Pl@ntVisor

Monitoring and Telemaintenance Web-Based System

CAREL

Technology & Evolution

Pl@ntVisor

PlantVisor is the Carel web-server based monitoring and telemaintenance system server that features flexibility of use and easy access to information and alarm management functions.
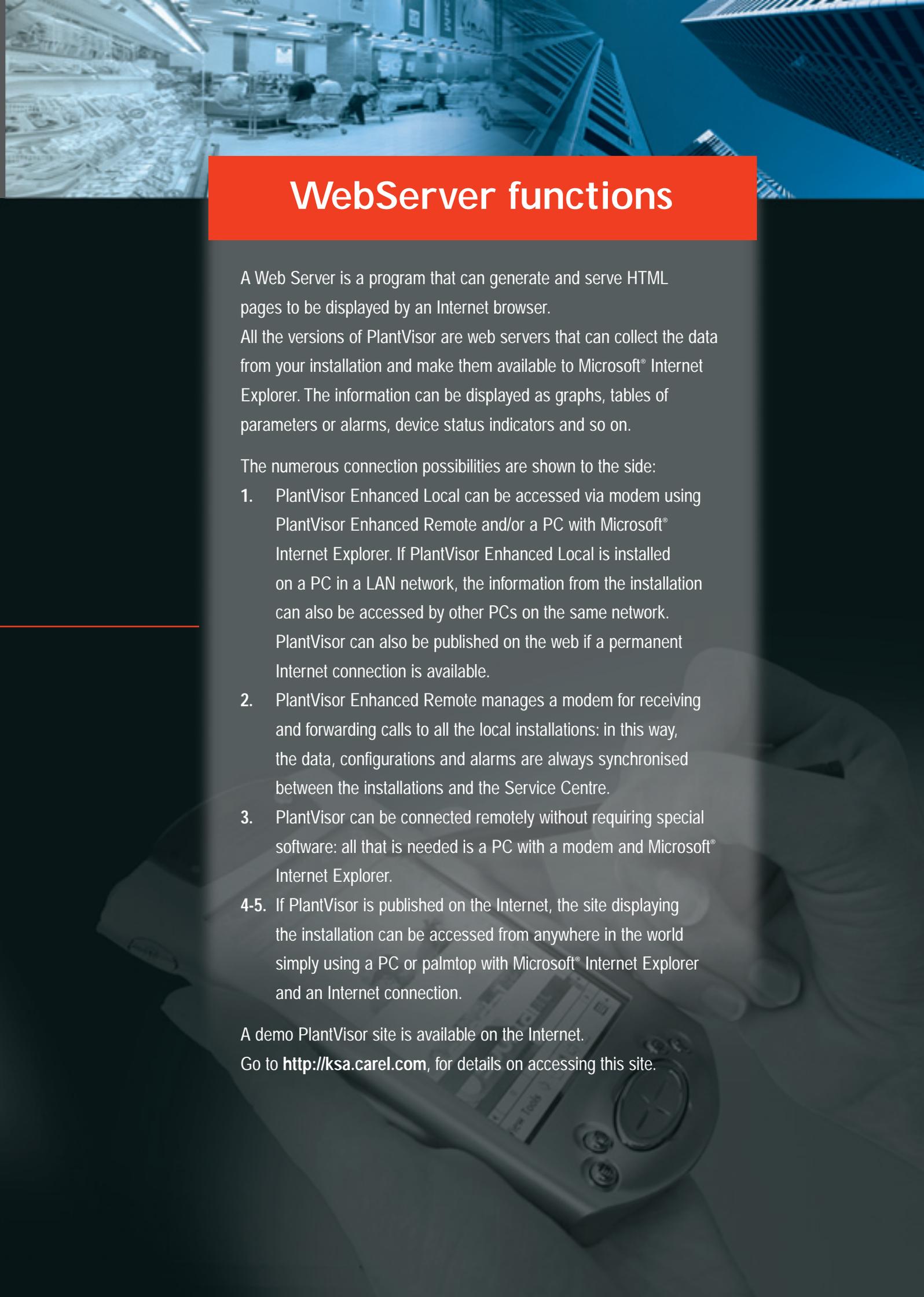Carel has responded to the requirements for local monitoring and remote management (optimisation of maintenance, adaptation to the legislation on food safety and other standards) by supplying solutions at all levels: from controllers in the field (refrigeration and Air-Conditioning systems) to supervisory systems. In this way, the user can be constantly kept up-to-date on the status of the installation.

