

ADVANTAGE+

SNOW & ICE SYSTEM



CONFIGURATION MANUAL

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OPERATION SCREENS

Navigation

Cycle Screens – Depress the Auger or Spinner knob to cycle screens.

Adjustments – tap the appropriate touch screen button to change settings. Hydraulic performance settings can be adjusted in the configuration menu.

Operation – Use the appropriate buttons and rotary knobs to control the spreader operation.

Main Operating Screen - Spreader

Air Temp / Road Temp – Displays air and road temperatures. Temperatures will only display if IR temperature sensor is installed.

Totals – Displays the material and liquid totals per trip. Simply tap to reset. Keep in mind that resetting these totals do not reset the spreader datalog.

Joystick Mode – Displays the current piece of equipment the joystick is controlling.

Wi-Fi Strength – Displays the Wi-Fi signal strength

System Pressures – Displays the Pump and Load Sense Pressures

Message Bar – Displays error messages

Spinner Rate – Displays the spinner rate as a percent

Pre-Wet Rate – Displays the Pre-Wet Rate

Product Type – Displays the material being spread. Tap to change products.

Auger Rate – Displays the auger rate. In manual mode, the setting is displayed as a percent until a groundspeed signal is detected. Once the vehicle begins to move, the controller will approximate the material discharge rate in Lbs / Mile. Keep in mind that in manual the output is constant, but the material rate is changing as ground speed changes.

In Auto Mode, the rate is displayed as Lbs / Mile. Keep in mind that this value will be constant since the material discharged varies per vehicle speed to keep a constant output per mile.

Mode – Displays the mode of operation. Toggle button to change between Auto and Manual.

Hot Buttons – Buttons can be configured on the touchscreen for additional system functionality.

Main Operating Screen – Anti Ice

Air Temp / Road Temp – Displays air and road temperatures. Temperatures will only be displayed if IR temperature sensor is installed.

Liquid Rate – Displays the Liquid Rate. Use the Auger Rate Knob to control the speed of the liquid output.

Mode – Displays the mode of operation. Press to toggle between Auto and Manual.

System Pressures – Displays the Pump and Load Sense Pressures

Message Bar – Displays system error messages

Boom Controls – Press appropriate boom controls to actuate. When a boom is actuated, the button will latch orange to indicate that it is “on”

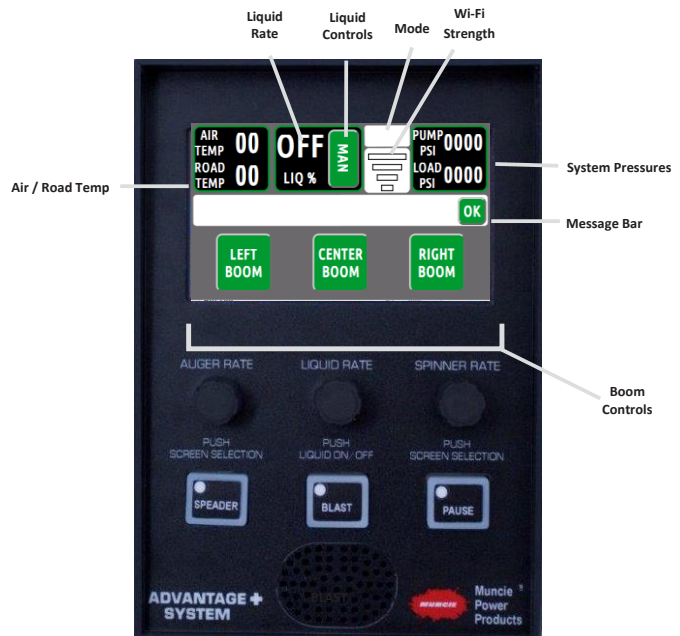
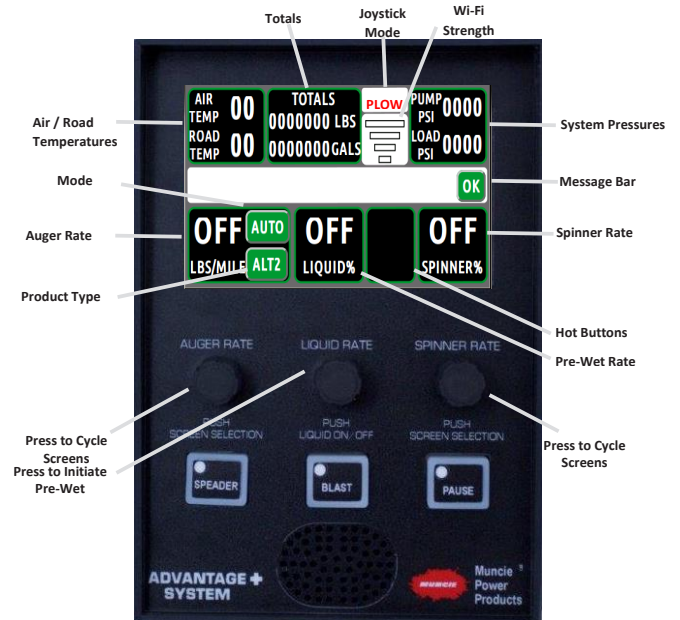
Wi-Fi Strength – Displays the Wi-Fi signal strength

Button Assignments

Spreader – Press to initiate the spreader system

Blast – Press to “Blast” or increase the granular rate to to a configurable set point for a preset time.

Pause – Press to pause the auger operation.



OPERATION SCREENS

Operator

Brightness Setting – First, select Day or Night under the brightness setting. If the brightness is not satisfactory, adjust the button and screen settings as needed.

Screen Brightness – Select to adjust the screen brightness

Button Brightness – Select to adjust the button brightness

Volume – Select to adjust the volume of the controller

Configuration Menu – Reference page 6 to access the configuration menu and make adjustments. This menu allows a maintenance supervisor to make setting adjustments to the system. It is password protected to limit access to unauthorized personnel.



Spreader Log

Totals – Displays the following:

GRAN – Displays the total amount of granular material discharged since log last cleared.

LIQ – Displays the total amount of liquid pre-wet discharged since log last cleared.

AUTO – Displays the total distance spread in Auto Mode

MAN – Displays the total distance spread in Manual Mode

Speed – Displays the current Speed of the truck in MPH

Granular Averages – Displays the following:

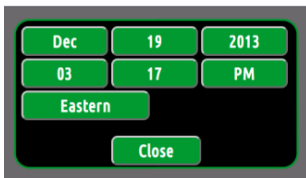
GRAN - displays the average spreader rates in Lbs / Mile

LIQ - displays the average pre-wet rate in Gallons / Ton

SPEED - displays the average speed of the vehicle while spreading

Truck ID – Displays the truck ID

Time / Date – Displays the Time and Date. Press Box to adjust. The following menu will appear:



Wireless Download Options:

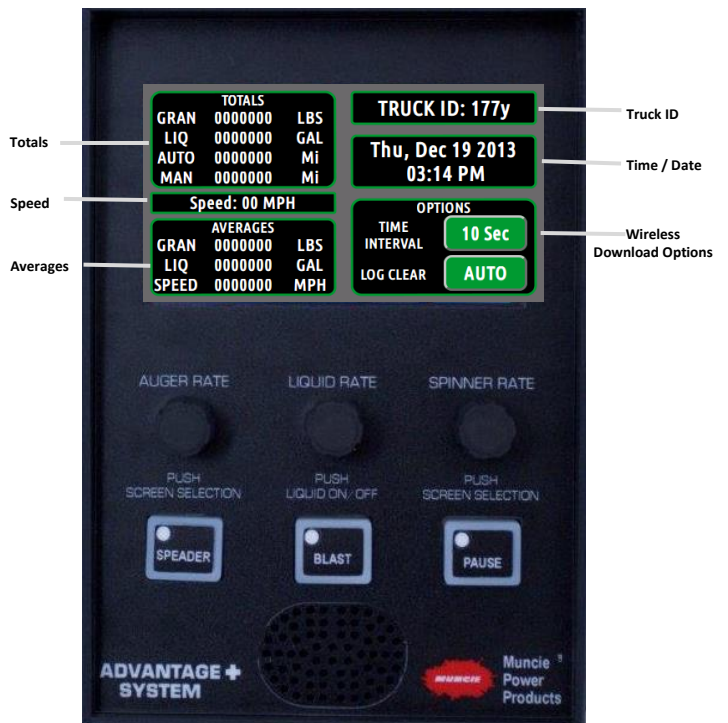
Time Interval - used to set how often the system records data points.

