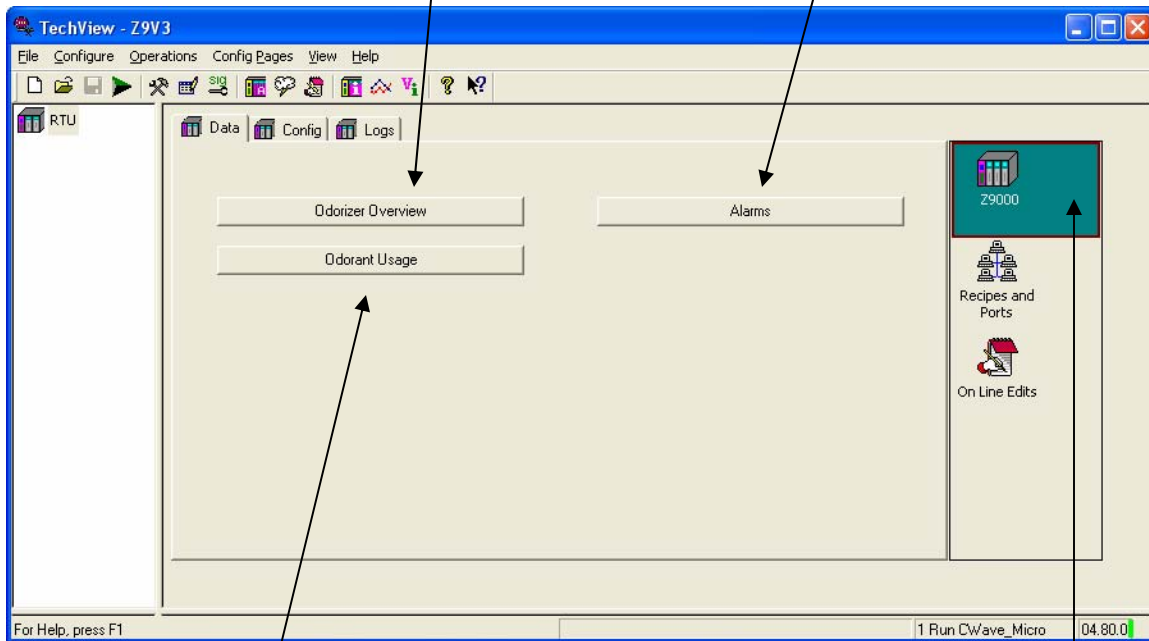


Browser Interface

Techview Z9V3: Data

Pages 31 and 32

Pages 33 and 35



Pages 34

Primary Techview Screen: Z9000

Primary Overview: Normal

TechView - RTU (CWave_Micro - 1 Run Load) - C:\Zecksystems3\TV_Overview.htm

9999 Manual 4_02 **Z9000 Odorizer Overview**

Status	 	Gas flow rate (mscfh)	100.000
Lockout_remote	 	Injection rate (#/mmscf)	0.53
Lockout_local	 		
Alarm	 		
Purge	 	Lbs Odorant (since reset)	0.0109
Isolation Valve	 		<input type="button" value="Reset"/>

Valve Position (target)	0.22	
Valve Position (actual)	0.22	
Drip Mode		
Drops_remaining	9	
Time_since last drop	0	
Time_last interval	2.728	
Batch Mode		
Gas_remaining	0.000	mscf
Drops_target	5	
Calculation		
Drops_current	0	
<input type="button" value="Unit is unlocked"/>	<input type="button" value="Unit is on"/>	<input type="button" value="Operational notes"/>
12/21/2007	09:38:23	
4.80	4_02	
<input type="button" value="[xxx] xxx-xxxx"/>		<input type="button" value="Technician in charge"/>
<input type="button" value="[xxx] xxx-xxxx"/>		<input type="button" value="Contact Name 2"/>

The screen shot example above communicates the following:

- Shows the unit is on
- Gas flow rate = 100 mscfh
- Injection rate = .53 #/mm
- Value is open 22%
- Last time between drops: 2.728 seconds

Primary Overview: Lockout/Message

TechView - RTU (CWave_Micro - 1 Run Load) - C:\Zecksystems3\TV_Overview.htm

9999 Manual 4_02 **Z9000 Odorizer Overview**

Status		Gas flow rate (m ³ /h)	100.000
Lockout_remote		Injection rate (#/mm ³ /s)	0.00
Lockout_local			
Alarm			
Purge		Lbs Odorant (since reset)	0.0213
Isolation Valve			Reset

