

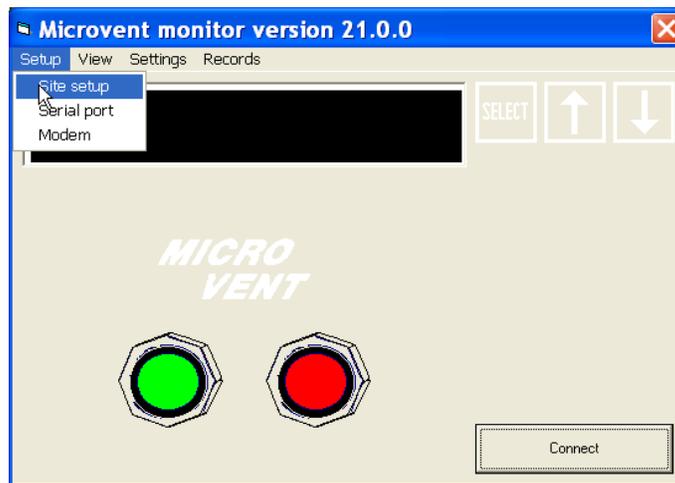


**Agricultural Storage Systems**  
1242 Rte 246 South Melville  
Prince Edward Island, C0A 1C0  
Phone: 902-658-2550 Fax: 902-658-2608  
Website: [www.gormancontrols.com](http://www.gormancontrols.com)  
E-mail: [mailbox@gormancontrols.com](mailto:mailbox@gormancontrols.com)

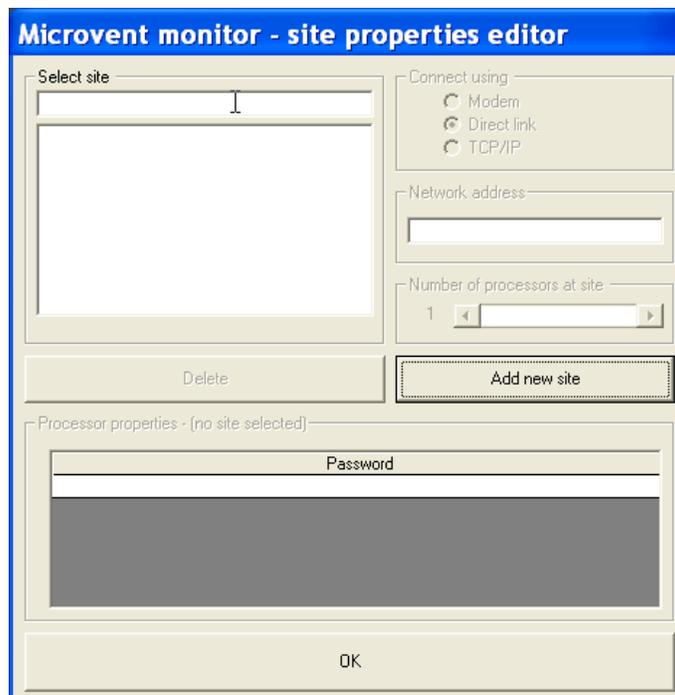
## Using Microvent Monitor

### 1. Site Setup

1.1. When connecting to your system, for the first time, using Microvent Monitor, you must first conduct your 'Site Setup'.



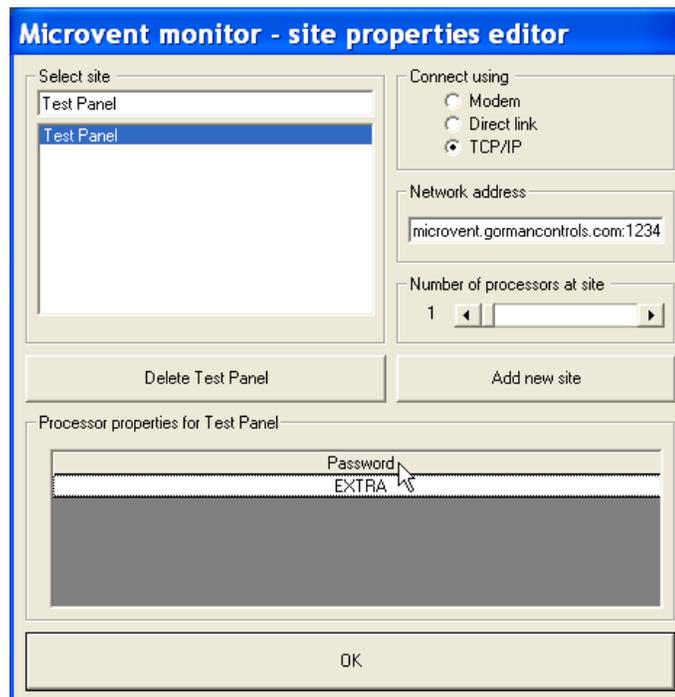
1.2. Under the 'Setup' menu, select 'Site Setup' to bring up the 'Microvent monitor site properties editor'.



