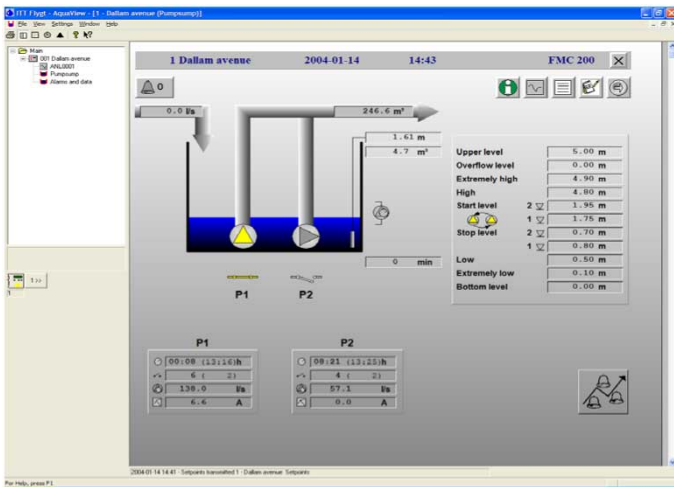


Technical specification



AquaView 1.60 SCADA system

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AquaView 1.60

Product

AquaView is a complete SCADA software for water handling. The data, i.e. pumped volume, inflow, water level and different kind of pump statistics are clearly viewed and easily accessible. With the reliable alarm distribution in AquaView, problems can be avoided.

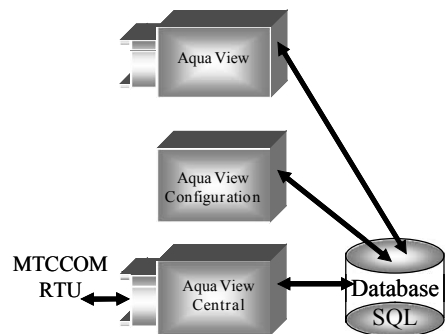
Minimal time and resources are needed to implement standard units to AquaView, including process pictures, trend forms, alarms and reports

Evaluation box	
40 500500 (No hardlock)	AquaView Up to 3 RTUs
New customer, first licence	
40 501217	AquaView Up to 5 RTUs
40 501218	AquaView Up to 10 RTUs
40 501219	AquaView Up to 20 RTUs
40 501220	AquaView Up to 50 RTUs
40 501221	AquaView Up to 100 RTUs
40 501222	AquaView Up to 200 RTUs
40 501476	AquaView Up to 300 RTUs
Additional licence, WS no 2,3,4.	
40 501223	AquaView Additional < 10 RTUs
40 501224	AquaView Additional < 20 RTUs
40 501225	AquaView Additional < 50 RTUs
40 501226	AquaView Additional < 100 RTUs
40 501227	AquaView Additional < 200 RTUs
40 501477	AquaView Additional < 300 RTUs
1-2 clients in system 103-105	
40 501228	AquaView Client 1-2 < 20 RTUs
40 501229	AquaView Client 1-2 < 50 RTUs
40 501230	AquaView Client 1-2 < 100 RTUs
40 501231	AquaView Client 1-2 < 200 RTUs
40 501478	AquaView Client 1-2 < 300 RTUs
1-5 clients in system 103-105	
40 501232	AquaView Client 1-5 < 20 RTUs
40 501133	AquaView Client 1-5 < 50 RTUs

Evaluation box	
40 500500 (No hardlock)	AquaView Up to 3 RTUs
New customer, first licence	
40 501234	AquaView Client 1-5 < 100 RTUs
40 501235	AquaView Client 1-5 < 200 RTUs
40 501479	AquaView Client 1-5 < 300 RTUs
1-10 clients in system 103-105	
40 501236	AquaView Client 1-10 < 50 RTUs
40 501237	AquaView Client 1-10 < 100 RTUs
40 501238	AquaView Client 1-10 < 200 RTUs
40 501480	AquaView Client 1-10 < 300 RTUs

Communication

AquaView is using a SQL database and the main part of the communication goes directly via this database as shown in the figure below.



All information, including configuration like alarm texts, setpoint texts etc. can easily be retrieved from the SQL database.

AquaView Central uses AquaCom for communication via

- Network communication (TCP/UDP)
- GPRS
- Dialed line
- Leased line
- Radio

Verified modems are:

- US Robotics Courier
- TD-22 V.23
- TD-33
- TD-35 V.23
- TDW-33
- TDW-33 V.23
- GDW-11
- GD-01

System configuration

AquaView is designed to work in a network environment, with or without a file server. In a small system (less than 5 workstations), a Windows Network without a special server may be used. If more users or a large number of RTUs are connected to the system, it is better to use a dedicated SQL server and a local area network like Novell Netware or Windows NT as server program.

AquaView can also use a network connection over an ordinary telephone line using a standard modem (RAS)².

