



INSTALLATION / CONFIGURATION GUIDE

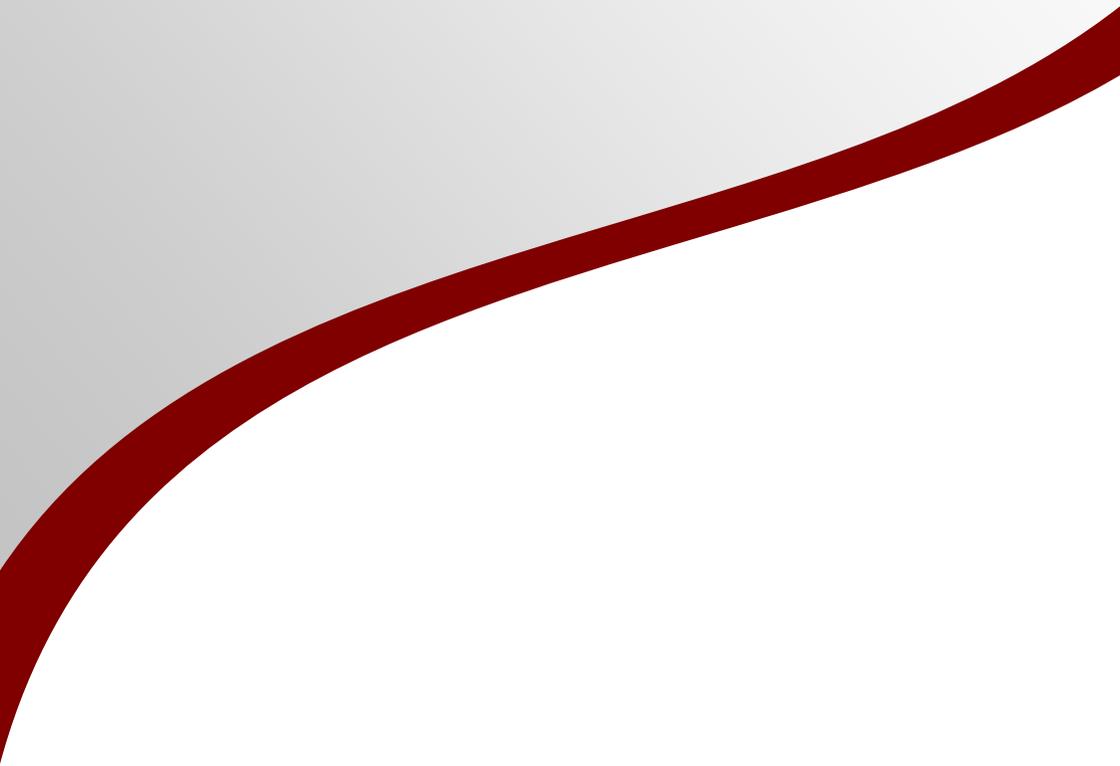




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EasyLynq - Call Accounting System
version 1.40

Installation / Configuration Guide
Edition date: 2019.February.11

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<https://www.eurofluxo.pt/>

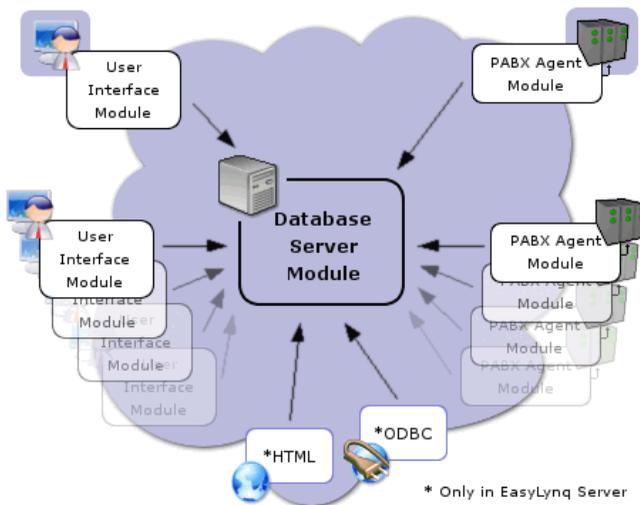
Introduction

EasyLynq Office and EasyLynq Server

EasyLynq is a centralized billing and accounting management solution, featuring a complete set of tools for the tracking of all calls across IP networks and traditional telephony networks, targeting small offices to large multi-branch global enterprises.

With a high reliability level, as witnessed by more than 15,000 customers worldwide, EasyLynq gives you the perfect tool for monitoring call traffic and cut operational costs. With its advanced query generator, it provides a unified and accurate view of your network communication costs and traffic.

- Compatible with Windows XP / Server 2003 and more recent. Certified for Windows 7, 8, 10 and Server 2012, 2016, 2019, 32 and 64 bits.
- Fully scalable for any size enterprise, providing a unified view of network costs and traffic.
- Converged reporting for IP voice servers, traditional PBXs, routers and various communication devices.
- Centralized multi-indexed database, with ODBC connectivity option, featuring reduced information search time.
- Distributed architecture for optimized operation in either stand-alone or LAN/WAN environments.



EasyLynq Hotel

With the same key advantages of the enterprise solution, EasyLynq Hotel additionally provides a wide range of features targeting the hospitality industry:

- Multi-complex option for centralized management of several properties.
- Compatible with most Property Management Systems: Fidelio*, Protel, SIHOT, NewHotel, Brilliant, HotelConcepts, Medallion, Host, NHS, Visual One, etc.
- Interoperability with a wide range of in-room and wireless internet access equipments (optional).
- Guest's name in the display of phone sets.
- Credit limit assignment, either manual or automatic.
- Message Waiting feature, signaling voice mail and front-desk messages in the room phone.
- Minibar and laundry posting on the room phone by authorized personnel.
- Room-status entry by the maid allows immediate update of rooms availability.
- Configurable classes of service restrict the outward access from rooms and phone booths to public network.
- Eight spoken/written languages: English, French, German, Dutch, Portuguese, Spanish, Italian and Brazilian (optional).
- Do Not Disturb service.
- Automatic open/close of guest's voice mailbox on check-in/out.
- Full wake-up service:
Programming, either through the phone display or guided by an interactive voice response system (optional). Answer control, triggering visual and sound alerts in case of failure.

* EasyLynq Hotel certified by Micros/Fidelio for versions 6, Suite 7, Suite 8 and Opera (Fidelio Part-No: 5001-309)

Installation

This chapter is intended to guide the technician throughout the procedures of the installation and initial configuration of EasyLynq. It is assumed that the technician is familiar with the various versions of the Windows operating system.

Some of the information herein presented may not be accurate or differ from that found in the customer's location.

Conventions

The following special signs are used in this document to point out information that must be carefully read:



Warning: alerts about configuration details that may cause malfunctions or not work as expected.



Notice: indicates additional information as a reference.

Computer requirements

The following tables show the minimum specifications of the EasyLynq computer. In case this equipment is being used to run other applications, such as IVTS, Voqqaale or one of the customer's, the specifications may have to be revised.

The requirements shown in these tables are taking in consideration a computer running Windows 7 and Windows 2008 Server. Earlier operating systems allow processor/memory requirements less restrictive.

EasyLynq Office / Server

Extensions	Intel processor	Memory	Storage	Windows
100	i3 2.2 GHz	2 GB	60 GB	Workstation
500	i5 2.4 GHz	4 GB	100 GB	Workstation
1000	Xeon 2.2 GHz Quad Core	4 GB	160 GB	Server
5000	Dual Xeon 2.8 GHz Quad Core	8 GB	250 GB	Server

EasyLynq Hotel

Rooms	Intel processor	Memory	Storage	Windows
100	i5 2.4 GHz	2 GB	80 GB	Workstation
300	i7 2.8 GHz	4 GB	120 GB	Workstation
500	Xeon 2.4 GHz Quad Core	4 GB	200 GB	Server
1000	Dual Xeon 2.8 GHz Quad Core	8 GB	250 GB	Server

EasyLynq is fully compatible with Windows 2000, XP SP3, 2003 Server, Vista, Server 2008, 7, Server 2012 e 8. EasyLynq is certified for Windows 7, Server 2012 e 8.

