Dupline Carpark software manual

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1 Introduction

The Carlo Gavazzi Parking Guidance System (CG-PGS) is a Windows based software tool to monitor and control Carpark places. The CG-PGS consists of a client and a server part. The client is normally the PC the operator use to monitor and reserve parking places. In an easy way the operator can get a fully overview of the complete parking area and also help costumers with reservations.

The server receive data from the Master modules via the LAN. The received data is online data from the Carpark facility. All the data is stored in a database on the server. The Server is also used to design and programming the program for the Carpark places. Diagrams, pictures etc. can be uploaded as background for the programming.

It is possible to have many clients but there can only be one server in a system.

The server is the heart in the system. The server has all the programming and communicates with the entire Master modules through the LAN.

The client or clients, is also connected to the LAN. The client is for the operator of the system. It is possible to make static reports, view the Carpark status online, make bookings, view different kind of parking occupancy etc.

The Moxa is a standard Ethernet to RS485 converter. The configuration tool developed for the purpose does the programming of the Moxa. The configuration tool can be downloaded free of charge from our download page here.

The Master module GP3496 0005 700 works in groups of 16 modules for each Moxa. The Master module has its own unique ID by selecting the Dipswitch on the front. There are 6 dipswitches and 3 jumpers with a total of 512 unique addresses. Each Master module must have its own unique address.

1.1 System requirements

Client:
Operating Systems: Windows XP; Windows Vista; Windows 7
Processor: Follow Operation System requirement
RAM: Follow Operation System requirement
Hard Disk: Minimum 1 GB of available space
Display: 1024 x 768 high color, 32-bit (Minimum); 1600 x 1200 high color, 32-bit

Recommended:
24" display, capable of showing 1600 x 1200 pixels in high color.

Server:
Operating Systems: Windows Server 2003; Windows Server 2008; Windows XP; Windows Vista; Windows 7
Processor: Core 2 Duo 2GHz Pentium processor or equivalent (Recommended)
RAM: 2 GB (Minimum); 4 GB (Recommended)
Hard Disk: Minimum 10 GB of available space
Display: 1024 x 768 high colour, 32-bit (Minimum); 1600 x 1200 high colour, 32-bit

2 Hardware installation

The following pages are somehow technical, they give you knowledge of how to install the hardware parts of the Carpark system.

- Addressing the master modules
- Moxa setup
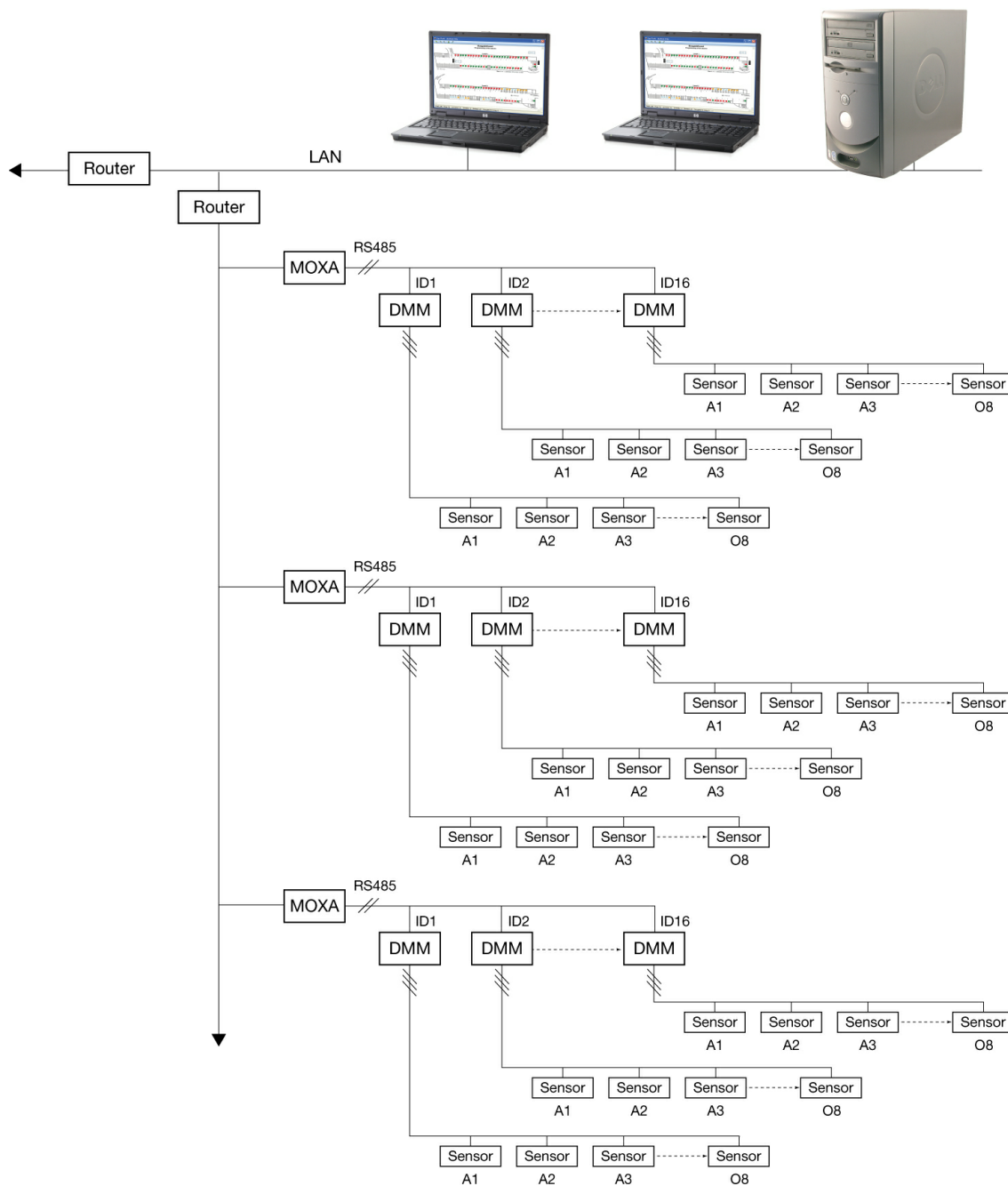
2.1 Addressing the master modules

The addressing of the master modules is done via dip-switches and jumper settings in the module. *Two Master modules may not be assigned the same address*. A total of 6 switches make the possibility of 64 Master modules on the system, and with a total of 127 sensors on each module, gives a total of 64 x 120 = 7680 parking places that can be monitored.

However, we recommend the use of max 60 sensors pr. Master module. The reason is current consumption/voltage drop of the bus lines.
This can be further investigated in the Carpark installation manual.
This gives a practical setup of 64 x 60 = 3840 Carpark sensors in the parking facility.

For larger Carpark systems the address range can be expanded through 3 jumpers on the internal PCB of the Master module. The extra 3 bits in the address expands the capacity by a factor of 8, thereby making it possible to manage Carpark systems in excess of 20000 places.

The DMM (Dupline Master Module) is addressed by means of 6 dip-switches on the front. Switch 1 is the MSB, switch 6 is the LSB, so a master module address number 38 is binary 100110, so the dip-switch setting will be on-off-off-on-on-off

The 4 least significant bits of the DIP-switches defines the Modbus device address of the DMM's connected to the Moxa interfaces.

Note: Two master modules connected to one Moxa may not have the same Modbus device address.
Note: The addresses of the sensors connected to the master modules must follow in an increasing order, and starting with address A1 (e.g. A1, A2, A3, A4 ... F2)

The software will find the addresses of the master modules automatically, and will communicate with them as soon as the connection is established.

2.2 Moxa setup

Moxa:
Network settings.

