Work Order and Inventory Enhancements

Release 5.1



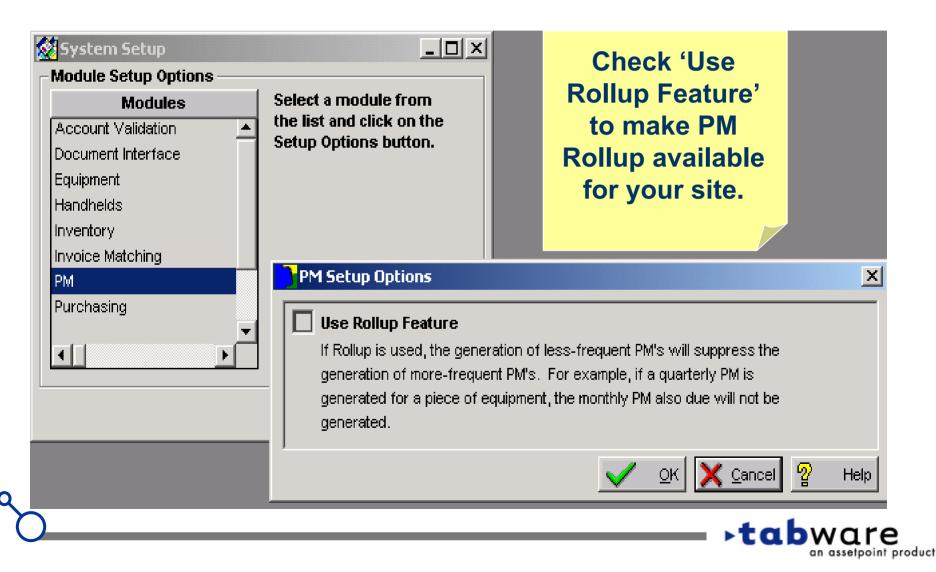


WO/Maintenance – Major Features

- Preventive Maintenance WO Rollup by Frequency
- Preventive Maintenance Skill Report
- Scheduling Assign employees
- Scheduling Save schedules to spreadsheets
- Scheduling Interface to Microsoft Project 2000/2002



PM Setup Options - Rollup Feature



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PM Schedules – Rollup Checkbox

Set PM Schedule 34533456 - MP000554	
Equipment 34533456 PUMP, SLURRY Master Plan MP000554 PUMP REBUILD	The Rollup checkbox on PM Schedule allows your site to
By Meter C By Time © By Both	use rollups, but to ignore the feature for certain PM's.
Frequency Time: Every 1 Timeframe Year OF	By default, this checkbox is checked ON.
Units: Every 1000 HOURS	BCUR2025
Lead Time to Schedule Time 1 Lead Timeframe Month OF	Shop Delete
Units 10or 1 %	PM Options Base Schedule on Work
Schedule Units Last Execution was 10/30/2002 0	
Next Execution is 10/30/2003 🛄or 5000	
	▶tab ware

PM Generation – Rollup Feature

- When more than one PM is due for the same equipment, a work order is generated for the least-frequent PM. For example, if the annual, semi-annual, quarterly and monthly are all due, a work order is generated for the annual PM Schedule. The Next Execution Date is incremented for all four PM Schedules.
- Any PM Schedule with 'Generate PM Regardless of Rollup' checked ON will generate when due, regardless of the new rollup feature.
- Rollup based on frequency works for meter-based schedules in the same way as calendar-based schedules.
 If a PM Schedule is based on both calendar and meter e.g., 'every 3 months or 3000 miles', the rollup will be based on the calendar frequency.





PM Generation – Work Order Rollup

- To use this feature, you will need to revise the Master Plans' planned resources, materials and instructions.
- Using the example above: Because only the annual PM will be generated, the work order plan for the semi-annual, quarterly and monthly PM's will have to be added to the annual PM. The plan on the semi-annual and quarterly PM's will have to be similarly updated.



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PM Generation – Work Order Rollup

<u>е</u> рм	I Schedule Search				_	
	Equipment	?	Query Basic	👻 📼	Search <u>႓</u> Change 🗙	<u>C</u> lose
	Master Plan	?	Thru Next Execution	n 🛄 🔽	Startup Query	
Plant	Equipment	Master Plan	Last Execution Date	Next Execution Date	Frequency Frequency Time Timeframe	-
Plant	t:ROF					
ROF	jackey	jw712c	7/27/2002	1/10/2004	6 Month	
ROF	jackey	jw719MP	7/29/2002	1/31/2004	2 Month	
ROF	jackey	jw722MP	7070000	244/2004	1 Month	
ROF	jackey	jw723MP	Messa	ge:PMRollupPMs		
ROF	jackey	jw723MP2				
ROF	jackey	jw725MP				
ROF	jackey	jwMASTER	M Becaus	a thaca cchadula	s are part of a PM Rollup,	
ROF	jackeynew	jwMASTER			ding will not be updated.	
ROF	jackeyold	00057			e window to update Next	
					PM being generated AND	
	Go To	Create PM Work Orde		-	Ms defined for the	

This message is displayed when using the 'Create PM Work Order' button to generate a PM that is part of a rollup structure.

