

TORO[®] SENTINEL[®] APPLICATION NOTE

ANO4: ACTIVITY / ALARM MONITOR



Version: 1-26-2011

ACTIVITY / ALARM MONITOR IN SENTINEL®

Activity / Alarm Monitor Overview

The Activity/Alarm Monitor screen combines the separate Satellite Manual/Output Status and Alarms screens from previous versions of Sentinel into one utility. The options provided for Manual/Output Status enable individual satellite stations to be started and stopped as needed. A temporary station run time is assigned for manual operation, ranging from 1 to 255 minutes. The settings provided for Alarms, enable all critical satellite operating parameters to be defined and monitored at all times. Any condition that meets the Alarm criteria, is flagged and reported during routine polling and specified polling communications.

The Activity / Alarm Monitor utility is accessed through the left-hand navigation Tree in the Satellites Tab under Operations & Status for an individual satellite:



The layout of the Activity / Alarm monitor screen is a list format to more easily support the operation of 204-station two-wire satellites:

🖳 Activity/A	larm Moni	tor: 001									
👵 Receive 🥤	🖡 Receive 🍲 Send Outputs 🛛 🐥 Receive flow rate 🛛 👚 Send clear all alarms 🛛 🍲 Send Options 👻 🔀 Close										
Log results	🖉 Log results 🛛 🔽 Clear alarms after receive 🛛 🔀 Log alarms only 🛛 🛃 Show In Programs										
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Report Result	s Browser	ľ.									
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To verify status, the user must click the **Receive** button. \P

Once received, the data is displayed in the list. The first three columns indicate:

whether an alarm or warning is present,

if rain days or station-off days are set present, and

whether or not the station has watered since the last change of day.

Functions / Buttons

Receive - Receives all data, except current flow information, from the unit in the field.

Send Outputs - Sends manual output operation requests to the unit.

Receive flow rate - Receives the current rate of flow from the unit if a flow meter is installed and configured.

Send clear all alarms - Clears all alarms in the unit. Send Options:

- Clear all alarms Clears all alarms in the unit (same as Send clear all alarms button).
- Clear elec/user alarms Clears only electrical, and user set alarms.
- **Clear comm alarms** Clears only communication failure alarms.
- Clear flow alarms Clears only flow related alarms.
- Send elec/user alarm Sends user set alarms to the unit to disable station outputs.

Log results - Adds the received information to the system log.

Clear alarms after receive - Sends clear all alarms after alarms have been successfully received.

Log alarms only - When selected, only alarm information is committed to the system log.

Show In Programs - Shows or hides the In Programs area in the Report window. This area displays what programs each station is assigned to when enabled.

Print - Prints the results.

Send Work Report - Creates a .pdf file containing the information displayed in the Report tab. Holding the Ctrl key and clicking on this button immediately opens the file for display. By default, the file is stored in My Documents\Toro\Sentinel WMS\logs.

Clear manual outputs - Clears all manual output selections. This provides a quick way to turn off all manual outputs by clearing all, then sending outputs to the unit.

Send Results Notification - Sends the information contained in the results screen via email to any addresses configured in the Notifications area of Setup.

Report Tab – Provides summary list of stations and overview of conditions and ability to manually atart / stop stations.

Results Tab - Provides detailed information about runtime and alarm/warning data received from the unit.

Browser Tab - Provides an overhead map view of the latitude/longitude defined in the Global tab of the units Special Data. An internet connection is re An internet connection is required to retrieve the map information.

Alarms/Warnings

- 1. Report Tab
- The first column to the right of the station number is to report the existence of an Alarm/Warning. If an alarm or warning is present in the unit, a bell or exclamation mark will be displayed next to the offending station.
- 3. Available alarm/warning info is displayed in the Electrical & User Alarms column to the right.

