

Universal Press Recorder

Version 5



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Universal Press Recorder

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1 Universal Press Recorder

1.1 Introduction

Universal Press Recorder Version 5

The Universal Press Recorder program is part of the Wheel Shop Management System. It is used to record mounting graphs on a mounting press. Additional data may be collected, such as serial numbers, type, class, boresize, tapesize, and manufacturer. The program will automatically recognize several types of misfits, however wheel shop personnel **must review each chart for correctness** per Association of American Railroad requirements. The Universal Press Recorder saves and retrieves data from the MS-SQL database server via the TCP/IP protocol and works with Microsoft Windows XP and Windows 7. The database server program may be located on the same computer as the Universal Press Recorder or on any computer in the network.

The default installation folder is C:\Program Files\Wheel Shop Automation\Press.

Network connectivity to the database server is required for proper program operation.



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1.2 Login

This is the login screen for the Universal Press Recorder. You must enter your current shift number, username and password. No screens may be accessed without a proper username and password being entered. Some screens are not available to certain authority levels.

The authority levels are:

- Operator Cannot enter calibration screen or the setup screen.
- Technician Cannot enter the setup screen.
- Supervisor Can access all screens in Universal Press Recorder 5 but cannot enter the Assembly Builder screen in Universal Chart Manager 5.
- Administrator Can access all screens.

Universal Press Recorder



DATA COLLECTION • AUTOMATION

Shift: UserName: Password:

A	B	C	D	E	F	G	H	I	
J	K	L	M	N	O	P	Q	R	
S	T	U	V	W	X	Y	Z	/	
BS	Clear					Enter			

7	8	9
4	5	6
1	2	3
0	.	

Log In	Assembly	Config	Logs	Calibrate	Diagnostics	Setup		
--------	----------	--------	------	-----------	-------------	-------	--	--

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1.3 Logout

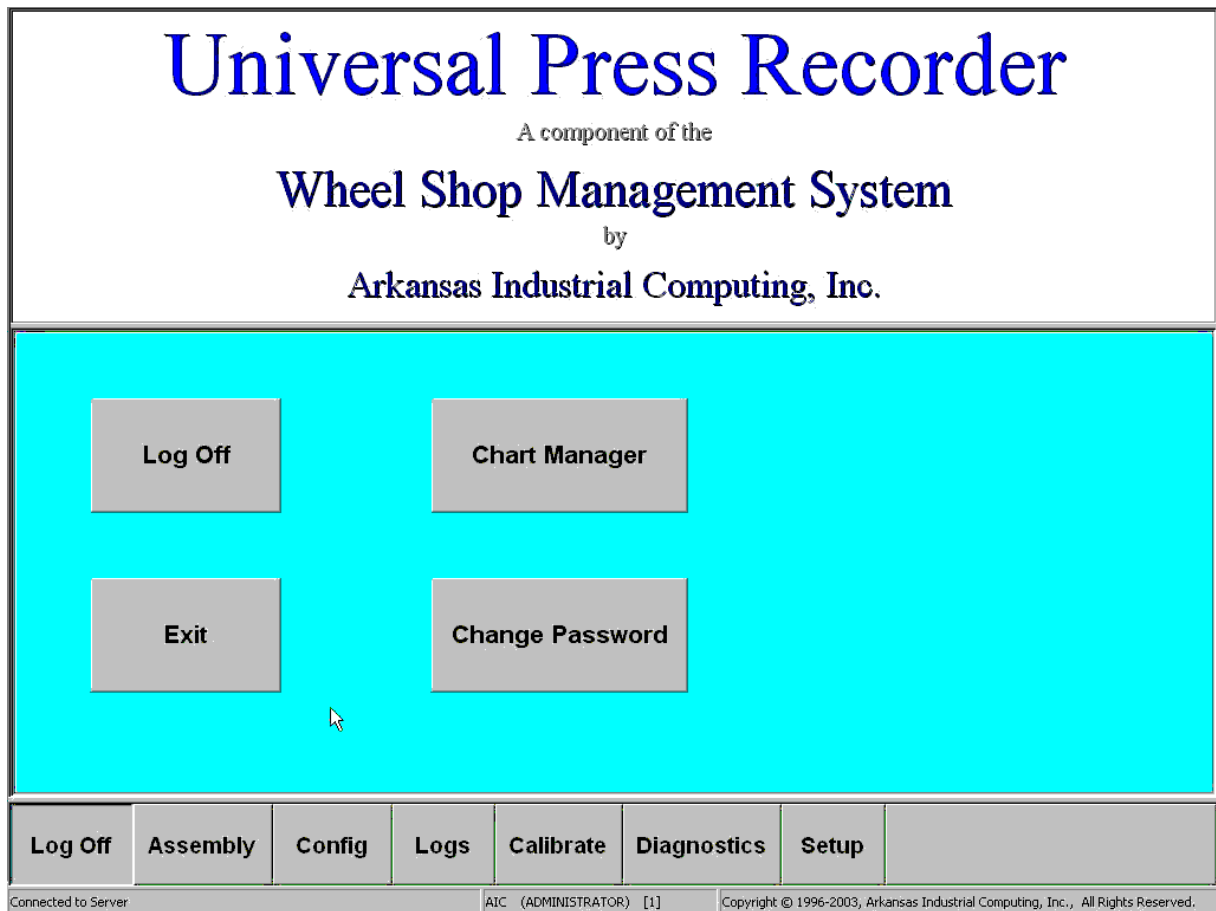
This is the logout screen of the Universal Press Recorder.

Press the Log Off button to log out.

Press the Chart Manager button to start the Chart Manager application.

Press the Change Password button to change the password that was used to login with.

Press the Exit button to exit the program. You must have supervisor authority or above to exit the program.



1.4 Assembly Screen

This is the screen where most of the work of mounting an assembly in the mounting press is done. The operator would first select the New Assembly button to create a blank assembly. Then the item to be pressed would be selected on the picture menu. The blue box denotes the currently selected item. Once a blank item is selected then the operator would press the mount button when the mount press is ready. The Mounting Screen would then be shown while the mount is in progress. Once the mount is complete and the serial number has been entered, this Assembly screen would be shown again. If the mount is not a misfit there will be a green checkmark on the item, if the mount is a misfit there will be a red x on the item. Selecting an item that has been mounted will display the mounting chart and other information on the right side of the screen. Also, when an item that has been mounted is selected, there is a demount button available. When the demount button is pressed, the item is recorded in the demount log and shown as blank on the picture menu.

To load an existing assembly, press the Find Assembly button.

