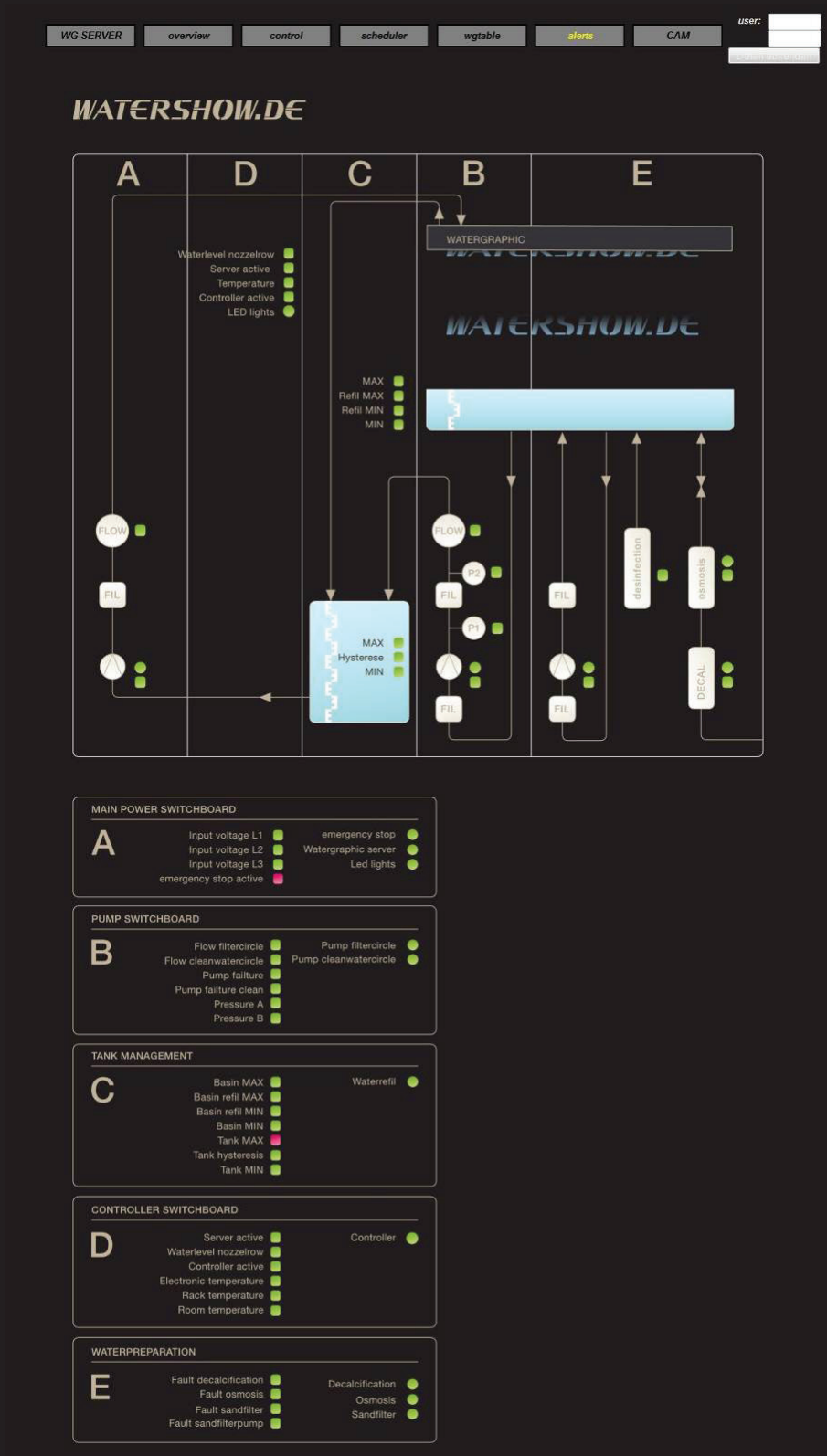
WATERGRAPHIC MAIN CONTROL CENTER



Newest Development is an IP-based and I²C bus independent monitoring and control system.