Log Clear – The log clear selection allows the user to set when the datalog is cleared.

AUTO - clears the datalog after download.

DAILY - means that the logs are cleared once a day.

NEVER - allows the controller to continue recording unless manually cleared through the configuration menu.



OPERATION SCREENS

Transfer Files / Real Time Support

Flash Drive Status – Displays the status of the flash drive. To connect, simply plug a flash drive in the top USB port and press the USB DISCONNECTED button. When it is detected, it will read USB CONNECTED. *It can take 10-20 seconds for the controller to recognize the USB device.

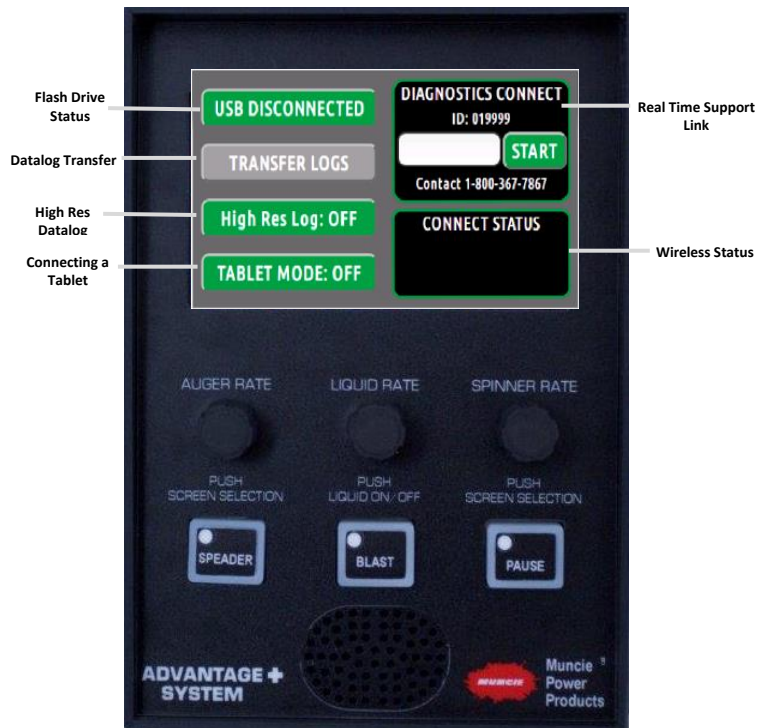
Datalog Transfer – When the flash drive is connected, push the transfer logs to download files. These files can be imported into the Data Analysis (desktop program) to view the spreader logs.

High Res Datalog – For diagnostic purposes, initiating the High Res Log will capture all controller functionality down to the processor level. See the service manual for more information.

Tablet Mode – Actuate “on” to connect system to a tablet or smart phone. See page 13-14. for instructions on using the Muncie App.

Connect Status – Displays the current state of the wireless connectivity. (Muncie Use Only)

Diagnostics Connect – This feature allows the user to connect to Muncie for Diagnostic Purposes. Simply connect to a Wi-Fi network, input the diagnostic key in the white box, and press Start button to connect to Muncie for Diagnostic help. Contact Muncie for the diagnostic Key.



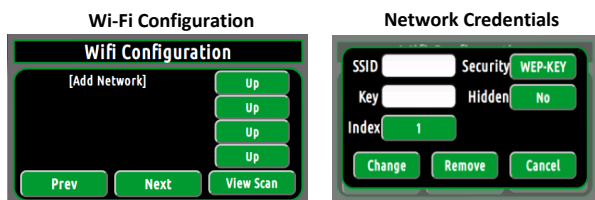
Connecting to a Wireless Network

Viewing Networks: This page will display the networks in range. The Next and Prev buttons can be used to scroll through the list of available networks.

To Connect to an Available Network:

1. Select the available network on the Wi-Fi Configuration screen
2. The Network Credentials Screen should pop up. The SSID field and Security type should auto-populate.
3. Select the white box next to “Key” to input the network passcode.
4. If applicable, the network can be prioritized using the index field.
5. Once entered, press change to connect to network or remove to disconnect from the network.

*Once connected, the network name will turn yellow on the Wi-Fi Configuration Page. This process can take up to a minute to connect.



Note: Networks in range may take a couple of minutes to show up after the panel is turned on.

To Manually Add Network – If the network is unavailable or hidden, the user may have to manually connect to the network.

1. Click [Add Network] on the Wi-Fi configuration screen and populate the appropriate fields.
2. If network is hidden, select this option on network credentials page.
3. Push “Change” to Save Entry and Connect.



CONFIGURATION MENU

Accessing the Configuration Menu

This menu is passcode protected to limit access to non-authorized personnel. It is recommended to change the passcode from the default value to limit access and prevent unintentional system adjustments.

Follow the steps below to enter the menu:

1. Using the touch screen, press the white box under Configuration Menu. A keyboard should appear to enter the passcode.



2. Using the on screen keyboard, enter the passcode. Toggle the Caps button to change the case and enter numerical values.

(Default Pass Code = 1)



3. Once the passcode has been entered, press the "OK" button. The keyboard will close.

4. The passcode should show in the menu below, press "OK" again to access the configuration menu.



System Information – Page 1

Truck ID: To change, select the truck ID box. The truck ID allows the user to keep the datalog information separate between trucks.

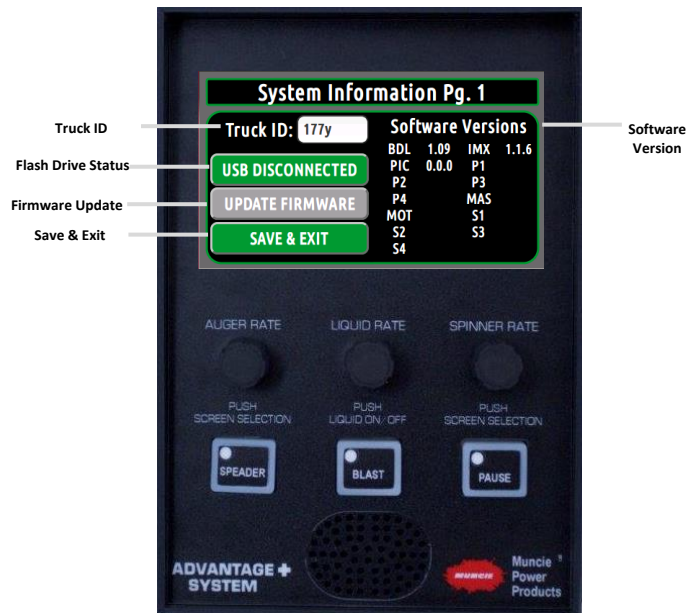
Flash Drive Status: Displays the status of the flash drive. To connect, insert a USB flash drive in the top USB port and push "USB DISCONNECTED" button.

Firmware Update: If instructed by Muncie, connect flash drive with the appropriate firmware files and hit the "Update Firmware" button to update.

Note – This process can take up to 10 minutes to complete. Do not shut off controller during this process.

Save and Exit: Click the "SAVE & EXIT" button when you are finished making adjustments. This will return you to the main operating screens.