The solutions proposed by Carel differ according to the type of installation:
- PlantVisor Enhanced, PC-based solution, for installations with a maximum of 200 refrigeration and air-conditioning utilities;
- PlantWatch, solution without requiring a PC for small refrigeration and air-conditioning installations, up to 32 utilities;
- PlantVisor Enhanced Remote, program for the remote management of the PlantVisor Enhanced and PlantWatch systems.

... tailor-made telemaintenance solutions!

WebServer functions

A Web Server is a program that can generate and serve HTML pages to be displayed by an Internet browser.
All the versions of PlantVisor are web servers that can collect the data from your installation and make them available to Microsoft® Internet Explorer. The information can be displayed as graphs, tables of parameters or alarms, device status indicators and so on.

The numerous connection possibilities are shown to the side:

1. PlantVisor Enhanced Local can be accessed via modem using PlantVisor Enhanced Remote and/or a PC with Microsoft® Internet Explorer. If PlantVisor Enhanced Local is installed on a PC in a LAN network, the information from the installation can also be accessed by other PCs on the same network. PlantVisor can also be published on the web if a permanent Internet connection is available.

2. PlantVisor Enhanced Remote manages a modem for receiving and forwarding calls to all the local installations: in this way, the data, configurations and alarms are always synchronised between the installations and the Service Centre.

3. PlantVisor can be connected remotely without requiring special software: all that is needed is a PC with a modem and Microsoft® Internet Explorer.

4-5. If PlantVisor is published on the Internet, the site displaying the installation can be accessed from anywhere in the world simply using a PC or palmtop with Microsoft® Internet Explorer and an Internet connection.