1.3. Click the '**Add new site**' bar to bring up the following screen, enter your site name, and click the '**OK**' bar



1.4. In the '**Microvent monitor site properties editor**', check the appropriate connection method in the '**Connect using**' box.



1.5 If you connect with a **Modem**, you must input your modem's phone number. If you connect with a **Direct Link**, the connection set-up will be finished. If you connect with **TCP/IP**, you must input an IP address (contact Gorman Controls Ltd. to have an IP address provided).

1.6 Select the number of processors present on the site using the '**Number of processors at site**' selector bar.

1.6.1. If you have 1 processor at the site, select a password by clicking on '**Password**'. Choose your password, notice and select your password options ('**Save password**' and '**Conceal password**'), and click the '**OK**' bar.

The screenshot shows a dialog box titled "Enter password for Test Panel". It features a "Password" label above a text input field containing the text "EXTRA". Below the input field are two checkboxes: "Save password" (checked) and "Conceal password" (unchecked). At the bottom of the dialog is an "OK" button.

1.6.2 If you have multiple processors at the site, you must input a password for each and a switching string will be automatically added after you enter the number of processors.

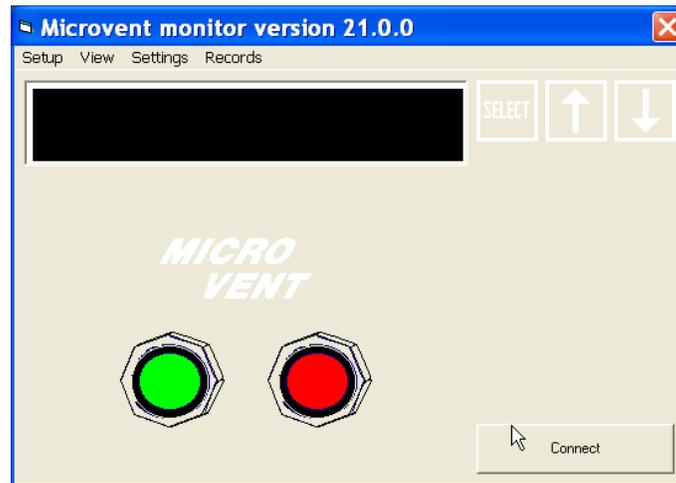
The screenshot shows a dialog box titled "Processor properties". It displays "Site: Test Panel" and "Processor number: 3". Below this is a "Processor Name" label above a text input field containing "Processor #3". The next section is "Password" with a text input field containing "EXTRA" and checkboxes for "Save password" (checked) and "Conceal password" (unchecked). The final section is "Switching string" with a text input field containing "19 18 48 4 19 48 51 1 19 48 51 1". An "OK" button is located at the bottom.

1.6.3. Enter your password (select your password options) and press the 'OK' bar.

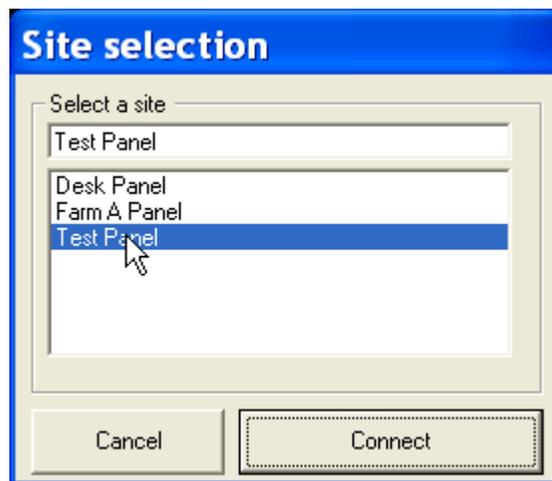
1.7. Once connection information, passwords, and switch strings are entered press the 'OK' bar.

## 2. Connecting to your System using Microvent Monitor

2.1. On the main Microvent Monitor screen press the 'Connect' bar.



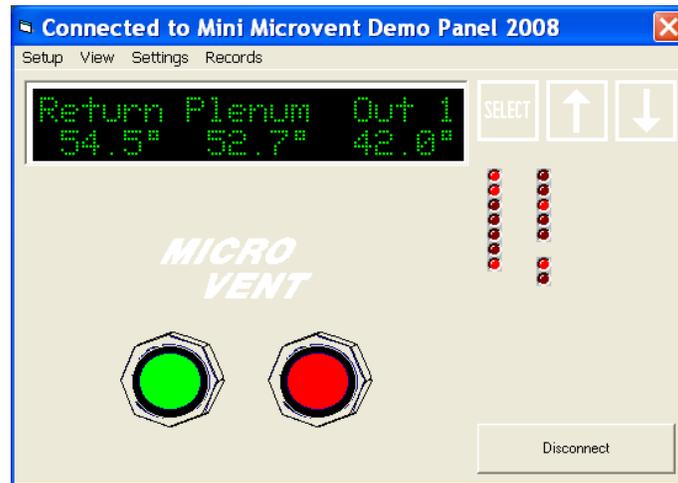
2.2. Select the system or processor you wish to control and press the 'Connect' bar.