Serial setting for each port.
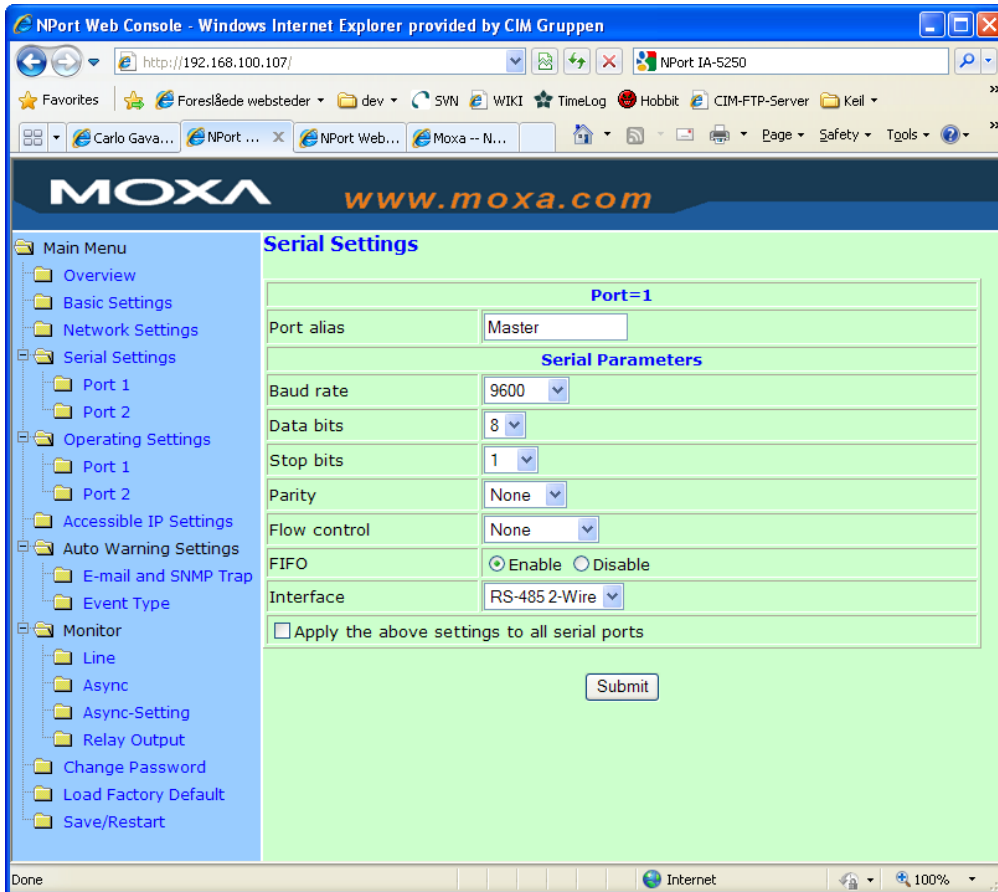
Operating setting.
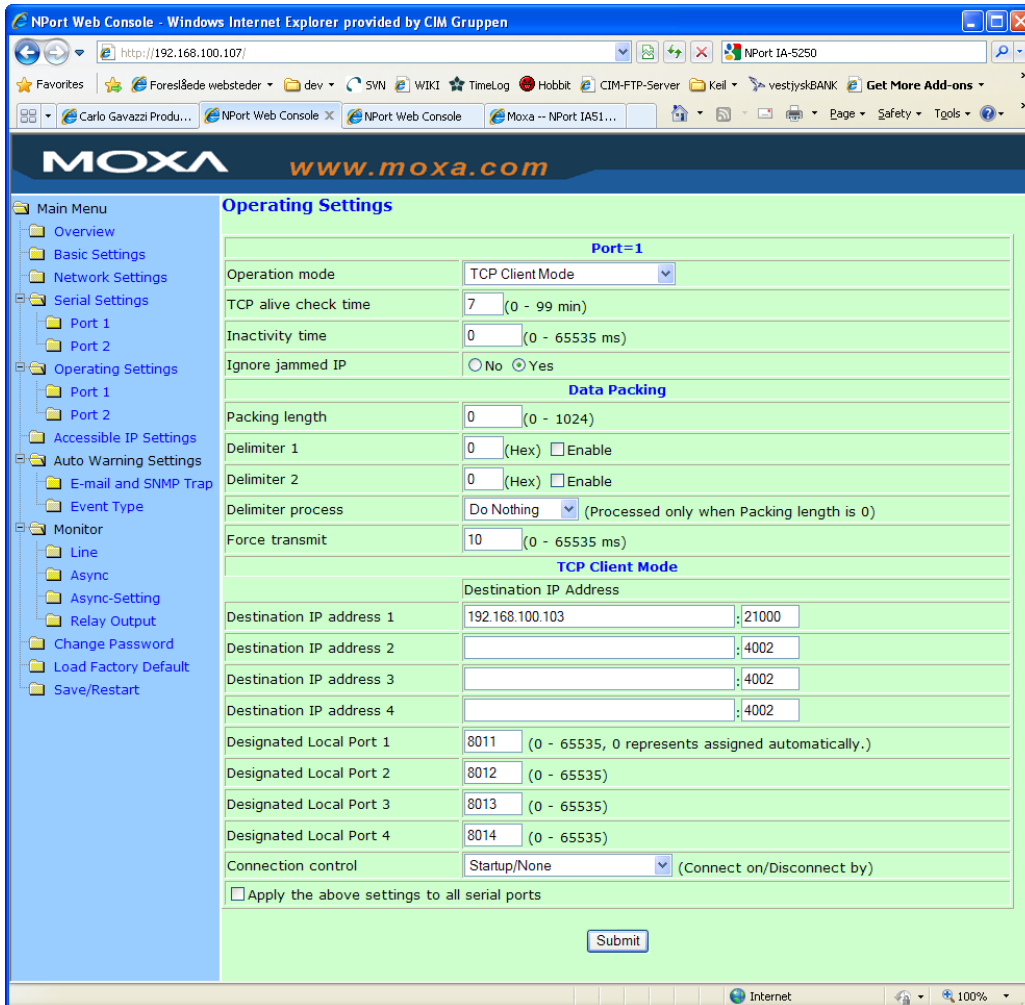
"Destination IP address 1" must be the server host / IP address. The port must match the adjusted port on the server. See installation of the server later under section "Carpark Software installation".

3   Software installation

To have full control over the software design of the parking facility, you need the Microsoft SQL Express 2008 Server Management Studio, which can be downloaded here. The version includes all the child application needed, so no further download is necessary for this part.

The software consists of two applications, the server and the client.

The Client and the datasheet can be downloaded on our homepage from the link above. The Server can be purchased from your local Carlo Gavazzi dealer.

The Carpark Client software can be downloaded from Carlo Gavazzi's homepage here. The Server can be purchased in different versions, depending of how many parking places that is to be monitored.

Install the Carpark server on the PC that is dedicated to act as the server.

Install the Carpark Client on each PC that is to be used as monitoring/controlling workstations.

4   Start of program - client

Locate the application in your start menu - normally found under 'Carlo Gavazzi' - 'Carpark Client', where the start item for the Carpark Client is located. Click the icon to start the application.

When the application starts, you must insert the right user information to get in contact with your Carpark monitoring facility.
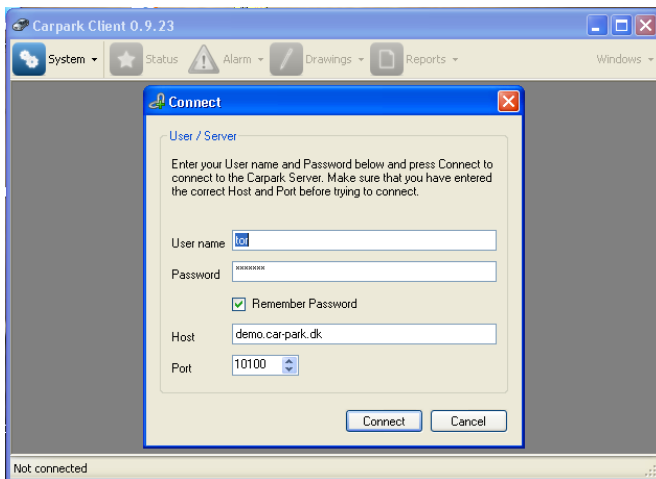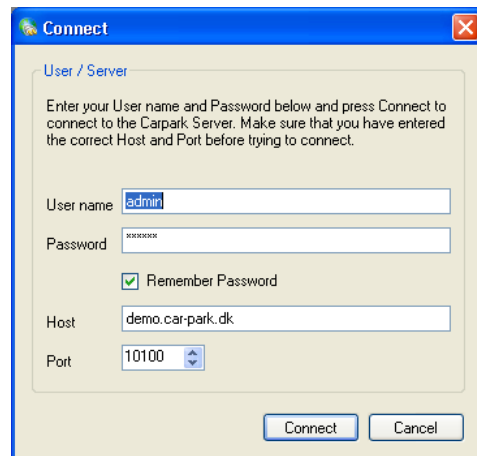

Fig.1

Fig.2

Fig.3

Fig.1 shows the startup/welcome screen, where a login is required.
Fig.2 contains an example of login info. The User name and password is provided to you when you receive the license of the Carpark program.
Check the box 'Remember Password' if you want a quick connection, uncheck this box to keep the security at a higher level.
The 'Host' name and 'Port' number can be found in the license information.

When all the fields are correct filled in, the 'Connect' button can be pressed, and the application is started, indicated as shown in **fig.3**.

- Continue with How to use the client.

5 How to use the Server

The purpose of the Carpark Server is to act as a link between the Carpark facility and the Clients that have access to it.

The Carpark Server is to be installed on the PC that runs the application, and has connection to the Master Modules of the installation, either directly through LAN, or via Ethernet/Internet. The physical location of the server is not necessarily on the Carpark installation, but can be anywhere else, where an internet connection is available, provided that the ethernet adaptors at the facility are connected to the internet in some way. (See the 'Addressing the master modules' paragraph).

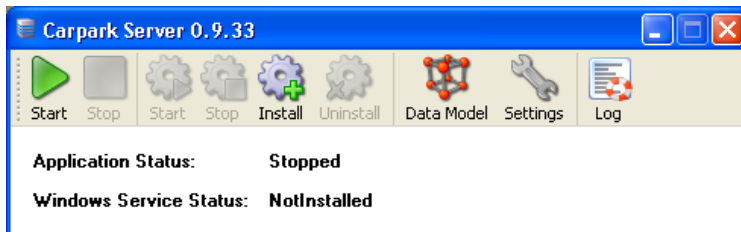Once the server is installed and started, the picture in **fig.1** appears.

Fig.1

If the installation is set up, and ready to run, proceed to the 'Starting an existing installation' paragraph. This should only be necessary if the server has been stopped, by any reason - normally the server runs without interruption.
If the Server is stopped, no data will be logged.

If a new installation is made, and the server needs to be started up for the first time, proceed to the 'New installation' paragraph.

5.1 New installation

The new Carpark installation needs to be connected to the PC that runs the data link between the parking facility and the clients that visualizes the data and status of the Carpark facility.
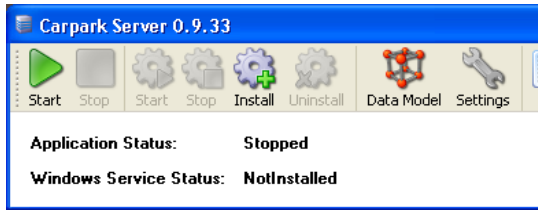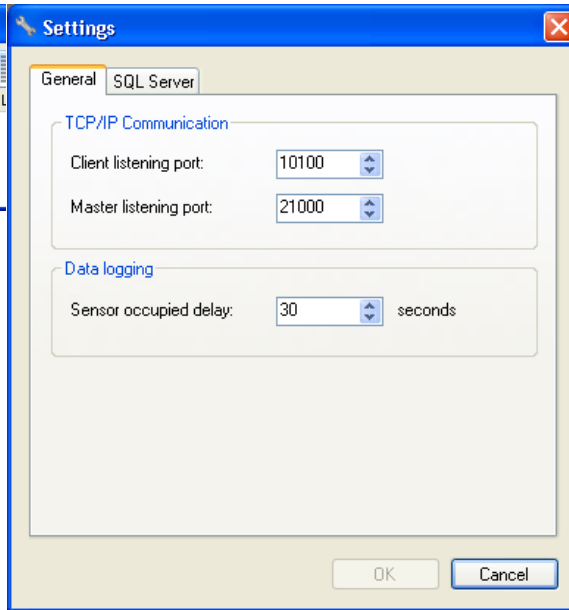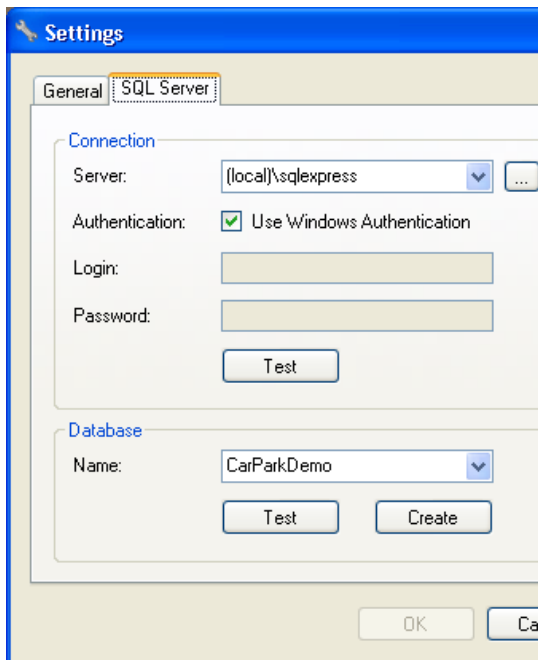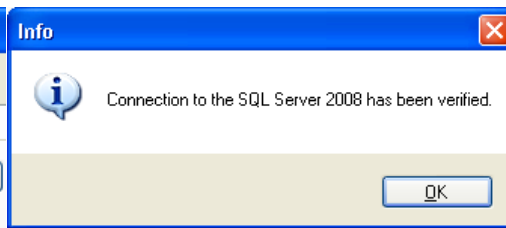
Fig.1

