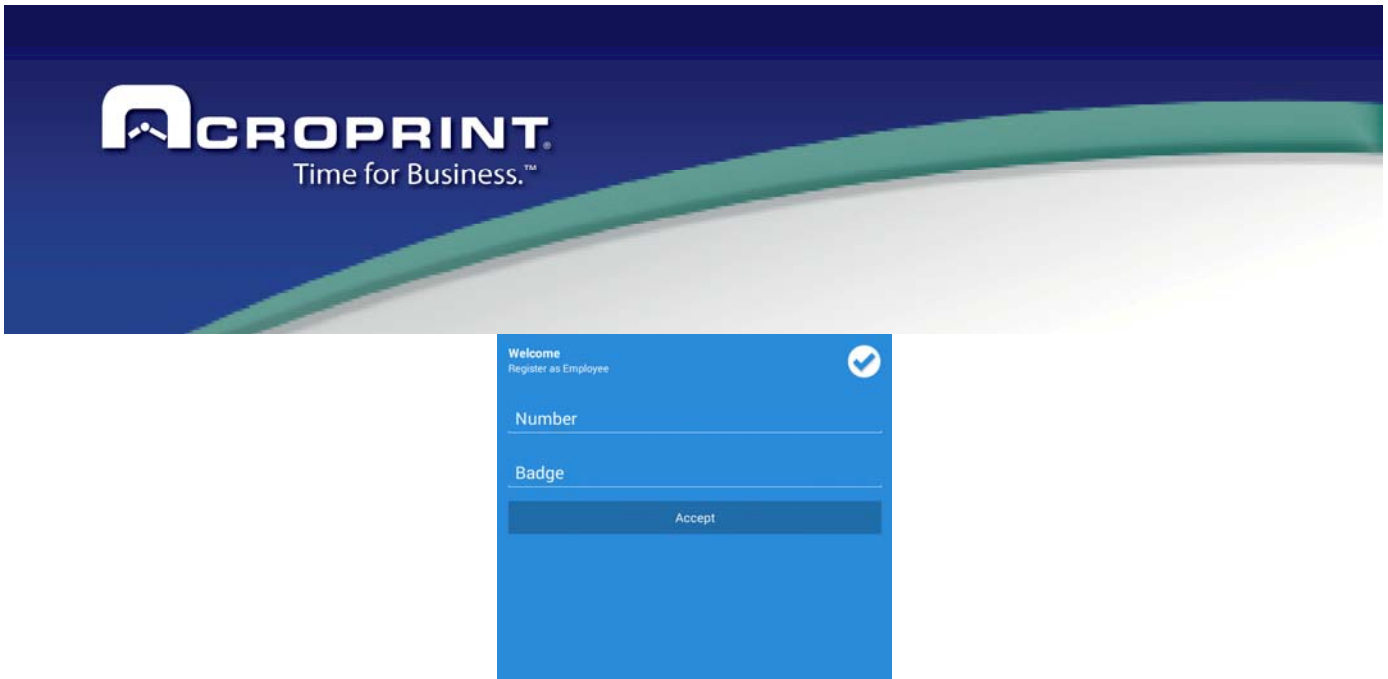
Starting

We have made all necessary settings in both the Pendulum and the Device. We need to add the right data to use the Punch Mobile. First we open the Punch Mobile pre-installed, and will add our IP or DNS where the service is located.



1. If you have a IP you need to put, numbers and points it's only you need. (<http://192.168.0.1> or <https://192.168.0.1>).
2. If the service is within a folder must be added, this way (<http://192.168.0.1/folder> or <https://192.168.0.1/folder>).
3. If you have a DNS you need to put (<http://mydomain.com> or <https://mydomain.com>)
4. If the service is in a folder in the same way (<http://mydomain.com/folder> or <https://mydomain.com/folder>)

The next step is to enter the information previously provided to the employee in Pendulum Software. The number and badge. Before installing verify that the phone number is not assigned to another employee and that is active. Otherwise the install will show a message that cannot be installed because the device already been assigned to another employee.

