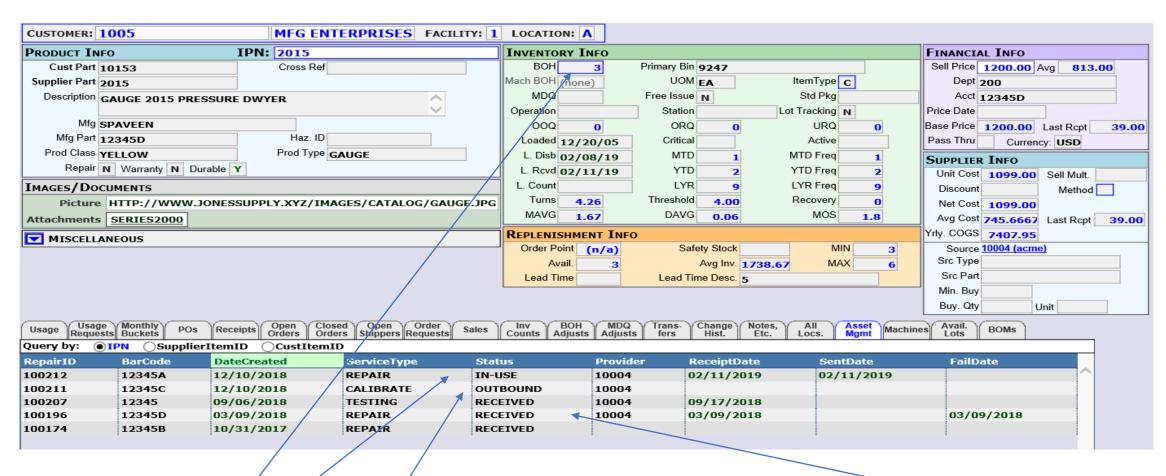
Asset Management

Repair & Warranty

Cloud Based Repair & Warranty

- Mobile AP
- Asset Management
- Full Warranty Tracking
- Customer Functionality
- Vendor Functionality
- Manager Functionality
- · Email Approval process
- Tracking Process per step
- · Calibration tracking
- PM Tracking
- Robust reporting system
- · Cost savings functionality
- Work Orders
- · Machine Inventory
- · Transactional database
- · Cost effective
- · No hardware / software to purchase
- · Cloud Based





All assets that are repairable are loaded as inventory. In the above example the item is a gauge.

This type of gauge has 3 in inventory. Looking at the asset history for this item shows 5 different gauges with 3 received in inventory, 1 being on the plant floor and the other in the repair process and currently at the repair vendor.

Each asset has a unique identifier called a Barcode #. Each Barcode # can be repaired multiple times with the system retaining all history. The above summary shows the current status of each asset. Clicking the row shows the detail of that status.

CUSTOMER 1005	MFG ENTERPRISES	FAC/LOC 1 / A	
IPN: <u>2015</u>	Supplier Part: 2015	RepairID: 100212	Status: IN-USE 🗸
BARCODE INFORMATION	Barcode: 12345A		
Serial ID: 23D56	× MachineID: 12345	Fail Date:	25 50 .75 1.0 .25 .50 .75
Requestor:	? Department: 200	? Account:	? MAGNEHELIC
			MAN, PRODUCTION OF THE PARTY OF
Operation: 34	Station: 1	Cell: 345	
Notes:			Vall
Service Date:	? Service Type: SETUP	REPAIR WARRANTY CALIBRATE TES	TING OPM CHECKOUT CHECKIN
PRODUCT INFORMATION			
CustItemID: 10153	Mfg: SPAVEEN	Mfg Part: 12345D	Buyer: KP
Description: GAUGE 2015 P	RESSURE DWYER	Prod. Class: YELLOW	Prev. Cost: 344.00
			New Item Cost: 1200.00
,	Back	Delete Upload A	Attachments
SHIP OUT QUOTE	Approve Order Ship Back	RECEIVE WARRANTY STORAGE SCRAP	MISC HISTORY

Looking at a asset in detail show this item currently on the plant floor and not in inventory. This screen show the items detail and The current status and location of the item.