Software Versions: Displays the current version of software installed (Muncie Use Only)



CONFIGURATION MENU

System Profile – Pg. 2

System Profile – The system profile contains all of the calibration settings, button mapping, and more. The user is able to download a profile to a flash drive or load a profile from a flash drive to mirror settings.

Flash Drive Status: This box indicates the status of the connected flash drive. Simply connect a flash drive in the top USB port and press the “USB DISCONNECTED” button. The flash drive may take up to 10 seconds to initiate.

Load Profile: The load profile button allows the user to transfer the truck profile from the flash drive to the spreader controller. (Upload)

Download Profile: The download profile button allows the user to transfer the truck profile from the controller to the flash drive.

Sync Profile: Whenever a new module is exchanged on the system, press “Sync Profile” to download to the truck profile to the new module.

Truck Profile Name: This number is generated by Muncie. The value is a “system number” that helps Muncie identify which components and software are included with the system.

Pass Code: Select this box to change the Configuration Menu Pass Code.

Flash Drive Status



Global Settings – Pg. 3

Pump Type: Select the appropriate pump type by toggling the button. Gear or Piston

PWM Freq G1: Muncie Use Only - The frequency of the electrical current to the valves can be tuned per output.

PWM Freq G2: Muncie Use Only - The frequency of the electrical current to the valves can be tuned per output.

Main Relief Pressure: Select to adjust the Main Relief Pressure. The system can be set to a maximum of 3000 PSI. Deadhead the plow angle to view the main relief pressure.

Transducer: The pump and load pressures are displayed for the user to set the main relief.

Main Relief Ramp: A ramp time can be set for the main relief setting. This ramp time helps dampen the shock loads to the actuators.



CONFIGURATION MENU

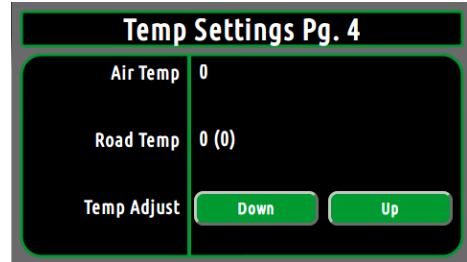
Temperature Settings – Pg. 4

Temperature Offset: This adjustment allows road temperature to be tuned if it is slightly off.

1. To check the accuracy of the road temperature, insert a cup of ice water under the IR sensor. The temperature should read 32.
2. If the temperature is off, use the up and down buttons to tune the temperature.

* The air temperature cannot be adjusted. Keep in mind that the air temperature is slow to adjust since it is a function of the sensor housing. adjust the road temperature until the display reads 32 degrees.

*Keep in mind that the air temperature can be slow to adjust due to the sensor housing.



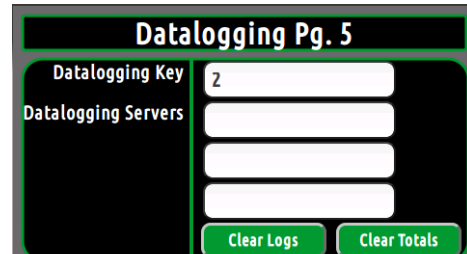
Datalogging – Pg. 5

This screen allows the user to setup the wireless downloading

1. The Spreader Panel must be connected to the same network as the server. (See Connecting to a Wi-Fi Network above for instructions)
2. Locate the IP address of the network. This can be located within the datalogging server desktop software.
3. Once the IP address has been located, enter it into one of the datalogging server Windows proceeded with an open port. Example: 192.168.1.1:80 Typically, port 80 is open for this type of traffic. Contact your IT department for further information.

Clear Logs: Press this button to clear the logs.

Clear Totals: Press this button to clear the totals.



Spreader – Pg. 6

Warning: The spreader motors will initiate when the speed settings are adjusted.

Auger Speeds: Select the Auger Speed “Min / Max” button to adjust the speeds. The min setting needs to be adjusted so that the auger is barely turning. The max setting is the maximum preferred auger speed.

Spinner Speeds: Select the Spinner Speed “Min / Max” button to adjust the speeds. The min setting needs to be adjusted so that the spinner is barely turning. The max setting is the maximum preferred spinner speed.

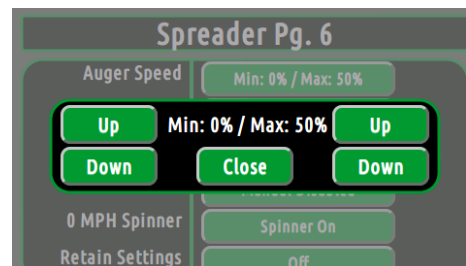
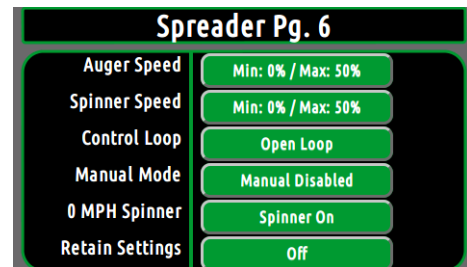
Control Loop: The Control Loop can be adjusted from open loop to closed loop by pressing the button. Closed loop requires that the auger has a feedback sensor installed. Open Loop doesn't require a feedback sensor.

Manual Mode Lockout: Manual Mode can be enabled or disabled by toggling the push button. Disabling manual mode will prevent the operator from accessing this mode above 7 MPH.

0 MPH Spinner The 0 MPH Spinner determines if the Spinner operation continues when the truck comes to a complete stop. If it is set to “on,” it will remain spinning. If it is off, it will stop spinning when the truck stops.

Retain Settings: The retain settings button allows the system to retain the Auger, Liquid, and Spinner rates when the system is turned off.

Caution: This will cause the spreader controller to retain the settings after the controller has been powered off. Be aware that simply pressing the Spreader button “on” will actuate the hydraulic motors.



CONFIGURATION MENU

Spreader – Pg. 7

Blast Level - The Blast Level sets the auger speed when the blast button is pressed. This is adjustable from 0 – 100%

Blast Duration - The Blast Duration can be adjusted from 0-25 seconds.

Take Off Timer - Take-Off Timer is adjustable from 0-7 seconds. Turning this setting above 0 seconds will cause the auger to blast material for the set increment of time after the truck has accelerated from a stop.

Preset Mode (Range) – If range is selected, the user has the ability to set the Low and Hi auto rates. This will give the operator a range of auto mode settings (Lbs / Mile).

Preset Mode (Fixed) – If fixed is selected, the user has the ability to dial in the exact auto mode settings available to the operator. Up to six pre-wet rates are available. Therefore, the spreader rate can be limited to one or two settings if desired.

Spreader Pg. 7	
Blast Level	50%
Blast Duration	0.0 Sec
Take-Off Timer	0.0 Sec
Preset Mode	Range
Preset Low	0 Lbs/Mi
Preset High	250 Lbs/Mi

Spreader Presets Pg. 7a	
Fixed Preset 1	0 Lbs/Mi
Fixed Preset 2	0 Lbs/Mi
Fixed Preset 3	0 Lbs/Mi
Fixed Preset 4	0 Lbs/Mi
Fixed Preset 5	0 Lbs/Mi
Fixed Preset 6	0 Lbs/Mi

Spreader Calibration – Pg. 8

Prod Name: The “Prod Name” allows the user to change the text for the primary spreader material. Select box to change.

Cal (OL) – Calibration Value (Open Loop) – This value is mathematically generated whenever a spreader calibration has been performed. This value can be plugged into other trucks with identical hydraulic setups to prevent having to do multiple calibrations.

Cal (CL) – Calibration Value (Closed Loop) – This value is automatically generated whenever a spreader calibration has been performed. However, it will only populate if a feedback sensor is installed on the auger. Again, this value can be plugged into different trucks to prevent having to do multiple calibrations.