Fig.2

Fig.3

Fig.4
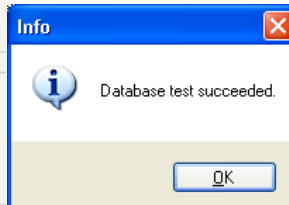
Fig.5

Fig.6
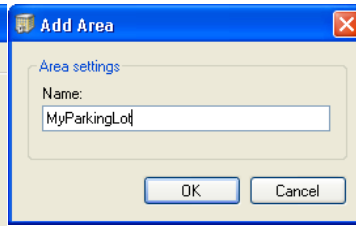
Fig.7
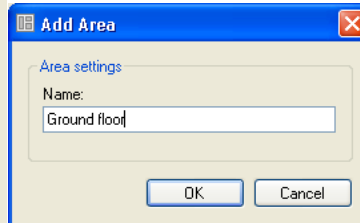
Fig.8
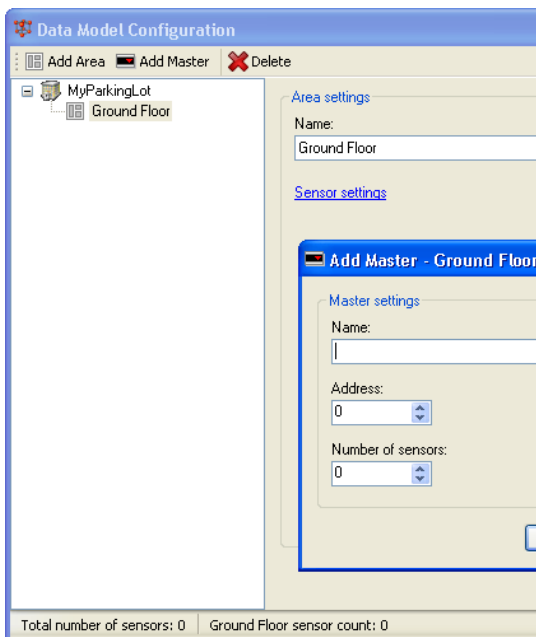
Fig.9
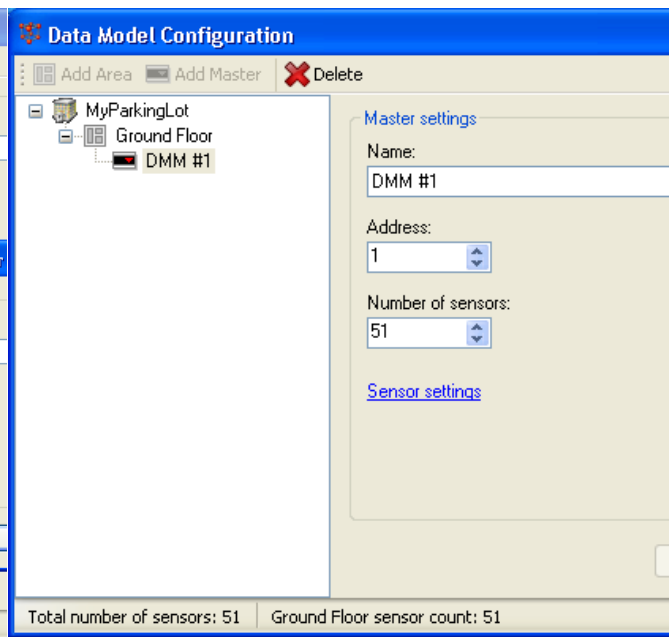
Fig.10

Area Name	Master Address	Master Name	Address	Nan
Ground Floor	1	DMM #1	A1	1/A
Ground Floor	1	DMM #1	A2	1/A
Ground Floor	1	DMM #1	A3	1/A
Ground Floor	1	DMM #1	A4	1/A
Ground Floor	1	DMM #1	A5	1/A
Ground Floor	1	DMM #1	A6	1/A
Ground Floor	1	DMM #1	A7	1/A
Ground Floor	1	DMM #1	A8	1/A
Ground Floor	1	DMM #1	B1	1/B
Ground Floor	1	DMM #1	B2	1/B
Ground Floor	1	DMM #1	B3	1/B
Ground Floor	1	DMM #1	B4	1/B
Ground Floor	1	DMM #1	B5	1/B

Fig.11

Step 1) To set up a new Carpark facility, the following procedure is to be followed:

- Start the Carpark Server application. The window, as seen in **fig.1** appears. Click the 'Settings' button.
- The window shown in **fig.2** will appear on your screen. Note that the 'General' tab is active. Set the port numbers to: 'Client:10100' and 'Master:21000'. The 'Sensor occupied delay' is set to 30 seconds.
- Select the 'SQL Server' tab. The windows changes to look like **fig.3**. The 'Server' name should read '(local)\sqlexpress'.
- In the 'Connection' area of the window, click the 'Test' button. An info box like **fig.4**, with a connection verification should appear. Click 'Ok' in this window.
- In the 'Database' area of the window, select the 'Name' of your database, or write a new name in the field, and click 'Create' when done.
- Click the 'Test' button in the 'Database' area. An info window like **fig.5** with test succeeded should appear. Click 'Ok' in this window.
- Click the 'Ok' button in the 'Settings' window.

Now the initial Server window (**fig.1**) is visible on the screen. Click the 'Data Model' button. A window like **fig.6** appears.
- Click the 'Add area' button. A dialog box with the 'Name' of the Area settings is visible. Type a name for your Carpark facility. (The example uses 'MyParkingLot', shown in **fig.7**). Click 'Ok'. Now the Database is created with your facility.

Step 2) The next step is to add a parking area in your base - it can consist of one or more levels. Add one:
- Click the 'Add area' button, and a new window appears, as shown in **fig.8**. Add a name for the level - e.g. 'Ground Floor'.

Now a DMM (Dupline Master Module) is to be added. Click the 'Add Master' icon. The visible windows should look like **fig.9**.
Give the DMM a name, an address, and insert the number of sensors that are connected to it. (refer to the 'Addressing the master modules' paragraph).
- Insert a 'Name' - e.g. 'DMM #1'
- Set the address of the DMM - in this example '1'
- Set the number of sensors connected to the DMM - in the example '51'
- Click 'Ok'

Now the window should look like **fig.10**.

Click the 'Sensor settings' that is selectable in the 'Master settings' area of the window. The window like **fig.11** appears.

Here are all the settings that you have made visible - plus a possibility to set any of the sensors (parking places) as 'Handicap' parking places.

At this point, adding more levels and more DMM's are done as a repetition of step 2.

Once finished, the server is started by clicking on the 'Start' button.

You can now continue to create a new drawing of your Carpark facility - this is described in the 'How to create a new Carpark drawing' paragraph.

5.2   Starting an existing installation

Locate your 'Carpark Server application on the server's disk, and start it.
The window in **fig.1** should appear.
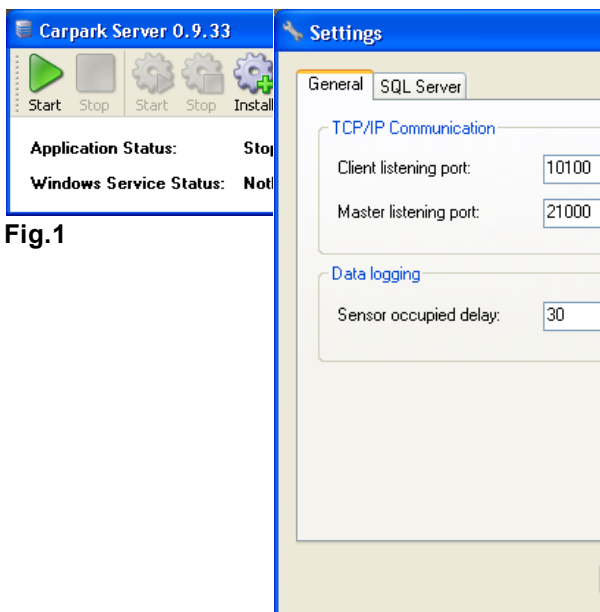
Fig.1

Fig.2
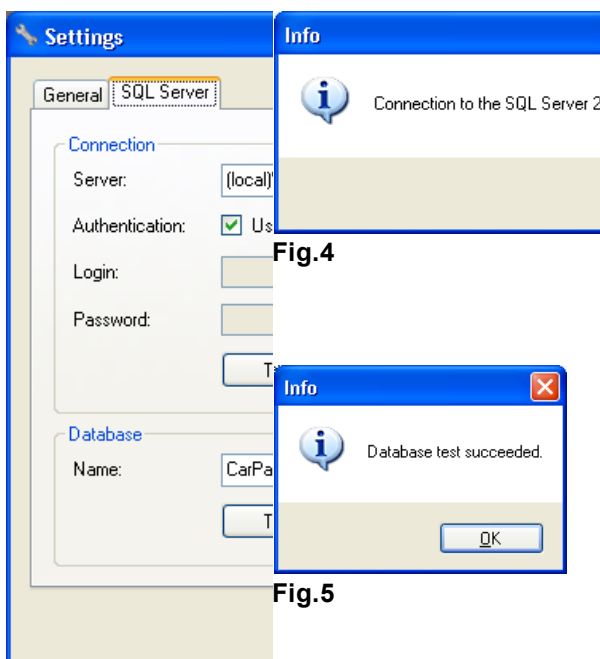
Fig.4

Fig.5

Fig.3
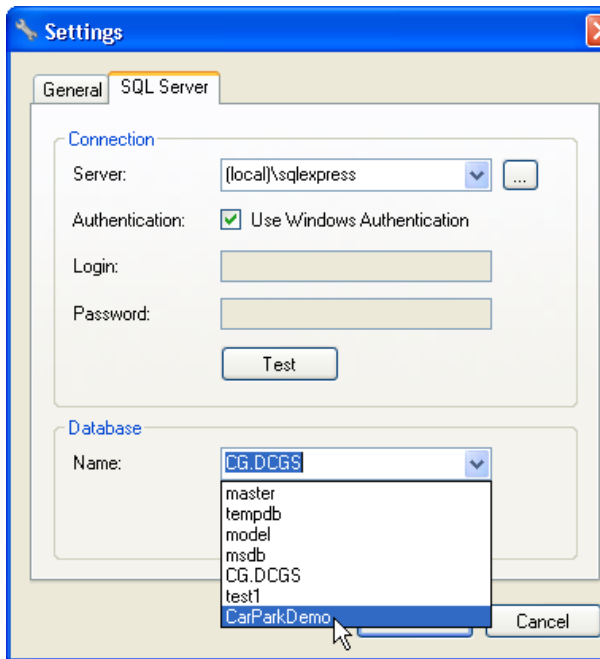
Fig.6

- Click the 'Settings' button, and the window in **fig.2** appears.
- In the General' tab, select the appropriate port numbers
- Select the 'SQL Server' tab. The window in **fig.3** appears.
- In the 'Connection' part of the window, click the 'Test' button - a message like **fig.4** appears. Click 'Ok' in this window.
- In the 'Database' part, select the database of your interest that appears in the drop-down menu, illustrated in **fig.6**.
- Click 'Ok', and close the 'Settings' window.
- Now the Server window (like **fig.1**) appears.
- Click the 'Start' button, and your server is running.