What Machine, Department, Operation, Station and cell.

PRODUCT INFORMAT	TION					
CustItemID: 10153	Mfg: s	PAVEEN	Mfg Part:	12345D	Buyer: KP	
Description: GAUGE	2015 PRESSURE DWYER	^	Prod. Class:	YELLOW		Prev. Cost: 344.
						New Item Cost: 1200.
		Back	Delete	Upload A	ttachments	
SHIP OUT QUOTE	Approve Order	SHIP BACK RECEIV	E WARRANTY STORAGE	S CRAP	Misc History	
Provider: AC	ME, INC	Status: WARRANTY	∨ Purchase Price: 1239.00	Date: 02/23	/2015 ?	
Effective Date: 02	? Ending Date	: 02/23/2020 ? Period:	5 YEARS		Defined: 1:	
Coverage: FL	ILL		Notes: PROVIDE SERIAL #	^	2:	
		<u> </u>		V	3:	

The system retains warranty info on each asset. When an item fails this is the first thing to check

									_		
CUSTOMER	1005	MFG ENTERPRISES	6	F#	\c/Loc 1		/ A				
IPN: <u>2015</u>		Supplier Part: 2	015		RepairID: 1	00212			Status: OUTB	OUND Y	
BARCODE 3	INFORMATION	Barcode: 12345A								Use	e Search Suggest
Serial ID:	23D56	MachineID:	12345		Fail Date:		?		Cer	t. #:	
Requestor	ВОВ	? Department:	200	?	Account:			?		Cert. Date:	?
Operation	34	Station:	1		Cell:	345					
Notes:	DOES NOT MEASUR	E							\Diamond		
Service I	Date:	? Service Type:	SETUP REPAIR	0 w	ARRANTY	CALIBR	RATE O TESTIN	G O PM	СНЕСКОИТ	CHECKIN	
SHIP OUT	QUOTE A	PPROVE ORDER	SHIP BACK RECEIVE	WA	RRANTY ST	ORAGE	SCRAP	Misc	HISTORY		
* P	rovider: 💢 10004	Acme						Provi	der Receipt Date	2:	?
	Shipper:	Sent:	Sequence #:					Set	values and click on	Ship Out button.	
	CustPO								SHIP 0	UT	
Cus	Shipper Shipper										
Each s	tep of the re	epair process is d	done using the a	abo	ve tabs.					\	
Once t	he asset is e	evaluated and if	decision is mad	e to	repair t	he ite	m it is sent	to the r	epair vend	or.	
		out Tab allows fo			•				•	1	
CHCKIII	g the July C	out lab allows lo	i tile repair ven	iuul	to be ci	וטטכוו	. THIS CHAIL	ges the	status to ot	atbourid	

The system will generate a shipper and the material is shipped to the vendor.