The screenshot displays the Assembly Screen interface. On the left, a 3D diagram of a mechanical assembly is shown with a blue box highlighting a component. A red 'DeMOUNT' button is centered below the diagram. Below the diagram, a list of assembly details is provided:

- Axle SN: 44444
- Axle Mfg: JAW
- Axle Size: 6.875-12
- Traveler: 44444b
- Housing SN: 44444c
- Cfg Type: M-2
- Customer: STOCK
- Machine # 1

To the right of these details are three buttons: 'New Assembly', 'Find Assembly', and 'Print Assembly'. A digital clock at the bottom right of this section shows '11:36:16 AM'. On the far right, a mounting chart plots 'Inches' (0 to 7) against 'Tons' (0 to 180). The chart shows a blue line representing the assembly process, with a green vertical line at approximately 70 tons and a red vertical line at approximately 110 tons. Below the chart are 'Zoom', 'Print', and 'Preview' buttons.

Below the chart, the following data is displayed for 'Wheel 1':

- Serial No 21450
- Mount Date 3/4/2003
- Mount Time 2:29:17 PM
- Force Tons 86 Range 70 - 110
- Spike Tons 36 Range 30 - 40
- Total Tons 122
- Status Good Press
- Mfg EW
- Class A
- Type B38
- Condition RECOND
- Bore Size 10 0/0
- Tape Size 0

At the bottom of the screen is a navigation bar with buttons for 'Log Off', 'Assembly', 'Config', 'Logs', 'Calibrate', 'Diagnostics', and 'Setup'. The status bar at the very bottom shows 'Connected to Server', 'AIC (ADMINISTRATOR) [1]', and 'Copyright © 1996-2003, Arkansas Industrial Computing, Inc., All Rights Reserved.'

1.5 New Assembly

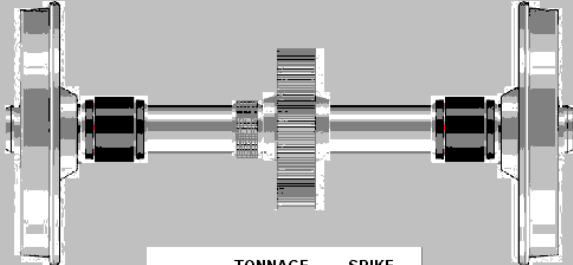
This screen allows the creation of a blank assembly. First, select the Configuration Type to be mounted. Configuration Types are setup during installation and by the administrator. You must enter an Axle serial number. A customer can be selected and traveler and Housing serial number may be entered. Press the Create Button to finish and return to the Assembly Screen. Press the Cancel button to abort the creation and return to the Assembly Screen.

Assembly Type

5.5 BEARING
◀ ▶

Customer

STOCK
▲ ▼



	TONNAGE		SPIKE	
	MIN	MAX	MIN	MAX
Wheel	85	150		
Bearing	50	60		
Disc				
Gear	30	50		
Ring	30	50		

Axle Serial Number

📄

Traveler

📄

Housing Serial Number

📄

Cancel

Create

Log Off
Assembly
Config
Logs
Calibrate
Diagnostics
Setup

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1.6 Find Assembly

Here you can find a previously mounted assembly to load. To search within a range of dates, set the Search From date and the Search To date and press the Search Button. Select the assembly to be loaded in the list and press the Load Button. Press the Cancel button to return to the Assembly Screen.

Last Mount Date	Last Mount Time	Assembly Type	Axle SN	Tr
2012-08-14	20:48:03	Type1	123	
2012-08-14	21:22:08	Type1	123	
2012-08-15	13:13:34	Type1	111	
2012-08-15	13:44:52	Type1	111	
2012-08-15	15:11:16	Type1	11	
2012-08-15	15:14:25	Type1	aa	
2012-08-20	16:39:28	Type1	aa	
2012-08-20	16:41:13	Type1	aaa	
2012-08-20	16:49:52	Type1	adfads	
2012-08-20	16:52:08	Type1	aa	

◀
◀
▶
▶

Date Search
SN Search
Traveler Search

Search From:

Search To:

Log Off	Assembly	Config	Logs	Calibrate	Diagnostics	Setup		
---------	----------	--------	------	-----------	-------------	-------	--	--

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1.7 Config Screen - Assembly Tab

The configuration screen is for entering default assembly information.

Assembly	Wheel	Bearing	Gear	Comments					
Customer Stock			Back To Back			Lateral			
Axle Manufacturer			Shim Size			Flange			
Axle Condition NEW									
Housing SN									
Log Off	Assembly	Config	Logs	Calibrate	Diagnostics	Setup			
CONNECTED		AIC (ADMINISTRATOR) [1]		Copyright © 1996-2012, Arkansas Industrial Computing, Inc., All Rights Reserved Version 5.2.1.36					

1.8 Config Screen - Wheels Tab

The configuration screen is for entering default wheel information.

Assembly	Wheel	Bearing	Gear	Comments					
Manufacturer CPD		Condition NEW							
Type CB38		Nominal Bore Size 7 1/4							
Class C		TapeSize 244							
Log Off	Assembly	Config	Logs	Calibrate	Diagnostics	Setup			
CONNECTED		AIC (ADMINISTRATOR) [1]		Copyright © 1996-2012, Arkansas Industrial Computing, Inc., All Rights Reserved Version 5.2.1.36					

1.9 Config Screen - Bearings Tab

The configuration screen is for entering default information for Bearings.

Assembly	Wheel	Bearing	Gear	Comments					
Manufacturer TMK		▲ ▼		Condition NEW		▲ ▼			
Log Off	Assembly	Config	Logs	Calibrate	Diagnostics	Setup			
CONNECTED	AIC (ADMINISTRATOR) [1]			Copyright © 1996-2012, Arkansas Industrial Computing, Inc., All Rights Reserved Version 5.2.1.36					

1.10 Config Screen - Gear Tab

The configuration screen is for entering default information for Gears.

Assembly	Wheel	Bearing	Gear	Comments				
<div style="border: 1px solid black; padding: 10px;"> <p>Manufacturer</p> <div style="border: 1px solid black; padding: 2px;">---</div> <div style="text-align: right;">▲ ▼</div> </div> <div style="border: 1px solid black; padding: 10px;"> <p>Condition</p> <div style="border: 1px solid black; padding: 2px;">NEW</div> <div style="text-align: right;">▲ ▼</div> </div> <div style="border: 1px solid black; padding: 10px;"> <p>Gear Ratio</p> <div style="border: 1px solid black; padding: 2px; width: 50px;"></div> <div style="text-align: right;">↗</div> </div>								
Log Off	Assembly	Config	Logs	Calibrate	Diagnostics	Setup		
CONNECTED		AIC (ADMINISTRATOR) [1]		Copyright © 1996-2012, Arkansas Industrial Computing, Inc., All Rights Reserved Version 5.2.1.36				

1.11 Config Screen - Additional Data Tab

The additional data screen is available if this option is selected from the Config->Additional Data screen. Enter the text you want to save as additional data with the assembly in these fields.