Ground Speed Calibration

Option 1– The ground speed can be set two different ways. First, if the pulses per mile are known for the chassis, simply input the value in the Ground Speed box. (Allison Transmission are typically around 32000 Pulses Per Mile)

Option 2 – Drive the truck to 20 MPH and simultaneously press the “Calibrate” button.

Spreader Calibration Pg. 8	
Prod Name	MAIN
Cal (OL)	20
Cal (CL)	20
Spreader Cal	Calibrate
Ground Speed	1
Ground Speed Cal	Calibrate 00 MPH



CONFIGURATION MENU

Spreader Calibration – Pg. 8

Purpose: The spreader calibration is recommend for Auto Mode Accuracy. It allows the controller to accurately discharge material at the rate shown and accurately log how much material is discharged.

1. Load the spreader with the primary material and weigh the truck. Before beginning the unloading process, increase and hold the engine at 1000 RPM.
2. Press the Spreader Cal button on page 8 to begin the spreader calibration process.
3. Use the up and down buttons to select a drive current. We recommend setting this between the min and max auger settings for best accuracy. Press Start to begin the offloading process.
4. Allow the spreader to unload for 5-7 minutes. During the unloading process, hit "Stop" to pause and "Resume" to continue the offloading process.
5. When the offloading process is complete:
 - a. Press the "stop" button
 - b. Reweigh the truck and calculate the amount of material dumped.
 - c. Use the up and down buttons to enter the weight of material dumped
 - d. Press the Save button.

***The recall button will recall the offloading time and % drive of the last session. If the process gets interrupted or the truck shuts off, simply press these buttons to recall these values.**

Prod Name	MAIN
Cal (OL)	20
Cal (CL)	20
Spreader Cal	Calibrate
Ground Speed	1
Ground Speed Cal	Calibrate 00 MPH

Run Spreader for desired ammount of time then hit the stop button below and enter the weight dumped.

Start Recall

Down 0% Drive Up

Ok Cancel

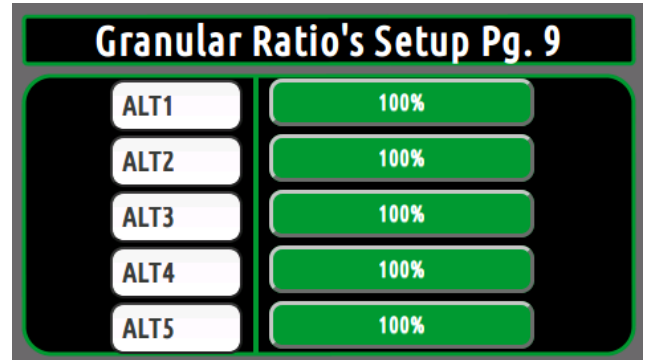


CONFIGURATION MENU

Granular Ratio Setup – Pg. 9

Product Name – Select the white boxes to change the alternate product names.

Granular Ratios – If multiple products are used, setting product ratios will increase the accuracy of the material spread. For example, if the user spreads sand as an alternate product, he could input the material name in the Alt 1 Box. In addition, he could input the product ratio to know the difference in weights of the materials. To calculate the ratio: Take a 5 Gallon Bucket of Alternate Product's Weight and Divide by a 5 Gallon Bucket of Salt Weight: (52 Lbs / 45 Lbs) = 1.15 or 115%



Pre-Wet – Pg. 10

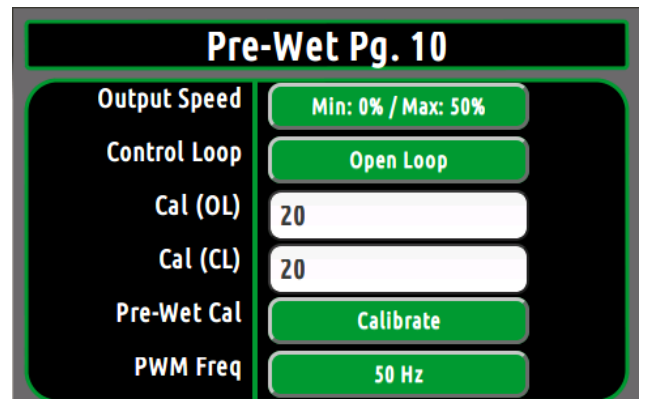
Output Speed – Select the button to adjust the min and max pre-wet speeds. Next, toggle the up and down buttons to adjust the settings.

Control Loop - The "Control Loop" can be adjusted from open to closed loop by pressing the button. Closed loop requires a feedback sensor (turbine).

Cal (OL) – Open Loop Calibration Value - The open loop pre-wet calibration is displayed in this box. This value is automatically generated when a calibration is performed. This value can be input into identical setups to prevent having to perform multiple calibrations.

Cal (CL) – Closed Loop Calibration Value - The closed loop pre-wet calibration is displayed in this box. This value is automatically generated when a calibration is performed. If the pulses per gallon are known, directly input the value into this field.

PWM Frequency – The "PWM Frequency" can be adjusted for electrically driven pumps and hydraulically driven pumps. 50 hZ is recommended for electric pumps, while 200 hZ is recommended for hydraulically driven pumps.

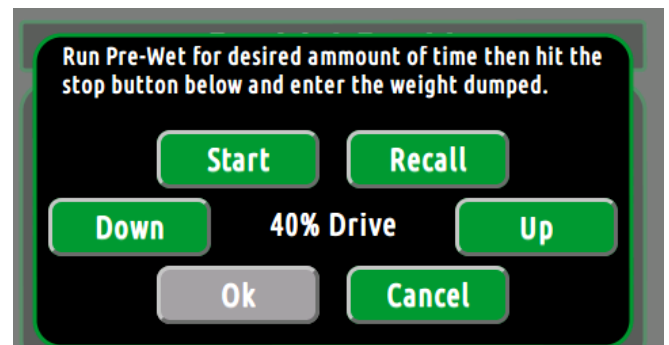


Pre-Wet Calibration Process

Pre-Wet Cal – Performing a pre-wet calibration increases the accuracy of the pre-wet output.

1. Place a 5 gallon bucket or other known volume container under the pre-wet nozzle.
2. Press the "Calibrate Button" to initiate the process.
3. Use the up and down buttons to select a drive current. We recommend setting this between the min and max pre-wet settings for best accuracy. Press Start to begin the calibration process.
4. Allow the pre-wet to spray until the 5 gallons bucket is full. During the process, hit "Stop" to pause and "Resume" to continue.
5. When the 5 Gallon Bucket is full:
 - a. Press the "stop" button
 - b. Use the up and down buttons to enter 5 gallons
 - c. Press the Save button.

***The recall button will recall the offloading time and % drive of the last session. If the process gets interrupted or the truck shuts off, simply press these buttons to recall these values.**



CONFIGURATION MENU

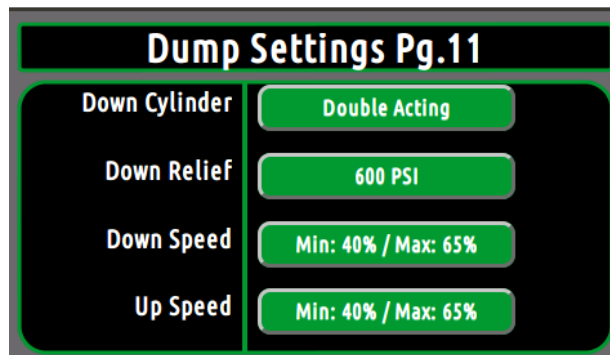
Dump Settings – Pg. 11

Down Cylinder – This setting determines the cylinder type.

Down Relief – Adjust setting to control the downside relief pressure. Keep in mind that the downside relief is disabled when the cylinder is set for Single Acting.