shipper

Page: 1

Shipper: 10025 Date Shipped: 2019-02-11

Fax: DUNS: 00111111111

Ship To: acme

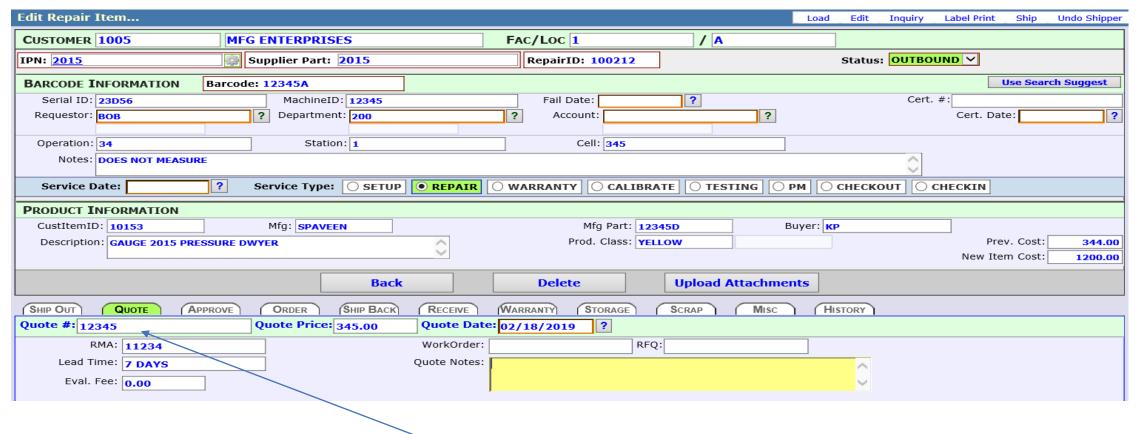
Email: ED@DATAWAREONLINE.COM

Send All: MFG ENTERPRISES PLANT 1

Repairs RECVG AREA 1 DOCK 30

MFG CITY, MI 48999

Seq	Manufacturer /	MfgItem#	BarCode ,	/ CustItem#	Serial #	RMA		Description / *Notes
		HDSSSSS AAAAAAA TOP TEX 1 2 END TOP	AAAA T	SSSSSSSSSS	SSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS	SSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS	S ASA	
1	SPAVEEN 12345D		12345A 10153		23D56	[GAUGE 2015 PRE *Notes: DOES NO	



The next stop of the process is the quote step. This is where the information gathered from the Vendor to determine the next step.

Info includes price to fix, days to fix and notes back to the customer

CUSTOMER 1005	MFG ENTERPRISES	FAC/LOC 1	/ A	
IPN: <u>2015</u>	Supplier Part: 2015	RepairID: 100212	Statu	is: OUTBOUND Y
BARCODE INFORMATION	Barcode: 12345A			Use Search Suggest
Serial ID: 23D56	MachineID: 12345	Fail Date:	?	Cert. #:
Requestor: BOB	? Department: 200	? Account:	?	Cert. Date:
Operation: 34	Station: 1	Cell: 345		
Notes: DOES NOT MEASUR	E			
Service Date:	? Service Type: O SETUP	• REPAIR O WARRANTY CALIBRA	TE O TESTING OPM OCHEC	KOUT CHECKIN
PRODUCT INFORMATION				
CustItemID: 10153	Mfg: SPAVEEN	Mfg Part: 1234	Buyer: KP	
Description: GAUGE 2015 PRE	SSURE DWYER	Prod. Class: YELL	ow	Prev. Cost: 344.00
		<u> </u>		New Item Cost: 1200.00
	Back	Delete	Upload Attachments	
SHIP OUT QUOTE AF	PROVE ORDER SHIP BACK	RECEIVE WARRANTY STORAGE	SCRAP MISC HISTORY)
Approval Date: 02/	11/2019 ? Approver: BOB	Approval Type:		
PO Number: 334	456 Expected Return	Date: 02/18/2019 ?		

The next step is the approving step. Once the customer decides to complete the repair it is approved.

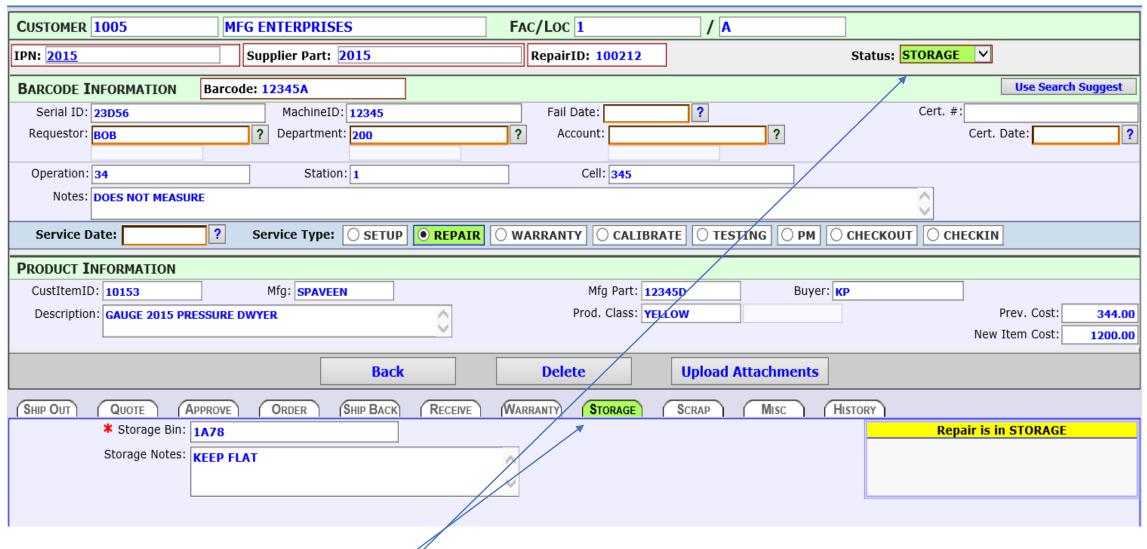
The system can also be setup to avoid this step for standard repairs.