6   How to use the Client

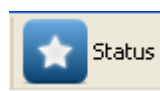Once started, the first screen looks like in fig.1
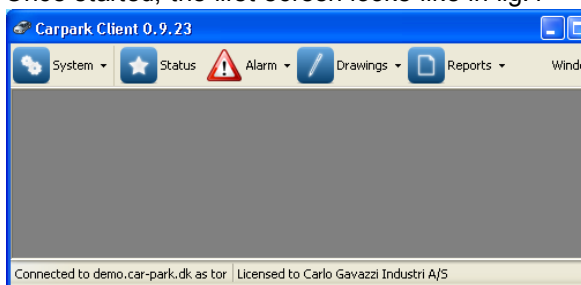
Fig.1
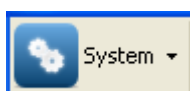
Fig.2

Fig.3

Fig.4

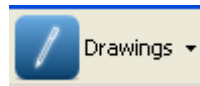**Fig.5**

Fig.6

You have, at this point, 4 possible selections:

- The System entry (see fig.2)
- The Status entry (see fig.3)
- The Alarm entry (see fig.4)
- The Drawings entry (see fig.5)
- The Reports entry (see fig.6)

6.1   System

Press the 'System' button, and a window much similar to fig.1 appears. Depending of your rights, you have four possible entries here, either 'Disconnect' or 'Connect', 'Change Password', User management', and the 'Log'.
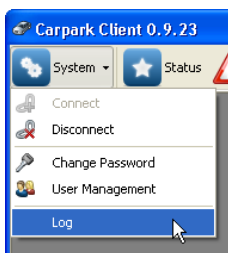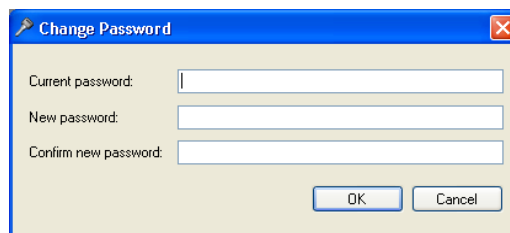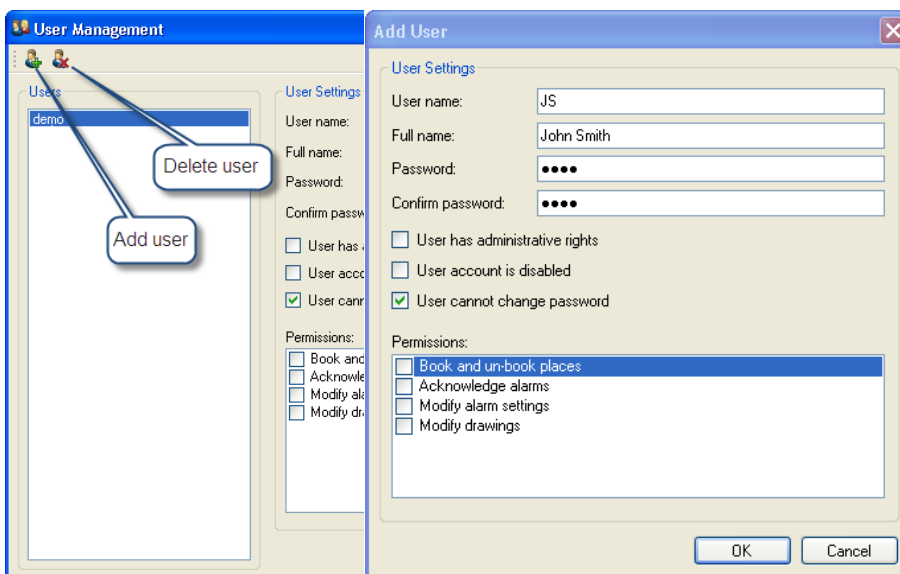

Fig.1

Fig.2

Fig.3

Fig.4

- When the server is started on your system, you can establish or cancel the connection via this menu entry, simply by entering 'Connect' (if you are disconnected), or 'Disconnect' (if you are connected).

  About Connection, see the logon info in the paragraph 'Start of program'.

- The 'Change Password' - see fig.2 - is the management of the password used to get access to the client software. Enter your current password in the top field, and a new password in the mid and bottom fields.The password must be min. 2 characters, max 20 characters, and must contain min. 1 capital and min. 1 lower-case letter.

- The User Management - see fig.3 - is the administration part of the users of the Carpark clients. Here you have the possibility to add, edit and delete users of the system.

  New User: If you have administrative rights, you may add new users in the system - click 'Add User'. The 'Add user' window - see fig.4 - appears, and you can insert all relevant data for the user. The 'User name' is the login id that the user applies in the login window, and must be different from other registered users. *The selected characters used in the name are case sensitive!* The password for this user is selected in the 'Password' field, and repeated in the 'Confirm Password' field to avoid misspelling. *The selected characters used in the password are case sensitive!* Select which level of rights the user will have in the relevant fields: 'User has administrative rights' - User can add new and delete other users 'User account is disabled' - User is registered, but cannot logon to the client. Used to temporary disable the account. 'User cannot change password' - Nothing else than what the menu point says.

  Permissions: Check the relevant boxes to permit for the user the following parameters: 'Book and un-book places' - the user may maintain booking and un-booking of the facility's parking places. 'Acknowledge alarms' - The user may acknowledge an alarm. This is only an acknowledge, not a reset of the alarm. 'Modify alarm settings' - The user may alter settings of the selected alarms, or make new alarm setup. 'Modify drawings' - The user may alter the drawings.

- The Log selection leads you to the log files created of the server of the Carpark system. The log files are a very good help in troubleshooting. Send the log files to your local Carpark supplier, if help is needed.

6.1.1   Log view

The Log view allows you to view the log files created on your system at all times.
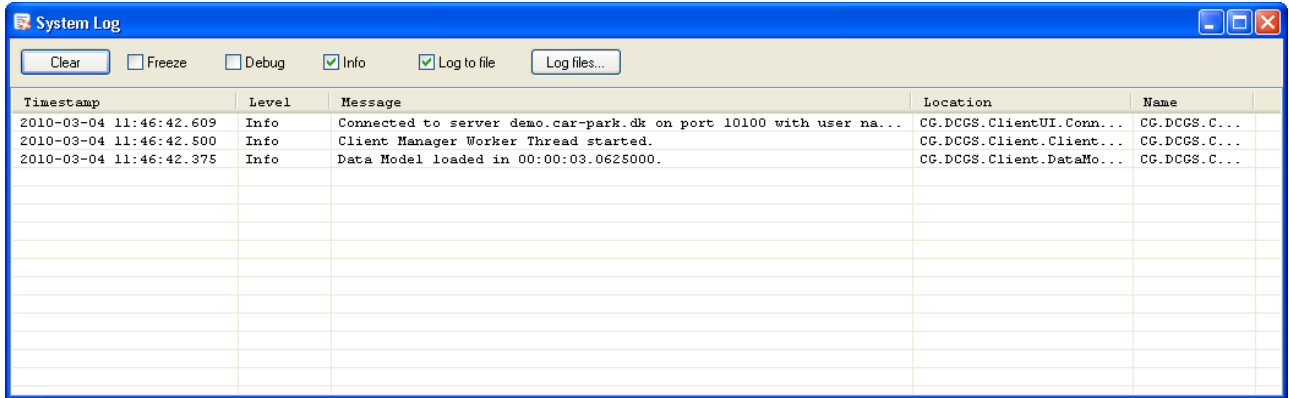
You can clear the log by pressing the 'Clear' button. (!) You have the possibility to 'Freeze' the log event handler - by checking this box all data will be logged, but the screen is not updated, until the box is cleared.

The 'Debug' is normally unchecked, the information window will be updated with all events that the system logs if this box is checked. The Debug is normally used in fault-finding situations only.

The 'Info' box is normally checked, the normal information of the Carpark's status will be visible, giving the user the information he normally needs, and nothing more.

The 'Log to file' will add the data logged to the log file that is created on the disk. These can be selected and viewed by clicking the 'Log files…' button.

6.2 Status

The Status can be viewed in two different ways, graphical or table mode. The information is a momentary 'screen shot' of the Carpark facility, updated approx. every 15 seconds.

Fig.1

Fig.2

Fig.3

Fig.1 shows the 2 selection possibilities, the Chart and the Table. You can select which view you want

by selecting the proper tab.
The red bars indicates the percentage occupied parking spaces, and the green bars indicate the vacant places.
In case of an error, this is indicated by a shaded box. (Not illustrated).

Fig.2 shows an example of an actual Carpark facility, where the occupancy can be monitored graphically, in order to get a quick status view.

Fig.3 shows the Table version of the same facility, showing more information than the graphical way. The information is self-explained.