Assembly	Wheel	Bearing	Gear	Additional Data	Comments							
				Data 1	<input type="text"/>							
				Data 2	<input type="text"/>							
				Data 3	<input type="text"/>							
				Data 4	<input type="text"/>							
				Data 5	<input type="text"/>							
				Data 6	<input type="text"/>							
				Data 7	<input type="text"/>							
				Data 8	<input type="text"/>							
				Data 9	<input type="text"/>							
				Data 10	<input type="text"/>							
<table border="1"> <tr> <td>Log Off</td> <td>Assembly</td> <td>Config</td> <td>Logs</td> <td>Calibrate</td> <td>Diagnostics</td> <td>Setup</td> </tr> </table>						Log Off	Assembly	Config	Logs	Calibrate	Diagnostics	Setup
Log Off	Assembly	Config	Logs	Calibrate	Diagnostics	Setup						
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1.12 Config Screen - Comments Tab

The Comment Configuration Screen is for entering additional data to be stored with the assembly. Enter comments for each item at any time before pressing the last item onto the assembly. Once the last item has been pressed onto the assembly, you can edit the comments in Chart Manager.

Assembly	Wheel	Bearing	Gear	Comments			
----------	-------	---------	------	----------	--	--	--

<input type="radio"/> Wheel 1	<input type="radio"/> Bearing 1	<input type="radio"/> Disc 1	<input type="radio"/> Gear
<input type="radio"/> Wheel 2	<input type="radio"/> Bearing 2	<input type="radio"/> Disc 2	<input type="radio"/> Ring

Comment

Log Off	Assembly	Config	Logs	Calibrate	Diagnostics	Setup		
---------	----------	--------	------	-----------	-------------	-------	--	--

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1.13 Press Log

The Press Log is a sequential list of every mounting chart done on the press. Since a mounted item may be misfitted and remounted the final assembly will only show the last items mounted. To see what has been mounted to a particular assembly and how many times it was mounted, you use the Press Log. Enter the dates to search and press the Search button. To see all mounts for a particular serial number, press the Find All For Current SN button after highlighting the serial number in the list.

Press Log
Demount Log

Gear

Mount Date	Mount Time	Operator	Serial No	Status
3/4/2003	9:02:44 AM	aic	34535	Good Press
3/4/2003	9:03:25 AM	aic	435345	Good Press
3/4/2003	9:03:45 AM	aic	43534	Minimum Pressure Not Reached
3/4/2003	9:04:13 AM	aic	4353544	Minimum Pressure Not Reached
3/4/2003	9:04:49 AM	aic	34545	Good Press
3/4/2003	11:26:08 AM	aic	65765	Good Press
3/4/2003	11:26:25 AM	aic	767868	Good Press
3/4/2003	11:27:36 AM	aic	43535	Good Press
3/4/2003	11:27:53 AM	aic	454654	Good Press
3/4/2003	11:28:12 AM	aic	45645	Good Press

Start Date:

End Date:

Only Show Misfits

Date Search SN Search

Log Off
Assembly
Config
Logs
Calibrate
Diagnostics
Setup

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1.14 Demount Log

The Demount Log is a record of every item that is removed from an assembly. Enter dates for the demounts you want to see and press the Search Button. You can filter the search to a specific component by selecting the component in the drop-down list, or set it to ALL ITEMS. You can manually add a record to the Demount Log by pressing the Add Button. You can delete a record from the Demount Log by pressing the Delete Button. You can edit an existing record in the Demount Log by pressing the Edit Button.

Press Log		Demount Log				
Date	Time	Item	operator	serialno	disposition	Comment
1/30/2003	10:21:53 AM	WHEEL	aic	435345	PREVIOUS MISFIT	
1/31/2003	8:14:11 AM	WHEEL	aic	456433	PREVIOUS MISFIT	
1/31/2003	8:26:13 AM	WHEEL	aic	456546	PREVIOUS MISFIT	
2/24/2003	3:25:57 PM	WHEEL	aic	123123	REMOUNT	
2/24/2003	3:31:35 PM	WHEEL	aic	453545	SCRAP	
2/26/2003	12:44:16 PM	GEAR	aic	345345	REMOUNT	
2/26/2003	12:44:48 PM	GEAR	aic	345345	REMOUNT	

Start Date:

End Date:

ALL ITEMS

Log Off
Assembly
Config
Logs
Calibrate
Diagnostics
Setup

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1.15 Calibration Main Screen

This is the main screen for calibration. It shows the details of the current calibration. Select the tab at the top for Left Ram or Right Ram.

Press the Calibration Report button to print the current calibration settings.

Press the Calibrate Distance button to proceed to the Calibration Distance Screen.

Press the Calibrate Pressure button to proceed to the Calibration Pressure Screen.