Down Speed – Adjust setting to control the down speed of the Dump. The Min % is used to control the minimum cylinder speed when using the joystick. The Max % controls the cylinder speed when the joystick is fully deflected and when the cylinder panel buttons are pressed.

Up Speed – Adjust this setting to control the up speed of the Dump. The Min % is used to control the minimum cylinder speed when using the joystick. The Max % controls the cylinder speed when the joystick is fully deflected and when the cylinder panel buttons are pressed.



Plow Settings – Pg. 12

Down Cylinder – This setting determines the cylinder type.

Down Float – enable if the cylinder is SA. This enables plow float.

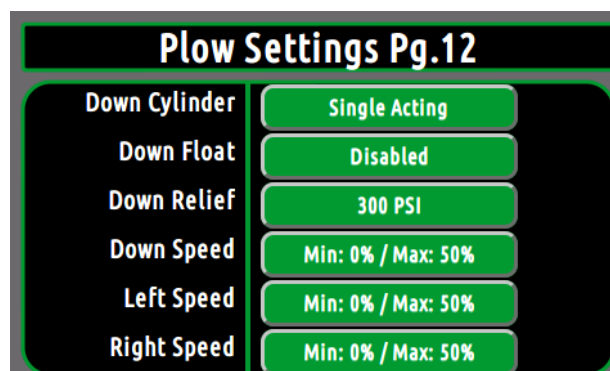
Down Relief – Adjust this setting to control the downside relief pressure. Keep in mind that the downside relief is disabled when the cylinder is set for Single Acting.

Down Speed – Adjust this setting to control the down speed of the plow. The Min % allows the deadband to be removed from the joystick operation. The Min % doesn't effect the cylinder panel buttons. The Max % controls the cylinder speed when the joystick is fully deflected. The max speeds also control the push button speeds.

Left Speed – Adjust this setting to control the left speed of the plow. The Min % allows the deadband to be removed from the joystick operation. The Min % doesn't effect the cylinder panel pushbuttons. The Max % controls the cylinder speed when the joystick is fully deflected. The max speeds also control the push button speeds.

Right Speed – Adjust this setting to control the right speed of the plow. The Min % allows the deadband to be removed from the joystick operation. The Min % doesn't effect the cylinder panel pushbuttons. The Max % controls the cylinder speed when the joystick is fully deflected. The max speeds also control the push button speeds.

Up Speed – Adjust this setting to control the up speed of the plow. The Min % allows the deadband to be removed from the joystick operation. The Min % doesn't effect the cylinder panel pushbuttons. The Max % controls the cylinder speed when the joystick is fully deflected. The max speeds also control the push button speeds.



*Keep in mind that the screens are configurable for the specific application. For example, if Wings or Scrapers are being utilized, multiple screens will be added to adjust the additional functionality.



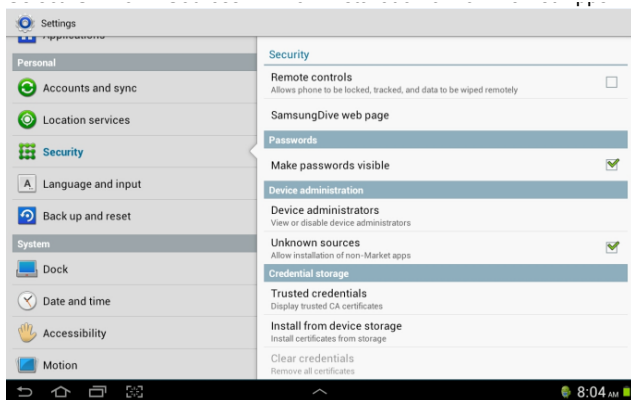
TABLET MODE

Through a Wi-Fi connection broadcasted from the Advantage+ controller, users are able to connect their tablet or smart phone to observe the system functionality in real time, adjust system parameters, and more.

Downloading the App (Android Device)

1. With the Tablet – Enable non-Market apps:

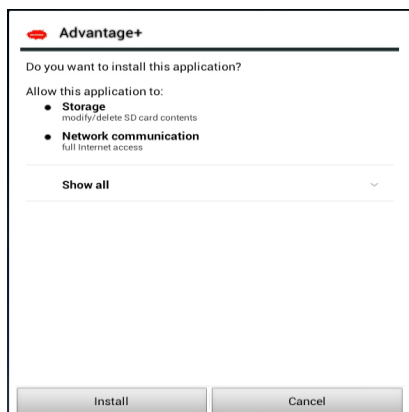
Settings -> Security -> Device Administration:
Select: Unknown Sources -> Allow Installation of non-Market Apps



2. Go to the following URL to download the App:

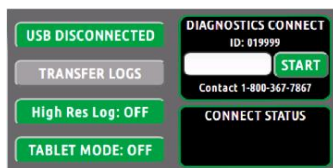
<https://riversidemfgutilities.com/src/Advantage+.apk>

3. Allow the app to install:



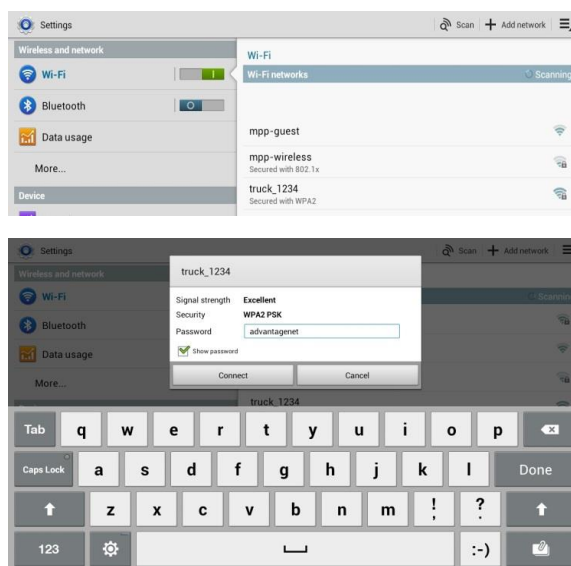
Using the App:

- 1. Enable Tablet Mode on Controller** - On the spreader controller, navigate to the following screen and toggle tablet mode "on" to begin broadcasting the Wi-Fi signal from the controller.



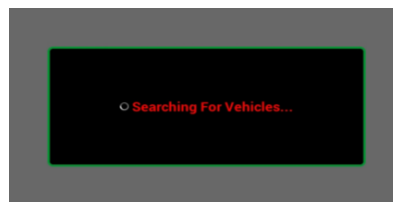
- 2. Connecting to the controller's network** - With the tablet (or smartphone) – Go to Settings -> Wi-Fi - Connect to the "Truck Network" proceeded by the truck number (Ex. Truck_1234). You will be prompted to enter a password, which is "advantagenet"

*Network Password is (advantagenet)

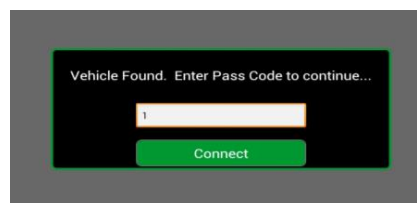


- 3. Launch App** – After connected to the controllers Wi-Fi network, launch the Muncie App from the controller.

The following screen will show if the controller is NOT in Tablet Mode or connected to the appropriate Wi-Fi network.



The Following screen should show if the controller IS in tablet mode and connected to the truck network:



- 4. Enter the pass code and press connect**

*The password will be the same as the controller's password. (default password is "1" unless changed)

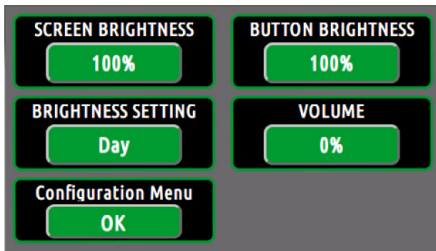
**Repeat steps 1-3 if the following screen does not show.