Valve Position (target)	0.00	
Valve Position (actual)	0.00	
Drip Mode		
Drops_remaining	2	
Time_since last drop	0	
Time_last interval	0.000	
Batch Mode		
Gas_remaining	0.000	m ³ /h
Drops_target	5	
Calculation		
Drops_current	0	
Unit is locked	Unit is off	Pipeline is out of service - Call Mark for questions
12/21/2007	09:52:12	
4.80	4_02	
{325} 573-8578		Mark Zeck
{xxx} xxx-xxxx		Contact Name 2

The screen shot example above communicates the following:

- Shows the unit locked and the unit is off
- The lock has to be released and the unit turned on to return to service
- When the unit is locked, the Overview page will reflect the Lockout and allow the user to post messages and communicate important information, such as names and phone numbers.

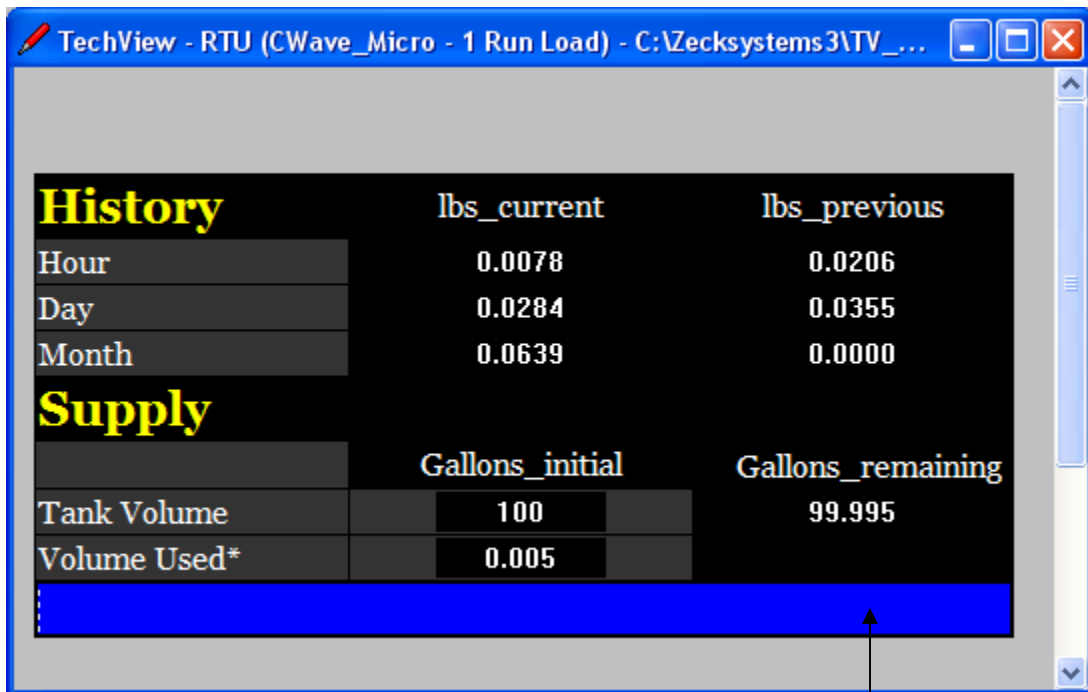
Lockout Alarms

Alarms		Clear			
Injection Rate			Servo		
LoLo			Communication		Disabled
Lo			Max Open		Enabled
Hi			Travel Time		Enabled
HiHi			Isolation		
No Odorant (purge)			Motor		
No Odorant (batch)			Feedback		
			Voltage		Enabled
			RTU		
Limit			Analog lost		
Upper Limit Calculation		Enabled	Battery		
Lower Limit Calculation		Enabled	Power Loss		
			Lockout_remote		
Gas		C4	Lockout_local		
Zero Gas			DO Polarity	N/O	
			DO Override	Available	

The screen shot example above communicates the following:

- Shows the alarm that the previous page caused.