Left Ram	Right Ram																																
UPR Calibration																																	
<div style="border: 1px solid black; padding: 5px; background-color: black; color: green; font-size: 24px; margin: 0 auto;">Distance</div> <div style="border: 1px solid black; padding: 5px; background-color: black; color: green; font-size: 36px; margin: 0 auto;">0.0</div> <div style="border: 1px solid black; padding: 2px; width: 40px; margin: 0 auto;">0.0</div>	<div style="border: 1px solid black; padding: 5px; margin: 0 auto;">Calibration Report</div>	<div style="border: 1px solid black; padding: 5px; background-color: black; color: green; font-size: 24px; margin: 0 auto;">Pressure</div> <div style="border: 1px solid black; padding: 5px; background-color: black; color: green; font-size: 36px; margin: 0 auto;">0</div> <div style="border: 1px solid black; padding: 2px; width: 40px; margin: 0 auto;">0.0</div>																															
<div style="border: 1px solid black; padding: 5px; width: 100px; margin: 0 auto;">Calibrate Distance</div>	<p>Current Calibration</p> <table style="margin: 0 auto;"> <thead> <tr> <th></th> <th style="text-align: center;">Distance</th> <th style="text-align: center;">Pressure</th> </tr> </thead> <tbody> <tr> <td>Operator:</td> <td><input type="text"/></td> <td><input type="text"/></td> </tr> <tr> <td>Date:</td> <td><input type="text" value="3/21/2012"/></td> <td><input type="text" value="3/21/2012"/></td> </tr> <tr> <td>Time:</td> <td><input type="text" value="4:18:07 PM"/></td> <td><input type="text" value="4:18:07 PM"/></td> </tr> <tr> <td>Scale:</td> <td><input type="text" value="1"/></td> <td><input type="text" value="1"/></td> </tr> <tr> <td>Offset:</td> <td><input type="text" value="0"/></td> <td><input type="text" value="0"/></td> </tr> <tr> <td>Low Reading:</td> <td><input type="text" value="0"/></td> <td><input type="text" value="0"/></td> </tr> <tr> <td>Low Counts:</td> <td><input type="text" value="0"/></td> <td><input type="text" value="0"/></td> </tr> <tr> <td>High Reading:</td> <td><input type="text" value="0"/></td> <td><input type="text" value="0"/></td> </tr> <tr> <td>High Counts:</td> <td><input type="text" value="0"/></td> <td><input type="text" value="0"/></td> </tr> </tbody> </table>		Distance	Pressure	Operator:	<input type="text"/>	<input type="text"/>	Date:	<input type="text" value="3/21/2012"/>	<input type="text" value="3/21/2012"/>	Time:	<input type="text" value="4:18:07 PM"/>	<input type="text" value="4:18:07 PM"/>	Scale:	<input type="text" value="1"/>	<input type="text" value="1"/>	Offset:	<input type="text" value="0"/>	<input type="text" value="0"/>	Low Reading:	<input type="text" value="0"/>	<input type="text" value="0"/>	Low Counts:	<input type="text" value="0"/>	<input type="text" value="0"/>	High Reading:	<input type="text" value="0"/>	<input type="text" value="0"/>	High Counts:	<input type="text" value="0"/>	<input type="text" value="0"/>	<div style="border: 1px solid black; padding: 5px; width: 100px; margin: 0 auto;">Calibrate Pressure</div>	
	Distance	Pressure																															
Operator:	<input type="text"/>	<input type="text"/>																															
Date:	<input type="text" value="3/21/2012"/>	<input type="text" value="3/21/2012"/>																															
Time:	<input type="text" value="4:18:07 PM"/>	<input type="text" value="4:18:07 PM"/>																															
Scale:	<input type="text" value="1"/>	<input type="text" value="1"/>																															
Offset:	<input type="text" value="0"/>	<input type="text" value="0"/>																															
Low Reading:	<input type="text" value="0"/>	<input type="text" value="0"/>																															
Low Counts:	<input type="text" value="0"/>	<input type="text" value="0"/>																															
High Reading:	<input type="text" value="0"/>	<input type="text" value="0"/>																															
High Counts:	<input type="text" value="0"/>	<input type="text" value="0"/>																															
Log Off	Assembly	Config	Logs	Calibrate	Diagnostics	Setup																											
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1.16 Calibration Distance Screen

Follow the directions to calibrate the distance transducer.

Press the Cancel Button to return to the Calibration Main Screen.

Left Ram	Right Ram														
<div style="background-color: black; color: green; font-size: 2em; padding: 10px; display: inline-block;">0.0</div>		<p>Distance Calibration</p> <ol style="list-style-type: none"> 1. Move the press ram to the fully retracted position. Make the following two measurements: A: (Fully Retracted ----> Min Bump-Up position) minus 2 inches. B: (Fully Retracted ----> Max Extension While Pressing) plus 2 inches Calculate C = B measurement minus A measurement 2. Measuring from the fully retracted position, move the ram out Distance A. 3. Enter 0 in the Low Reading Box. 4. Press the READ button. 5. Measuring from the fully retracted position, move the ram out Distance B. 6. Enter C calculation in the High Reading Box. 7. Press the READ button. 8. Press the SAVE CALIBRATION button to save the Distance Calibration. 													
		Counts = <input style="width: 50px;" type="text" value="0.0"/>													
Low Reading	<input style="width: 50px;" type="text" value="0"/>	READ	<=== Press here when actual distance equals Low Reading												
High Reading	<input style="width: 50px;" type="text" value="12.0"/>	READ	<=== Press here when actual distance equals High Reading												
		Cancel													
<table border="1" style="border-collapse: collapse; text-align: center;"> <tr><td>1</td><td>2</td><td>3</td><td>4</td></tr> <tr><td>5</td><td>6</td><td>7</td><td>8</td></tr> <tr><td>9</td><td>0</td><td>.</td><td>CLR</td></tr> </table>				1	2	3	4	5	6	7	8	9	0	.	CLR
1	2	3	4												
5	6	7	8												
9	0	.	CLR												
Log Off	Assembly	Config	Logs	Calibrate	Diagnostics	Setup									
CONNECTED		AIC (ADMINISTRATOR) [1]		Copyright © 1996-2012, Arkansas Industrial Computing, Inc., All Rights Reserved Version 5.2.1.36											

1.17 Calibration Pressure Screen

Follow the directions to calibrate the pressure transducer.

Press the Cancel Button to return to the Calibration Main Screen.

Left Ram	Right Ram																
<div style="background-color: black; color: green; font-size: 2em; padding: 10px; display: inline-block;">0</div>		<p>Step #2: Pressure Calibration</p> <ol style="list-style-type: none"> 1. Isolate the pressure transducer and master gauge from the hydraulic system. 2. Hook up a hydraulic hand pump to the isolated transducer and master gauge.. 3. Select a low reading value (ie, 5) and enter the value in the low reading box. 4. Pump the hand pump until the master gauge EXACTLY matches the low reading value. 5. Press the READ button. 6. Select a high reading value (ie, 200) and enter the value in the high reading box. 7. Pump the hand pump until the master gauge EXACTLY matches the high reading value. 8. Press the READ button. 9. Press the Save Calibration button to save the Pressure Calibration. 															
		Counts = <input style="width: 50px;" type="text" value="0.0"/>															
<p>Low Reading</p> <input style="width: 80px;" type="text" value="0"/>		<input type="button" value="READ"/>	<=== Press here when Master Gauge equals Low Reading														
<p>High Reading</p> <input style="width: 80px;" type="text" value="180"/>		<input type="button" value="READ"/>	<=== Press here when Master Gauge equals High Reading														
		<input type="button" value="Cancel"/>		<table border="1" style="border-collapse: collapse; text-align: center; width: 100px; height: 100px;"> <tr><td>1</td><td>2</td><td>3</td><td>4</td></tr> <tr><td>5</td><td>6</td><td>7</td><td>8</td></tr> <tr><td>9</td><td>0</td><td>.</td><td>CLR</td></tr> </table>		1	2	3	4	5	6	7	8	9	0	.	CLR
1	2	3	4														
5	6	7	8														
9	0	.	CLR														
Log Off	Assembly	Config	Logs	Calibrate	Diagnostics	Setup											
CONNECTED		AIC (ADMINISTRATOR) [1]		Copyright © 1996-2012, Arkansas Industrial Computing, Inc., All Rights Reserved Version 5.2.1.36													

1.18 Diagnostics Screen

The diagnostics screen displays the various logging files generated by the program.

Status information is displayed in the upper right corner of the screen.