🖳 Activi	ity/Alarm Mo	nitor: 002-	[Eicon]				_ 🗆 🛛			
👵 Receiv	🜷 Receive 🏠 Send Outputs 🛛 🜷 Receive flow rate 🛛 🏠 Send clear all alarms 🛛 🏠 Send Options 👻 🔀 Close									
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	Bitter Cand) (ark Benett B Clear menual aunite Cand Benetter Metiliantian									
1	Send Work Report Ulear manual ouputs Send Hesults Notification									
Report F	Results Brows	er		3						
∎ [#] 🏹	💏 🛕 🛛 ON/OF	F Control	Time to Runtime Run Today	Electrical & User Alarms	Flow alarms	In Programs	^			
2			Alarms clea	ared@12/13/	2010 1:07 PM	1				
		Power Fa	ail@8:49 AM 1/1	8/2011, Pow	er Up@8:49	AM 1/18/2011	=			
		F	Flow alarms: Ma	aster Min. @1	1/13/2011 9:0	D2 PM				
			Sate	llite - 002 - [E	Eicon]					
M	11-12		0							
25			0	0	Zero					
			00:05							
4			0	-						
5	4		00:07							
E			0							
7	4		00:07							
8			0							
			U 00.07	6						
11-00			00:07	General						
12			0	achora						

- 4. Detailed information about the alarm/warning can be found in the Results tab.
- 5. All alarms can be cleared by clicking the Send clear all alarms button.
- 6. Individual alarms can be cleared using the Send Options drop-down button.

🖳 Activity/Alarm Monitor: 002- [Eicon]
🐺 Receive 🎓 Send Outputs 🜷 Receive flow rate 👚 Send clear all alarms 😭 Send Uptions 🔸 🔀 Close
🔀 Log results 🛛 Clear alarms after receive 🛛 🔁 Log alarms only
Print 2 Sond Work Report E Clear manual ouputs 🔂 Send Results Notification
Report Results Browser
Receive Activity Monitor from unit 002 at 1/20/2011 2:12:33 PM Activity Monitor Results from 002 [Eicon] firmware = 2.47-7A64
No outputs on.
Automatic programs running:
$\frac{1}{41}$ $\frac{30}{30}$ $\frac{30}{22}$ $\frac{1}{4}$
= program is running, but output is masked (off). Check alarms for explanation.
The followings stations ran since the last day change time (station-time):
3-00.05, 5-00.07, 7-00.07, 10-00.07, 11-00.01
Power Fail@8:49 AM 1/18/2011, Power Up@8:49 AM 1/18/2011
Alarms cleared@12/13/2010 1:07 PM
Flow alarms: Master Min. @1/13/2011 9:02 PM
General Uver Current found on the following stations(s):
(1) Advard Concert(A)
11.0
Zero flow alarms on the following station(s):
Receive Activity Monitor successfully completed on all field units at 1/20/2011 2:12:38 PM.
1

Rain Days / Station Off Days

- 1. Report Tab
- 2. If a station has rain days, or station off days present, an umbrella icon will be displayed in the second column.

💀 Ac	tivity.	/Alarm Mon	itor: 002-	[Eicon]						_ 🗆 🛛
Report	g result	Tend Outp Send Outp Send Work	outs 🔑 Re larms after re Report 📫	aceive flow aceive <mark>c</mark> Clearman	rate 👚 Se Log alarm ual ouputs	end clear all alarn s only 🛃 Sho 😡 Send Resu	ns 👚 S w In Progr Its Notifica	Send Options ams tion	- 🔀 Close	
	4 7	ON/OFF	Control	Time to Bun	Runtime Todav	Electrical & User Alarms	Flow	Days off	In Programs	_
					Alarms	cleared@1/	20/2011	1:21 PM		
	2			Flow	alarms:	Master Min.	@1/20	/2011 1:2	1 PM	
					S	atellite - 002	-[Eico	n]		
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10					00:07		1	0		×

3. Detailed information about the days off can be found in the Results tab.

🖳 Activity/Alarm Monitor: 002- [Eicon]	- 0 🛛
 Receive Send Outputs Receive flow rate Send clear all alarms Send Options - Close Log results Send Clear alarms after receive Clog alarms only Show In Programs Print - Send Work Report Clear manual ouputs Send Results Notification 	
Report Results Browser	
Activity Monitor Results from 002 [Eicon] firmware = 2.47-7A64 No outputs on. Automatic programs running: Prog. Slot Stn. Time Repeats A1 30 30 2 0 ** ** = program is running, but output is masked (off). Check alarms for explanation. The followings stations ran since the last day change time (station-time): 3-00:05, 5-00:07, 7:00:07, 11:00:07, 11:00:01, 30:00:06 The following stations have station days off (station-days off): 1-5 Alarms cleared@1/20/2011 1:27 PM Receive Activity Monitor successfully completed on all field units at 1/20/2011 2:33:09 PM.	