TABLET MODE

Using App:

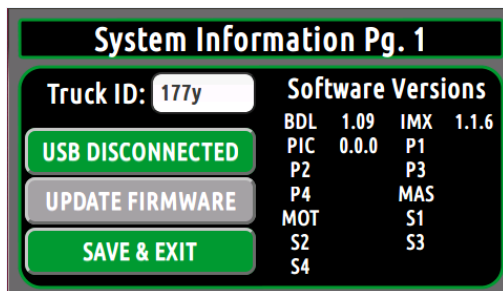
1. Swipe left or right to change pages
2. **Entering the Configuration menu:** To enter the configuration menu, go to the following screen and hit the OK button:



3. **Adjusting Settings** - To adjust spreader speeds or perform a spreader calibration, the spreader control must also be in the configuration menu.

Be aware that adjusting spreader settings will engage the auger, spinner, or pre-wet motors.

4. Exiting the Configuration Menu – Navigate to the following screen and press “Save & Exit”



DATA ANALYSIS TOOLS - INSTALLATION

Download the installation files using one of the following methods:

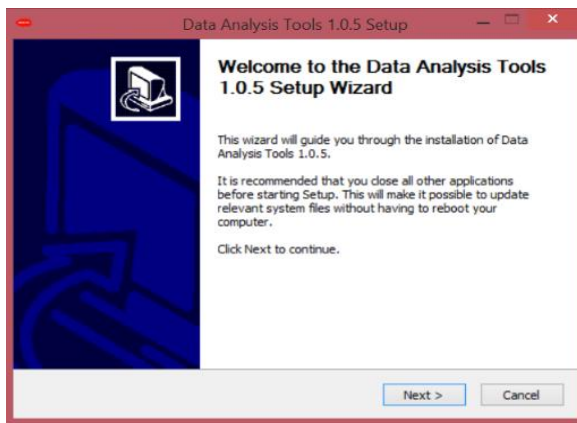
- A. Go to the following URL to download: <http://www.munciepower.com/AdvantagePlus>
- B. Download from the flash drive that came with the system
- C. Contact Muncie

Installing the Program

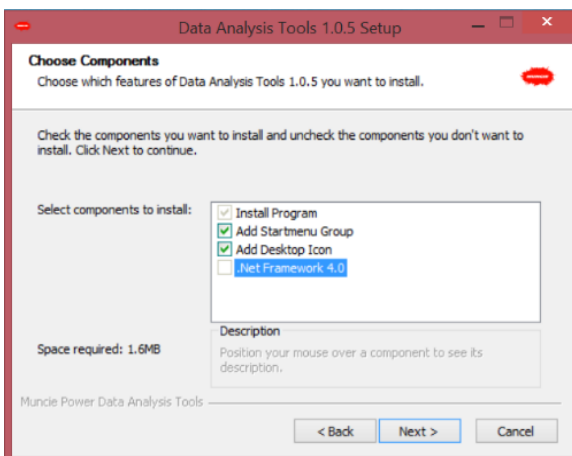
1. Double click the installation file:



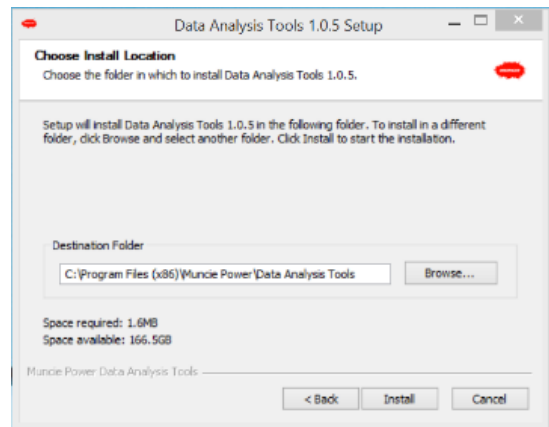
2. The following screen should appear – Close all other applications and click next:



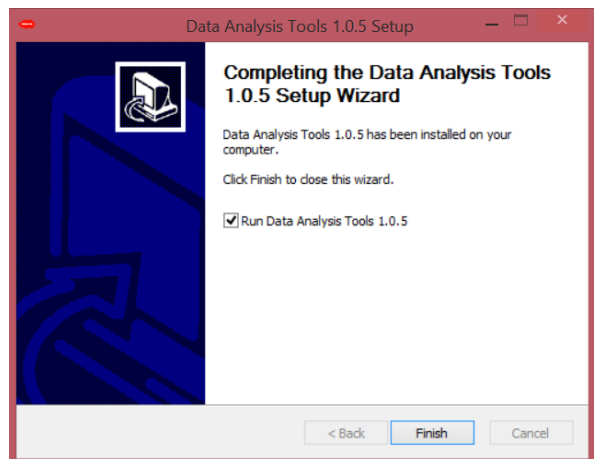
3. Select how the program will be launched through the Startmenu or with a Desktop Icon.



4. Select the Install Location and click Install



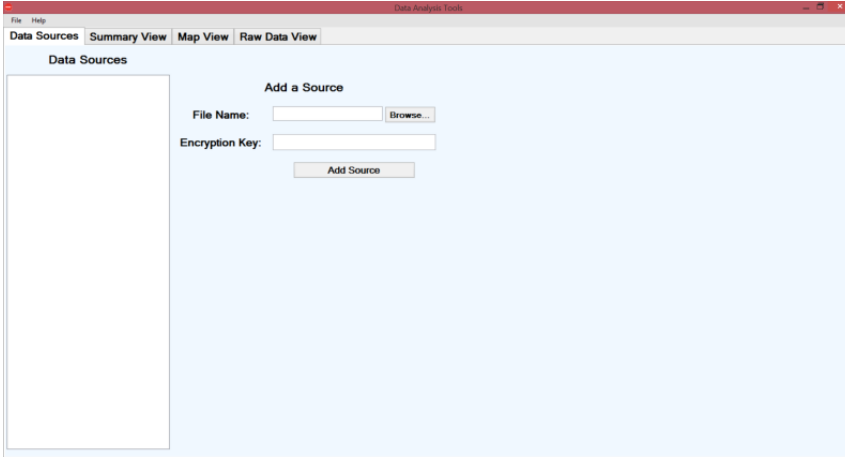
5. Complete Installation – Click Finish



DATA ANALYSIS TOOLS - SETTINGS

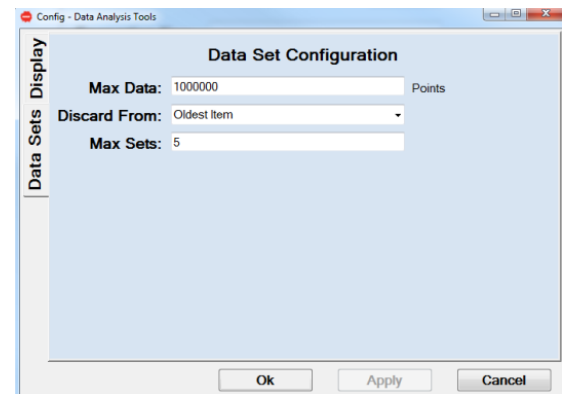
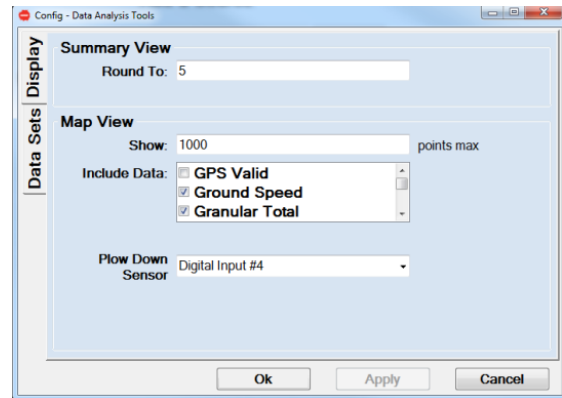
1. Launch the Program by going to Start/All Programs/Muncie Power/Data Analysis Tool