Press the Print Preferences button to print the current program setup information.

The screenshot shows the Diagnostics screen interface. On the left is a 'General Log' window with a scrollable list of system events and messages. In the center is a 'Print Preferences' button. On the right, there are two green status bars: 'Database Communications OK' and 'Database Synchronized'. Below these, system information is displayed: 'Installed Memory = 4095M', 'Memory Load = 39%', and 'Version 5.2.1.36'. Further down are sections for 'Data Acquisition Log' and 'Scanner Log', both currently empty. At the bottom, a navigation bar contains buttons for 'Log Off', 'Assembly', 'Config', 'Logs', 'Calibrate', 'Diagnostics', and 'Setup'. The status bar at the very bottom shows 'CONNECTED', 'AIC (ADMINISTRATOR) [1]', and 'Copyright © 1996-2012, Arkansas Industrial Computing, Inc., All Rights Reserved | Version 5.2.1.36'.

1.19 Setup Screen - Press Tab

Graph Appearance and Storage:

Distance Deadband - Distance in inches which the ram has to travel for a graph point to be recorded.

Pressure Deadband - Pressure in tons which has to occur for a graph point to be recorded.

DAQ Averaging Factor - Smoothing factor applied to incoming data points.

Double Ended Press - Select this if you are using a double-ended press.

Use Split Pressure Calibration - Select this if there is a separate pressure gauge for each side the double-ended press.

Graph Start Parameters:

Press Start Distance - Distance at which recording starts (along with Press Start Pressure).

Press Start Pressure - Pressure at which recording starts (along with Press Start Pressure).

False Start Distance - If distance is below False Start Distance and pressure falls below Press Start Pressure, graph will be cleared and press returns to ready state.

Spike Detection Parameters:

False Spike Distance - The distance the ram must travel to indicate that there was a false spike.

Spike Detection Start Tonnage - The spike tonnage that must be reached to indicate that this is the start of a pressure spike.

Graph Ending Parameters:

Mount Ending Pressure Drop - When Current Pressure equals Peak Pressure minus Mount Ending Pressure Drop the press is complete.

Press	Scanner	Charts	Options	Security	Barcodes	Database	
DAQ Averaging Factor <input type="text" value="15"/>		Distance Deadband <input type="text" value="0.25"/>		Pressure Deadband <input type="text" value="1"/>			
Mount Ending Pressure Drop <input type="text" value="20"/>		<input checked="" type="checkbox"/> Double-Ended Press					
		<input type="checkbox"/> Use Split Pressure Calibration					
False Spike Distance <input type="text" value="0.25"/>							
Spike Detection Start Tonnage <input type="text" value="10"/>							
		WHEEL	BEARING	DISC	GEAR	RING	
Press Start Distance	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	
Press Start Pressure	<input type="text" value="5"/>	<input type="text" value="3"/>	<input type="text" value="3"/>	<input type="text" value="5"/>	<input type="text" value="5"/>	<input type="text" value="5"/>	
False Start Distance	<input type="text" value="1"/>	<input type="text" value="1"/>	<input type="text" value="1"/>	<input type="text" value="1"/>	<input type="text" value="1"/>	<input type="text" value="1"/>	
Log Off	Assembly	Config	Logs	Calibrate	Diagnostics	Setup	
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1.20 Setup Screen - Scanner Tab

To add a New Scanner:

- Click New
- Enter name
- Check Enabled
- Select Wheel Number
- Select Scanner Type

For Serial Scanner:

- Select Com Port

For Ethernet Scanner:

- Enter IP Address
- Enter TCP Port

For USB Scanner: **(Note-USB Scanners are currently not supported)**

- Select the Associate button, the button will then turn Green.
- Scan a barcode with the USB scanner.
- The Scanner Serial Number will be displayed in the Scanner Serial Number feild.

Select Output Type - Current Wheel

Last Value Scanned - insures the scanner is workly properly by allowing the user the view what has been scanned.

The screenshot displays the 'Scanner' tab in the software's setup interface. At the top, a navigation bar includes 'Press', 'Scanner' (highlighted), 'Charts', 'Options', 'Security', 'Barcodes', and 'Database'. The main area is divided into a left pane labeled 'Scanners' containing a large empty box and 'New' and 'Delete' buttons, and a right pane with configuration options. The right pane has two sections: 'Wheel Barcode Label Processing' and 'Axle Barcode Label Processing', each with a list of checkboxes to ignore specific fields. Below the scanner list is a text input field for 'Last value scanned (raw data)'. The bottom of the screen features a navigation bar with buttons for 'Log Off', 'Assembly', 'Config', 'Logs', 'Calibrate', 'Diagnostics', and 'Setup'. A status bar at the very bottom provides system information, including the user 'PROGRAMMER (ADMINISTRATOR) [1]' and the software version '5.2.1.36'.

1.21 Setup Screen - Charts Tab

Select colors for the various parts of the mounting graph. Use the Chart Minimums and Chart Maximums buttons to set the chart scales. Check the Draw Mounting Charts Inverted checkbox to

reverse the mounting graph orientation.

Press	Scanner	Charts	Options	Security	Barcodes	Database
-------	---------	---------------	---------	----------	----------	----------

Screen		Printer	
Chart Background Color	White	White	
Chart Panel Color	White	White	
Chart Title Color	Black	Black	
Chart Axis Color	Black	Black	
Chart Grid Color	Gray	White	
Pressure Trend Color	Blue	Black	
Min Tonnage Line Color	Lime	Black	
Max Tonnage Line Color	Red	Black	
Template Color	Black	Green	

Chart Minimums

Chart Maximums

Draw Chart Inverted

Chart Direction 0

Log Off	Assembly	Config	Logs	Calibrate	Diagnostics	Setup
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1.22 Setup Screen - Options - Setup Tab

- Wheel 1 Name - Display name for Wheel # 1.
- Wheel 2 Name - Display name for Wheel #2.
- Bearing 1 Name - Display name for Bearing # 1.
- Bearing 2 Name - Display name for Bearing #2.
- Disc 1 Name - Display name for Disc # 1.
- Dics 2 Name - Display name for Disc #2.
- Gear Name - Display name for Gear.
- Ring Name - Display name for Ring.
- Default Printer - Select the printer where all reports will be printed.
- Shop Name - Name to Display on the Reports.
- Pressure Units - Display name for pressure units.
- Distance Units - Display name for distance units.