FUNCTIONS:

> Touch PC used for controling and monitoring the system
> Web diagnostic capability via Logbook
> Recognition of critical states before efficiency loss
> Web Interface to show the state of the system in realtime
> Fully automated switch on/off with safety monitor for each devices
> Operational voltage check-up
> Monitoring of pumps and water flow
> Is there water in the valve system?
> Water tank level monitoring
> Observation of the water tank refill system
> Switch on/off main controller
> Temperature monitoring
> Monitoring of the filter state

THE TOUCH Display:

The Watershow system is completely controlled via a Touch Display.
Which does not only show the current system state, but also the system can be programmed by using the touchpanel, new water pictures can be put in and the system can even be controlled manually.
Selecting the menu item „Overview“, you can see a schematic representation of the system including all sensors and actors (switches), which are depicted in different colours according to their state.

THE CONTROL WINDOW:

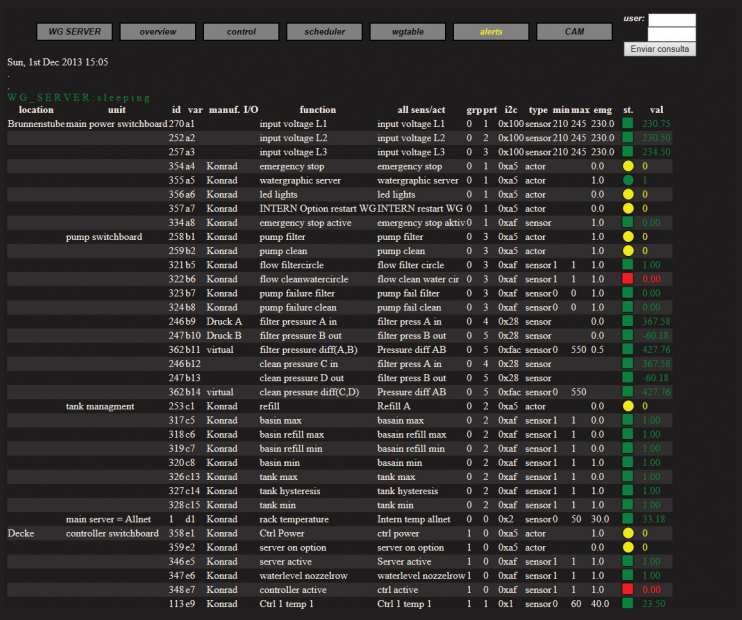
Here you can control the whole system manually.

TIME CONTROL:

With the scheduler you can create individual programs, which start automatically at a fixed time.
So you can create your own show for every day and predefine the time you want to play it.

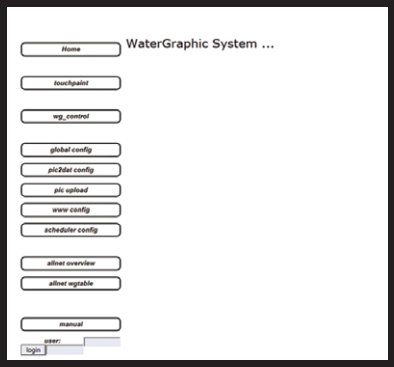
WGTABLE:

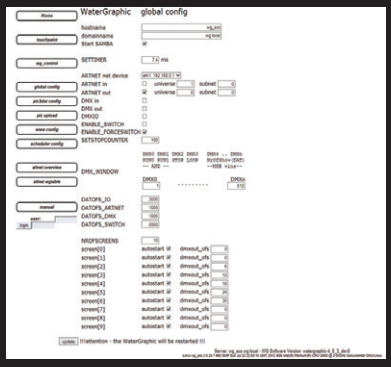
This menu item shows you all sensors and actors and their current status.
The values, which give the alarm, can be adjusted in the menu item EDIT.
Active alarms can be found in the „alerts“ menu.
(if a sensor detects values out of range)