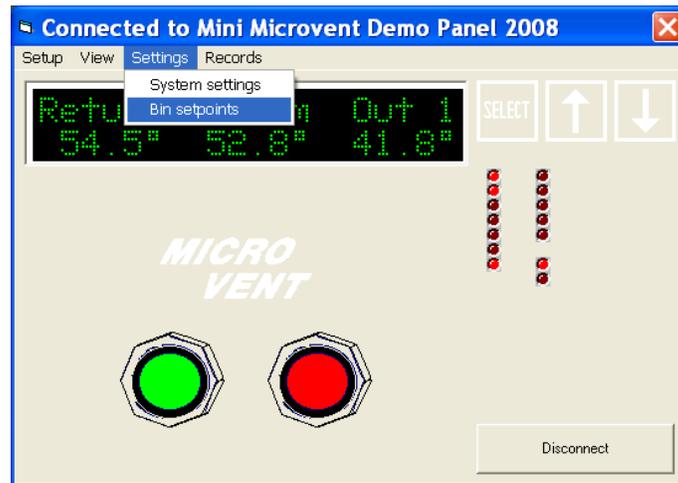
2.3. Your temperatures (return, plenum, and setpoint) will appear on the screen and you are ready to control your system from your computer.

### 3. Bin Set-Points

3.1. Bin Set-points can be changed just as they would be with your control panel, using the 'Select', 'Up', and 'Down' buttons:



3.2. Bin Set-points can also be changed using the 'Settings' menu:



3.2.1. Clicking 'Bin setpoints' will bring up this screen:

Setting	Value
Operation mode	Automatic run
Plenum setpoint	55.0 °F
Target setpoint	55.0 °F
Low plenum system starts	52.0 °F
Low plenum system stops	51.0 °F
Return air start	56.5 °F
Return air stop	56.0 °F
Humidifier duty cycle on time	1 hour
Humidifier duty cycle off time	15 minutes
Cool air available	3.0 °F below return air
Refrigeration	Disabled
Outside air cooling	Enabled
CO2 purge	Disabled
Frequency drive	Disabled
Accumulated fan time (hours:minutes)	3 hours 28 minutes

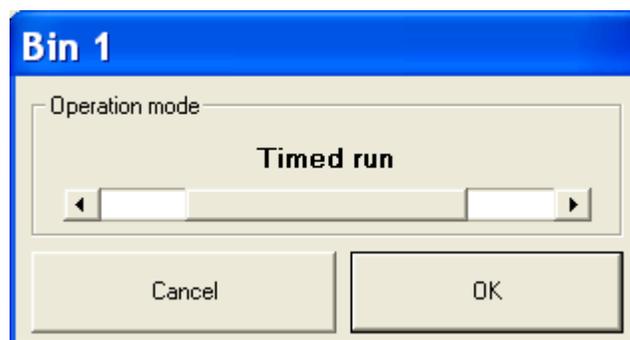
Bin number: 1 [Left Arrow] [Right Arrow] OK

3.2.2. Using this screen, you can adjust all of your bin set-points, just as you would with the main screen.

3.2.3 You can select which bin you view, using the “**Bin number**” selector bar at the bottom left corner.

3.2.4. All changes can be uploaded from this screen by pressing the 'OK' bar.

3.2.5. If you want to change to 'Timed Run', you would click on 'Operation mode' and move the selector bar to the appropriate mode (Timed Run in this case) and click 'OK':



3.2.5.1. A time clock bar will display at the bottom of the screen. You can select 15 minute intervals for run times. Green means the system will be on and run until the next red section, when the system will stop:

Setting	Value
Operation mode	Timed run
Plenum setpoint	55.0 °F
Target setpoint	55.0 °F
Low plenum system stops	51.0 °F
Humidifier duty cycle on time	1 hour
Humidifier duty cycle off time	15 minutes
Cool air available	3.0 °F below return air
Refrigeration	Disabled
Outside air cooling	Enabled
CO2 purge	Disabled
Frequency drive	Disabled
Accumulated fan time (hours:minutes)	3 hours 28 minutes

Time clock

3:00PM

6:00PM

Bin number

1

OK

3.2.5.2. Again, you must click the 'OK' bar at the bottom of the screen to upload the setting to your system.

3.2.6. All set-points can be adjusted just as the '**Operation mode**' was adjusted (ie: plenum setpoint), remember to click 'OK' with each setting you adjust and when you are finished, click the 'OK' bar at the bottom of the screen to upload your setting:

Bin 1

Plenum setpoint

55.0 °F

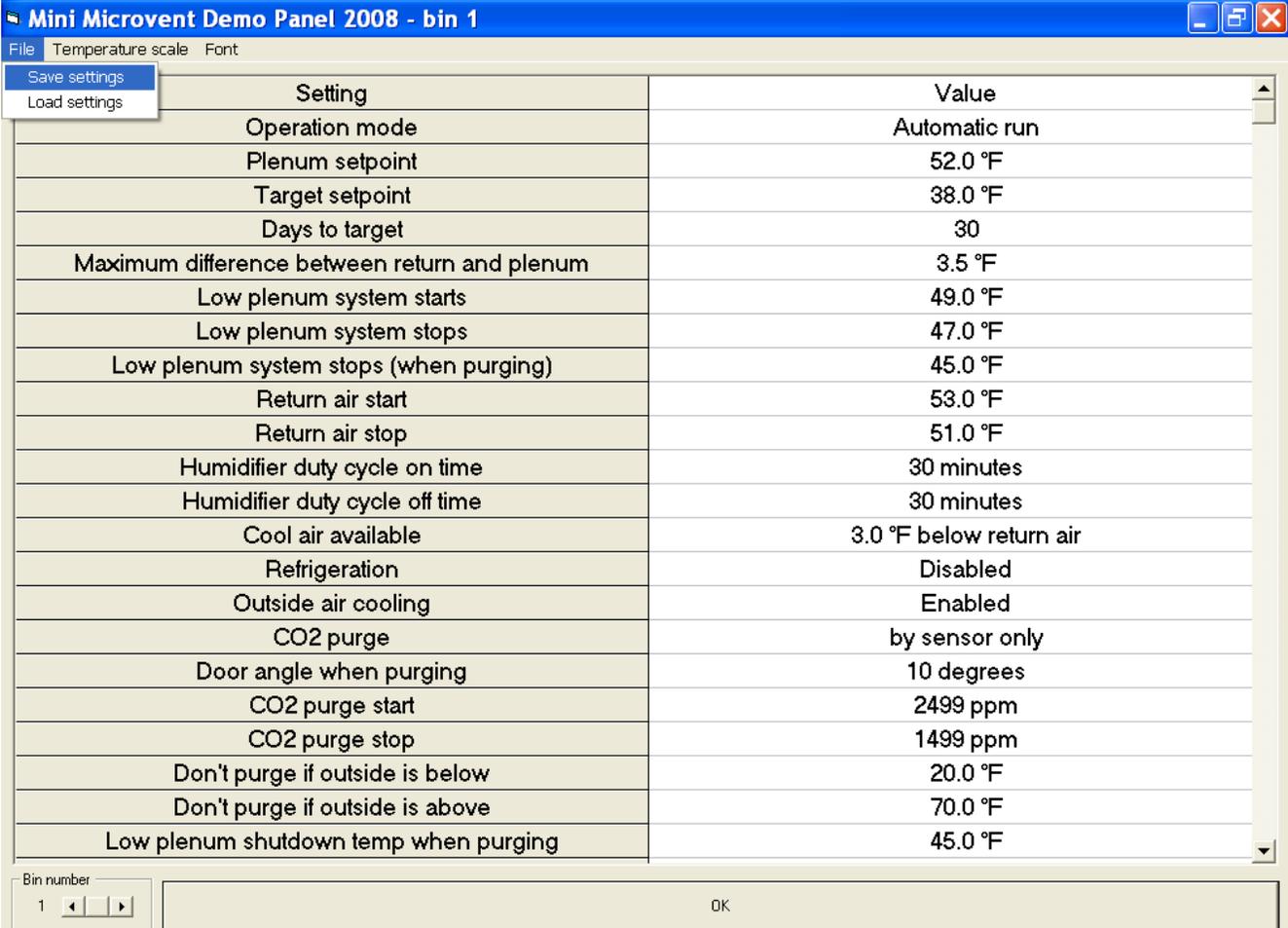
Cancel

OK

## 4. Saving Settings

4.1. Specific settings can be saved, so that they can be re-loaded, when they are next required. For instance, if you run the same settings for your “Pull-Down and Winter Holding”, these can be saved and quickly loaded again the next season.

4.1.1. Take the following, “Pull-Down and Winter Holding” settings, for example:



Setting	Value
Operation mode	Automatic run
Plenum setpoint	52.0 °F
Target setpoint	38.0 °F
Days to target	30
Maximum difference between return and plenum	3.5 °F
Low plenum system starts	49.0 °F
Low plenum system stops	47.0 °F
Low plenum system stops (when purging)	45.0 °F
Return air start	53.0 °F
Return air stop	51.0 °F
Humidifier duty cycle on time	30 minutes
Humidifier duty cycle off time	30 minutes
Cool air available	3.0 °F below return air
Refrigeration	Disabled
Outside air cooling	Enabled
CO2 purge	by sensor only
Door angle when purging	10 degrees
CO2 purge start	2499 ppm
CO2 purge stop	1499 ppm
Don't purge if outside is below	20.0 °F
Don't purge if outside is above	70.0 °F
Low plenum shutdown temp when purging	45.0 °F

4.1.2. Once you have selected your desired set-points, under the '**File**' menu, choose '**Save settings**', choose your file name and click '**Save**'. You can also write a '**Note**' to go along with your saved setting, to help identify the setting (ie: “Load these settings once table stock curing is finished”), and click '**OK**'.