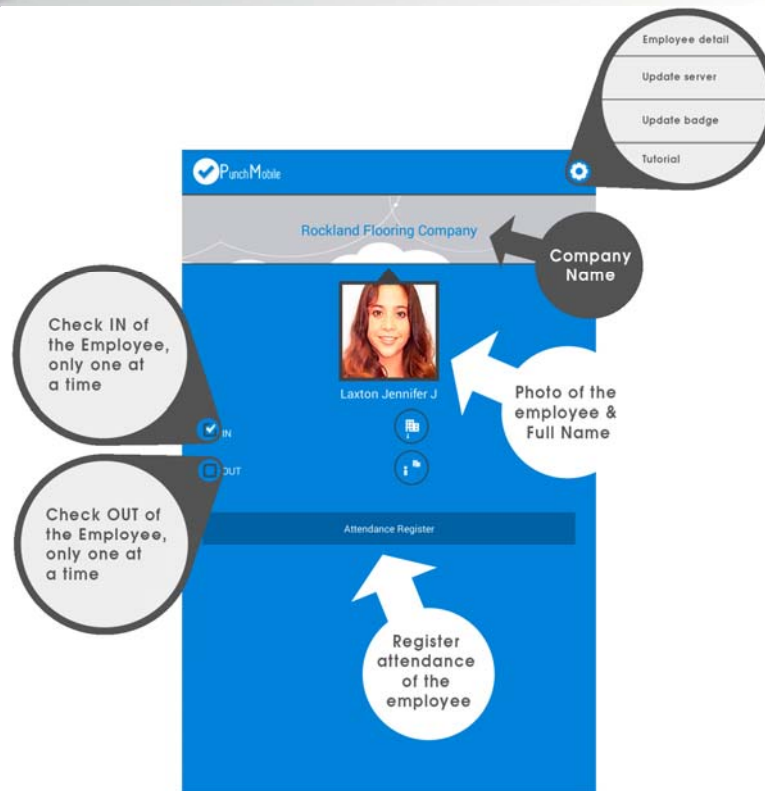


1. The field number specifies is a 10-digit phone number.
2. The badge is a field employee badge code, is numeric and the number of characters depends on what you put in Pendulum.

If all its Ok, you will see the main screen of Punch Mobile.

Register attendance

In the main window we can see the menu of options, the name of the company, photo of the employee, the employee's full name, options attendance record as IN and OUT and the attendance record button.



When the user selects the IN or OUT options and push the button attendance record, Punch Mobile validate, geolocation (if is configured to check), if the transaction is successful, a message of acceptance is showed, otherwise show other message depending on the Punch Mobile validations.

Consulting information of the employee

Employee information has a refresh button, used when the employee information is modified in pendulum software and update would be done immediately.

The screenshot shows the 'Employee Information' screen in the Punch Mobile app. At the top, there's a header with the 'Punch Mobile' logo and a refresh icon. Below the header is a section titled 'Employee Information' containing a photo of Jennifer J. Laxton. Underneath the photo is a dark grey bar with the name 'Laxton Jennifer J'. Below this is a list of fields: 'Number' (00021), 'Badge' (0002), 'Status' (Active with a checkmark icon), 'Pay Period' (001 - 1st Shift MON - FRI), 'Schedule' (001-1st Shift MON - FRI), and 'Schedule2' (Shift 1). At the bottom, there's a dark grey bar with 'Department: 0002 - Glue Line' and 'Level2:', 'Level3:', and 'Level4:' listed below it.

Employee information is the employee's photo, full name, number, badge, status, pay period, schedule, schedule 2 and classifiers. All labels are configured directly in Pendulum Software depending on how you configure, is what you show.

Change IP or DNS server

To change the information of the server, need to add the right data to use the new server in Punch Mobile. First you need to go to menu configuration and push in the list option Update Server.

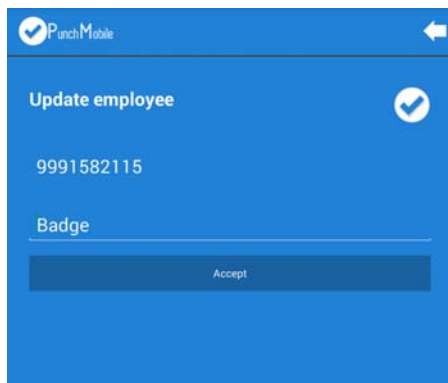
The screenshot shows the 'Update IP or DNS' screen in the Punch Mobile app. At the top, there's a header with the 'Punch Mobile' logo and a back arrow icon. Below the header is a section titled 'Update IP or DNS' with a checkmark icon. Underneath is a text input field containing the IP address '192.168.0.209:83'. Below the input field is a dark grey button labeled 'Accept'.

1. Remember if you have a IP you need to changed, with numbers and points it's only you need. (<http://192.168.0.1> or <https://192.168.0.1>).
2. Remember if the service is within a folder must be added, this way (<http://192.168.0.1/folder> or <https://192.168.0.1/folder>).

3. Remember if you have a DNS you need to be changed, with (<http://mydomain.com> or <https://mydomain.com>)
4. Remember if the service is in a folder in the same way (<http://mydomain.com/folder> or <https://mydomain.com/folder>)

Change the badge number

To change the badge of the employee you need provide the specific information of the employee to assign defined in Pendulum Software.



The screenshot shows a mobile application interface with a blue header bar containing a checkmark icon and the text "Punch Mobile". Below the header, there is a blue card titled "Update employee" with a checkmark icon in the top right corner. Inside the card, the number "9991582115" is displayed. Below the number, there is a label "Badge" followed by a text input field. At the bottom of the card, there is a dark blue button labeled "Accept".

If everything is ok you push the button and the update start the process. Now the application restart and show the main view with the information of the new employee.