Although the compatibility of EasyLynq is extended to Windows 2000, some voice servers may require newer operating systems. Please refer to the technical documentation available in the CD for more information.

Installation CD

The CD supplied with this manual allows you to install various modules that make up the EasyLynq product, provides various commercial and technical documents and applications for creation and conversion of tables, replacement of standard passwords, terminal emulation and so on.

a) If you have received a link to download the CD content:

Start Windows Explorer, go to the root folder of the CD content and double-click on the CDELYNQ application.

b) If you have received an installation CD:

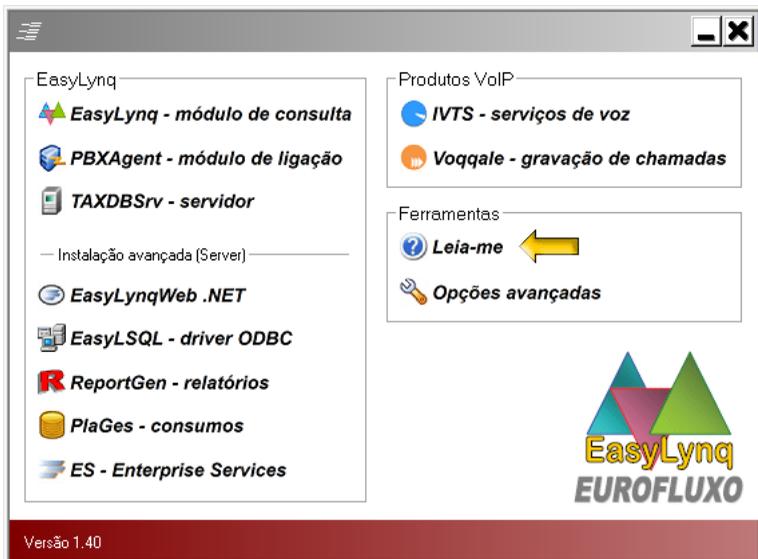
Insert the CD in the CD/DVD drive and wait a few seconds to allow the CDELYNQ application to start.



If the 'Auto-Play' feature has been disabled, you have to start CDELYNQ manually.



Installation of applications on Windows requires you to have administrator privileges. If you are not an administrator or the UAC feature ('User Access Control') is active, CDELYNQ will inform you that it needs to elevate the user's privileges.





Always run the installation procedures from CDELYNQ. This application determines whether it is recommended to install the 64-bit versions, if there are additional features that also need to be installed (.NET Framework, vocal messages, voice recognition and Text-To-Speech platforms, proxies and so on) and the appropriate order of installation.

Available operations:

- Install the main modules EasyLynq, PBXAgent and TAXDBSrv.
- Install specific modules of EasyLynq Server and Hotel+.
- Install EasyLynq IVTS.
- Install EasyLynq Voqqale.
- Start the CDELYNQ Help.
- Perform advanced procedures such as displaying license data, installation of a new license (in the event of an upgrade), running configuration and test utilities, removal of installed modules, access to technical and commercial documentation and so on.

Module installation

All modules are installed using the standard Windows Installer interface.

Windows Installer starts the installation procedures through a series of windows in which the user is prompted to accept the license conditions and the destination folder. Some modules additionally require the choice of operating language and other settings.

For the majority of the applications, a group called EasyLynq is created in the Start menu of Windows. This group contains the shortcuts for the installed modules.

Installation of the modules is quick and easy. Their removal can be performed inside CDELYNQ (recommended) or in "Programs and Features" of Control Panel.

Advanced options

Tools

IfDocs	Access to technical documentation of the interfaces available in the license
Serial32	Serial ports tester (requires DB9 e DB25 connectors with soldered bridges for signal check)
WinComm	VT100/Minitel terminal emulator
FreePwd	Standard password restore utility for the TAXDBSrv module, PBXAgent module and the user root
YtaxLynq	Migration of tables and call records database Easytax to EasyLynq
TrapViewer	SNMP mini-server for traps triggered by EasyLynq

Applications

InstallWaves	Installs the voice messages files (.wav) for agent SIP Messaging of PBXAgent module
Lib3Install	Installs drivers and applications of the equipment manufacturers
MSSpeechPlatform	Installs Microsoft Server Speech Platform Runtime, speech recognition engines Text-To-Speech engines for EasyLynq IVTS

Documents

- EasyLynq, IVTS and Voqqale flyers in several languages
- PowerPoint presentation of EasyLynq Hotel
- Known problems of older versions of EasyLynq
- Installation / configuration guide (this document)
- Installation Notes for EasyLynq Web .NET
- IIS configuration guide for EasyLynq Web Silverlight (Enterprise Services)
- User manuals of EasyLynq Server and EasyLynq Hotel

Other files available in the CD

NETX folder	Bootstrappers for downloading several versions of .NET Framework (require Internet access)
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Configuration

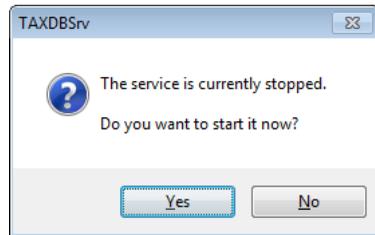
TAXDBSrv

In the Start menu of Windows, go to **Programs** > **EasyLynq** and click **TAXDBSrv**.

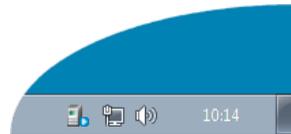


The TAXDBSrv service manager requires administrator privileges on the local computer. If you are not an administrator or the UAC feature (User Access Control) is active, the application informs you that it needs to elevate the user's privileges.

A dialog window informs you that the service is not running and asks whether you want to start it. Press **Yes**.



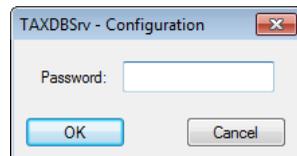
Wait a few seconds and you'll see the TAXDBSrv icon in the Notification Area of the Windows Taskbar.



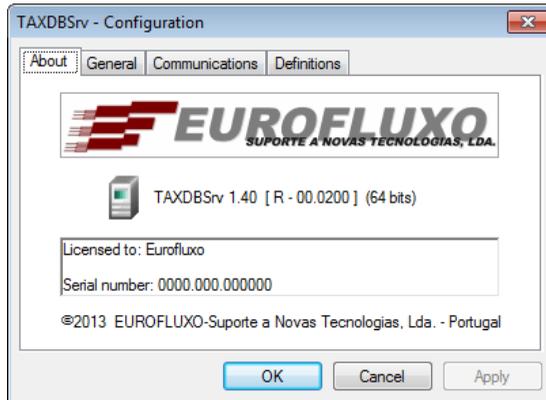
It is recommended that you configure the Notification Area so that the icon always stays visible.

Double-click over the icon to start the **TAXDBSrv** configuration.

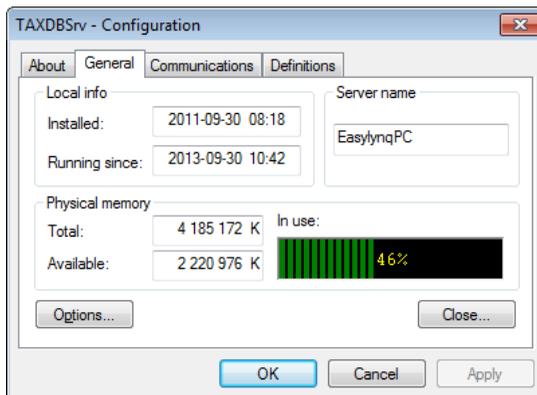
Enter the password **taxdbsrv** in lower case and press **OK**.