Odorant Usage



The screen shot example above communicates the following:

- Initial usable gallons
- Volume used (reset to zero when the tank is filled) →
- Slider bar shows relative level of storage tank

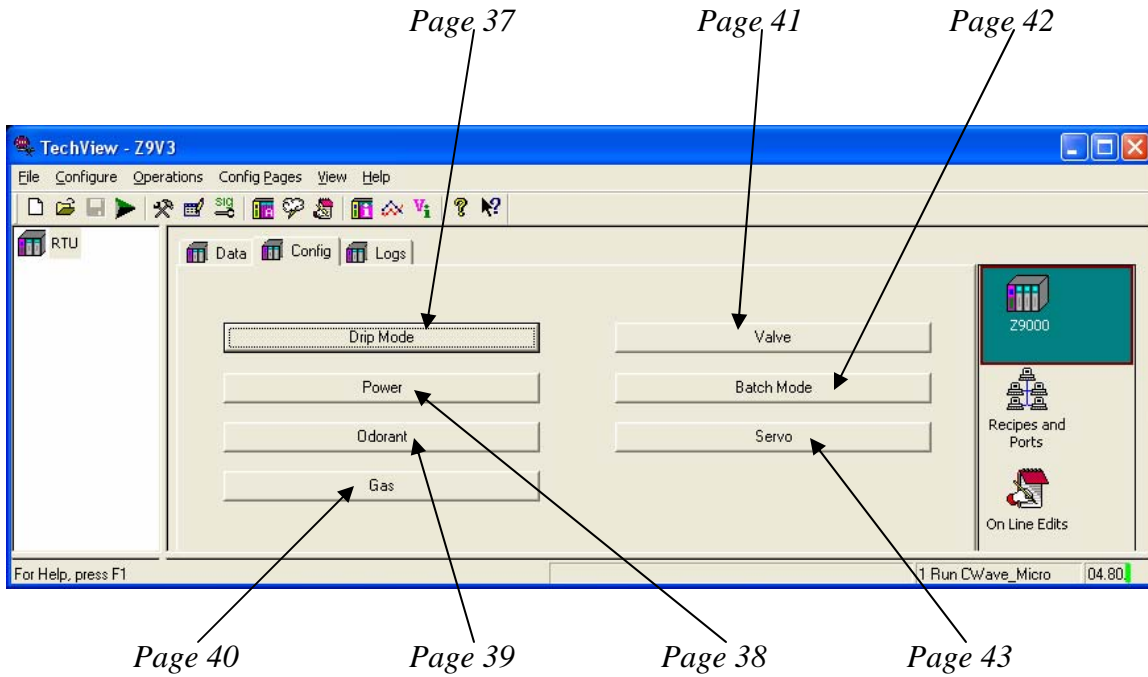
Alarms

Alarms		Clear		
Injection Rate			Servo	
LoLo			Communication	Disabled
Lo			Max Open	Enabled
Hi			Travel Time	Enabled
HiHi			Isolation	
No Odorant (purge)			Motor	
No Odorant (batch)			Feedback	
			Voltage	Enabled
			RTU	
Limit			Analog lost	
Upper Limit Calculation		Enabled	Battery	
Lower Limit Calculation		Enabled	Power Loss	
			Lockout_remote	
Gas		C4	Lockout_local	
Zero Gas			DO Polarity	N/O
			DO Override	Available

The screen shot example above communicates the following:

- All is well with no alarms
- Normal state
- DO Polarity reflects this condition

Techview Z9V3: Config



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Drip Mode Parameters

Drip Mode	
Injection Rate_now	0.000
Position_target	0.000
Position_actual	0.000
Zone	3
Drops_remaining	2
Time_since last drop	0
Time_last interval	0.000
Alpha_now	0.400
Alpha_next	0.400
Zone 1 response	<input type="text" value="1.0"/>
Zone 2 response	<input type="text" value="1.0"/>
Zone 3 response	<input type="text" value="1.0"/>
Alpha_high	<input type="text" value="0.400"/>
Alpha_mid	<input type="text" value="0.400"/>
Alpha_low	<input type="text" value="0.400"/>
Beta	<input type="text" value="0.230"/>

Power Parameters

TechView - RTU (CWave_Micro - 1 Run Load) - C:\Zecksystems3\TV_Power.htm

Power Acknowledge

Servo enabled

Voltage 23.9

Current 18

Current Fault

Relay Status

1	Auto restart	True		Warm start	Warm Start
2	Voltage_low limit	18.0			
3	Voltage_alarm delay	0.010		Home	Go Home
4	Current_N continuous	4500		Homing time allowed	60
5	Current_N peak	4500			
6	Current_H continous	3500		Manual enable	Enable
7	Current_H peak	3500		Manual disable	Disable
8	Valve Target	0.22			
9	Valve Actual	0.22		Servo power relay	Disable
				Cold Start (resets all variables !)	Careful !