Press | Scanner | Charts | **Options** | Security | Barcodes | Database

Setup | Press | Options | Reports | OPC Tags

Wheel 1 Name	<input type="text" value="Wheel 1"/>	Default Printer	<input type="text"/>									
Wheel 2 Name	<input type="text" value="Wheel 2"/>	Shop Name	<input type="text" value="Arkansas Industrial Computing"/>									
Bearing 1 Name	<input type="text" value="Bearing 1"/>	Pressure Units	<table border="1"> <thead> <tr> <th>Caption</th> <th>Format</th> <th>Font Size</th> </tr> </thead> <tbody> <tr> <td>Tons</td> <td>%3.0f</td> <td>48</td> </tr> <tr> <td>Distance Units</td> <td>%4.1f</td> <td>48</td> </tr> </tbody> </table>	Caption	Format	Font Size	Tons	%3.0f	48	Distance Units	%4.1f	48
Caption	Format	Font Size										
Tons	%3.0f	48										
Distance Units	%4.1f	48										
Bearing 2 Name	<input type="text" value="Bearing 2"/>											
Disc 1 Name	<input type="text" value="Disc 1"/>											
Disc 2 Name	<input type="text" value="Disc 2"/>											
Gear Name	<input type="text" value="Gear"/>											
Ring Name	<input type="text" value="Ring"/>											

DAQ Type

- ComputerBoards DAS08
- OPC Server
- Wago PLC

Log Off | Assembly | Config | Logs | Calibrate | Diagnostics | Setup

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1.23 Setup Screen - Options - Press Tab

Print Every Wheelset - When checked, a mount report will be printed after every wheelset is completed.

Print Only Misfit Wheelsets - When checked, a mount report will be printed for every wheelset containing a misfit.

Operator Must Acknowledge Misfits - When checked, a dialog box will be displayed for the Operator to acknowledge when a misfit is detected.

Show Mount Time on Report - Displays the mount time on the reports.

Show Wheel Class on Report - Displays the wheel class on the reports.

Prompt for Back-To-Back on 2nd Wheel - Displays a reminder to the operator to check the back-to-back after the 2nd wheel is pressed.

Use Non-AAR Class for Axle and Wheel - Allows the entry of Non-AAR Wheel and Axle Classes.

Barcode Printing Enabled - Enables the printing of barcodes.

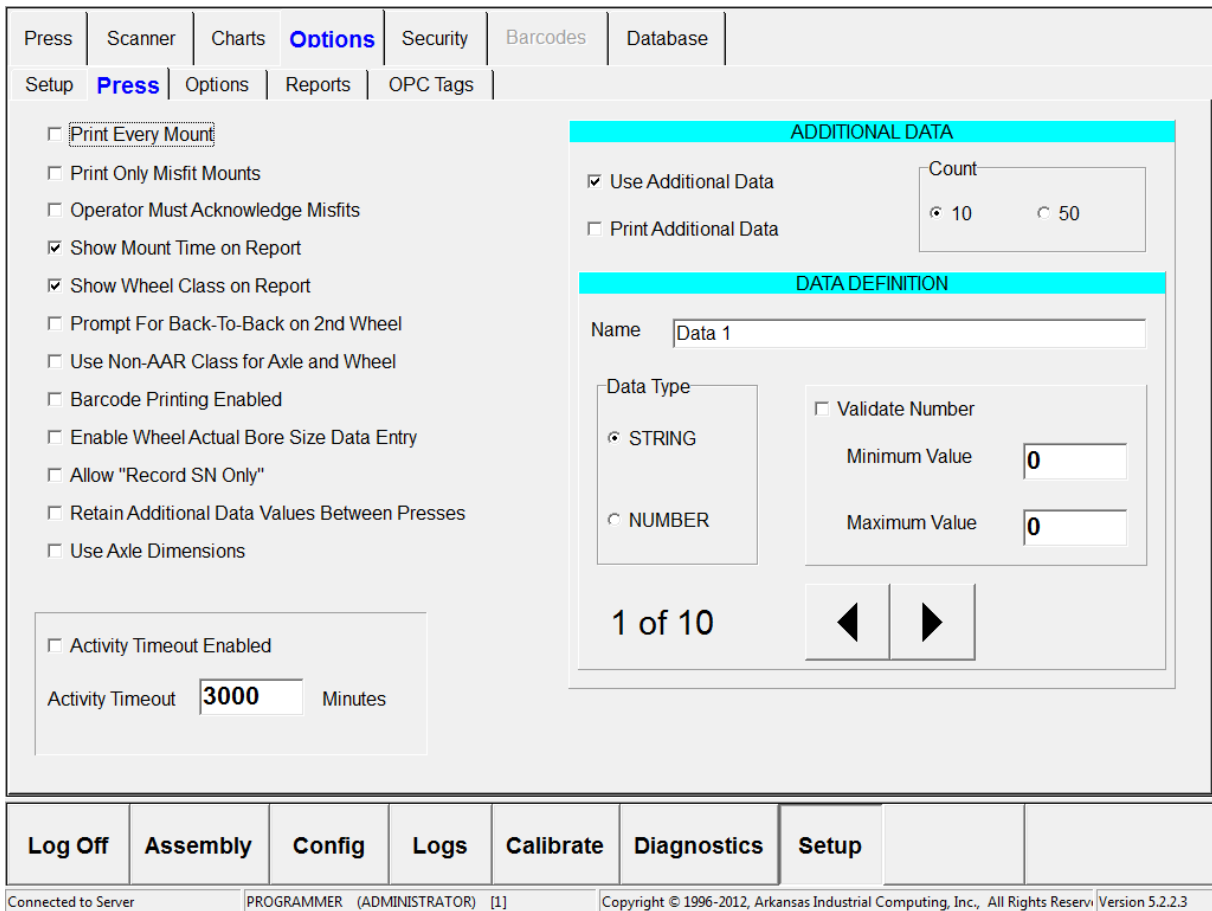
Allow Record SN Only - Only requires the entry of serial numbers for components.

Retain Additional Data Values Between Presses - Retains the data that was entered in the additional data fields between presses.

Use Axle Dimensions -

Activity Timeout Enabled - When checked, a timer is run after graph recording has started, if the timer expires the mount is forced complete.

Use Additional Data - When this option is on, there will be an additional tab in the Config Screen that allows collecting other data related to the assembly which will be saved along with the assembly.



1.24 Setup Screen - Options - Options Tab

Use Inventory - If the Inventory option is installed, this would force all components mounted to exist in inventory - if also checked below.

Enforce Inventory for Axles - require axle serial numbers to exist in inventory.

Enforce Inventory for Wheels - require wheel serial numbers to exist in inventory.

Enforce Inventory for Bearings - require bearing serial numbers to exist in inventory.

Enforce Inventory for Discs - require disc serial numbers to exist in inventory.

Enforce Inventory for Gears - require gear serial numbers to exist in inventory.

Enforce Inventory for Rings - require ring serial numbers to exist in inventory.