6.3 Alarm

The Alarm function can help you to access an overview over certain places that are low-frequented, or places, where a vehicle is registered over a long time period. From here, the user can manage the setup of the alarms.
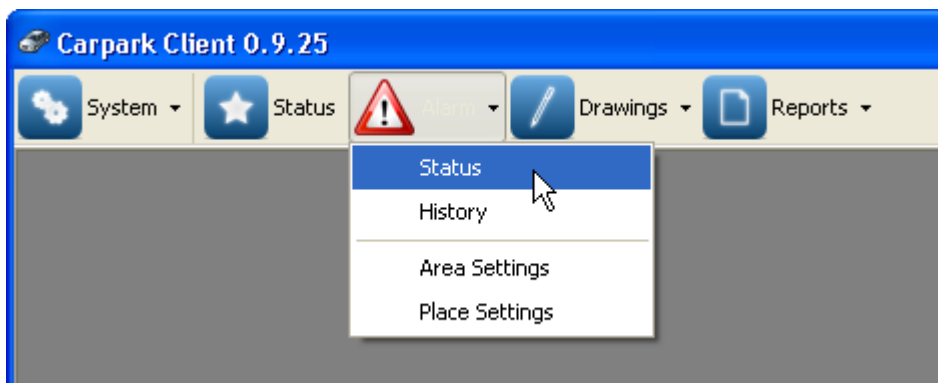
Fig.1a shows the menu access point

- Status
- History
- Area Settings
- Place Settings

6.3.1 Alarm status

The alarm status gives an overview over alarms, and also the handling of acknowledgements of each alarm.
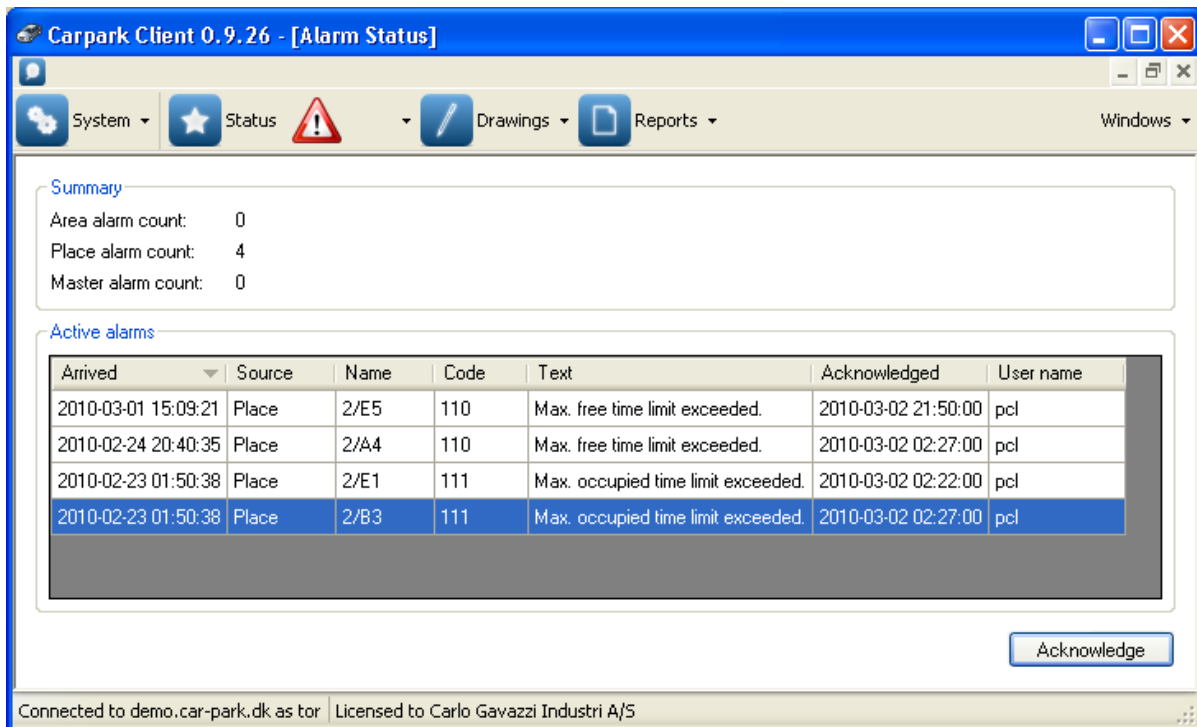
Fig.1

Fig.1 shows an example of alarms that has occurred in the Busgaden Carpark facility.

The summary field gives information of the total number of counts of Area alarms, Place alarms and Master alarms.

In the active alarms section of the window, you have full visibility over the alarms that has occurred, with details of which source the alarm is coming from, the name (the number and address of the sensor), a code, a text that describes the reason of the alarm. If the alarm has been acknowledged, you can see when, and by who. You can, by highlighting the alarm and clicking the button 'Acknowledge', acknowledge it (you cannot remove the alarm).

6.3.2   Alarm History

The alarm history gives a review of the alarms that has been registered through a time period, set in the 'Filter' part of the Alarm history window. To set the time period, select a 'From time' date and time, then choose to let the suggested date/time in the 'To time' field be, or select another date/time, and then click the 'Apply' button.

Fig.1

Once a time period is selected, the alarms for this period is shown.

The 'Occurred' column indicates the date and time when the alarm occurred.

The 'Disappeared' column shows the date/time when the cause of error disappeared.

The 'Source' column shows the origin of the alarm.

The 'Name' is the unit that has reported the error to the Carpark client application.

The 'Code' is a number that can be used in a fault-finding procedure, but is only a number.

The 'Text' gives some information of the reason of the alarm.

The 'Acknowledged' and 'User name' tells whether the alarm has been responded to, and by who.

6.3.3   Area setting

The alarm can be set to alert you whenever the minimum free places is below a certain number, set by the user.
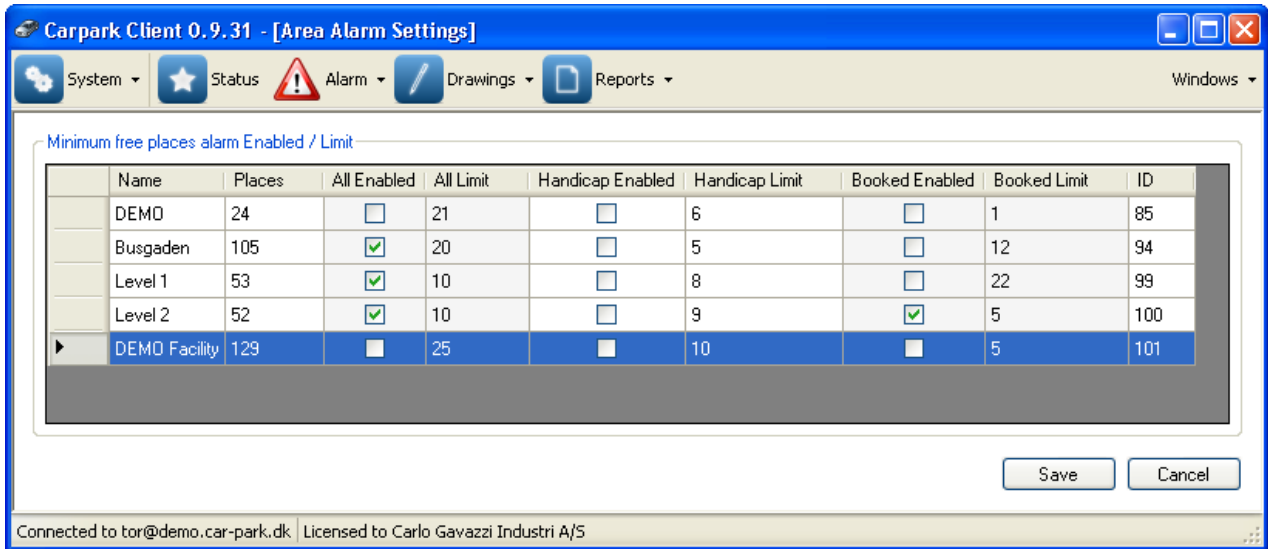
Fig.1a shows a setup of the minimum free places alarm part.

The view gives information of the different areas the Carpark client can access, and gives an overview of the overall settings of each area.

The 'Name' column is the Carpark facility, or a part of one, and is indicated by the name of this.
The 'Places' tells you how many places that are available in total in that area.
In the 'All Enabled' you can select if you want to activate the free places alarm, with an alarm event if the number of free places are less than the number set in 'All Limit'.
The same is valid for 'Handicap enabled', Handicap Limit', and 'Booked Enabled' and 'Booked Limit'
The numbers in the 'limit' fields are direct changeable by double-clicking the actual field.

Remember to 'Save' any changes, or 'Cancel' if you regret your latest changes.

6.3.4 Place setting

All the settings in the setup requires that you are allowed to make changes to the Carpark facility.
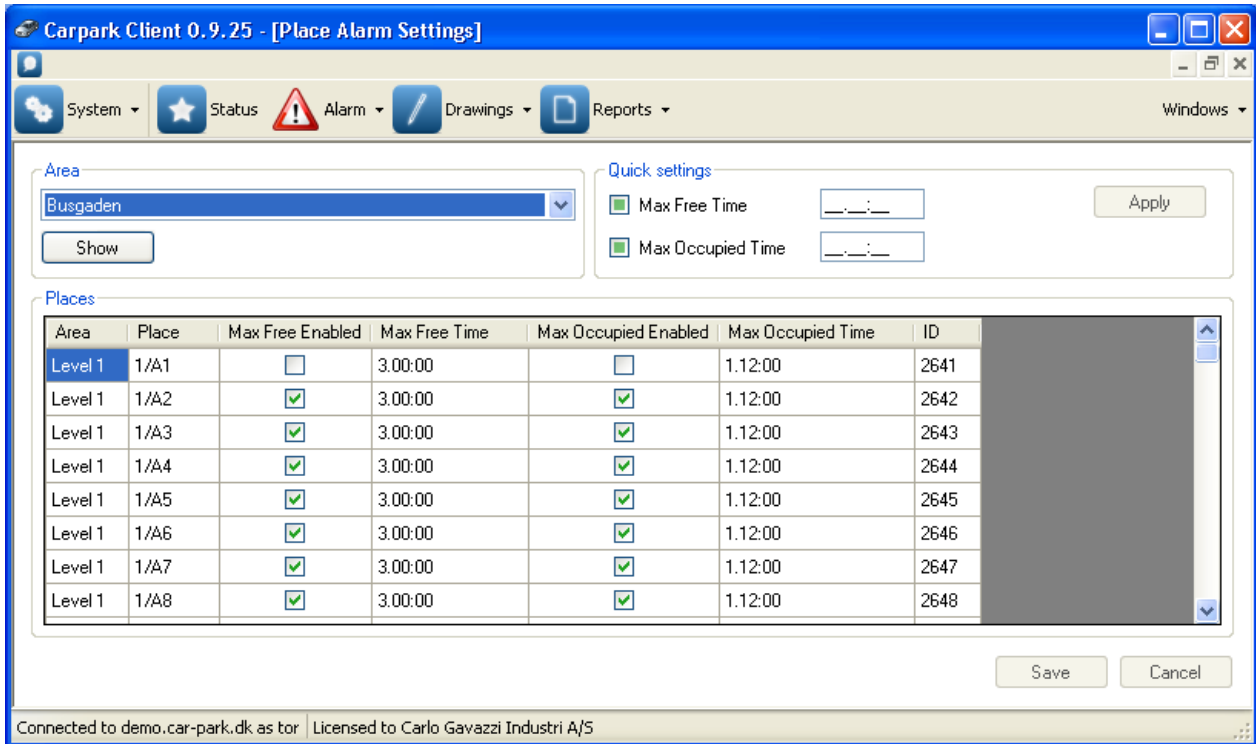
Fig.1
In the Area part of the window, the wanted Carpark facility can be selected - click 'Show' when the wanted facility is selected.
The Places part of the window will show the alarm setting possibilities for each place, sorted on sensor level.