4.1.3. Settings can be saved for all of you different storage strategies (ie: curing, reconditioning, etc.), so that the individual set-points can all be loaded in the future with a couple of quick clicks.

## 5. Loading Settings

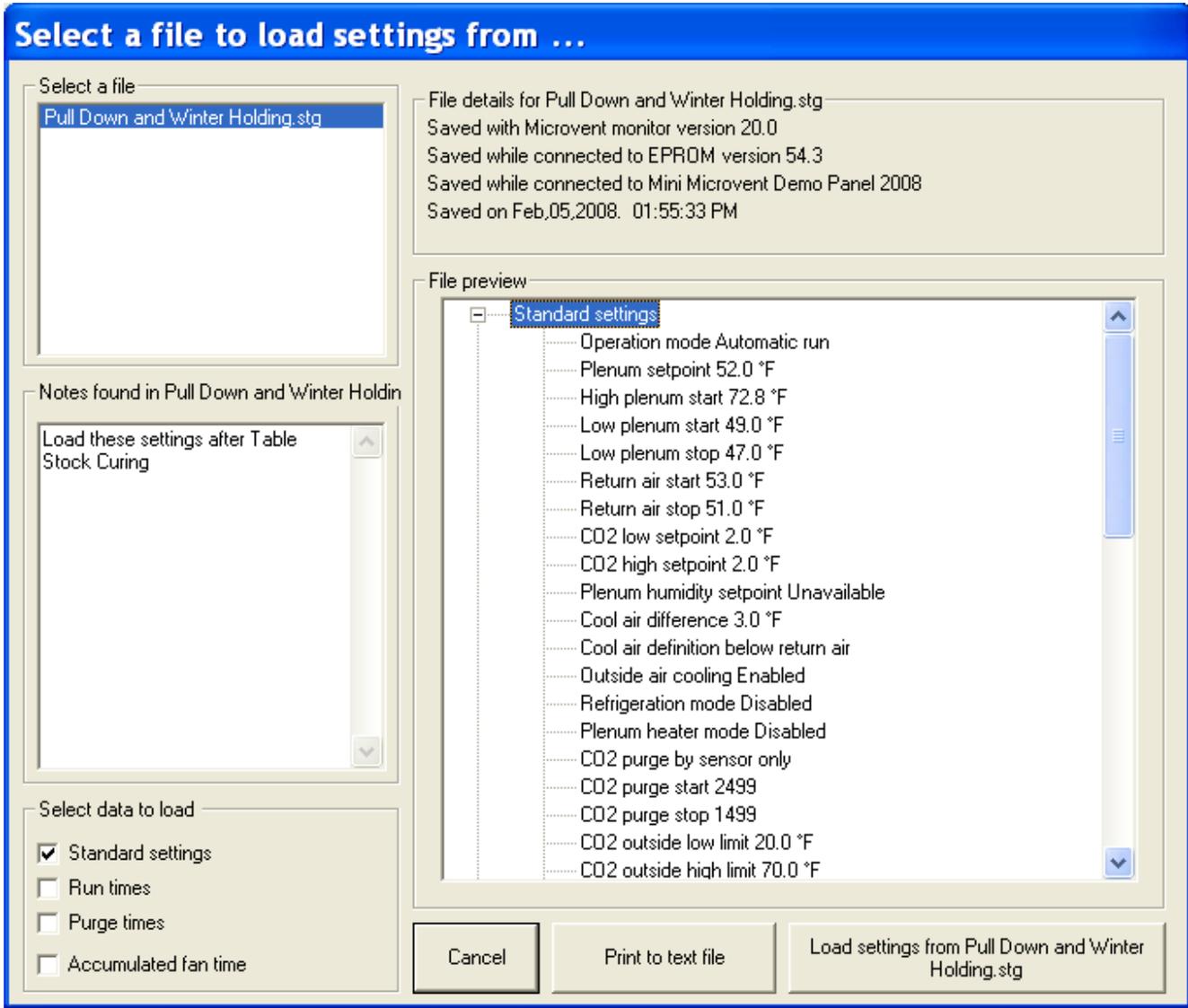
5.1. Using the '**Bin set-points**' screen, under the '**File menu**', select '**Load settings**'.