2. The following screen will be displayed:



3. (Initial Startup) - Set the Program Settings:

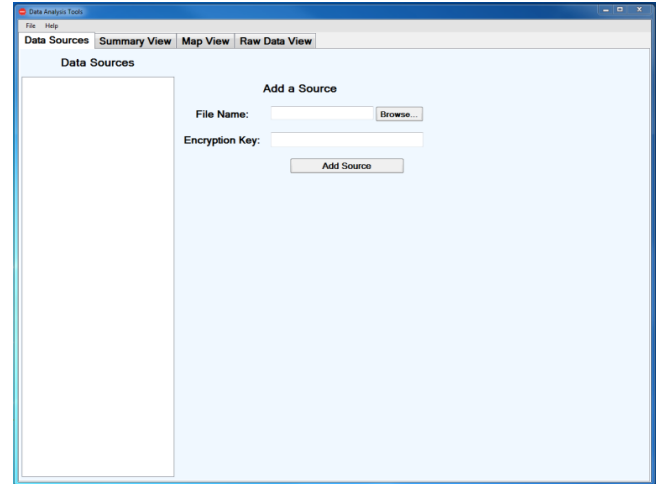
- a. Go to File -> Settings
- b. Under the display tab, set the information to display in the map view.
- c. If a plow sensor is installed, select it using the "Plow Down Sensor" box.
- d. The Data Sets tab controls how many data points show on the map and the maximum number of files that can be imported
- e. Once complete, click apply and ok



DATA ANALYSIS TOOLS - IMPORTING FILES

Importing from Flash Drive

1. To add a data file elect the Browse button the right of the File Name box. Select the location where the file is located.
2. An encryption key isn't required when importing from a flash drive.
3. Once the file has been selected, click Add Source. After this is done successfully the file will be shown in the left column.

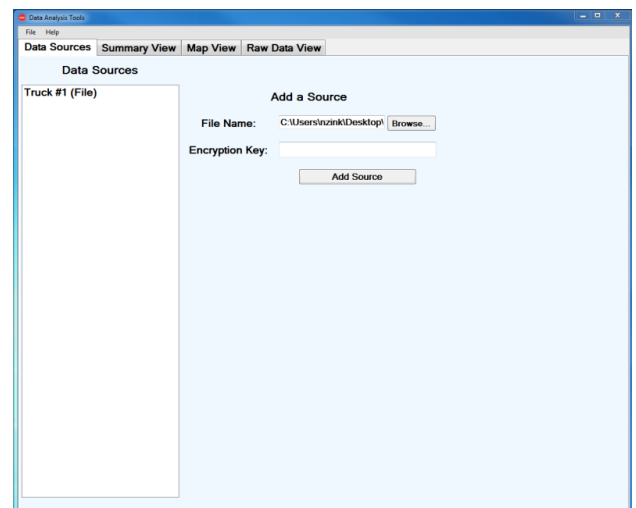


Importing Wirelessly

1. **Importing Wirelessly-** If the file was downloaded with the Datalogging Server, locate the folder containing the Datalog Files and select the file.
2. Next, enter the Encryption Key. This key is set through the configuration menu on the spreader controller. Locate the Datalogging page to enter or change the key. (Default Encryption Key = 2)
3. Once the file has been selected, click add source. After this is done successfully the file will be shown in the left column.

Removing a source file

1. **To remove a file from the list, right click the file and select remove data source.**
2. **To remove all current data sources click File/Clear Data**



DATA ANALYSIS TOOLS - IMPORTING FILES

Map View

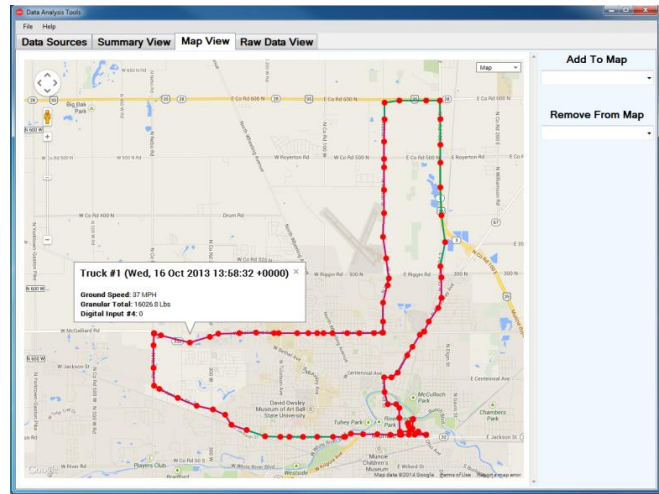
The map view is used in conjunction with the GPS antenna supplied with the system to plot the route the truck traveled. Once a source file has been added to the map, clicking on a data point will bring up the information specified in the settings menu

Adding a File to the Map View

1. Select the file from the drop down menu to add it to the map view.
2. If the file you are looking for isn't in the drop down menu, check to see if it was correctly loaded in the Data Sources tab.

Removing a File from the Map View

1. Select the file from the drop down menu to remove it from the map view



Raw Data View

1. The raw data view contains all the raw data in the source file.
2. This information is the same information displayed in the other tabs but before it is filtered and has some additional information including GPS coordinates.

Truck ID	Latitude (Deg)	Longitude (Deg)	GPS Valid	Ground Speed (MPH)	Granular Total (Lbs/Mi)	Liquid Total (Gals/Ton)	Auto Total (Miles)	Man Total (Miles)	Granular Average (Lbs/Mi)	Liquid Average (Gals/Ton)	Speed Average (MPH)
1	40.1965	-85.3787	1	0	159.528	0	0	0.202778	0	0	10.4
1	40.1957	-85.3783	1	0	159.528	0	0	0.202778	0	0	10.4
1	40.1935	-85.3783	1	0	159.528	0	0	0.202778	0	0	10.4
1	40.1935	-85.3807	1	0	151.833	0	0	0.203056	0	0	10.2
1	40.1935	-85.3812	1	8	175.458	0	0	0.21	0	0	9.81
1	40.1935	-85.3843	1	18	197.667	0	0	0.2475	0	0	10.2
1	40.1937	-85.3887	1	26	221.097	0	0	0.312222	0	0	11.5
1	40.1937	-85.3933	1	33	244.292	0	0	0.395111	0	0	13.3
1	40.1938	-85.3973	1	34	264.792	0	0	0.489444	0	0	15.0
1	40.193	-85.3992	1	33	285.694	0	0	0.5825	0	0	16.5
1	40.193	-85.3995	1	34	305.389	0	0	0.678389	0	0	17.7
1	40.193	-85.403	1	34	324.333	0	0	0.771111	0	0	18.8
1	40.193	-85.4082	1	33	345.236	0	0	0.864167	0	0	19.8
1	40.193	-85.4128	1	34	365.333	0	0	0.957778	0	0	20.6
1	40.193	-85.4173	1	34	384.222	0	0	1.05222	0	0	21.4
1	40.193	-85.4202	1	34	403.111	0	0	1.14667	0	0	22.0
1	40.1932	-85.4253	1	34	422	0	0	1.24111	0	0	22.6
1	40.1947	-85.4312	1	34	440.944	0	0	1.33583	0	0	23.2
1	40.196	-85.4362	1	35	459.889	0	0	1.43056	0	0	23.7
1	40.1985	-85.4382	1	35	479.167	0	0	1.52694	0	0	24.2
1	40.1998	-85.4422	1	35	498.167	0	0	1.62194	0	0	24.6
1	40.2008	-85.4475	1	34	517.278	0	0	1.7175	0	0	25.0
1	40.2028	-85.4537	1	33	536.569	0	0	1.81167	0	0	25.3
1	40.205	-85.4597	1	35	553.25	0	0	1.90722	0	0	25.7
1	40.2058	-85.4615	1	35	557.75	0	0	2.00389	0	0	26.0
1	40.2102	-85.4617	1	36	582.458	0	0	2.10194	0	0	26.3
1	40.2158	-85.4617	1	34	596.875	0	0	2.19806	0	0	26.6
1	40.2188	-85.4615	1	34	610.917	0	0	2.29167	0	0	26.8
1	40.2188	-85.4615	1	35	625.333	0	0	2.38778	0	0	27.1
1	40.2187	-85.4615	1	34	639.542	0	0	2.4825	0	0	27.3
1	40.2183	-85.4592	1	34	653.708	0	0	2.57694	0	0	27.5