CUSTOMER 1005	MFG ENTERPRISES	FAC/LOC 1	/ A	
IPN: <u>2015</u>	Supplier Part: 2015	RepairID: 100212	State	us: INBOUND V
BARCODE INFORMATION	Barcode: 12345A			Use Search Suggest
Serial ID: 23D56	MachineID: 12345	Fail Date:	?	Cert. #:
Requestor: BOB	? Department: 200	? Account:	?	Cert. Date:
Operation: 34	Station: 1	Cell: 345		
Notes: DOES NOT MEAS	GURE			\$
Service Date:	? Service Type: SETUP	● REPAIR ○ WARRANTY ○ CALIBRAT	E O TESTING OPM OCHEC	KOUT CHECKIN
PRODUCT INFORMATION				
CustItemID: 10153	Mfg: SPAVEEN	Mfg Part: 1234	Buyer: KP	
Description: GAUGE 2015 F	PRESSURE DWYER	Prod. Class: YELLO	DW W	Prev. Cost: 344.00
				New Item Cost: 1200.00
	Back	Delete	Upload Attachments	
SHIP OUT QUOTE	APPROVE ORDER SHIP BACK	RECEIVE WARRANTY STORAGE	SCRAP MISC HISTORY)
Provider: 10004	Acme [†] S	hip Cost: 12.00 Provider Status:	REPAIRED V	
Shipper: 22333	* Sent: 2/11/2019 Ship Vi	a: UPS Tracking #: ZXX	1456786R	
Service REPLACED LEVER	Root / LEVER WAS	STRIPPED		Repair has been SHIPPED BACK
Detail:	Causé:			

Vendors have access/to the system if allowed. They can provide the quote info as well as a ship back option.

CUSTOMER 1005	MFG ENTERPRISES	F/	AC/LOC 1	/ A			
IPN: <u>2015</u>	Supplier Part: 2015		RepairID: 100212		Status: RECEIVED	V	
BARCODE INFORMATION B	arcode: 12345A					Use Search	n Suggest
Serial ID: 23D56	MachineID: 12345		Fail Date:	?	Cert. #:		
Requestor: BOB	? Department: 200	?	Account:	?		Cert. Date:	?
Operation: 34	Station: 1		Cell: 345				
Notes: DOES NOT MEASURE					\$		
Service Date:	? Service Type: O SETU	P REPAIR W	ARRANTY CALIBI	RATE TESTING PM	СНЕСКОИТ СНЕ	CKIN	
PRODUCT INFORMATION							
CustItemID: 10153	Mfg: SPAVEEN		Mfg Part: 12	2345D Buye	er: KP		
Description: GAUGE 2015 PRESS	URE DWYER	^	Prod. Class: 📉	ELLOW		Prev. Cost:	344.00
						New Item Cost:	1200.00
	Bac	k	Delete	Upload Attachments			
SHIP OUT QUOTE APPR	OVE ORDER SHIP BACK	RECEIVE WA	RRANTY	SCRAP MISC	HISTORY		
* Receipt Date: 2/11	/2019 ?	1		Repair Notes: RETURNED	TO INVENTORY		^
New Primary Bin: 9247							V
* Actual Cost: 39.00)			Repair has been	RECEIVED.		
Ship Savings: 0.00							