Setting	Value
Operation mode	Constant run
Plenum setpoint	52.0 °F
Target setpoint	38.0 °F
Days to target	30
Maximum difference between return and plenum	3.5 °F
Low plenum system stops	47.0 °F
Humidifier duty cycle on time	30 minutes
Humidifier duty cycle off time	30 minutes
Cool air available	3.0 °F below return air
Refrigeration	Disabled
Outside air cooling	Enabled
CO2 purge	Disabled
Frequency drive	Disabled
Accumulated fan time (hours:minutes)	3 hours 28 minutes

Bin number: 1

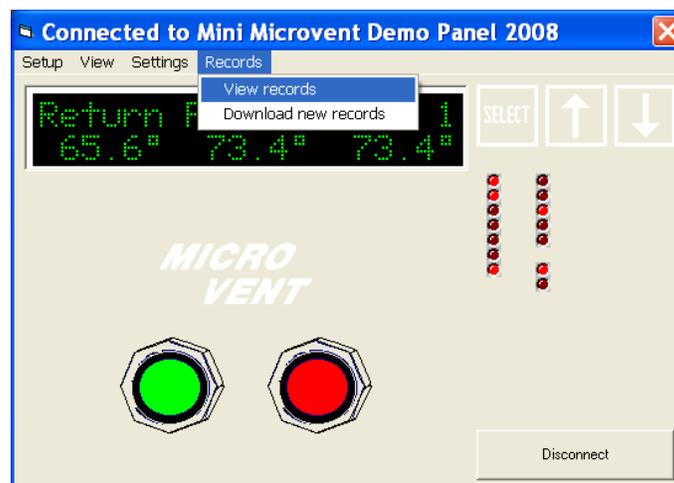
OK

5.2. Click the previously saved Setting File you wish in the '**Select a file**' box. Your notes can be viewed in the '**Notes found in**' box. You can view the individual set points in the '**File preview**' box. You can also select portions of the Setting File you may wish to load in the '**Select data to load**' box. To upload your selected settings to your '**Bin set-points**' click "**Load settings from Pull Down and Winter Holding.stg**" box (or whatever saved setting you wish to load). Then click the '**OK**' bar to upload the settings to your system:



## 6. Viewing Records

6.1. Your records can be viewed using Microvent Monitor. In the Microvent Monitor main screen click on the **'Records'** menu and click **'View Records'**:

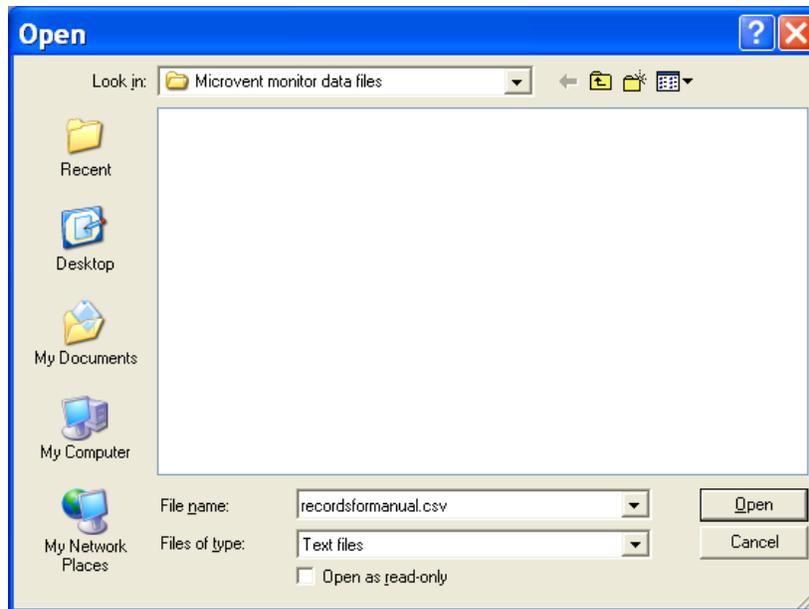




6.4. The 'File' menu allows you to save these records for later viewing in a spreadsheet program such as "Microsoft Excel" or "Quatro Pro":