About: it's just an informational window. Displays licensed name, serial number and version information.



General: displays the date/time of installation and last service start and memory usage information. You may change the server name (filled in at installation time with the computer name).



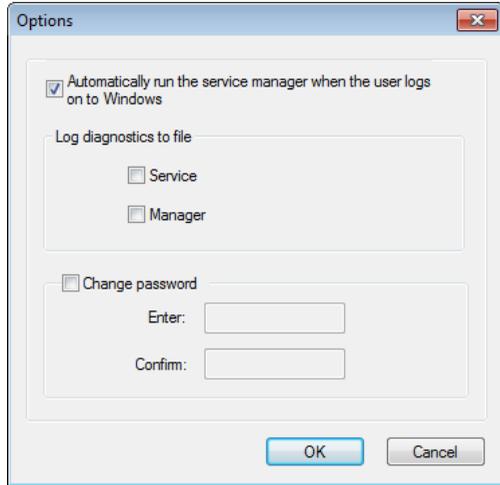
To terminate the manager and the service, press the **Close...** button.

Press the button **Options...** to access specific configuration of TAXDBSrv.

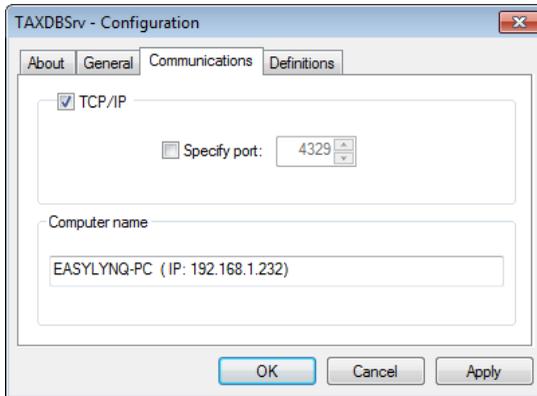
General - Options: This window allows you to deactivate the manager (not recommended), start/stop diagnosis to file (for debugging purposes) and change the manager password.



For security reasons, always change the default password that was set at installation time.



Communications: allows activation/deactivation of TCP/IP communication.

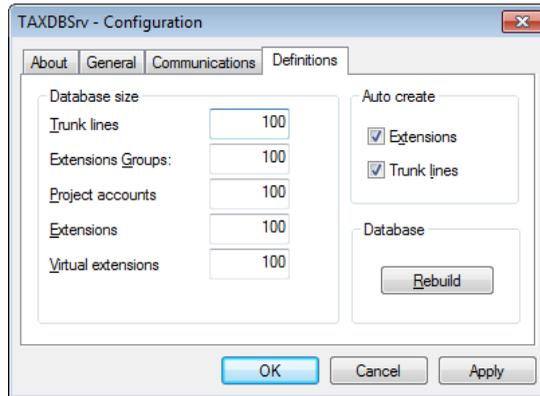


EasyLynq uses the RPC protocol for the communications between the various modules. Communication in local mode is always available.



On startup, the TAXDBSrv service negotiates the port for RPC communication over TCP/IP with Windows. In a WAN environment in which a firewall is present, you may consider to specify a fixed port.

Definitions: allows you to configure the maximum size of the tables of channels (trunk lines) extensions groups, project accounts, voice server/PBX extensions and virtual extensions.



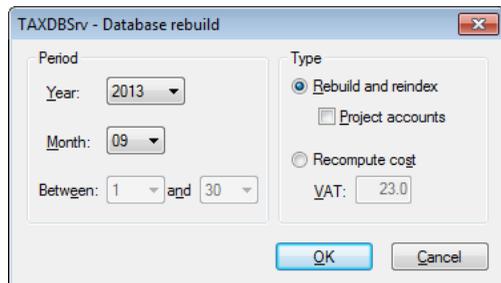
Avoid to oversize these values so that the database files stay with a reasonable size and according to the dimension of the installation. The number of voice server extensions is limited by the license.



In case you are not willing to create extensions and channels automatically, based on the call detail records, you may uncheck the respective options.

TAXDBSrv manager offers you an option to rebuild the call records database. Use this feature for:

- a) Detecting and solving inconsistencies due, for example, to a power loss.
- b) Recalculate the cost and price of the call records after changing the operator's pricing in EasyLynq.



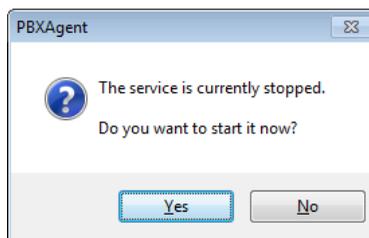
PBXAgent

In the Start menu of Windows, go to **Programs** > **EasyLynq** and click **PBXAgent**.



The PBXAgent service manager requires administrator privileges on the local computer. If you are not an administrator or the UAC feature (User Access Control) is active, the application informs you that it needs to elevate the user's privileges.

A dialog window informs you that the service is not running and asks whether you want to start it. Press **Yes**.



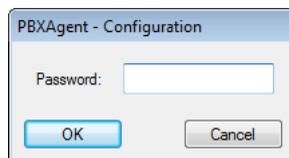
Wait a few seconds and you'll see the PBXAgent icon in the Notification Area of the Windows Taskbar.



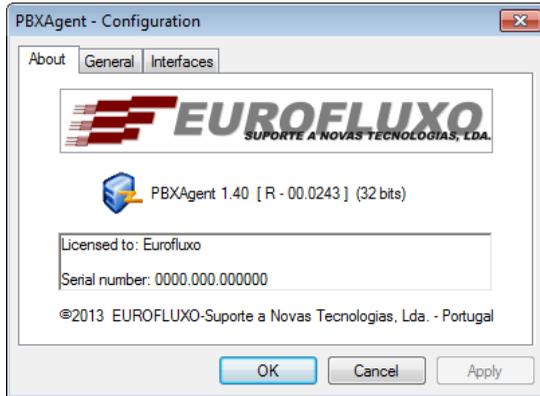
It is recommended that you configure the Notification Area so that the icon always stays visible.

Double-click over the icon to start the **PBXAgent** configuration.

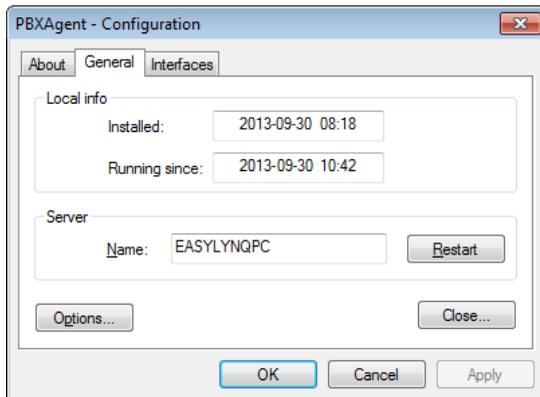
Enter the password **pbxagent** in lower case and press **OK**.



About: it's just an informational window. Displays licensed name, serial number and version information.



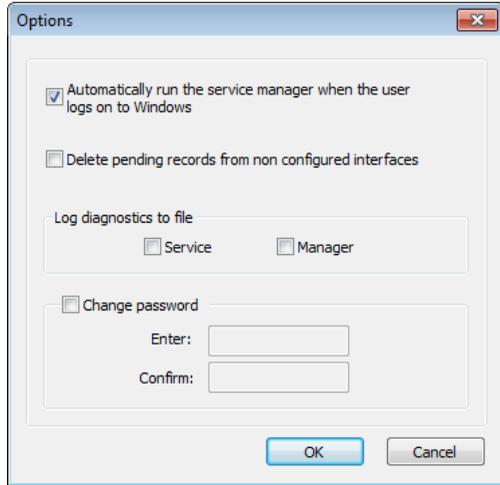
General: displays the date/time of installation and last service start and sets the network location of the TAXDBSrv computer.