Once the item is received in and the cost is verified the repair is closed and the item returns to inventory



If a asset is repairable but there is sufficient inventory then the asset can be stored for a future repair

CUSTOMER 1005	MFG ENTERPRISES	FAC/LOC 1	/ A
IPN: 2015	Supplier Part: 2015	RepairID: 100212	Status: SCRAPPED V
BARCODE INFORMATION	Barcode: 12345A		Use Search Suggest
Serial ID: 23D56	MachineID: 12345	Fail Date: ?	
Requestor: BOB	? Department: 200	? Account:	? Cert. Date:
Operation: 34	Station: 1	Cell: 345	
Notes: DOES NOT MEASUR	E		<u> </u>
Service Date:	? Service Type: O SETUP	● REPAIR ○ WARRANTY ○ CALIBRATE ○	TESTING OPM CHECKOUT CHECKIN
PRODUCT INFORMATION			
CustItemID: 10153	Mfg: SPAVEEN	Mfg Part: 12345D	Buyer: KP
Description: GAUGE 2015 PRE	SSURE DWYER	Prod. Class: YELLOW	Prev. Cost: 344.00
			New Item Cost: 1200.00
	Back	Delete Uplo	Attachments
SHIP OUT QUOTE AF	PPROVE ORDER SHIP BACK	RECEIVE WARRANTY STORAGE SCRAP	MISC HISTORY
* Scrap Info: CAN	NOT BE REPAIRED ECONOMICALLY		Repair has been SCRAPPED

Once the asset is no longer repairable it is scrapped removing it from normal activity

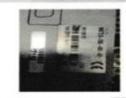
Work Order #: WO0538327 Manufacturer: INDRAMAT

Part No./ Description: RAC2.3-250-460/A-01-WI / AC MAIN SPINDLE DRIVE

Customer PO: PO17343232

Shipped Date: 08/07/2017 Serial No.: 256153-24413 Managed Barcode: DTP0102279 Customer P/N: 1012339431R

Received as Condition:







Reported Problem: INDRAMAT BLEW 2 OF 3 FUSES WHEN CAMMANDED TO MOVE. REPLACED FUSES AND INDRAMAT FUNCTIONED NORMALLY, PLEASE CHECK INPUT SIDE OF CIRCUITRY, UNIT CAME OUT OF ASRS-SRM4

Technical Evaluation: No shorts detected. Replace pm and any other suspect components. Test when completed.

In Process Pictures:







Root Cause Failure Analysis: Physical damage: Broken logic circuit breaker.

Components exceeded rated life expectancy: Capacitors. Failed components: Failed optocouplers in firing circuits.

Test Stand 1

Indramat 160CB35RB2-BS03/S017 (M191) (CNC)

Test Stand 2: **Eddy Current Test Stand**

Work Performed

- 1. Disassembled.
- Replaced capacitors and optocouplers.
- Replaced broken logic power breaker.
- 4. Ran signature analysis.
- Power electronics checked good.
- 6. Firing circuits are symmetrical.
- Reassembled.
- 8. Setup for testing.
- 9. Unit powered up normally.
- 10. Enabled and ran motor.
- 11. Increased torque on Dynamometer to test capacity of load stand.
- Passed all available tests under load.

Pictures and documents can be attached to the repair and are viewable in the system