A demo PlantVisor site is available on the Internet.
Go to **http://ksa.carel.com**, for details on accessing this site.
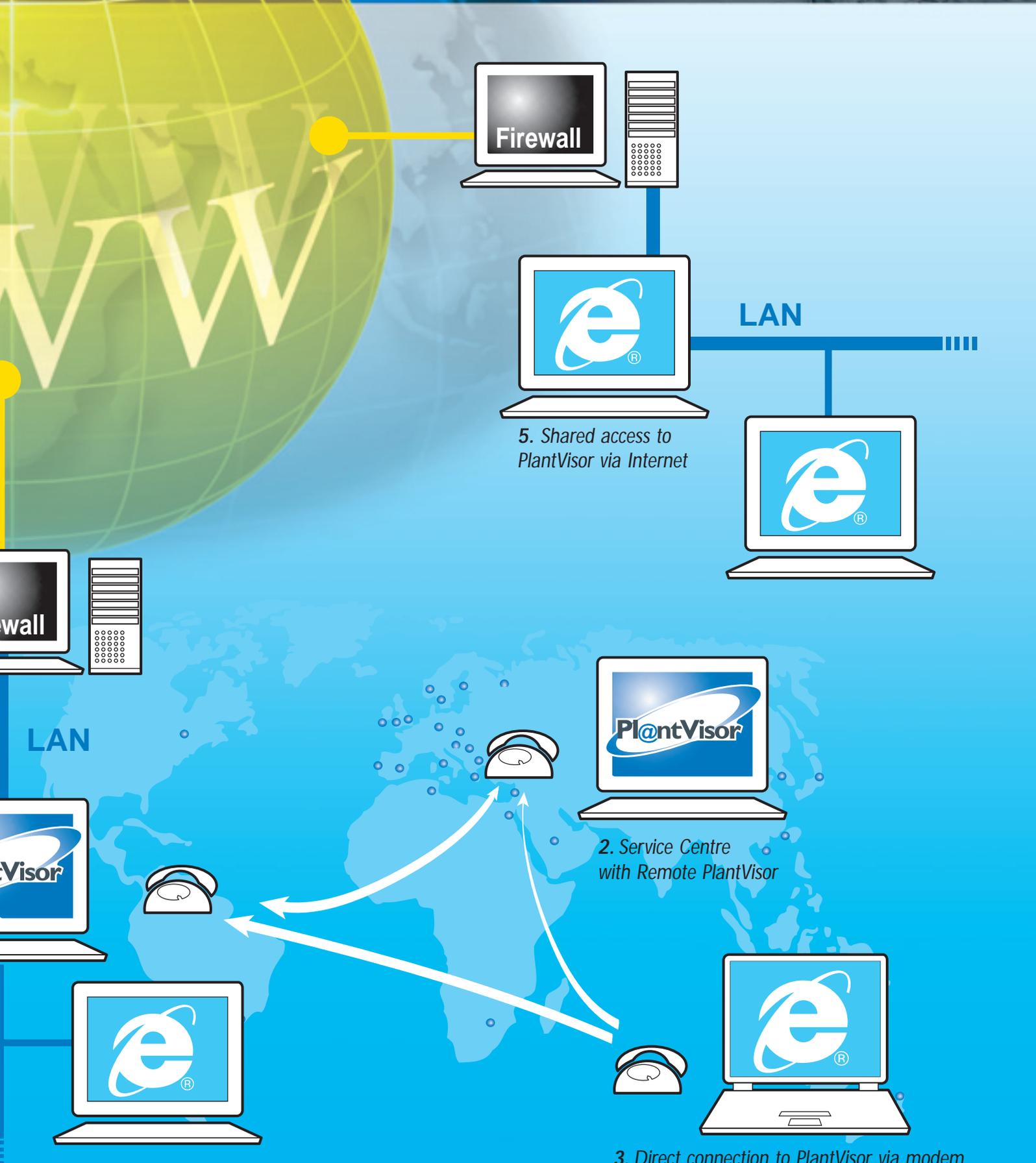
4. Access to PlantVisor via Internet

Fire

1. PlantVisor on local PC in LAN network

Pc_GATE CAREL

Pl@nt

Firewall

LAN

5. Shared access to
PlantVisor via Internet

wall

LAN

Pl@ntVisor

2. Service Centre
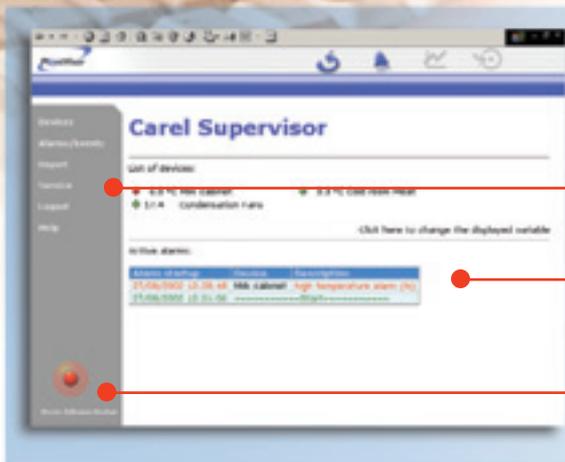with Remote PlantVisor

3. Direct connection to PlantVisor via modem

An overview of

The protection of information is an important aspect: a user name and password are required to access the following pages.