Press	Scanner	Charts	Options	Security	Barcodes	Database	
Setup	Press	Options	Reports	OPC Tags			

Use Inventory

Enforce Inventory For Axles

Enforce Inventory For Wheels

Enforce Inventory For Bearings

Enforce Inventory For Discs

Enforce Inventory For Gears

Enforce Inventory For Rings

Validate Manual Entry of Serial Numbers

Custom Launch Button

Enabled

Label:

File:

Parameters:

Additional Gear Data

Enable Additional Gear Data

Gear Data Name 1:

Gear Data Name 2:

Gear Data Name 3:

Gear Data Name 4:

Gear Data Name 5:

Log Off	Assembly	Config	Logs	Calibrate	Diagnostics	Setup		
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1.25 Setup Screen - Options - Reports Tab

Browse to a graphic file that you want displayed on the reports as your company logo.

Press	Scanner	Charts	Options	Security	Barcodes	Database	
Setup	Press	Options	Reports	OPC Tags			
<p>Company Logo File: <input type="text"/> ...</p>							
Log Off	Assembly	Config	Logs	Calibrate	Diagnostics	Setup	
Connected to Server		PROGRAMMER (ADMINISTRATOR) [1]			Copyright © 1996-2012, Arkansas Industrial Computing, Inc., All Rights Reserved Version 5.2.2.3		

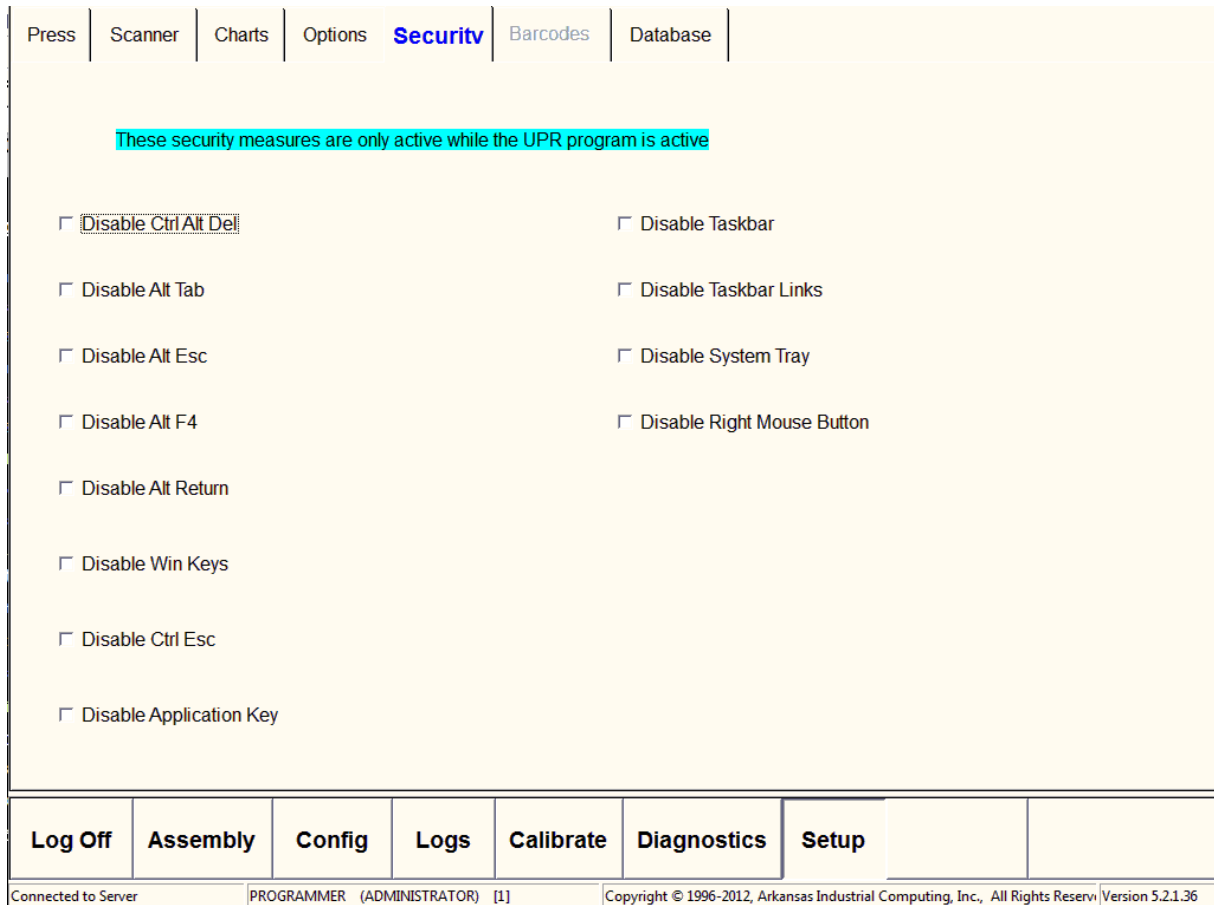
1.26 Setup Screen - Options - OPC Tags Tab

If an OPC Server is selected use the tabs below to setup the link to the OPC tags:

Press	Scanner	Charts	Options	Security	Barcodes	Database
Setup	Press	Options	Reports	OPC Tags		
OPC Server Name		<input type="text" value="Kepware.KEPServerEX.V5"/>				
Ram Settings						
	Left Ram			Right Ram		
Pressure Counts (float)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Pressure Scale (float)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Pressure Offset (float)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Distance Counts (float)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Distance Scale (float)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Distance Offset (float)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Ram Enabled (bool)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Spike Height (float)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Spike Coast (float)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Press Monitor						
Current Mount Item (int)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Current Ram (int)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
UPR Ready (bool)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Data Acq. Filter (float)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
False Spike Dist. (float)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Spike Start Pressure (float)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Spike Ctrl Enabled (bool)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Log Off	Assembly	Config	Logs	Calibrate	Diagnostics	Setup
Connected to Server		PROGRAMMER (ADMINISTRATOR) [1]		Copyright © 1996-2012, Arkansas Industrial Computing, Inc., All Rights Reserved		Version 5.2.1.36

1.27 Setup Screen - Security Tab

Disabling these security measures are only active while the UPR program is active.