If you have these rights, you are admitted to set up the alarm for one place at a time, or for all places at once.

To set the alarm for all places in one time, use the Quick settings part of the window:
Check the box 'Max Free Time' or 'Max Occupied Time', or both, and insert the time in the boxes to the right. The time must be complete filled in, in the format dd.hh.mm (days.hours.minutes).
Once done, click the 'Apply' button to activate the settings on all parking places.

You may set the time limitations directly by clicking the respective fields. Double-click the field, and type directly the time, in format d.hh.mm.

The 'ID' indicates an id for the specific parking place.

6.4   Drawings and bookings

Open your Carpark client program.
Click the 'Drawings' button. If any, you can open the different drawings available on your client, as illustrated in **fig.1**.
If you see the 'Busgaden - Live Data' - select it. If it's not here, select another Carpark facility - the only difference is the background picture, the icons and symbols used are common for all drawings.
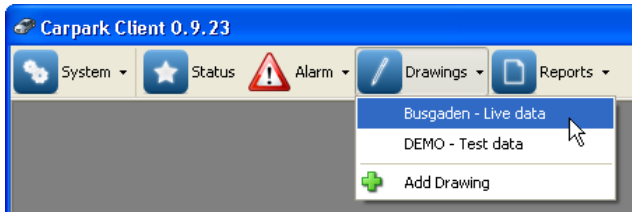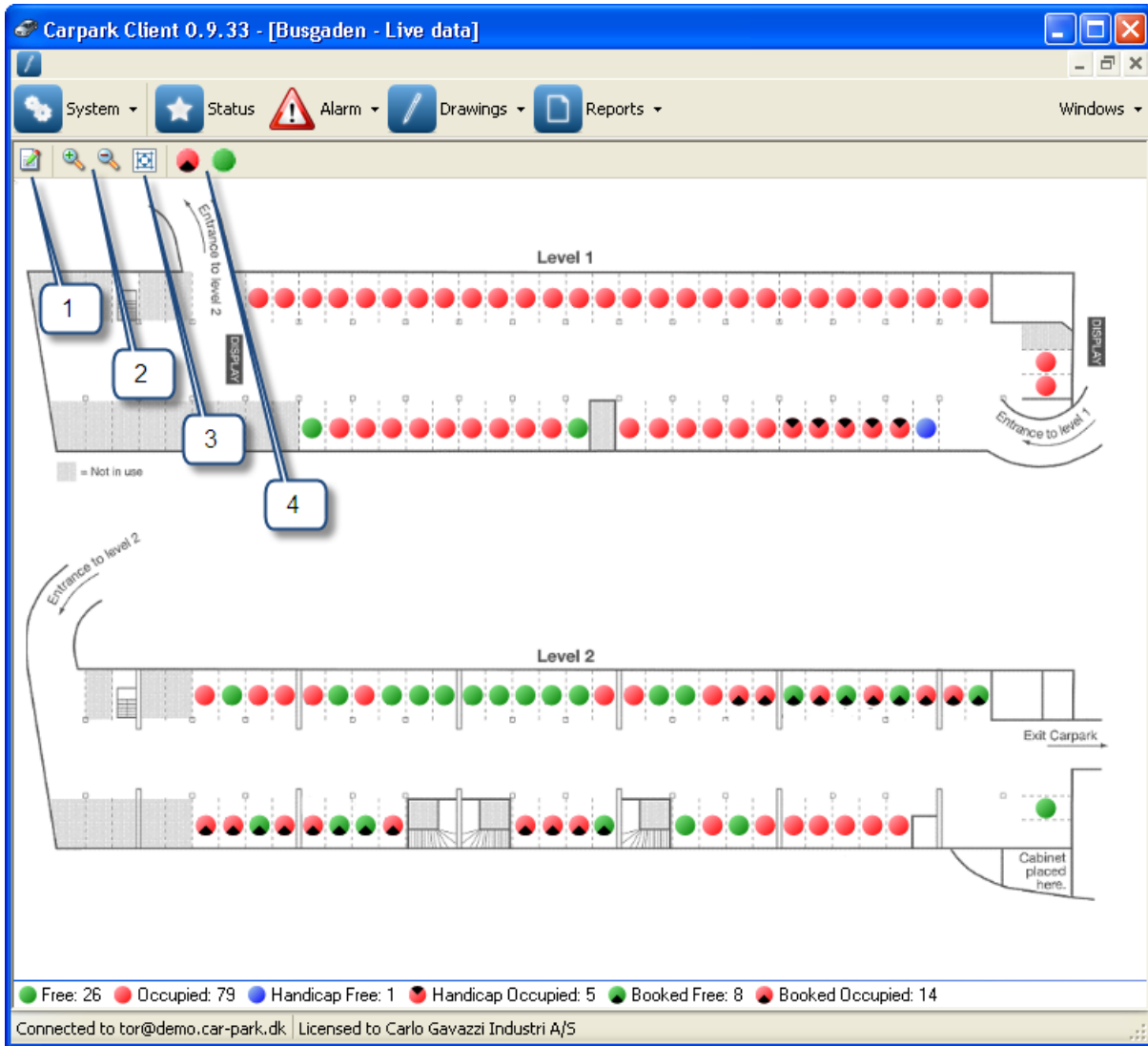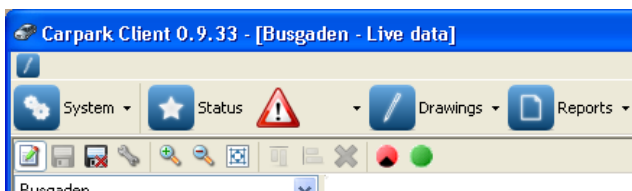
Fig.1

Fig.2a

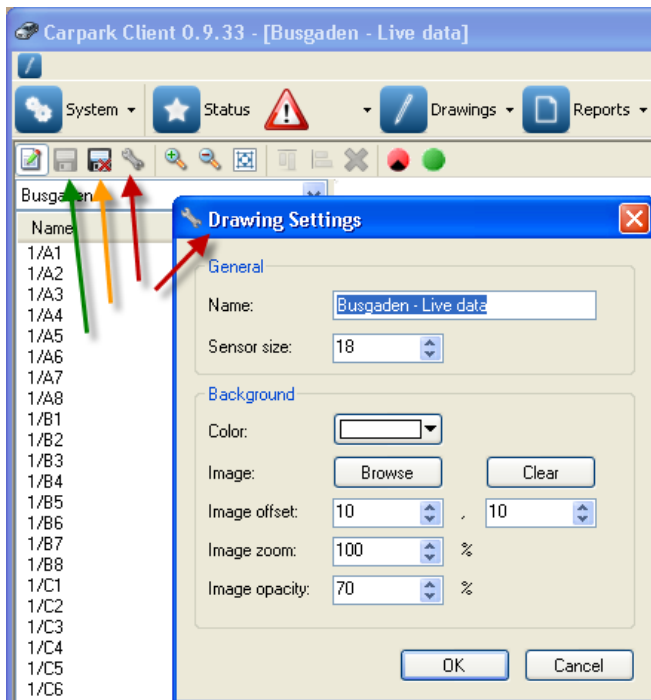**Fig.2b**

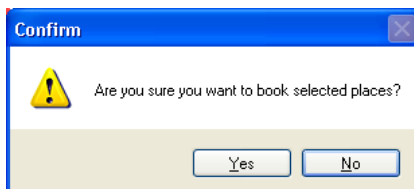**Fig.2c**

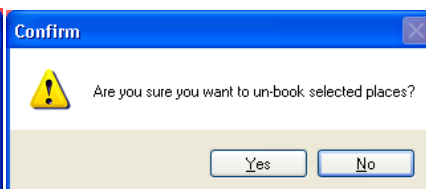**Fig.3 Symbol explanation**

Fig.4a   **Fig.4b**

To read more about the editing possibilities, selected with the icon that is indicated with the arrow #1 (in **fig.2**), read more in the chapter 'How to create a new Carpark Drawing'

The window that opens, will look more or less as in **fig.2a**.
Clicking the icon in **fig.2a** with pointer #1 refers to the 'Edit' button, expands the menu to **fig.2b**. In this menu you have the possibility to edit the drawing of your Carpark facility.
In **fig.2c**, by clicking the key wrench icon (red arrow), you find the 'General' settings field (red arrow) - the name that the facility is expected to have, and the Sensor size on the drawing.
You also have the 'Background' field, where the color can be set, the image that you want to see on your screen can be selected, and the settings concerning the offset (placing on the screen), zoom (the size) and opacity can be set.
Once set, click 'Ok' to activate your latest settings.
You may delete the active drawing by clicking the diskette icon (orange arrow) - be careful, don't do this unless you are absolutely sure!
Once you have made changes to the drawing, it can be saved to disk, using the diskette icon (green arrow).

The pointer #2 and 3 (**fig.2a**) refers to the zoom and fit to window icons. Clicking these icons zooms in or out, or fits the drawing in your current window size.

The colored circles shows the Carpark sensors that are mounted over each parking space, indicating free, booked and occupied spaces.

The icons can be seen in the status line of more windows of the client program.

Fig.3 shows the different indications, tagged from 1 to 12, of the status of the parking spaces.

No.1 is a free (vacant) place.

No.2 is an occupied place.

No.3 is a free handicap place

No.4 is a booked (reserved) place, on which no vehicles is placed.

No.5 is a booked place, where a vehicle is sensed.

No.6 is a booked handicap place, on which no vehicles is placed.

No.7 is an occupied handicap place.

No.8 is an occupied, reserved handicap place.

No.9 is a sensor with error indication.

To make the drawing fit in the window, press the icon indicated with arrow #3 (in **fig.2**).

To expand or reduce the window, click the respective 'magnifying glass' + or -, indicated with arrow #2

If you have the rights to **book places**, the following paragraph tells you how to do this:

To book a place, first select the parking place by clicking on it. Then click the red 'book' icon, indicated by arrow #4 (in **fig.2a**). The dialog box shown in **fig.4a** appears. Select 'Yes' to accept, 'No' to reject booking.

To cancel a booked place, select the place by clicking on it. Then click the green 'free' icon, indicated by arrow #4. The dialog box shown in **fig.4b** appears. Select 'Yes' to accept, 'No' to reject cancelling.

6.5   Reports

You can make reports of the status of your Carpark facility by many parameters:

Free, occupied and booked status of normal and handicap parking spaces, and traffic in your facility.

These reports can be made graphically, or on number basis - whether you like a quick view, or if you want to crunch the numbers to make more statistical material.