Enter the name or IP address of the TAXDBSrv computer.

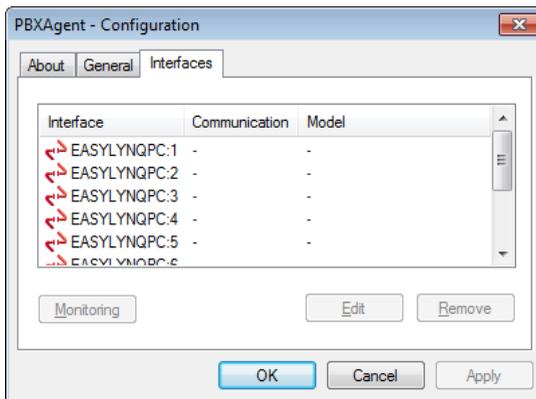
To terminate the manager and the service, press the **Close...** button. Press the button **Options...** to access specific configuration of PBXAgent.

General - Options: This window allows you to deactivate the manager (not recommended), delete pending records of invalid interfaces, start/stop diagnosis to file (for debugging purposes) and change the manager password.



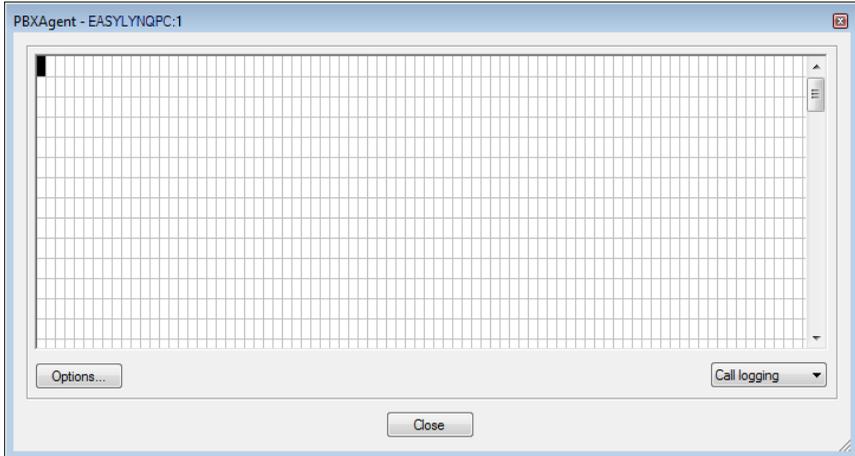
For security reasons, always change the default password that was set at installation time.

Interfaces: allows configuring the various interfaces of voice servers, PMS's (version Hotel), Internet access systems and unified messaging systems.



*Due the variety of the equipment interfaces, it's out of the scope of this guide to describe this configuration. Please refer to the documentation available in the **IfDocs** tool of the CD.*

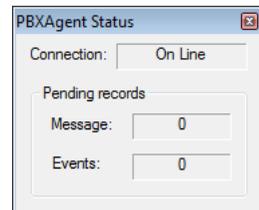
Interfaces - Monitoring: select a configured interface and press the **Monitoring** button. This window allows you to check the communications with the remote equipment.



Status information

Click the right button of the mouse over the PBXAgent icon in the Notification Area of the Taskbar and select **Status** in the menu.

This window displays information about the connectivity to the TAXDBSrv computer and the number of pending messages and events.

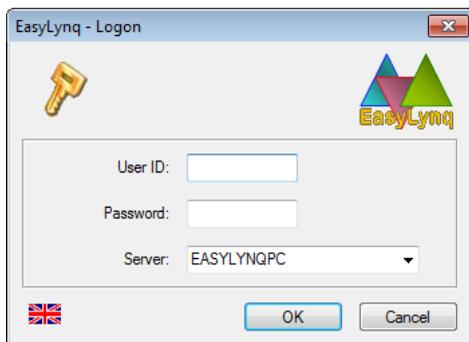


In the event of a connectivity loss, PBXAgent saves these records in local files. The size of these files is only limited by the storage capacity of the hard disk.

Under normal operation, the records are sent to TAXDBSrv at the time they are received from the equipment. If the connection is down, PBXAgent makes an attempt to reconnect every 60 seconds.

EasyLynq user interface

Click the Start button of Windows, go to **Programs** > **EasyLynq** and click over **EasyLynq**.



After the installation, the only user of the EasyLynq system is the Supervisor. His user and password are **root** and **maximlevel** respectively.

 *Passwords are case sensitive. Users must take care of the **Caps Lock** status of the keyboard.*

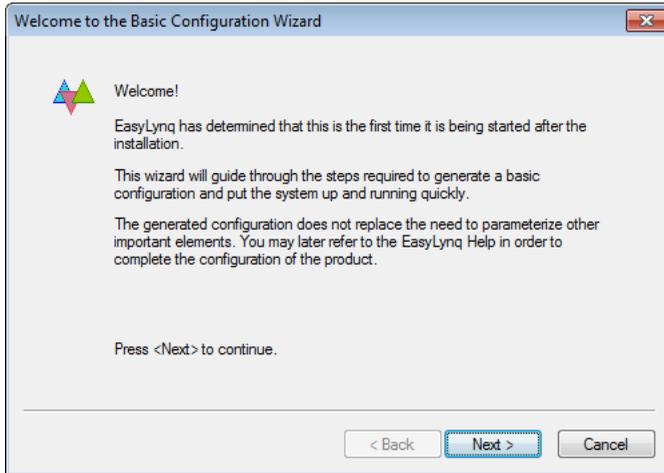
 *User **root** has no restriction in the system operation. Its usage should be reserved to the installation technician and the system administrator.*

In the **Server** field, enter the name or IP address of the TAXDBSrv computer (this field is automatically filled in with the local computer name the first time the application is started). EasyLynq stores the name of the last user that has successfully logged in and a list of the last five servers.

You may change the operating language of EasyLynq on clicking over the flag in the lower left corner.

 *For security reasons, always change the password of user **root** after finishing the installation procedures.*

On logging in, EasyLynq determines that the database is empty and automatically starts the **Basic Configuration** wizard.



In case the installation is the result of a migration or computer replacement and you are in the possession of the backup files, you may cancel the wizard and proceed with the data restore procedure.



The Wizard aims to help the installer to simplify the task of creating a basic configuration, which is sufficient for most installations. For example, it is only possible to create one voice server, one complex and one interface of each type. More complex installations require more elaborate setup later.

Press **Next** to continue.

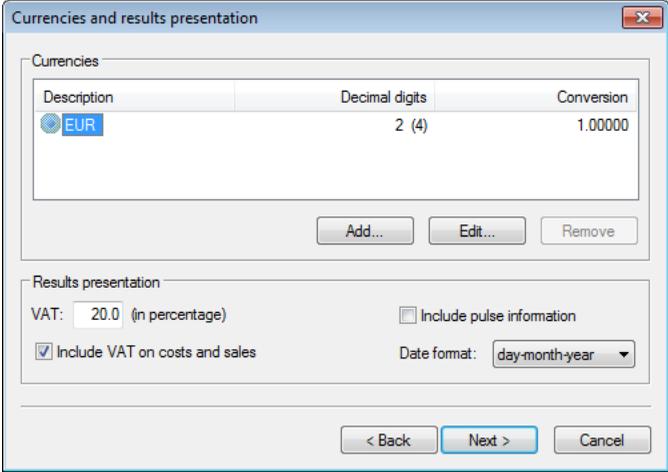
Enter the name of the voice server and a description (optional). Add extensions to the list as suggested.