Odorant Parameters

Odorant		
	Target	Actual
1 Injection rate (<i>#/mmscfh</i>)	0.500	0.52
	<i>#/mm</i>	<i>seconds</i>
2 LoLo	0.01	600
3 Lo	0.10	1200
4 Hi	1.00	1200
5 HiHi	3.00	300
6 Density (<i>lbs/gal</i>)	6.760	
7 Output (<i>lbs/pulse</i>)	0.0001	
8 Pulse duration (<i>ms</i>)	50	

Gas Parameters

TechView - RTU (CWave_Micro - 1 Run Load) - C:\Zecksystems3\TV_Gas.htm

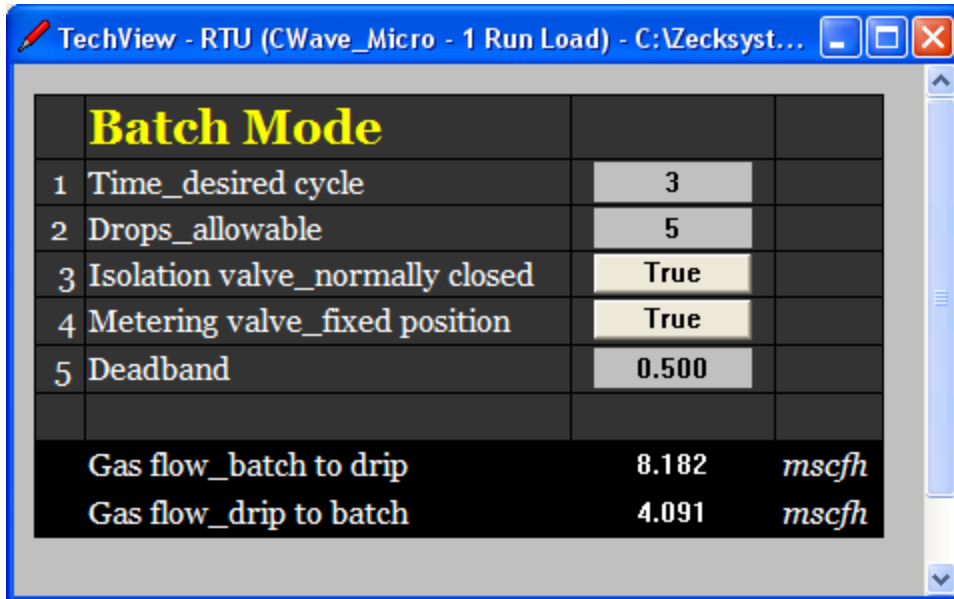
Gas				
1	Gas mode	Auto	97.233	<i>mscfh</i>
2	Gas_max (<i>mmscfh</i>)	0.100	100.000	<i>mscfh</i>
3	Gas_manual/default (<i>mmscfh</i>)	0.000	0.000	<i>mscfh</i>
4	Gas_zero (%max)	2.000	2.000	<i>mscfh</i>
5	Signal source	1		
Analog		(Source 1)	23.451	97.229
1	Signal calibration		ma	raw (0-100)
2	zero	0.000		
3	span	100.000		
4	Time_smoothing integral	3.0		
Pulses_rate		(Source 2)	0	0
1	Time_max allowable (<i>seconds</i>)	120	Pulse_ET	Pulse_LT
2	Gas_scf/Pulse	500.000		
3	Average_stack	4		
4	Filter_noise	0.05	Off	
SCADA (Lists 88 & 89)		(Source 3)		
Pulses_batch		(Source 4)	0	0
1	Time_sample period (<i>minutes</i>)	2	SP_ET	Pulses_LP
2	Gas_scf/pulse	500.000		
3	Time_max allowable (<i>seconds</i>)	120		
4	Filter_noise	0.05	Off	
Modbus_com 2 (Lists 60 & 61)		(Source 5)		

Valve Parameters



Valve		0.216	0.216
		09:41:56	
1	Time_allowed travel	120	seconds
2	Position_max	0.60	(.1=10%)
3	Position_home reset	0.20	(.1=10%)
3	Position_offset	0.10	(.1=10%)
Purge settings			
4	Position_purge	0.50	(.1=10%)
5	Drops_stop opening	1	
6	Drops_close	1	
7	Drops_isolation allowable	200	
		0	
8	Time_repurge	60	minutes
Batch settings			
9	Position_batch max	0.50	(.1=10%)
10	Position_batch min	0.20	(.1=10%)
11	Time_max to min...	20	seconds
12	Standby Multiplier	99	