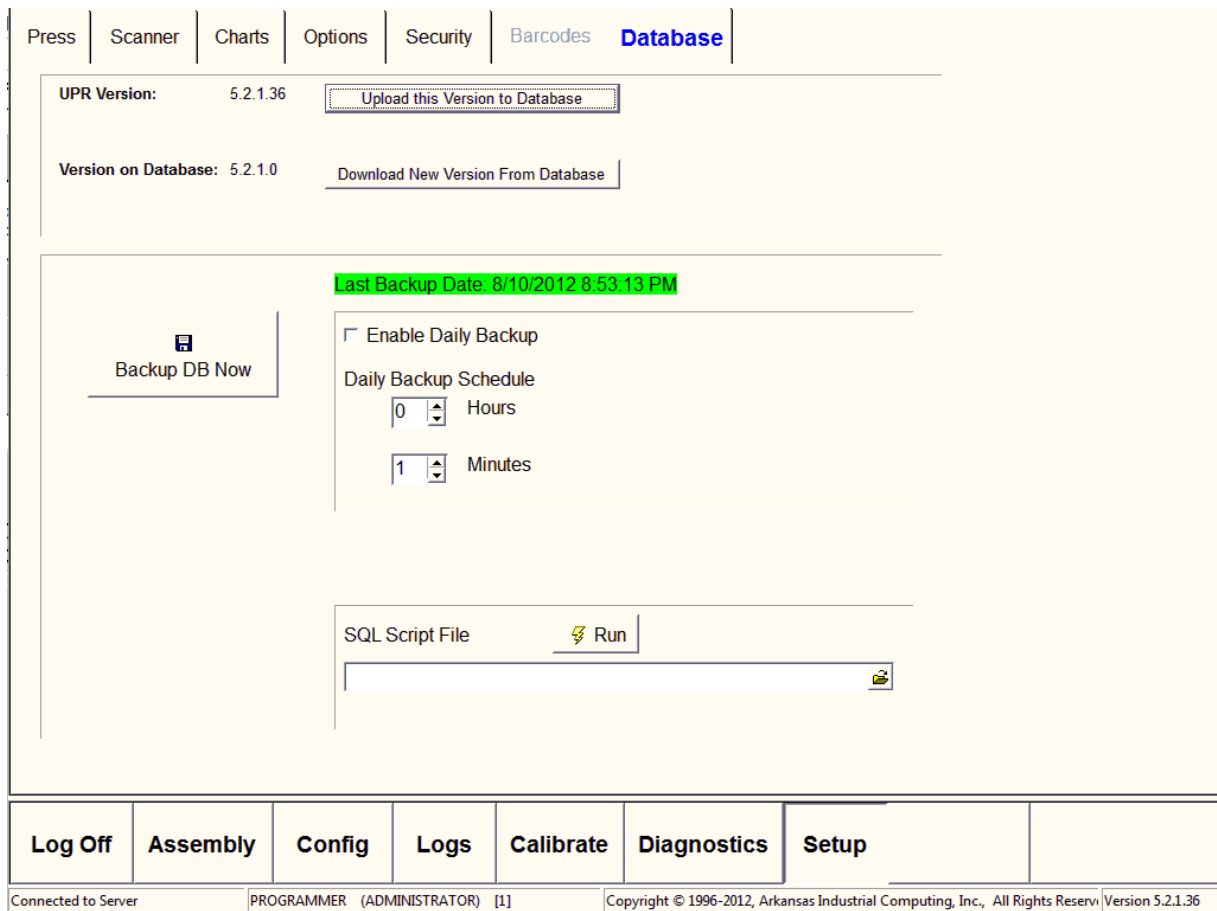


1.28 Setup Screen - Database Tab

Backup DB Now - Select this button to backup the Database immediately.

Enable Daily Backup - When checked, the Daily Backup of the Database is enabled. Daily Backup Schedule can be set using the Hours and Minutes boxes. This should be configured as a scheduled task in MS-SQL.

SQL Script File - browse for the SQL Script file that needs to be ran.

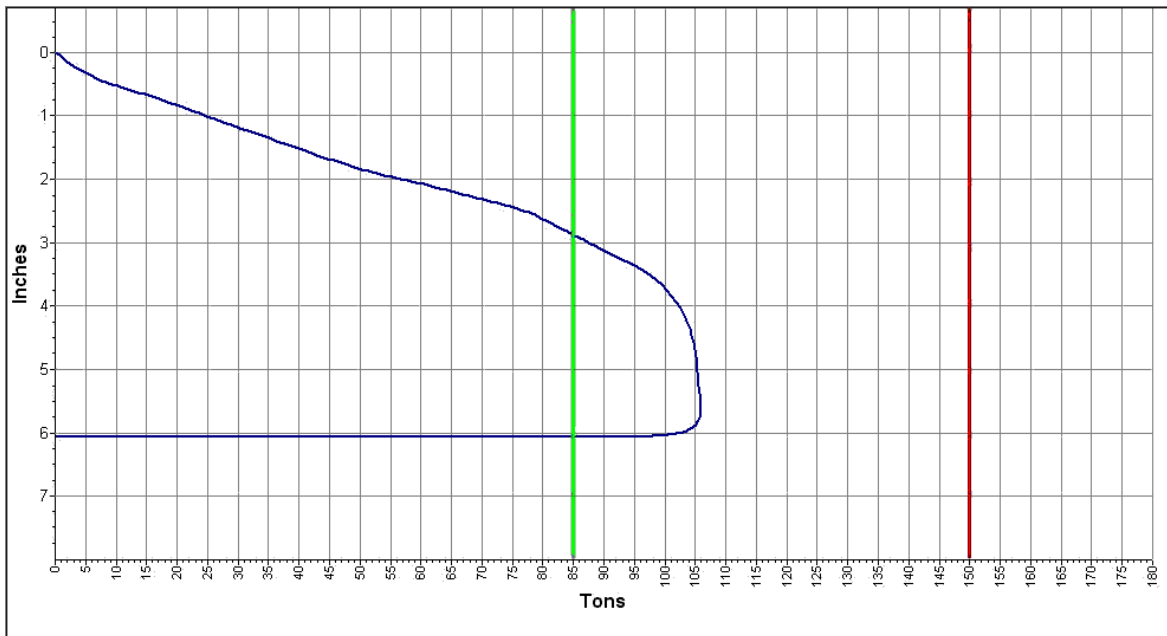


1.29 Mounting Screen

This is the mounting screen of the Universal Press Recorder.

The status box in the center of the screen will display the current status of the mount.

The Abort Button may be pressed at any time until the mount is complete to abort the current mount.



4.5 Inch Saving Data... 80 Tons

ABORT

Log Off Assembly Config Logs Calibrate Diagnostics Setup

1.30 Spike Control

Notice the extra items in the lower center of the screen.

Spike Min is the minimum spike height that must be reached.

Spike Max is the maximum spike height that is allowed.

Spike Target is the spike height target passed to the spike controller.

Spike Control Ready verifies communications with the spike controller and that the controller is ready to control the spike.

Spike Control Principle of Operation:

The operator holds the press extend button to operate the press ram. The spike controller will interrupt the flow of electricity through the press extend button via a relay to stop the press once the correct spike height has been reached. Depending on the speed of the press, the SpikeCoast parameter must be adjusted to allow the spike controller to meet the spike height target.