Station Watering

- 1. Report Tab
- 2. If a station has watered since the units last change of day took place, a raindrop icon will be displayed in the third column.
- 3. The amount of time the station ran will be displayed in the Runtime Today column.

🖳 Activ	ity/Al	arm Moni	itor: 002-	[Eicon]				
Received Former Log re	ve 🏫 sults	Send Outp	uts 🔑 Re arms after re Report 💴	cceive flow cceive	rate 👚 Se Log alarms ual ouputs	nd clear all alarm only 🔽 Show 🔂 Send Resul	s 👚 Send Options - 🔀 Close w In Programs ts Notification	
Report	Results	Browser	Cantral	Time In	3	Electrical	In Deservery	
• " 🌣	44	UN/UFF	Control	Run	Today	User Alarms	mriogians	-
				Alarm	cleared	@1/20/2011	1:27 PM	
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1				_	0			
2				_	0			
3	4				00:05			
4					0			
5	4		1		00:07			
6			15 J		0			
7	4		1		00.07	2		
8					0			
9					0			
10	4		0		00:07			
11	4				00:01			
1 12					0			

4. Detailed information about each station's runtime can be found in the Results tab.

🖳 Activity/Alarm Monitor: 002- [Eicon]	_ 🗆 🛛
 Receive Send Dutputs Receive flow rate Send clear all alarms Send Options ICose Log results Clear alarms after receive Log alarms only Show In Programs Print Send Work Report Clear manual ouputs Send Results Notification Report Results Browser 	
Receive Activity Monitor from unit 002 at 1/20/2011 2:29:10 PM Activity Monitor Results from 002 [Eicon] firmware = 2.47-7A64 Manual outputs found on the following stations(s) [stn:time]: [M] Auto outputs found on the following stations(s): [30] Automatic programs running: Prog. Stn. Prog. Stn. Al 30 6 O The following stations ran since the last day change time (station-time): 3-00:05, 5-00:07, 7-00:07, 10-00:07, 11-00:01, 30-00:05 Alarms cleared@1/20/2011 1:27 PM Receive Activity Monitor successfully completed on all field units at 1/20/2011 2:29:15 PM.	

Station Runtime Reporting

1. Report Tab

If a station has completed running:

2. The Runtime Today column indicates how long the station ran.

🖳 Activ	ity/A	larm Moni	itor: 002	[Eicon]				_ 🗆 🛛
Received Log re	ve 👔	Send Dutp	uts 🐺 Re larms after re Report 📫	eceive flow eceive	rate 👚 Se Log alarms ual ouputs	nd clear all alarr conly 🔽 Sho 🏹 Send Resu	ms 👚 Send Options 👻 Close ww In Programs ults Notification	
	The sum	ON/OFF	Control	Time to Bun	Runtime	Electrical & User Alarms	In Programs	^
		-		Alarm	cleared	01/20/2011	1 2:06 PM	
					Satellite -	002 - [Eico	n]	-
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4	4	ON	Manual	1	00:01		A2	
5	4				00:07		100 mil	
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7	1		12 1		00.07			
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9					0			
10	4				00:07			
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If a station is currently running:

- 3. ON will be displayed in the ON/OFF column.
- 4. The Control column indicates how a station is running. "Auto" for scheduled irrigation, and "Manual" for manually started irrigation.
- 5. The amount of run time left will be displayed in the Time to Run column.
- 6. The Runtime Today column indicates how long the station has ran.