With AquaView it is possible to build several types of configurations and all are based on the standard solution.

²*Remote Access Server*

System demands

In order to make **AquaView** (Client), run smooth, this is the minimum recommendation for the hardware:

- \> 1 GHz Pentium computer
- OS³ required amount + 256 MB RAM
- Minimum video resolution 1024*768 with true colour
- 500 MB free disk space, (depends on data amount)
- Windows 2000 or later
- One free USB port for locally attached hardlock or a hardlock on the network
- Internet Explorer 6,0 or later
- Microsoft .NET framework 2.0

In order to make **AquaView Central** (Server), run smooth, this is the minimum recommendation for the hardware:

- \> 1 GHz Pentium computer
- OS³ required amount + 256 MB RAM + 2 MB / installed RTU
- Minimum video resolution 1024*768 with true colour
- 500 MB free disk space, (depends on data amount)
- Windows 2000 or later
- Internet Explorer 6,0 or later
- Microsoft .NET framework 2.0

SQL server 7 or Microsoft SQL Server 2000 Desktop Engine:

- \> 1 GHz Pentium computer
- OS³ required amount + 1 GB RAM
- 20 GB free disk space, (depends on data amount)
- Windows 2000 or later
- Internet Explorer 6,0 or later

Windows Terminal Server:

- OS³ required amount + 50 MB RAM / Client
- Network attached hardlock

³*Operating System*

Standard solutions

AquaView System 100

Single user Start-up is a standard configuration with one Main workstation



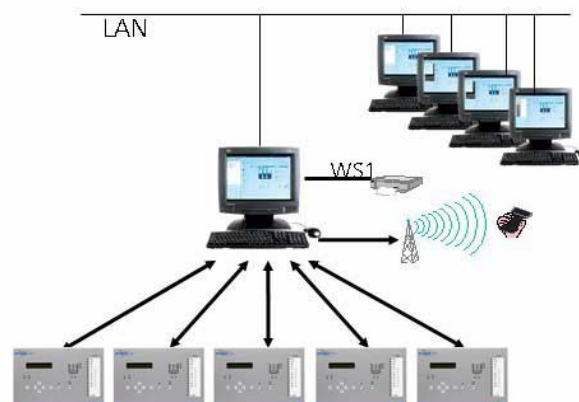
AquaView System 101

Multi user (RAS) is a configuration with one Main workstation and remotely connected (RAS) workstations



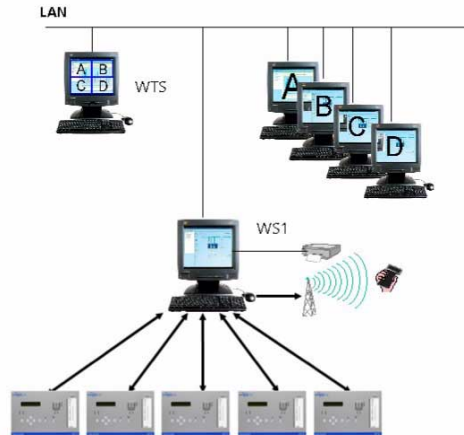
AquaView System 102

Multi user (LAN) is a configuration of Main workstation/application server with workstations connected via the Local Area Network (LAN)



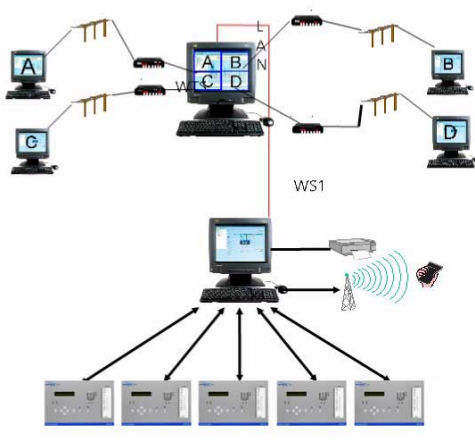
AquaView System 103

Multi user (LAN-clients) is a configuration with a Main application server and client stations connected via the Local Network (LAN)



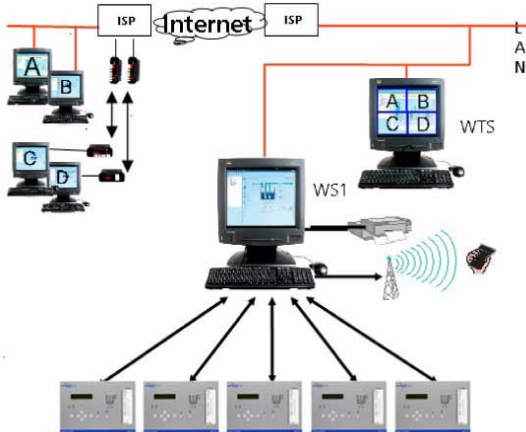
AquaView System 104

Multi user (Modem-clients) is a configuration of a Main application server with remote connected client stations