The screenshot shows a dialog box titled "Voice server and extensions". It has a close button (X) in the top right corner. The dialog is divided into two main sections. The first section, "Voice server", contains a "PABX:" label followed by a red-bordered text input field, and a "Description:" label followed by a white text input field. The second section, "Extensions", contains a white text input field, an "Add ->" button, and a large empty rectangular area. Below the input field in this section is a note: "You may add several elements at once by using the separators , (comma) and > (greater than), for example: 101>104,110,116>118". Below the note is a "<- Remove" button. At the bottom of the dialog are three buttons: "< Back", "Next >" (highlighted in blue), and "Cancel".

Only in version Hotel: enter the name of the hotel property and a description (optional). Add rooms to the list as suggested.

The screenshot shows a dialog box titled "Hotel and rooms". It has a close button (X) in the top right corner. The dialog is divided into two main sections. The first section, "Complex", contains a "Name:" label followed by a red-bordered text input field, and a "Description:" label followed by a white text input field. The second section, "Lodgements and conference rooms", contains a white text input field, an "Add ->" button, and a large empty rectangular area. Below the input field in this section is a note: "You may add several elements at once by using the separators , (comma) and > (greater than), for example: 101>104,110,116>118". Below the note is a "<- Remove" button. At the bottom of the dialog are three buttons: "< Back", "Next >" (highlighted in blue), and "Cancel".

Adjust appropriately the parameters of this window.



The screenshot shows a window titled "Currencies and results presentation". It is divided into two main sections: "Currencies" and "Results presentation".

Currencies section: Contains a table with the following data:

Description	Decimal digits	Conversion
EUR	2 (4)	1.00000

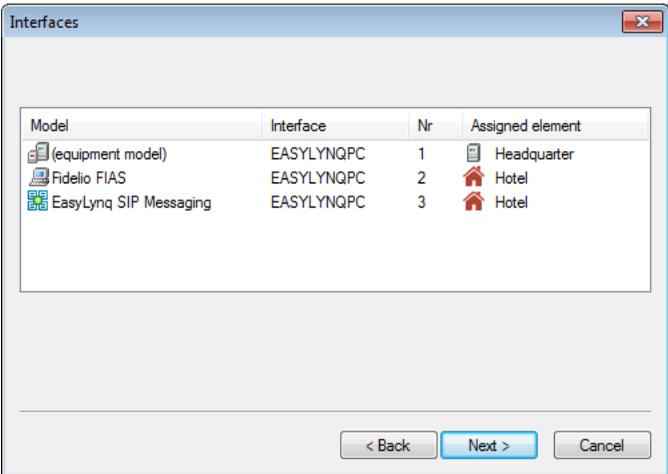
Below the table are three buttons: "Add...", "Edit...", and "Remove".

Results presentation section: Contains several settings:

- VAT: 20.0 (in percentage)
- Include pulse information
- Include VAT on costs and sales
- Date format: day-month-year (dropdown menu)

At the bottom of the window are three buttons: "< Back", "Next >", and "Cancel".

Configure the available interfaces as appropriate.

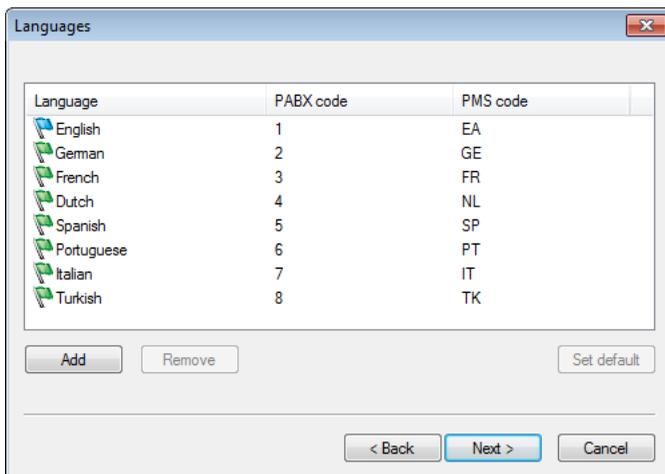


The screenshot shows a window titled "Interfaces". It contains a table with the following data:

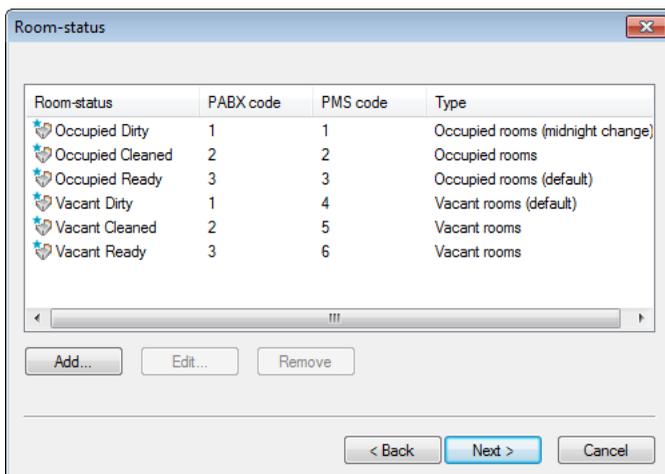
Model	Interface	Nr	Assigned element
(equipment model)	EASYLYNQPC	1	Headquarter
Fidelio FIAS	EASYLYNQPC	2	Hotel
EasyLynq SIP Messaging	EASYLYNQPC	3	Hotel

At the bottom of the window are three buttons: "< Back", "Next >", and "Cancel".

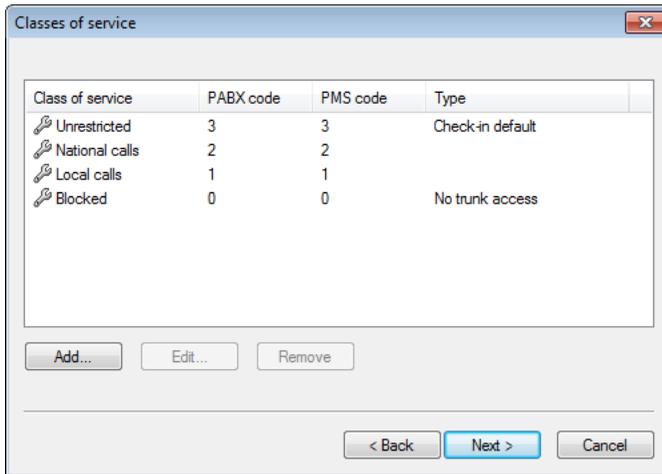
Only in version Hotel: adjust appropriately the suggested languages.



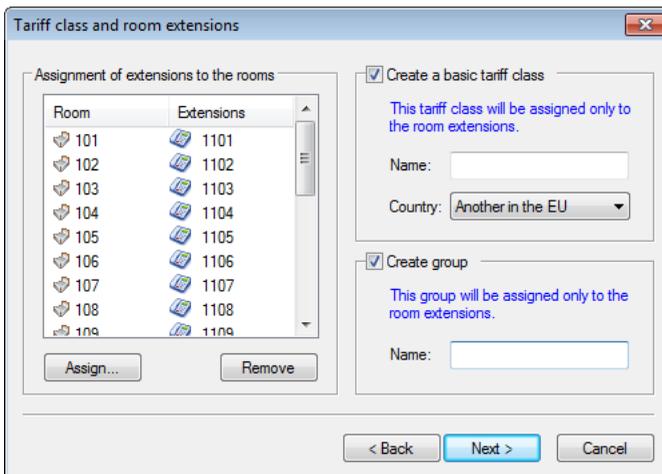
Only in version Hotel: adjust appropriately the parameters of room-status according to the needs of the hotel.