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Log res	sults 🛛 🖂 Cle	ar alarms after re	eceive	Log alarm	s only 🔽 Sho	w In Programs	
Drint .	Sandit	lark Report	Clearman	ual currute	Sand Bar	de Notification	
Funk .	- Journa M	or nepor	Cibal Inan	uai oupuis	Dena nest		
eport F	Results 3	er (4)	5	161			
* 🏠	ON/C	IFF Control	Time to Run	Runtime Today	Electrical & User Alarms	In Programs	
			Alarms	cleared	@1/20/2011	1 2:06 PM	
				Satellite	- 002 - [Eico	nl	
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2	A ON	Auto	7	00:02		A2	
3	à			00:05			
4	ON	Manual	9	00:01		A2	
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6				D	1	A2	
7	4	1		00:07	2		
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	2			00.07			
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7. Detailed information about the currently running stations can be found in the Results tab.

🖳 Activity/Alarm Monitor: 002- [Eicon]	_ 🗆 🛛
🦑 Receive 🏠 Send Outputs 👎 Receive flow rate 🏠 Send clear all alarms 👚 Send Options → 🔀 Close 🧭 Log results 🔽 Clear alarms after receive 🔽 Log alarms only 🔽 Show In Programs 🚔 Print → 🐑 Send Work Report 📁 Clear manual ouputs 🔂 Send Results Notification	
Report Results Browser	
Activity Monitor Results from 002 [Eicon] firmware = 2.47-7A64 Manual outputs found on the following stations(s) (strittime): [M, 4:9] Auto outputs found on the following stations(s): [2] Automatic programs running: Prog. Stot Yes Auto outputs found on the following stations(s): [2] Automatic programs running: Prog. Stot Xet and the following stations running: Prog. Stot Xet and the following stations (s) Yes Yes Automatic programs running: Prog. Stot Xet and the following stations ran since the last day change time (station-time): 2-00:02, 3-00:05, 4-00:01, 5-00:07, 7-00:07, 10-00:07, 11-00:01, 30-00:08, 31-00:06 Alarms cleared@1/20/2011 2:06 PM In Programs: 2:[A2], 4:[A2], 6:[A2] Receive Activity Monitor successfully completed on all field units at 1/20/2011 3:21:46 PM.	

Manual Station Operation

A station can be manually started form the Report Tab.

- 1. Click the desired station's ON/OFF cell. This will enable Manual control. The cell should turn Orange with ON in the ON/OFF Column and Manual in the Control Column.
- 2. The run time will be displayed in the Time to Run column (default 30 minutes)
- 3. The Runtime can be changed using the keyboard, or the up/down buttons in the cell.
- 4. To start the station(s), click the Send Outputs button to send

🖳 Activity	Alar 4 ni	tor: 002·	Eicon]			
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Cog resul	ts 🛛 🛃 Clear ala	arms after re	sceive 🛃	Log alarms only	Show In Programs	
🔮 Print 🔹 I	Send Work F	Report 💴	Clear manu	al ouputs 🛛 🔂 S	end Results Notification	
Report Re	sults Browser		2			
· · ·	ON/OFF	Control	Time to Run	Electrical & User Alarms	In Programs	^
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Browser Tab

The Browser Tab Provides an overhead map view of the latitude/longitude defined in the **Global** tab of the units **Special Data**. An internet connection is required to retrieve the map information.

🔜 s	pecial Data 100- [Toro	Demo Controller]			_ 🗆 ×
₽	leceive 👚 Send 🗐 Save	🖓 Refresh 🔽 Close			
!	Comm Settings 🔿 Forwa Genera 😒 Global 😥	ardinq 🦠 Scheduler 🗱 Flow Meter 🏹 Alarm Inp	Advanced ut 🖴 Field Model	m 🔓 Pump / MV 🛱 ET 🏾	🗸 Current
	It is recommended that y overall software in software	ou choose the same units are setup (shown in bold).	settings set for the	e	
	Precipitation Units				
	inches (in)	🔿 millimeters (mm)		
	Flow Units © GPM Language English	C LPM	О мз/н		
	Location latitude longitude				



Click the **Locate All** button on the main menu when the Activity/Alarm Monitor is open (does not have to be in the Browser Tab at the time) to retrieve the map information from the internet.