location	unit	id	var	manuf.	I/O	function	all sens/act	grp	prt	i2c	type	min	max	emg	st.	val
Brunnenstube	main power switchboard	270	a1			input voltage L1	input voltage L1	0	1	0x100	sensor	210	245	230.0		230.75
		252	a2			input voltage L2	input voltage L2	0	2	0x100	sensor	210	245	230.0		230.50
		257	a3			input voltage L3	input voltage L3	0	3	0x100	sensor	210	245	230.0		234.50
		354	a4	Konrad		emergency stop	emergency stop	0	1	0xa5	actor			0.0		0
		355	a5	Konrad		watergraphic server	watergraphic server	0	1	0xa5	actor			1.0		1
		356	a6	Konrad		led lights	led lights	0	1	0xa5	actor			0.0		0
		357	a7	Konrad		INTERN Option restart WG	INTERN restart WG	0	1	0xa5	actor			0.0		0
		334	a8	Konrad		emergency stop active	emergency stop aktiv	0	1	0xaf	sensor			1.0		0.00
	pump switchboard	258	b1	Konrad		pump filter	pump filter	0	3	0xa5	actor			1.0		0
		259	b2	Konrad		pump clean	pump clean	0	3	0xa5	actor			1.0		0
		321	b5	Konrad		flow filtercircle	flow filter circle	0	3	0xaf	sensor	1	1	1.0		1.00
		322	b6	Konrad		flow cleanwatercircle	flow clean water cir	0	3	0xaf	sensor	1	1	1.0		0.00
		323	b7	Konrad		pump failure filter	pump fail filter	0	3	0xaf	sensor	0	0	1.0		0.00
		324	b8	Konrad		pump failure clean	pump fail clean	0	3	0xaf	sensor	0	0	1.0		0.00
		246	b9	Druck A		filter pressure A in	filter press A in	0	4	0x28	sensor			0.0		367.58
		247	b10	Druck B		filter pressure B out	filter press B out	0	5	0x28	sensor			0.0		-60.18
		362	b11	virtual		filter pressure diff(A,B)	Pressure diff AB	0	5	0xfac	sensor	0	550	0.5		427.76
		246	b12			clean pressure C in	filter press A in	0	4	0x28	sensor					367.58
		247	b13			clean pressure D out	filter press B out	0	5	0x28	sensor					-60.18
		362	b14	virtual		clean pressure diff(C,D)	Pressure diff AB	0	5	0xfac	sensor	0	550			427.76
	tank managment	253	c1	Konrad		refill	Refill A	0	2	0xa5	actor			0.0		0
		317	c5	Konrad		basin max	basin max	0	2	0xaf	sensor	1	1	0.0		1.00
		318	c6	Konrad		basin refill max	basin refill max	0	2	0xaf	sensor	1	1	0.0		1.00
		319	c7	Konrad		basin refill min	basin refill min	0	2	0xaf	sensor	1	1	0.0		1.00
		320	c8	Konrad		basin min	basin min	0	2	0xaf	sensor	1	1	1.0		1.00
		326	c13	Konrad		tank max	tank max	0	2	0xaf	sensor	1	1	0.0		1.00
		327	c14	Konrad		tank hysteresis	tank hysteresis	0	2	0xaf	sensor	1	1	1.0		1.00
		328	c15	Konrad		tank min	tank min	0	2	0xaf	sensor	1	1	1.0		1.00
	main server = Allnet	1	d1	Konrad		rack temperature	Intern temp allnet	0	0	0x2	sensor	0	50	30.0		33.18
Decke	controller switchboard	358	e1	Konrad		Ctrl Power	ctrl power	1	0	0xa5	actor			1.0		0
		359	e2	Konrad		server on option	server on option	1	0	0xa5	actor			0.0		0
		346	e3	Konrad		server active	Server active	1	0	0xaf	sensor	1	1	1.0		1.00
		347	e6	Konrad		waterlevel nozzelrow	waterlevel nozzelrow	1	0	0xaf	sensor	1	1	1.0		1.00
		348	e7	Konrad		controller active	ctrl active	1	0	0xaf	sensor	1	1	1.0		0.00
		113	e9	Konrad		Ctrl 1 temp 1	Ctrl 1 temp 1	1	1	0x1	sensor	0	60	40.0		23.50

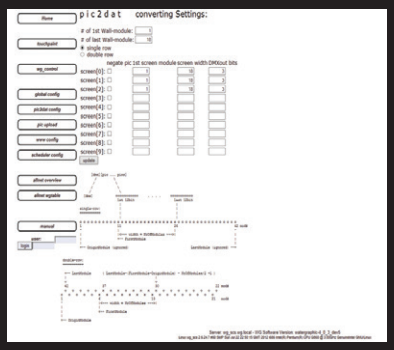
The Watergraphic Server:
By pushing the „wg_control“ button you can access the main user interface.
Here you can control the whole applications by pressing the corresponding buttons.