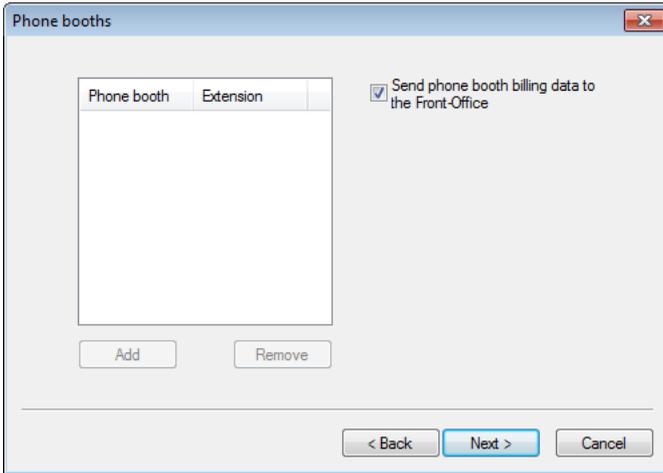
Only in version Hotel: adjust appropriately the parameters of the classes of service according to the needs of the hotel.



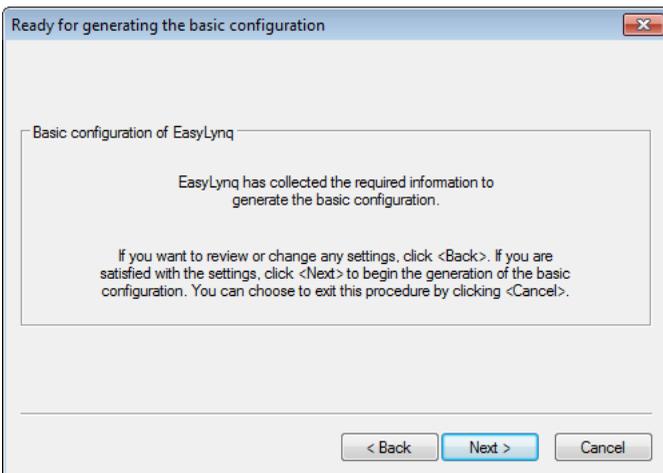
Only in version Hotel: assign extensions to the rooms, create a sale tariff class (recommended) and, if required, create a group for the room extensions.



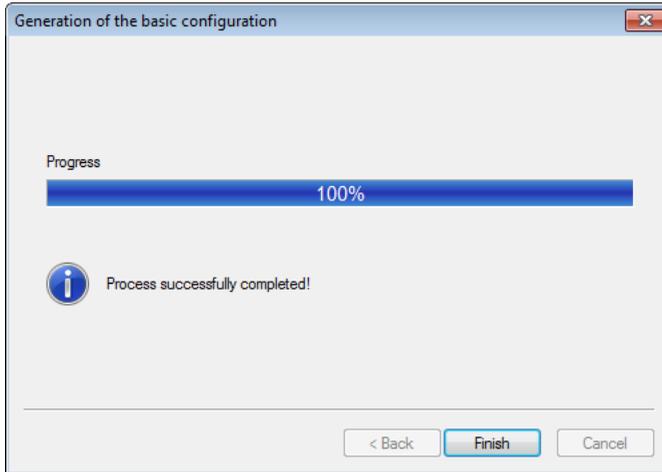
Only in version Hotel: in case the hotel makes available phone booths at the reception desk, add them here.



EasyLynq has collected all the required data to start generating a basic configuration. Press **Next** to continue.



The **Basic Configuration** procedure has finished. You may eventually be notified of some errors, if so, take the necessary steps to correct them.



Now you must configure the remaining parameters such as routes, groups (cost centers), telecom operators, project accounts, authorization codes and so on.

Make sure that EasyLynq is properly processing call records and, in the case of version Hotel, that the hospitality features are also tuned up (check-in, check-out, wake-up and so on).

The user interface of EasyLynq provides on-line help either through the F1 key or by selecting **Help** from the main menu. It's out of the scope of this guide to make an exhaustive description of its features and functionalities.

Updates installation

Eurofluxo makes available regularly updates for the various modules of EasyLynq that include new features and minor fixes. These updates can be found in its website at www.eurofluxo.pt. Once downloaded, the files should be moved to the **Updates** folder of the directory where TAXDBSrv is installed. The update process is automatic and will be performed within a few minutes.

EasyLSQL configuration (ODBC driver)



This feature is only available in versions Server and Hotel+.

EasyLSQL is an interface that allows external applications to access the EasyLynq database via ODBC through standard SQL commands.

After installing EasyLSQL, it is required to create and configure a data source.

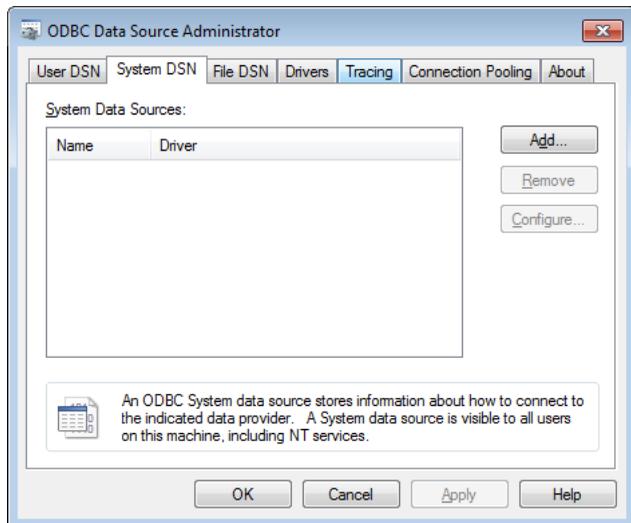
Data source creation

This option is available in **Data Sources (ODBC)** of the **Administrative Tools** of Windows.

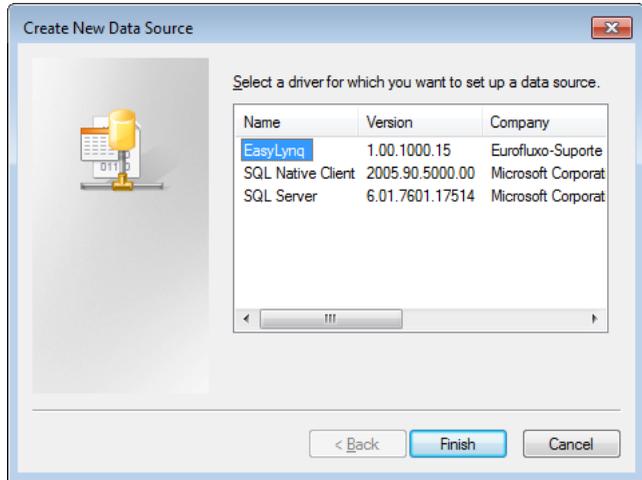


*In case you have chosen to install the 32-bit version of EasyLSQL in a 64-bit Windows operating system, you must use the appropriate 32 bits ODBC manager. The application's name is **odbcad32.exe** and it is located in the folder %WinDir%\SysWOW64.*

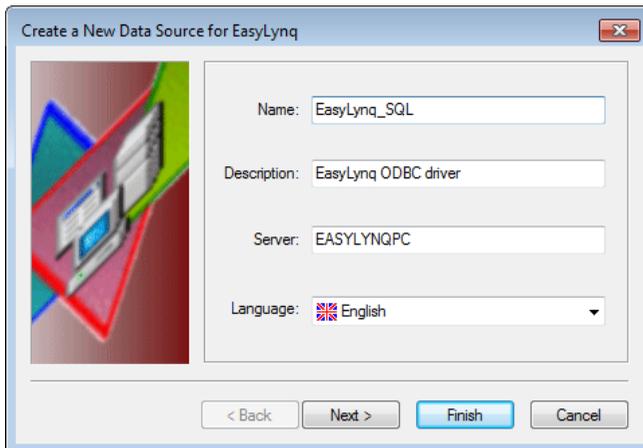
In the ODBC Data Source Administrator, select **System DSN** and press **Add...**



Select the EasyLynq driver and press **Finish**.