AquaView System 105

Multi user (Internet-clients) is a configuration with a Web server and remote client stations connected via the Internet



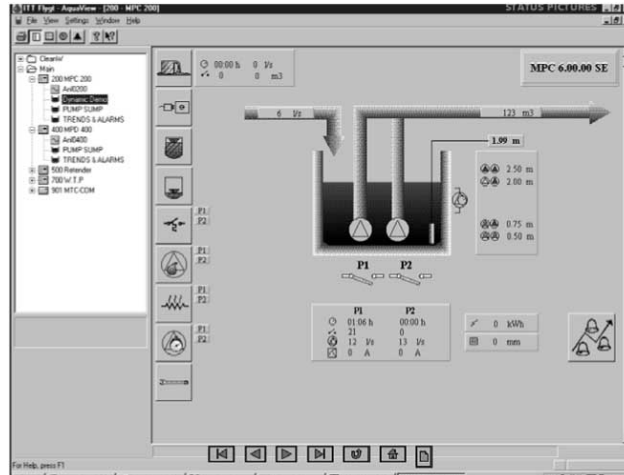
Functions

System functions

Login-function with flexible security, depending of users experience and training
Can support up to 300 service areas

Operator languages

Dan, Dut, Eng, Fre, Ger, Ita, Nor, Spa, Swe, Hun, Simplified Chinese (Fin, Pol, Rus).



Process pictures

- Integrated drawing program
- Standard Pictures are available
- User defined map

Remote control

Start, stop, reverse pumps, valves etc. can be controlled from the process picture. This functionality is RTU dependant.

Remote settings

- Parameters changing remotely.
- Alarm priorities and alarm
- Alarm code-filters may also be changed remotely.

Periodical reports

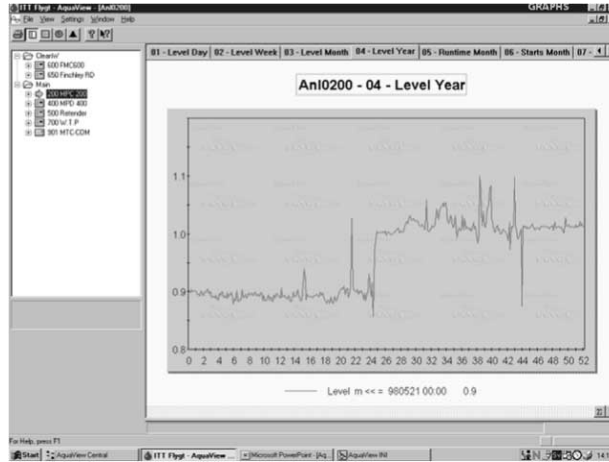
- Running times, Number of starts
- Outflow.

Data retrieved at least once per day from the RTUs and is stored as daily values.
Predefined reports for daily, weekly, monthly, quarterly and yearly presentation.
Shown as charts and lists.

Historical trend

Trend values from analogue measurements are usually stored as 5-minutes average values. The values are stored in a configurable time based database, from 1-365 days (disk space and database file size are the limits) Every night the 5-minute values are recalculated and stored as 1-hour values before deletion.

These values can be stored in the database from 1 day to 365 days. The 1-hour values will be recalculated to daily values and may be stored as long as required.



If the RTU is capable of sending historical trend data at 1-minute average values, AquaView Central will save the trend information, making it easy to pinpoint any problems or irregularities.

Alarm statistics and events

Alarms can be presented in several ways. The search can be based on a RTU and/or selected alarm and/or time. Alarms and events can be shown as lists or in charts.

Alarm distribution

It is possible to automate the alarm distribution handling with a scheduler. An alarm is classed as A-, B-, C-, D- or H-types. A-alarm has the highest priority and is used for paging alarms. The B-type is an alarm of lower priority that will be recorded and printed. The C-alarms are used on faulty signals. D-alarms can be considered as time-scheduled A-alarms. The H-type is connected to the event handling and is handled in a special way.

Alarm can be distributed SMS, text messages by using a Westermo GDW-11 modem, Semascript, TAP protocol or as E-mail using a SMTP server.

OPC DA server support

AquaView Central can now create OPC DA tags for most settings and live items.

Xylem |'zīləm|

- 1) The tissue in plants that brings water upward from the roots
- 2) A leading global water technology company

We're 12,000 people unified in a common purpose: creating innovative solutions to meet our world's water needs. Developing new technologies that will improve the way water is used, conserved, and re-used in the future is central to our work. We move, treat, analyze, and return water to the environment, and we help people use water efficiently, in their homes, buildings, factories and farms. In more than 150 countries, we have strong, long-standing relationships with customers who know us for our powerful combination of leading product brands and applications expertise, backed by a legacy of innovation.

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The original instruction is in English. All non-English instructions are translations of the original instruction.

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