The 'Occupancy' and 'Place statistics' information can be accessed via the menu point 'Reports', as shown below in **fig.1a** and **fig.1b**.
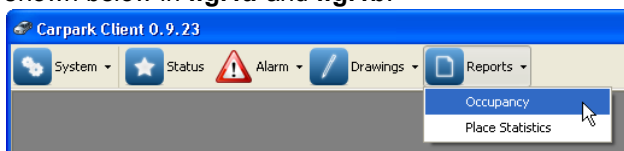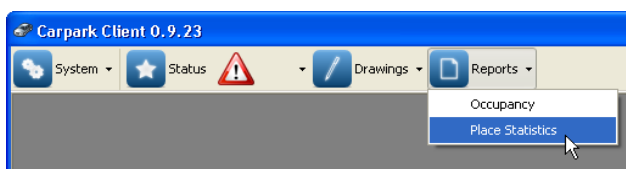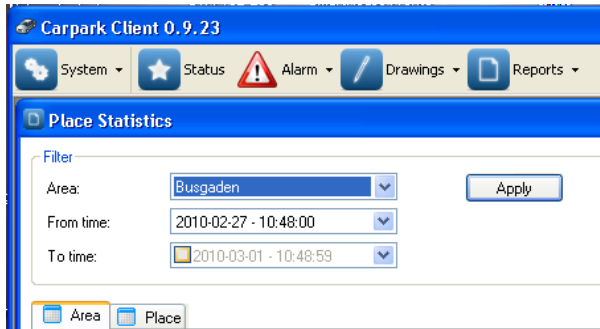

Fig.1a

Fig.1b

Fig.1c

Fig.1c shows the window with the time period to be selected, in the 'Filter' part. Choose the wanted 'Area' that you want information from in the drop-down menu.
Then select the wanted 'From time' - presented in date and time format in the drop-down menu.
If you want another 'To time' than today, select it in the drop-down menu, where the wanted date and time can be selected.
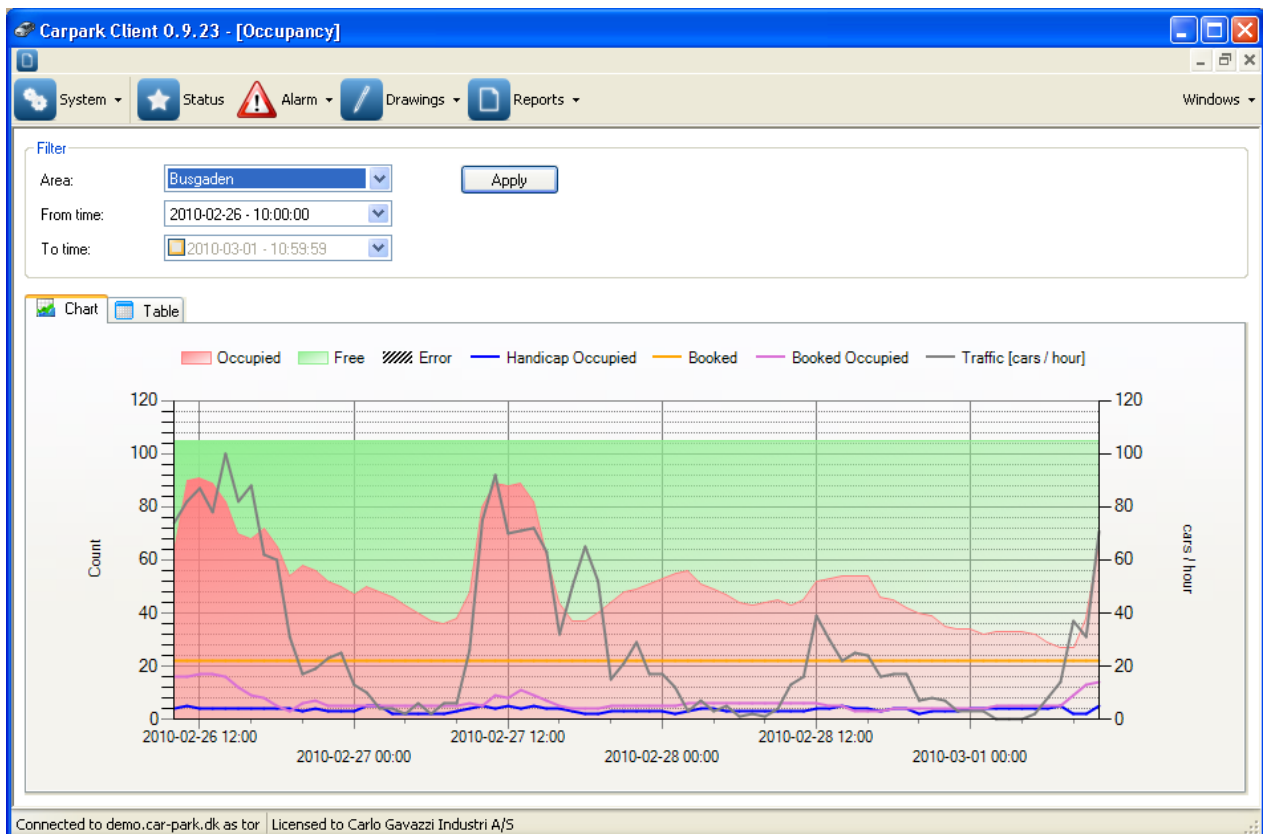Once selected, click the 'Apply' button.

6.5.1   Occupancy

Fig.2b

If the 'Chart' tab is selected, a window like **fig.2b** is shown. The information shown is the occupied and free places are shown graphically. The red part of the graph indicates the occupied places, filling up the green background as the area is filled up, or reduced as the places are freed up. The top of the green area indicates the total places of your Carpark facility.
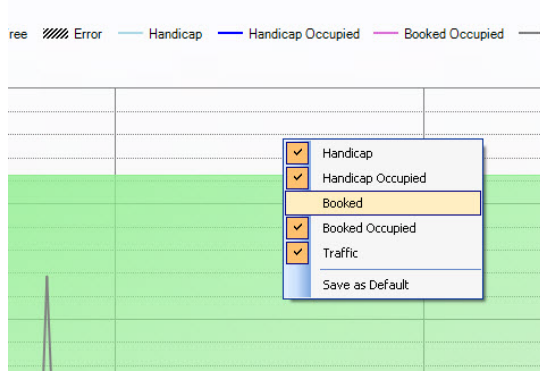
Fig.2c

Right-clicking in the graph gives you the possibility to add more, or reduce the information contents of the window. **Fig.2c** shows that all information but 'Booked' is selected, and viewable in the chart.

Fig.2d

Fig.2d shows the same information that is viewed in **fig.2b**, but in numerical, because the 'Chart' tab is selected. The information is displayed in columns, and the information is calculated since last 'Timestamp'.

The 'Occupied' and 'Free' columns indicate total free and occupied places. The 'Arrivals' tells you the number of free places that has changed to occupied, and 'Departures' are the numbers that are freed up. The 'Traffic' is a calculation based on the arrivals and departures numbers.

The 'Handicap occupied', Handicap free', 'Booked occupied' and 'Booked free' are momentary values since last 'Timestamp'. The 'Places' and the 'Handicap' number are the total number of those places. These numbers can be changed in the configuration only. The 'Booked' indicates the total number of booked places, inclusive the booked handicap places. The 'Errors' shows information of any faults on the facility.
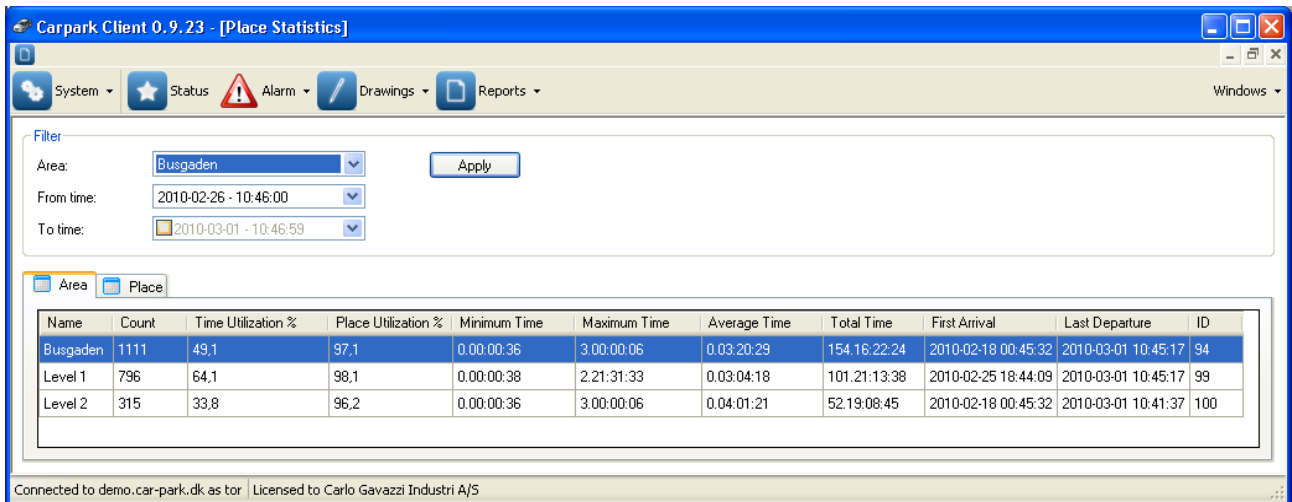
6.5.2 Place Statistics