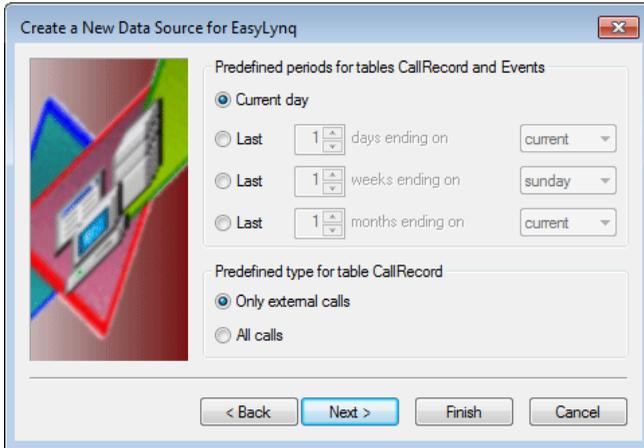


The EasyLSQL wizard will then be started. Enter a name for this data source, an optional description and the name or IP address of the TAXDBSrv computer. You may also select the operating language of the driver.

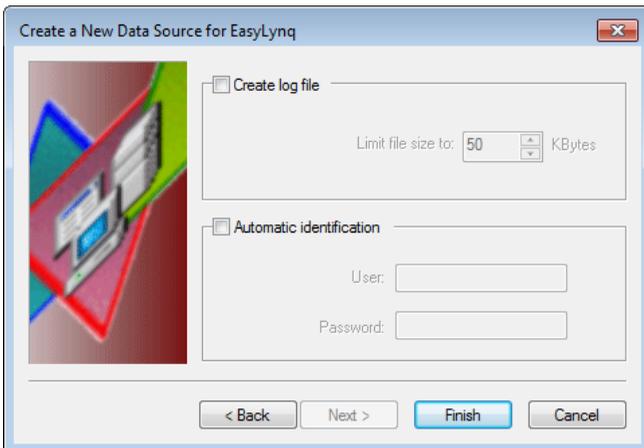


Press **Next** to continue.

Chose the default period and type of records for queries that omit these parameters in the SQL command. Press **Next** to continue.



In the last page of the wizard, select whether you want to generate a log file (intended for debugging purposes). You may also configure an EasyLynq user account for automatic login (the driver will not ask for authentication data when the external application establishes the connection).



Press **Finish** to close the wizard.

Getting data

Data is accessible through SQL commands. A typical command to obtain data from table **EXTENSION** will look like the following:

```
select * from extension
```

This command will return data of all extensions configured on EasyLynq.

It is out of the scope of this manual to explain the SQL language. If you do not feel familiar with it, please refer to manuals and other documentation available in specialized bookstores.

Several applications, such as Excel, Access, MSQuery and SQL Server, help you to make queries using a wizard utility, which avoids the manual input of SQL commands.

SUPPORTED SQL LEVEL

- EasyLSQL allows querying and modifying several configuration data and querying events and call records database. It is not allowed to insert new data. Supported SQL commands are the following:

```
select  
update
```

- It is not allowed to specify more than one table nor aggregate several tables in a SQL command.
- The command **select** can include several clauses for searching, sorting and aggregation of data. Supported clause expressions are the following:

```
where  
order by  
group by
```

Columns can be specified by name and sorted ascending or descending. There is no limit to the number of ordered columns.

- Expressions **having**, **union** and **distinct** are not supported.
- In the arguments of a **where** clause, the following symbols are permitted:
 > < = >= <= AND OR ()

IN, **LIKE**, **NOT** and the arithmetic expressions **+**, *****, **-**, **/** are not supported.

- EasyLSQL supports the aggregation keywords **sum**, **avg** and **count**. These expressions can be used in conjunction with **group by**. Using them without specifying **group by** is equivalent to specify **group by all**. Only numeric data columns, such as call price and ring time, can use these expressions.
- EasyLSQL is not case sensitive with respect to commands, table names and column names. Search parameters are case sensitive and must be accurately entered. In the following example, the group name is **'Marketing'** with capital **'M'**:

```
select * from callrecord where (extgroup='Marketing')
```

- The following date and time formats are permitted:

```
dd/mm/yyyy
dd-mm-yyyy
yyyy/mm/dd
yyyy-mm-dd
hh:mm
hh:mm:ss
```

If specified, time must follow date using the space character as a separator:

```
select * from callrecord where datetime > '1-11-2013
9:00' and datetime < '1-11-2013 12:00'
```

PREDEFINED PARAMETERS

Several columns have predefined values:

Table	CALLRECORD		EXTENSION	EVENT EVENT_USER
Column	Success	Type	Virtual	Type
Supported values	Yes No	External Incoming Outgoing Internal Int_Org Int_Rec	Yes No	Error Warning Information Hotel (only in version hotel)

These parameters are case insensitive. In an SQL instruction, it is sufficient to specify the first characters (in bold).

TABLES AND COLUMNS

The following table shows the available tables and columns.

CALLRECORD	EVENT	PABX	EXTENSION	EXTGROUP
datetime	type	pabx	extension	group
success	datetime	description ^{1,2}	pabx	parentgroup ²
type	source		extgroup ²	description ^{1,2}
extension	message ¹		virtual	
pabxext			description ^{1,2}	
trunkline				
pabxtrk				
remote				
projaccount				
ring				
conversation				
pulses				
extgroup				
route				
remarks ¹				
price_XXX ³				
cost_XXX ³				

ROUTE	TRUNKLINE	PROJACCOUNT	EVENT_USER
route	trunkline	projaccount	type
telecomop	pabx	extgroup	datetime
description ^{1,2}	route ²	description ¹	user
	description ^{1,2}		machine ¹
			description ¹

¹ These columns cannot be used as search parameters in the clause **where**.

² These columns can be modified with the command **update**, all the remaining are read-only. However, all columns (except those marked with ¹) can be used as search parameters in the clause **where** of the command **update**.

³ In table **CALLRECORD**, the columns names of cost and price may vary according to the configured currencies. For example, supposing that currencies EURO and USD are configured on EasyLynq, the returned columns would be **price_EURO**, **price_USD**, **cost_EURO** and **cost_USD**.

PERMISSIONS

Tables are accessible according to the access level of the EasyLynq user:

Table	Access level	Administrator, Sub-admin. and General Operator	PABX Operator	Department Manager and Department Chief	Group Manager and Group Chief	Normal User
callrecord		✓	✓	✓	✓	✓
event		✓				
pabx		✓				
extension		✓	✓	✓	✓	
group		✓	✓	✓		
route		✓	✓			
trunkline		✓	✓			
projaccount		✓		✓	✓	
event_user		✓				

The command **update** is only available to users with access level **Administrator**, **Department Manager** e **Group Manager**.

COLUMN FORMATTING

Almost all the columns are represented by character strings (CHAR). The following table shows the supported variants for special columns.

Column	Supported formats
datetime	TIMESTAMP (default) CHAR
ring conversation	ULONG (default) TIME TIMESTAMP CHAR
pulses	ULONG (default) DOUBLE CHAR
price_XXX cost_XXX	DOUBLE (default) CHAR

For example, an external application may ask the driver to return **datetime** data in the format CHAR instead of TIMESTAMP. An attempt to get data in an unsupported format will return an error.

A FEW SAMPLES OF SQL INSTRUCTIONS

```
select datetime,type from callrecord where datetime > '20-5-2013'
and type = 'I' order by datetime desc
```

- this query returns incoming call records since 00:00 of 20th of May 2013 till today, sorted descending.

```
select extgroup, extension, callcount = sum(*), totalprice =
sum(preco_EURO) from callrecord where (datetime>'01-5-2013') and
(tipo = 'OUTGOING') group by extgroup, extension order by
extgroup, extension
```

- this query returns four columns: 'extgroup', 'extension', 'callcount' and 'totalprice', sorted in ascending order by 'extgroup' and 'extension'. Each row will show the number of calls and the total price.

```
update trunkline set route='GSM', description='BRI' where
trunkline='123'
```

- modifies channel 123, changing its name to 'BRI' and moving it to route 'GSM'.