	Time	Outside	Return	Plenum	CO2-1
	9:47:43 AM	42.2	56.3	54.9	3262
	9:47:43 AM	42.2	56.3	54.9	3262
	9:47:51 AM	42.2	56.3	54.9	3262
2/5/2008	9:47:51 AM	42.2	56.3	54.9	3262
2/5/2008	9:47:51 AM	-113.5	-113.5	-113.5	3262
2/5/2008	9:48:23 AM	-113.5	-113.5	-113.5	3262
2/5/2008	9:48:23 AM	-113.5	-113.5	-113.5	3262
2/5/2008	9:48:23 AM	-113.5	-113.5	-113.5	3262
2/5/2008	9:48:23 AM	-113.5	-113.5	-113.5	3262
2/5/2008	9:48:23 AM	-113.5	-113.5	-113.5	3262
2/5/2008	9:48:23 AM	-113.5	-113.5	-113.5	3262
2/5/2008	9:48:34 AM	-113.6	-113.6	-113.6	3262
2/5/2008	10:50:03 AM	-113.6	-113.6	-113.6	3262
2/5/2008	10:50:03 AM	-113.6	-113.6	-113.6	3262
2/5/2008	10:50:03 AM	-113.6	-113.6	-113.6	3262
2/5/2008	10:50:07 AM	-113.6	-113.6	-113.6	3262
2/5/2008	10:50:07 AM	34.2	63	68	3262
2/5/2008	10:51:38 AM	34.6	59.9	67.1	3259
2/5/2008	10:51:38 AM	34.6	59.4	67.1	3259
2/5/2008	10:51:40 AM	34.6	59.4	67.1	3259
2/5/2008	10:51:42 AM	34.6	59.4	67.1	3259
2/5/2008	10:51:44 AM	34.6	52.9	66.7	3259
2/5/2008	10:57:34 AM	34.7	40.9	46	3262
2/5/2008	10:57:46 AM	35.2	41	46.5	3262
2/5/2008	10:58:08 AM	34.8	40.4	46.1	3262
2/5/2008	10:58:22 AM	35.8	41.6	47.1	3262
2/5/2008	10:59:02 AM	34.9	40.7	46.4	3262
2/5/2008	10:59:17 AM	35.4	41.3	46.9	3262
2/5/2008	11:00:15 AM	34.9	41	46.6	3259
2/5/2008	11:00:16 AM	34.9	41	46.6	3262
2/5/2008	11:00:17 AM	34.9	41	48.1	3259
2/5/2008	11:00:35 AM	35.6	41.8	47.4	3259
2/5/2008	11:00:52 AM	34.8	41.2	46.8	3259
2/5/2008	11:01:02 AM	35.3	41.9	47.5	3259
2/5/2008	11:01:59 AM	34.5	42.1	46.8	3259
2/5/2008	11:02:00 AM	34.5	42.1	46.8	3259
2/5/2008	11:02:02 AM	36	43.7	48.2	3259
2/5/2008	11:02:03 AM	36	43.7	48.2	3259
2/5/2008	11:02:17 AM	35.7	43.3	48.1	3259
2/5/2008	11:03:23 AM	35.1	42.7	47.2	3259
2/5/2008	11:03:32 AM	35.9	43.3	47.9	3259
2/5/2008	11:03:33 AM	35.9	43.3	47.3	3259
2/5/2008	11:03:40 AM	36.4	43.5	48.1	3259

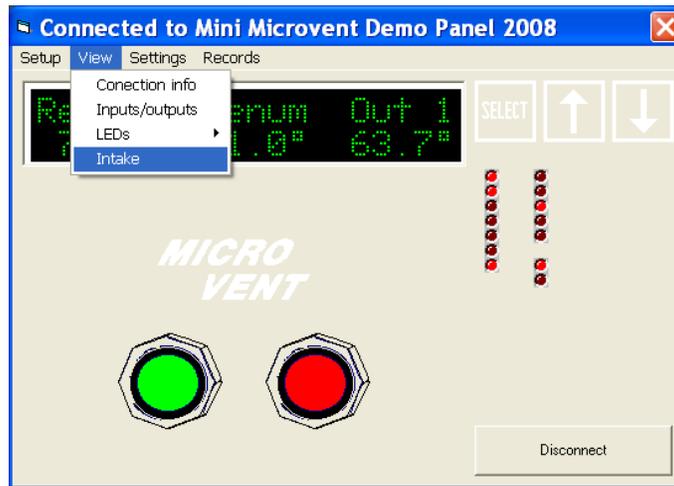
6.5. 'Save as comma delimited text file' will allow you to open the file in most programs, make sure you add a '.csv' extension to your file name to allow for opening in programs, such as Excel:



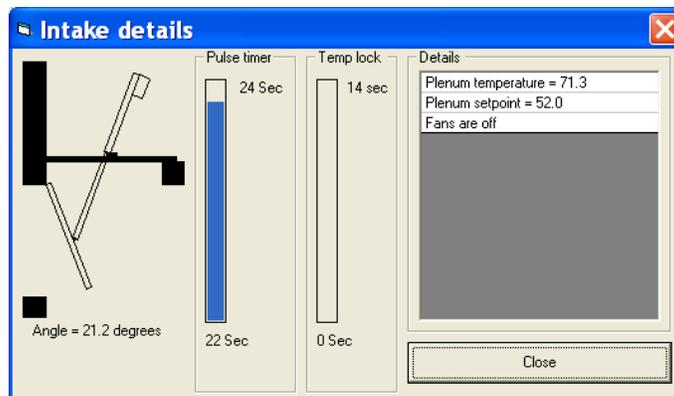
6.6. These records will be stored in 'Microvent monitor data files' in your Local C Drive that was automatically created when you installed Microvent Monitor. From here it can be opened and used for later viewing or charting.