Fig.3a
In **Fig.3a** the statistics for the Busgaden 'Area' tab has been selected, and also a time zone. The Busgaden Carpark facility consists of two storeys of parking places, divided in 'Level 1' and 'Level 2'. The 'Count' are the number of cars that has been registered by the sensors in the selected time period. The 'Time utilization %' and the 'Place utilization %' are calculated from these informations.
The 'Average time' is calculated from the 'Minimum time', which is the shortest parking time registered, and 'Maximum time', which is the longest parking time registered. 'Total time' is the sum of registered parking time on all places. 'First arrival' and 'Last departure' puts a timestamp on these two events. 'The 'ID' is ???
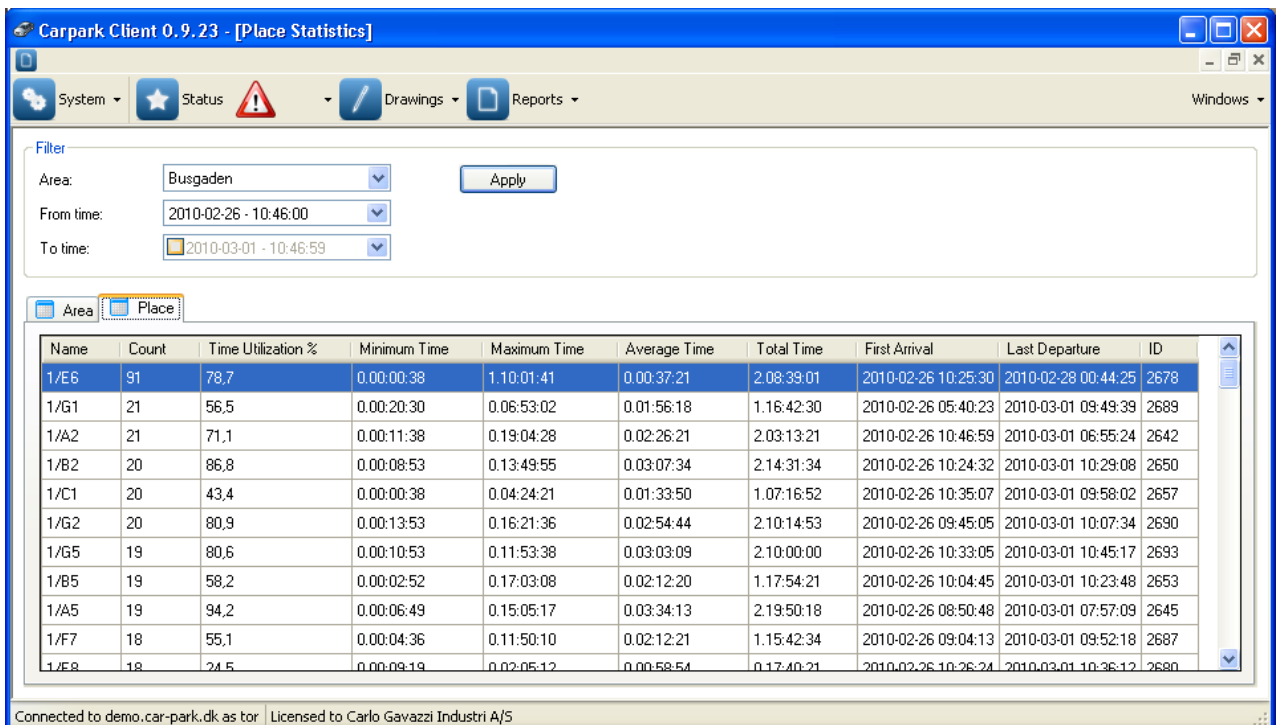
Fig.3b
In **fig.3b** you have the the same statistics, except for the 'Place utilization', indicated on each parking place.

Fig.3c

There are 2 points that need a more thorough explanation - the 'First Arrival', and the 'Last departure' columns.

7   How to create a new CarPark drawing

Making a new drawing:
Be aware of that this drawing is based on the sensors used in your existing Carpark facility!
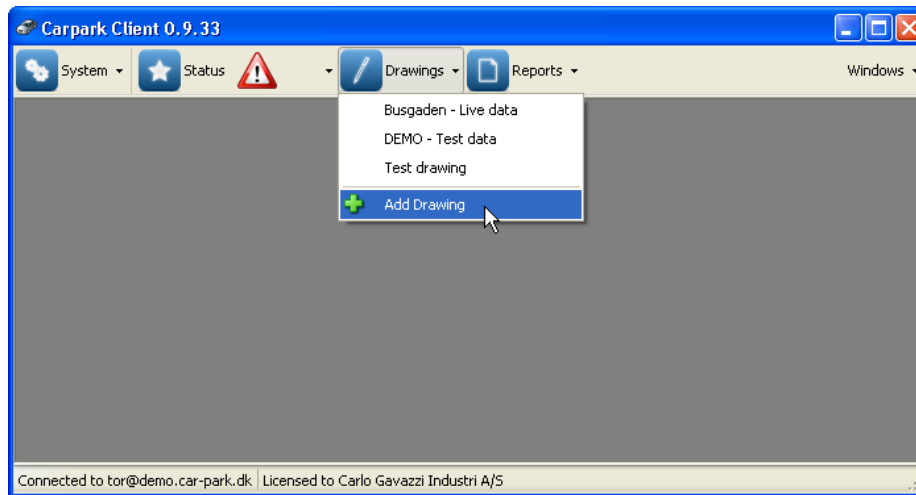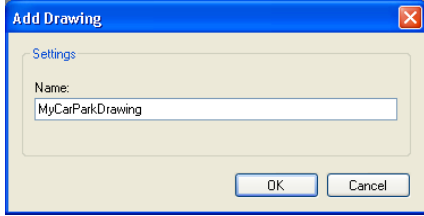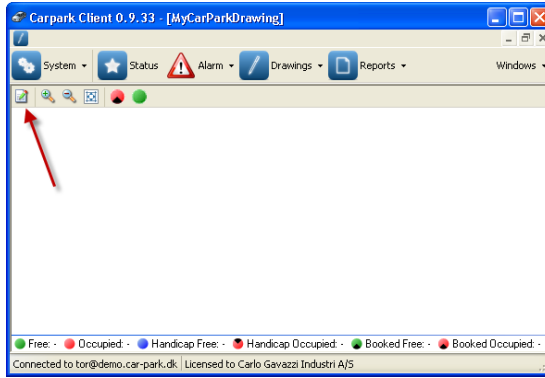
Open the Carpark Client application.

Fig.1

Fig.2   **Fig.3**

Fig.4   **Fig.5**

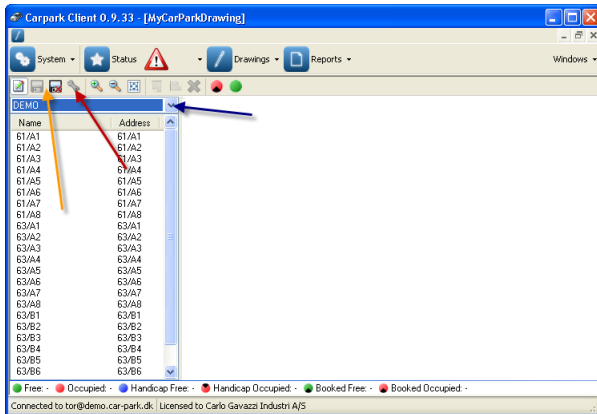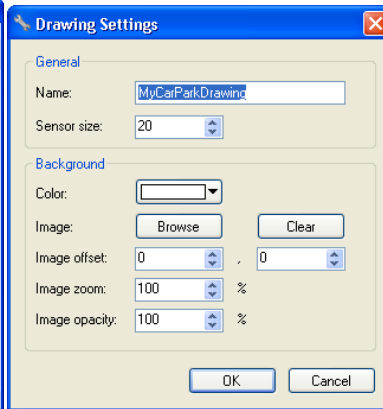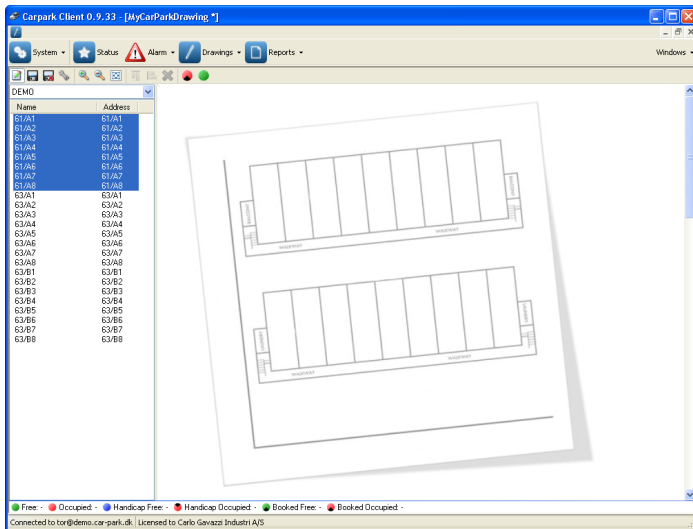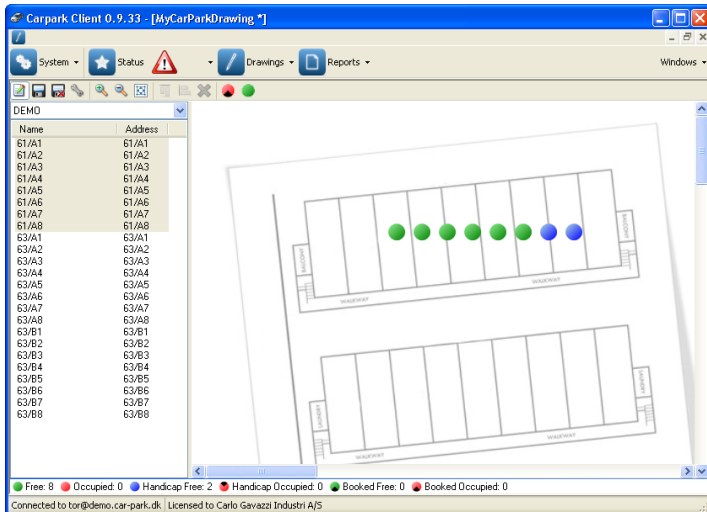**Fig.6**   **Fig.9**

- Click the 'Drawings' button, the window looks like **fig.1**. Select the 'Add drawing', and give your drawing a proper name, as e.g. the example shows in **fig.2**. Click 'Ok'. The window changes to look lige **fig.3**. (without the red arrow)
- Click the icon indicated by the red arrow in **fig.3**. - the window changes to **fig.4**.
- Select the relevant parking facility by clicking the scroll bar indicated by the blue arrow in **fig.4**.
- Click the wrench key icon 'Settings' indicated by the red arrow in **fig.4**. A new window appears, **fig.5**, where the details of the drawing can be set.
  The name of the drawing can be changed ('Name'), the size of the sensor icons can be set to match your drawing. The background color can be selected, and some details of the drawing can be edited: The image that you want to use can be selected by clicking the 'Browse' button, or 'Clear'ed if you want.
  The size of the image on your drawing can be set by adjusting the 'Image zoom' value, the placing of the drawing can be adjusted by entering other values for 'Image offset', and finally, the opacity (contrast) of the picture can be adjusted by setting the value in the 'Image opacity' field.
  Once set, click 'Ok'. The settings can be altered at any time.

- Now it's time to add the sensors to the drawing. The example in **fig.6** shows the editor with a drawing, and the first 8 sensors selected, shown with a blue background. (Selecting is done in standard windows mode) The sensors can be selected individually, some, or all.
- Drag the selected sensors from the list to the drawing. Now each sensor icon can be placed on the right parking places. **Note: It is important to place the sensors in the addressing order! (A1-A2-A3-A4 etc.)**
- Once you have finished placing the sensors on your drawing, it can be saved by clicking the 'Save drawing' icon (indicated with the amber arrow in **fig.4**. (The left of the 2 icons)

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