Each user configured has a password that defines the level of authorisation and sections that can be accessed.
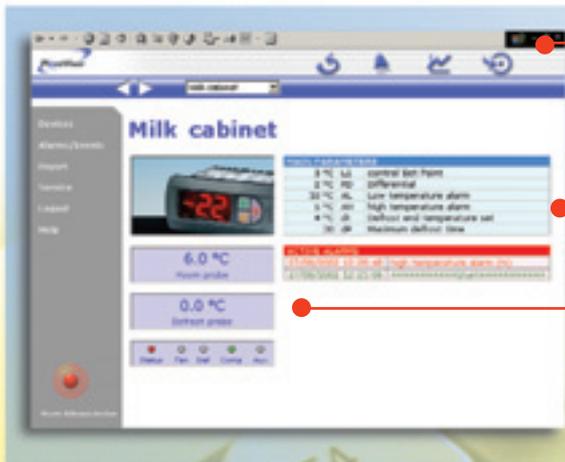
PlantVisor Enhanced Local summary page: all the utilities and their operating conditions are shown.

Navigation menu

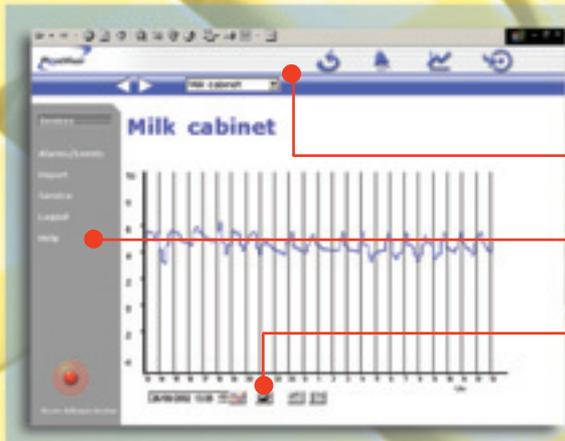Utilities in alarm status

General installation alarm

Main utility page

Specific menu

Main parameters

Utility status

Page of the graphs on the utility
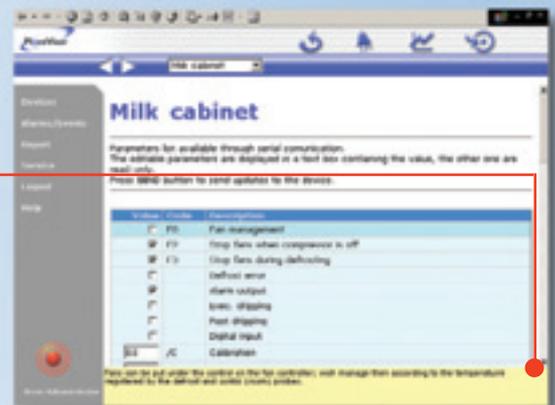
Quick selection of the utility

On-line help always available

Configuration of the graphs

PlantVisor…

Page for displaying and modifying the parameters of the utility

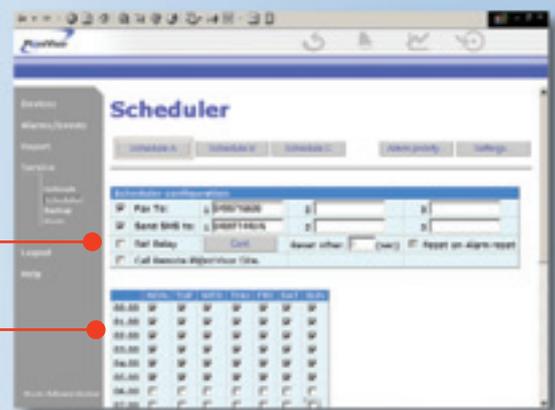Detailed information on all the parameters
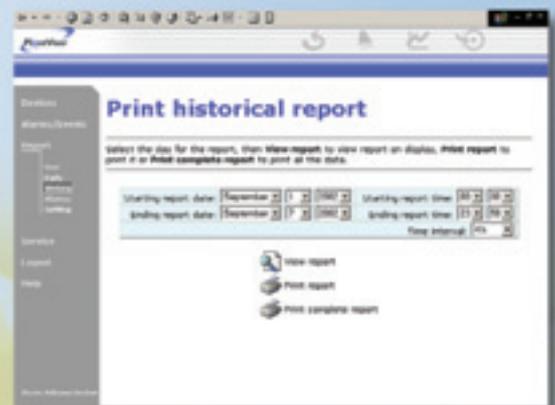
Main Scheduler configuration page.
This is one of the more powerful PlantVisor tools, used for the correct and safe management of alarms and signal devices: fax, SMS message, activation of a relay, call to the remote PC.