SNMP notifications



This feature is only available in versions Server and Hotel+.

EasyLynq implements two event types: user intervention and auto-recoverable. The former is intended for the kind of occurrences that are not counter-balanced by forthcoming events and implies some sort of user action to terminate the abnormal condition. The later is oriented for temporary irregular states that may eventually vanish without user intervention.

Each event is assigned one of the following eight severity levels, in ascendant order:

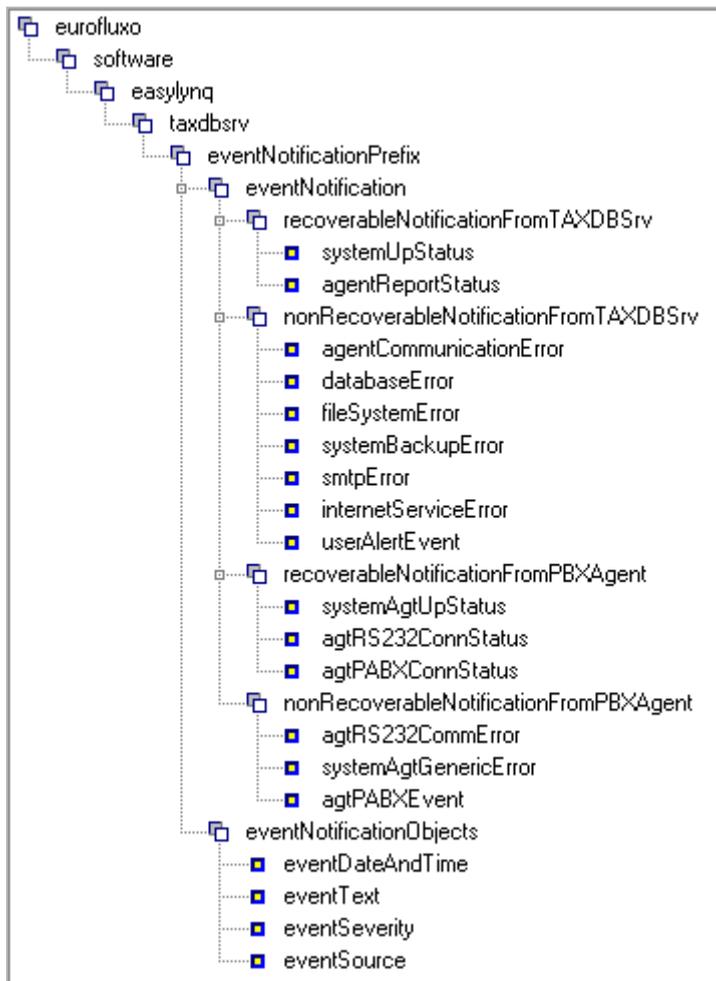
- 0 – End of condition (reserved for auto-recoverable events)
- 1 – Informational
- 2 – Notice
- 3 – Warning
- 4 – Error
- 5 – Critical
- 6 – Alert
- 7 – Emergency

Refer to EasyLynq user module on-line help to get more detailed information about trap generator events, severity levels and source entities. By design reasons, EasyLynq only generates SNMPv2c trap notifications.

Three files can be found in folder `\UTILITY\SNMP` of the installation CD for implementation and testing purposes: two MIB's (**M**anagement **I**nformation **B**ase) and the **TrapViewer** utility.

Make sure to install the **Windows SNMP trap service** and configure EasyLynq (**A**dministration menu > **P**roperties > **SNMP** property page) in order to use this feature.

The following picture shows the Eurofluxo/EasyLynq hierarchy tree as defined in the MIB files:



Installation notes

TAXDBSrv installation data					
Serial number	Identification of the licensed entity			City / Country	
Installation date	Computer name		IP address		
			. . .		
Password	Server name				
Drive / Directory					
Version	32 bits <input type="checkbox"/>	64 bits <input type="checkbox"/>			
Dimensions of the configuration tables					
Channels / Trunk lines	Project accounts	Extension groups	Extensions	Virtual extensions	
Voice server / PABX names					
PBXAgent interfaces					
Agent	No	Voice server / PABX	Extension sprefix	Channels prefix	Local extensions

PBXAgent installation data

Computer name		Interface No		Password	
Installation date		Version	32 bits <input type="checkbox"/>	64 bits <input type="checkbox"/>	
Equipment model					
Connection	V24 <input type="checkbox"/>	TCP/IP <input type="checkbox"/>	FTP / SFTP / TFTP <input type="checkbox"/>	HTTP <input type="checkbox"/>	Other <input type="checkbox"/>
Communication properties					
Interface data					

Computer name		Interface No		Password	
Installation date		Version	32 bits <input type="checkbox"/>	64 bits <input type="checkbox"/>	
Equipment model					
Connection	V24 <input type="checkbox"/>	TCP/IP <input type="checkbox"/>	FTP / SFTP / TFTP <input type="checkbox"/>	HTTP <input type="checkbox"/>	Other <input type="checkbox"/>
Communication properties					
Interface data					

Computer name		Interface No		Password	
Installation date		Version	32 bits <input type="checkbox"/>	64 bits <input type="checkbox"/>	
Equipment model					
Connection	V24 <input type="checkbox"/>	TCP/IP <input type="checkbox"/>	FTP / SFTP / TFTP <input type="checkbox"/>	HTTP <input type="checkbox"/>	Other <input type="checkbox"/>
Communication properties					
Interface data					

Computer name		Interface No		Password	
Installation date		Version	32 bits <input type="checkbox"/>	64 bits <input type="checkbox"/>	
Equipment model					
Connection	V24 <input type="checkbox"/>	TCP/IP <input type="checkbox"/>	FTP / SFTP / TFTP <input type="checkbox"/>	HTTP <input type="checkbox"/>	Other <input type="checkbox"/>
Communication properties					
Interface data					

Computer name		Interface No		Password	
Installation date		Version	32 bits <input type="checkbox"/>	64 bits <input type="checkbox"/>	
Equipment model					
Connection	V24 <input type="checkbox"/>	TCP/IP <input type="checkbox"/>	FTP / SFTP / TFTP <input type="checkbox"/>	HTTP <input type="checkbox"/>	Other <input type="checkbox"/>
Communication properties					
Interface data					

Computer name		Interface No		Password	
Installation date		Version	32 bits <input type="checkbox"/>	64 bits <input type="checkbox"/>	
Equipment model					
Connection	V24 <input type="checkbox"/>	TCP/IP <input type="checkbox"/>	FTP / SFTP / TFTP <input type="checkbox"/>	HTTP <input type="checkbox"/>	Other <input type="checkbox"/>
Communication properties					
Interface data					

Computer name		Interface No		Password	
Installation date		Version	32 bits <input type="checkbox"/>	64 bits <input type="checkbox"/>	
Equipment model					
Connection	V24 <input type="checkbox"/>	TCP/IP <input type="checkbox"/>	FTP / SFTP / TFTP <input type="checkbox"/>	HTTP <input type="checkbox"/>	Other <input type="checkbox"/>
Communication properties					
Interface data					

Computer name		Interface No		Password	
Installation date		Version	32 bits <input type="checkbox"/>	64 bits <input type="checkbox"/>	
Equipment model					
Connection	V24 <input type="checkbox"/>	TCP/IP <input type="checkbox"/>	FTP / SFTP / TFTP <input type="checkbox"/>	HTTP <input type="checkbox"/>	Other <input type="checkbox"/>
Communication properties					
Interface data					

Computer name		Interface No		Password	
Installation date		Version	32 bits <input type="checkbox"/>	64 bits <input type="checkbox"/>	
Equipment model					
Connection	V24 <input type="checkbox"/>	TCP/IP <input type="checkbox"/>	FTP / SFTP / TFTP <input type="checkbox"/>	HTTP <input type="checkbox"/>	Other <input type="checkbox"/>
Communication properties					
Interface data					