DATALOGGING SERVER

Datalogging Server

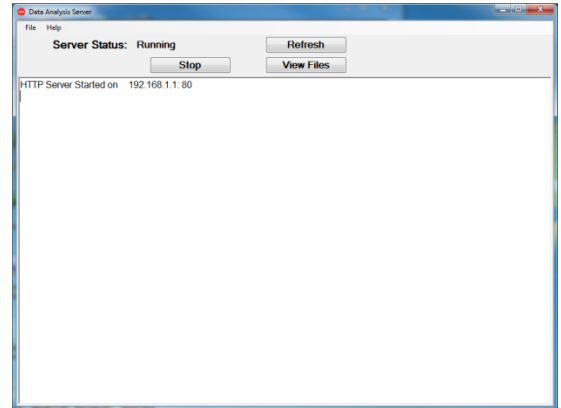
The datalogging server allows the Advantage Plus controller to automatically transmit datalogging files through a Wi-Fi Connection.

Downloading the Datalogging Server

1. The Datalogging Server needs to run on a computer on the same network as the truck.
2. The Data Analysis Server can be downloaded at <http://www.munciepower.com/AdvantagePlus>

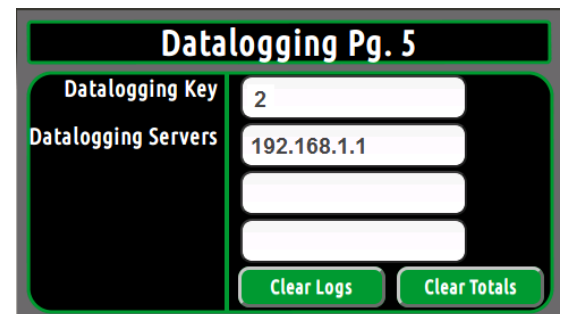
Note: Please contact your IT Department regarding your policy on the installation of third party programs.

3. Once the program is downloaded and installed, you can access it by going Start/All Programs/Muncie Power/Data Analysis Server



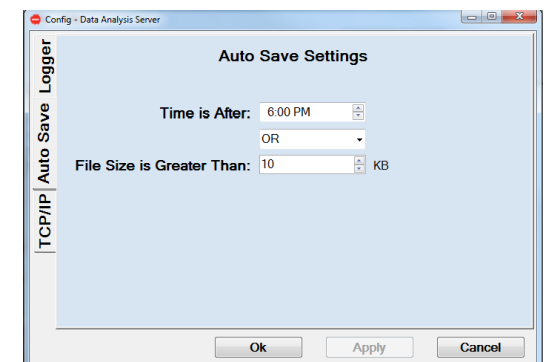
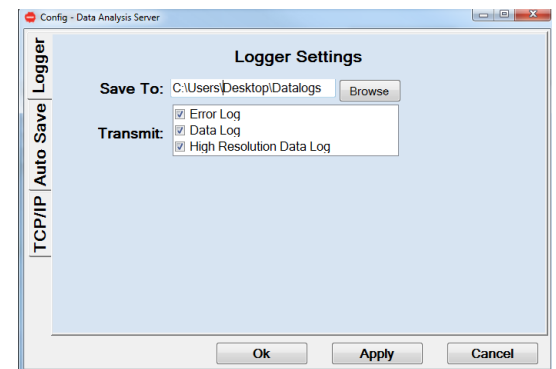
Connecting to a Datalogging Server

1. First make sure the Spreader Panel is connected to the same network as the Data Analysis Server. (See Connecting to a Wi-Fi Network above)
2. Enter the configuration menu and go to page 5 - Datalogging.
3. Insert the IP address for the datalogging server. The IP address can be located using the Datalogger Server Software.
4. If the server is on any other port than 80 it is included with the address. Example: 192.168.1.1:30



Datalogging Server Setup

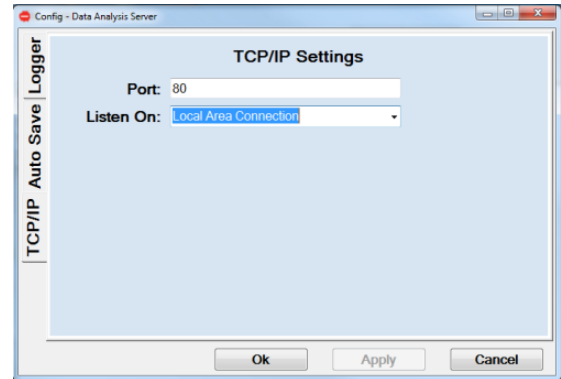
1. The first time the Datalogging Server is ran, Set the parameters
2. Enter the Settings by clicking File:Settings.
3. The first tab on the left is Logger Settings. This will set where the files are saved to and which files from the system are saved.
4. The second tab is for Auto Saving. This tab determines when files are saved by what time of day or file size.



DATALOGGING SERVER

5. The last tab is TCP/IP settings. This sets what port to run the server on as well as which network adapter to use. The program will automatically obtain the IP address of the network adapter selected under Listen On.
6. By default the port will be set to 80. It can be changed to any other available port. Make sure when changing the port on the program that it also gets changed on the control panel. See the section “Connecting to a Datalogging Server” to set up the Spreader panel.

Note: Please contact your IT Department if you have any questions on how to set this portion of the program.

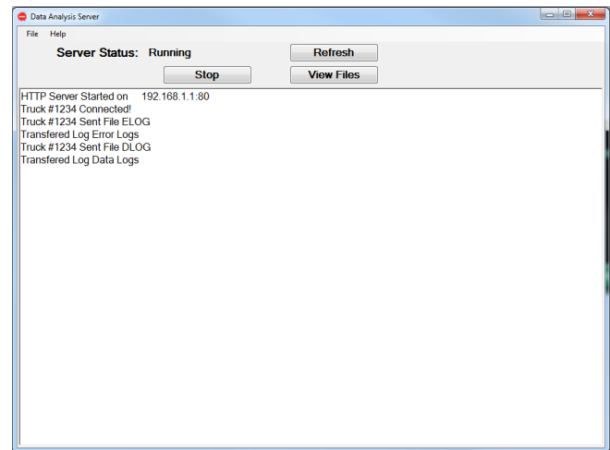


Downloading Datalog Files

1. To download datalogging files, make sure the Server is running and all the configuration settings have been set on the computer program and the Spreader Panel (See: Connecting to a Datalogging Server, Starting the Datalogging Server, and Datalogging Server Setup sections above).
2. Based on the settings on the Spreader panel and the computer program will determine how often the files are downloaded.
3. The files will automatically download once the Spreader panel connects to the same network that the Diagnostic Server is running on.

Note: The truck will need to stay within range of the WIFI network for 3-5 minutes to insure it has enough time to download all the files.

4. The picture above shows what the server will show when the files are downloaded. On the Spreader panel the Connection Status window on the Diagnostics page will show when the files are being transferred.
5. Go to the Datalogging Tool section to see how to open these files once they are downloaded.



NOTES





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