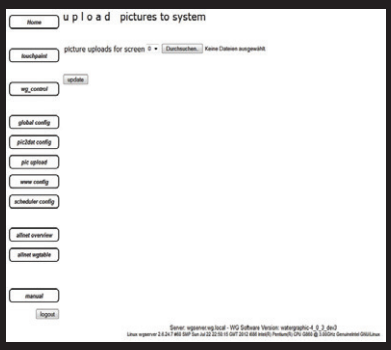




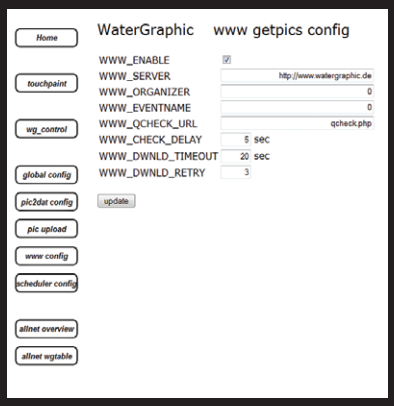
GLOBAL CONFIG:
Here you adjust the global configuration of the system.

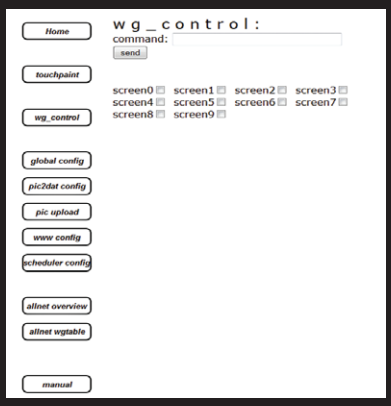
PIC2DAT CONFIG:
The main specifications of the system are set here only once, i.e. whether it is a 48- or 96-valves/meter system and whether
the valve row will be controlled as a whole or the valves shall be devided into different sections (multiscreen application)



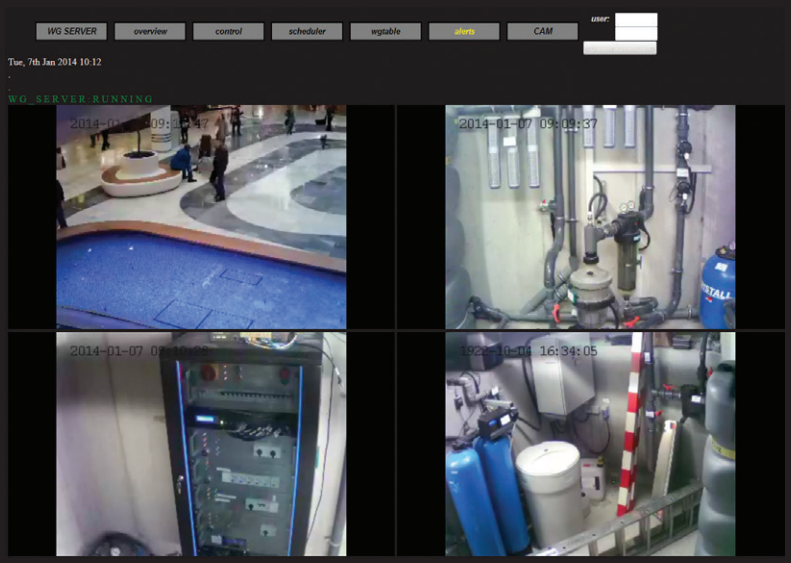


PIC UPLOAD:
In this menu you can upload your own water pictures in a .bmp format to the system.
Via a pull down menu you can select a particular screen.
The preset screen is screen 0.
(multiscreen application)
Within seconds the 1-bit black and white bitmaps will automatically be converted into .dat files that can be selected immediately.
That way bitmaps can be created live with external devices and then be saved in an autostart folder.
They will be converted and started directly.





CAM:
As Option you can adapt independant
web cams for monitoring the system in realtime.



SHORT FACTS:
The watergraphic main control was developed for permanent installations in compliance with our customers‘ wishes and simplifies the handling of the watergraphic systems enormously.
Critical operating states can be identified early and therefore system shutdowns are avoided.
Via the web surface we can get a quick overview of the system state without being on site.
Furthermore we can help the user by giving fast and exact instructions how to act directly.
Thereby the costs for service and maintenance are considerably lower.
The Touch operating system is independent of the main system and can be installed in control rooms or similar places via Lan.
This allows to control and monitor the whole system from there.
Watergraphic state of the art main control center, which guarantees maximum security and handling to the customer for permanent installations.

Watershow.de GmbH
Phone +49931 452 964 7
Fax +49931 452 964 8
E-Mail sales@watershow.de
Web www.watershow.de