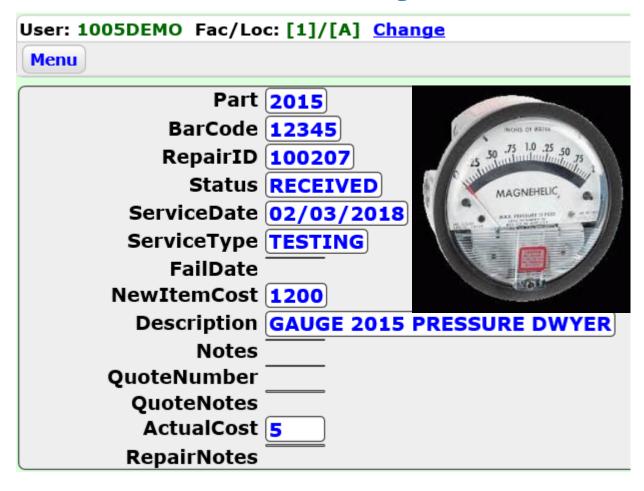
User: 1005DEMO Fac/Loc: [1]/[A] Change

Main Menu

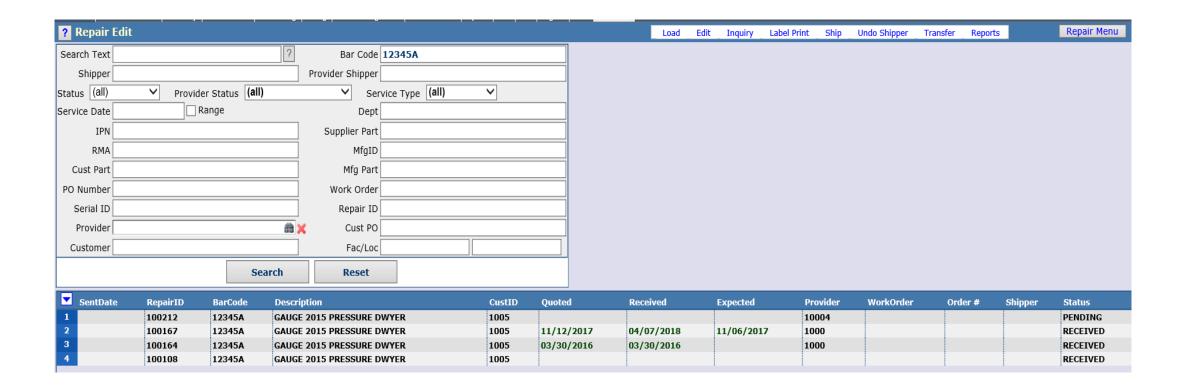
Create Usage
Inventory Inquiry
Inventory Count
Inventory Count w/Adjustment
BarCode Inquiry

Log Off

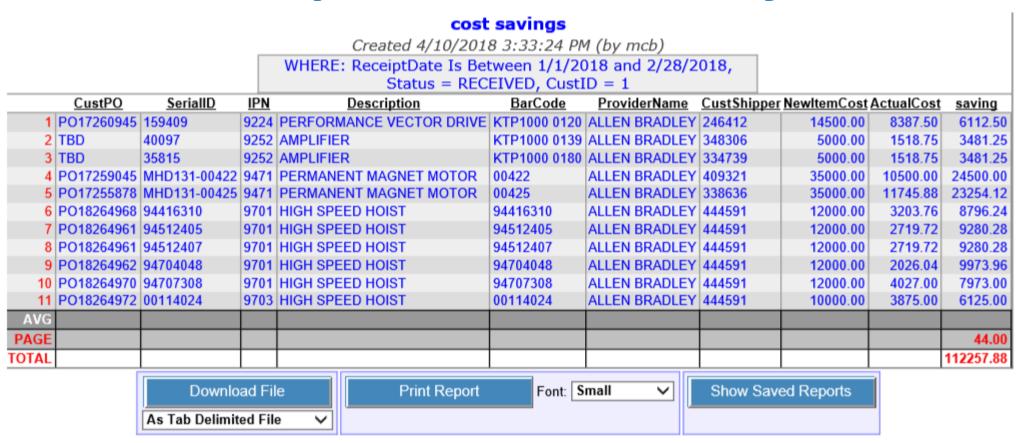




There is a mobile app that allows for bar code scanning and showing the current status of the asset



Robust inquiry tools will drill down to what you are looking for. Here, looking at a particular asset show all history for it.



The system has robust ad-hoc report capabilities. You can save a report template And schedule it to automatically run, send it as a email, text file, xml document, excel Spreadsheet or a printable report.

The above is an example of a cost savings report for all repairs completed between a range of dates