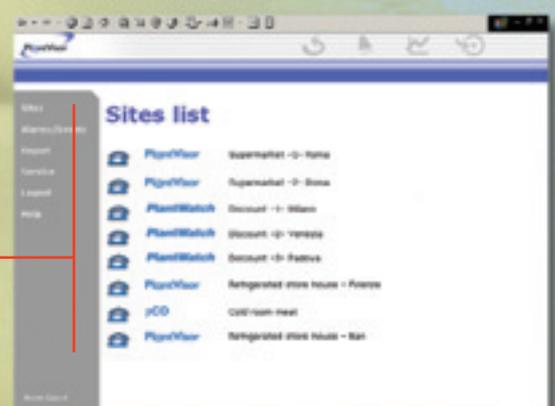Selection of the alarm devices

Selection of the time bands

One of the pages for configuring the printouts, with time-based or manual selection

PlantVisor Enhanced Remote summary page:
all the installations can be easily accessed with a click of the mouse.
As soon as the connection to the installation has been established, the pages can be navigated with the same ease as in PlantVisor Enhanced Local.

PlantVisor Enhanced

For medium-large supermarkets (refrigeration and Air-Conditioning units), cold stores, processing rooms, seasoning rooms, the wine industry, etc..

The innovative web-based interface means that the information required can be accessed extremely easily.

PlantVisor Enhanced allows:
• centralised management on the PC of the controller parameters, for display and modification;
• alarm management by scheduling the actions to be performed according to the time band (fax, SMS message, activation of a relay, call to the remote PC);
• sampling and recording of the temperature, humidity and pressure values and any active alarms, in compliance with the EU directive, for display or printing;
• adoption of Retrofit Solutions using the new acquisition modules: I/O module and wireless probes.

Different levels of password protect access to the data. PlantVisor allows the connection of up to 200 Carel instruments in an RS485 serial network.

PlantVisor Enhanced manages traditional and GSM modems for sending faxes, SMS messages and for remote access using PlantVisor Remote or Internet Explorer.

PlantVisor Enhanced Remote

PlantVisor Enhanced Remote is the program used to centralise the information from all the systems running PlantVisor Enhanced and PlantWatch.
PlantVisor Enhanced Remote in fact monitors all the calls made by the local stations, receiving the configurations, the data saved and highlighting any alarm conditions.

PlantVisor Enhanced Remote can be used to connect to the installations so as to modify the parameters of the local instruments or the configuration of the local PlantVisor (network, scheduler, printouts)

PlantVisor Enhanced Remote can communicate with:
• PlantVisor Enhanced Local;
• PlantWatch;
• pCO sistema controllers with modem card;
• Gateways.

Sistema PlantVisor

The PlantVisor functions have been enhanced and upgraded by the new range of accessories; as well as the sophisticated converter, the following devices can be connected:
• I/O modules;
• wireless probes.

PC Gate

One fundamental accessory
for the operation of PlantVisor
Enhanced is this innovative
RS232/485 serial converter.