## 7. Miscellaneous Features and Views

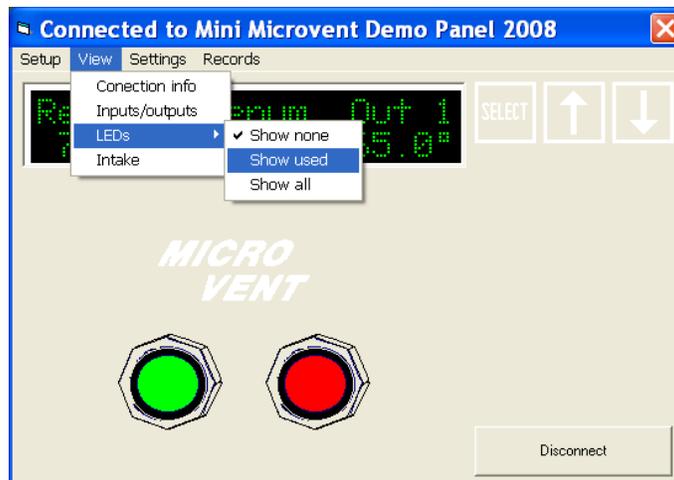
7.1. You can view your Intake Door opening angle using the **View** menu:



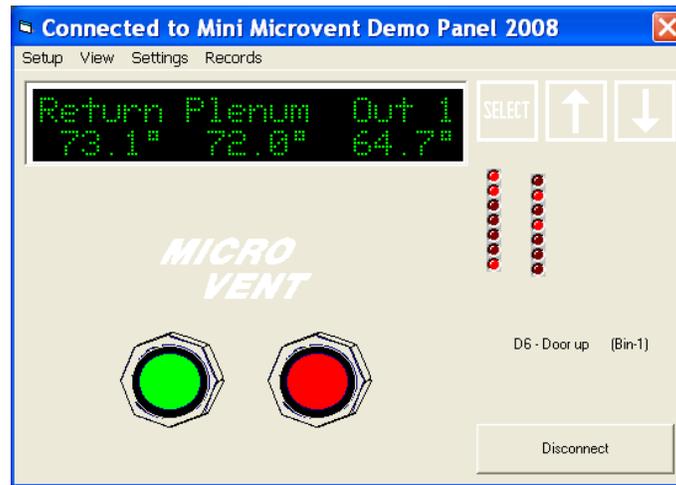
7.1.1. Select **Intake** on the **View** menu to display **Intake details**:



7.2. **LED's** allow you to view the status of your inputs and outputs. These are also accessed through the **View** menu:

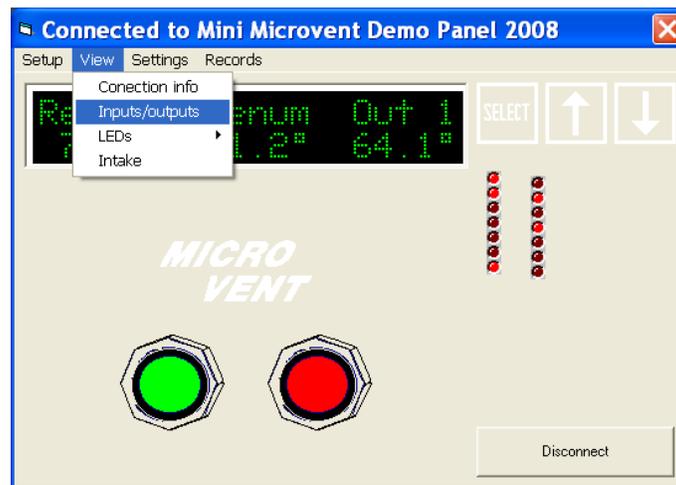


7.2.1. You can select **Show none**, **Show used**, or **Show all**. For most users, **Show used** will be the most useful:



7.2.2. By placing your cursor over the LED's, you can view the status of the input/output. For instance the second LED from the top on the right hand column tells you that the “Door is up in Bin-1”.

7.3 **Inputs/outputs** is another viewing option that can be accessed in the **View** menu:



7.3.1 This screen will allow you to view the status of your Bin and System inputs and outputs. For instance, your plenum, return, and outside air temperatures can be viewed from all bins in your system.

7.3.2 **Viewing options** will allow you to select which inputs/outputs you wish to see.

7.3.3 **Fonts** will allow you to select your font size, type, and effects just as you would in any word processor.

7.3.4 You can also select the inputs/outputs you wish to view in the **Tree** view, by selecting the appropriate boxes in the expanded tree view:

# System inputs/outputs

Viewing options Fonts

Location	Function	Value
System	Start button	Not pressed
	Stop button	Not pressed
	Power fail indication	Off - power detected
	Outside red light	On
	Sealing relay	Off
	Outside temperature	63.7 °F
	CO2-1	3259 ppm
	Door-1	21.2°
	Bin 1	Pressure switch
Low plenum cutout nbr 1		Open - tripped
Fan overload		Open - normal
Low plenum cutout nbr 2		Closed - normal
Door up hold		Off - Stopped
Door up		On - Stopped
Humidifier		Off
Fan-1		Off
Fan-2		Off
Refrigeration stage 1		Off
Refrigeration stage 2		On
Plenum temperature		70.8 °F
Return temperature		72.2 °F
Door sensor		0

OK