Batch-Drip Parameters



Batch Mode		
1	Time_desired cycle	3
2	Drops_allowable	5
3	Isolation valve_normally closed	True
4	Metering valve_fixed position	True
5	Deadband	0.500
	Gas flow_batch to drip	8.182 <i>mscfh</i>
	Gas flow_drip to batch	4.091 <i>mscfh</i>

Servo Parameters

Servo
(factory assistance required)

1	MC_VERS*	Version 3150.010II
2	MOTOR_STATUS	1000110II
3	SLOW_SP	30
4	FAST_SPEED	150
5	FEEDBACK_TIME	900
6	MOTOR_CONFIG	Configure

* IF MC_VER => 3150 then use Servo3 (see recipe)
*IF MC_VER < 3150 then use Servo2 (see recipe)
*IF Brush Style motor with separate motion controller use Servo1 (see recip

History

Collect Data Save Parameters Search Criteria Floating Point Format File Definition

Archive Collection Parameters

Collect by Name Start from oldest record Freeze Date/Time

File Number : File Name :

Stats

Fields Collected:

Records Collected:

Record	DATE/TIME	LSN	GSN	TOTAL	GAS FLOW
1	12:00:00.820 13-SEP-2006	51	1085	0.0000	0.0736
2	11:00:00.820 13-SEP-2006	50	1083	0.0000	0.0736
3	10:00:00.820 13-SEP-2006	49	1081	0.0000	0.0736
4	09:00:00.820 13-SEP-2006	48	1079	0.0000	0.0736
5	08:00:00.820 13-SEP-2006	47	1077	0.0000	0.0736
6	07:00:00.820 13-SEP-2006	46	1074	0.0000	0.0736
7	06:00:00.820 13-SEP-2006	45	1072	0.0000	0.0736
8	05:00:00.820 13-SEP-2006	44	1070	0.0000	0.0736
9	04:00:00.820 13-SEP-2006	43	1068	0.0000	0.0736
10	03:00:00.820 13-SEP-2006	42	1066	0.0000	0.0736
11	02:00:00.820 13-SEP-2006	41	1064	0.0000	0.0736
12	01:00:00.820 13-SEP-2006	40	1062	0.0000	0.0736
13	00:00:00.820 13-SEP-2006	39	1060	0.0000	0.0736
14	23:00:00.820 12-SEP-2006	38	1058	0.0000	0.0736
15	22:00:00.820 12-SEP-2006	37	1056	0.0000	0.0736
16	21:00:00.820 12-SEP-2006	36	1054	0.0000	0.0736

Audit Trail

	Collect Data	Data Storage	Search Criteria	Total # of Records Collected: 24	
	Date/Time	Signal	Description	Audit Seq#	Global Seq#
1	00:26:07.844 01-JAN-1977	@GV.Local_Standby	C-ALARM	2	3
2	00:26:07.844 01-JAN-1977	@GV.Power_Loss_Al	C-ALARM	3	5
3	02:13:01.840 01-JAN-1977	@GV.Power_Loss_Al	C-RETURN TO NORMAL	9	16
4	15:36:02.768 07-SEP-2006	@GV.Local_Standby	C-RETURN TO NORMAL	20	28
5	15:37:01.768 07-SEP-2006	@GV.Local_Standby	C-ALARM	28	37
6	15:37:13.768 07-SEP-2006	@GV.Local_Standby	C-RETURN TO NORMAL	34	44
7	15:41:07.768 07-SEP-2006	@GV.Local_Standby	C-ALARM	40	51
8	15:43:29.804 07-SEP-2006	@GV.Gas_Flow_Alarm	E-ALARM	53	65
9	15:43:29.808 07-SEP-2006	@GV.Power_Loss_Al	C-ALARM	54	67
10	15:43:30.804 07-SEP-2006	@GV.Gas_Flow_Alarm	E-RETURN TO NORMAL	58	72
11	15:43:54.804 07-SEP-2006	@GV.Power_Loss_Al	C-RETURN TO NORMAL	62	77
12	15:44:08.804 07-SEP-2006	@GV.Local_Standby	C-RETURN TO NORMAL	67	83
13	15:44:45.804 07-SEP-2006	@GV.Local_Standby	C-ALARM	73	90