- Serial conversion from RS232 to RS485 two wire plus
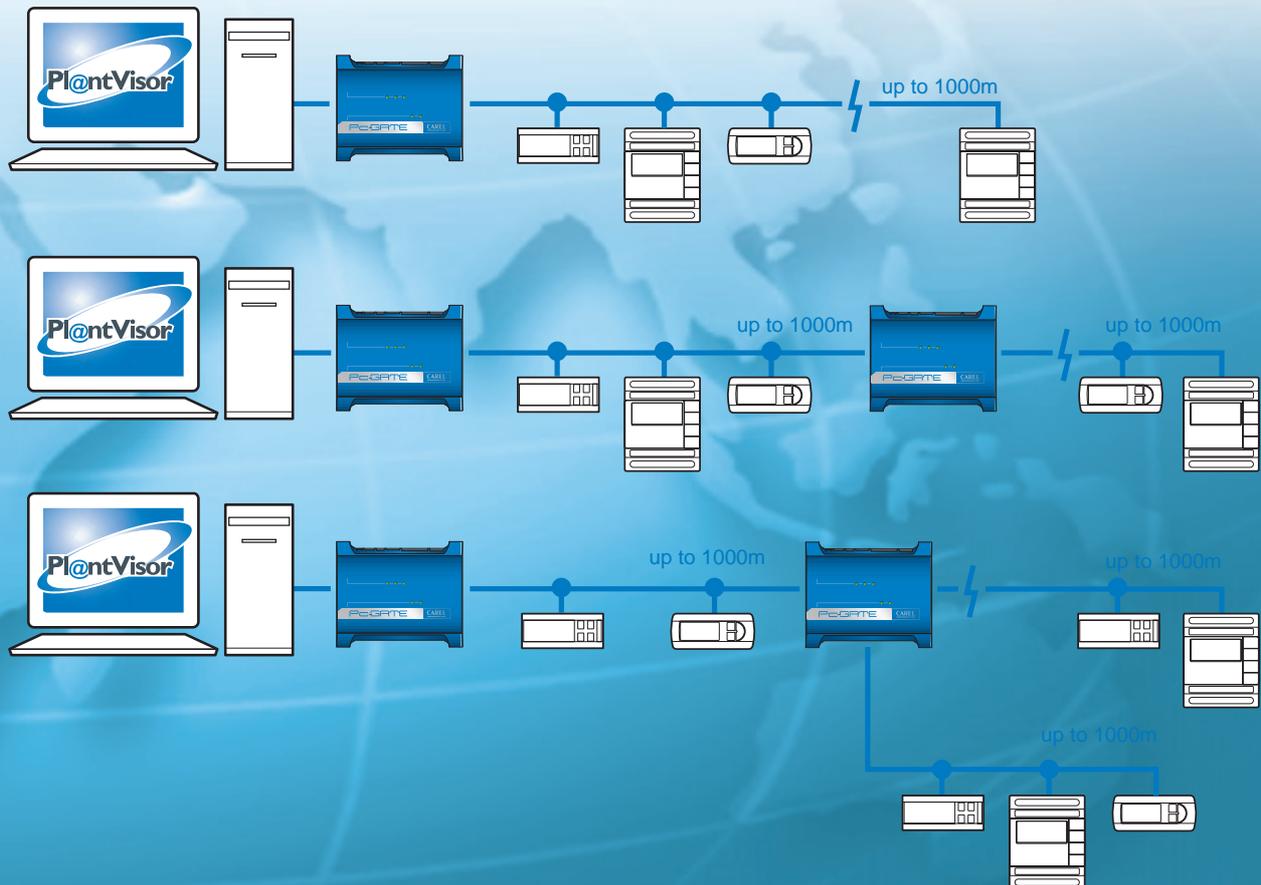 shield, maximum speed 19,200 baud, maximum 200 peripherals

new · Watchdog for communication with the computer: a relay with changeover
  contacts is energised if there is no communication with the PC. The relay can then be
  connected to any 230VAC device for signalling that the supervisor functions are no longer active.

new · RS485 line amplifier/branch: the one RS485 input and two RS485 output ports can be used to
  extend the line over the standard 1000 metres and/or to add branches. Consequently,
  the layout of the installation can be followed more simply and economically, and two modules
  can be connected in cascading.

- The converter can be installed on the desktop or mounted on a DIN rail.
- There are two models of converter:

new - one with internal key to enable the operation of PlantVisor Enhanced;
  - the other without internal key for use as a converter – branch only. This is the model
    supported by the PlantVisor Free Edition.

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