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PM Schedules – Placing a PM on Hold

Set PM Schedule 34533456 - MP000554	
Equipment 34533456 PUMP, SLURRY Master Plan MP000554 PUMP REBUILD	Current Readings Units 4980.00
● By Meter ● By Time ● By Both PM Schedules marked as 'on hold' are bypassed by JobCop's PM Generation routine. Also, note that the Current 	Date 9/15/2003 Work Order Values Planner TRAIN11 Supervisor BCUR2025 Shop 00-VVYND-ME OO-VVYND-ME PM Options Base Schedule on Work Completion On Hold ✓ Generate PM Regardless of Rollup
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PM – PM Skill Report for Labor Leveling

💥 PM Skill Report Criteria		×
Area Department Skill		t Class 💌 ipment ?
The PM Skill Report is used to balance PM labor requirements over the coming year.	Select PM Schedules based on Area, Department, Skill/Resource, Equipment	<mark> </mark>
	Class or Partial Equipment Number.	⊦tab ware

PM – PM Skill Report Detail View

💥 PM Skill Report													_ 🗆	×
Equipment	I10 PUMP												-	<u> </u>
<u>Master Plan</u>	Frequency													
MP000514	3 Month	1	2	3	4	5	<u>38</u>	39	40	41	42	43	44	
	ELEC				1							1		
	Mech				з							З		
Equipment 2	20-1330-01 Debarker 2													
<u>Master Plan</u>	Frequency												Ī	
MP000563	1 Week	1	2	3	4	5	<u>38</u>	39	40	41	42	43	44	
	Mech	1	1	1	1	1		1	1	1	1	1	1	
Equipment (34533456 PUMP, SLUR	RY												
<u>Master Plan</u>	Frequency													
MP000554	1 Year	1	2	3	4	5	<u>38</u>	39	40	41	42	43	44	
	0022								1				·	-
•							•							

- Planned labor hours are projected over the next 53 weeks.
- Meter-based PM's and PM's 'on hold' are not included.
- Double-click line to update a PM Schedule and then Refresh.



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PM – PM Skill Report Summary View

💥 PM Skill Report																	хI
Resource Id	<u>38</u>	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	
0022			1														
ELEC						1											
HVAC		4					4				4				4		
Mech		1	4	1	1	4	1	1	1	1	1	1	1	1	1		
TEC				8													
Grand Total:		5	5	9	1	5	5	1	1	1	5	1	1	1	5		
The Summa	rv \	/iev	v to	otal	s la	abo	r re	aui	iren	ner	its	bv	Res	sou	rce		
Check the S	-							- C									
												ISL	, C Π	CCI	\ UI	C	
Detail View																	
Summary a	nd [Deta	ail v	/iev	NS (can	be	pr	inte	ed.							
I I																	
Detail Criteri	.		Refre:	sh	1					A	δ	Print	2	Help		Close	
	я		inden Ge	911							y '		H	Tielþ			1
												_	.+	ah	•••	are	5



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Scheduling – Assigning Employees

Schedule Category Other:BC-Weekly 1/31/00	•	Timeframe Weekly		•				Actions		<u>о</u> к
		V ACCULÀ							🗙 <u>C</u> ano	;el
Description	Schedule Start Date	Schedule Start Time		Employee 1	Employee 2	Employee	3	Employee 4	Employee 5	
QUARTERLY PM MASTER PLAN - REF6A	9/25/2002	12	SRU2	snyder, butch	🛛 R HYATT JR	?	?		?	?
Repair Pump	9/25/2002	12	SRU2	SATTERFIELD, LOU	2	?	?		?	2
need to be warm	9/25/2002	11	Bldg2-1	SCOTT, MARVINE.	?	?		1		
rectify speed control error	9/26/2002	12	SRU2	SCOTT, MARVIN E.	COX, JERRY	?				
REPAIR FAN MOTOR	9/26/2002	12	Building1	SPENCER, KEITH W	?	?				
valve at inlet needs replacing	9/27/2002	12	SRU2		?	?		Assi	gn up to	16
Repair Pump	9/27/2002	11	SRU2		?	?				
Repair Pump	9/28/2002	LL.	SRU2		?	?		emplo	yee ID's	s t
▲			Þ					a wo	ork orde	r.



WO / Maintenance

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Scheduling – Assigning Employees

Vork Order Schedule by Date					Cut Copy
Schedule Category		Tim	neframe		Clear QK
Other:BC-Weekly 1/31/00	•	We	ekly		Select All
Description	Schedule Start Date		hedule art Time	Аге	Update WO Assign To Employee 4
QUARTERLY PM MASTER PLAN - REF6/	9/25/2002	12	s	SRU2	7
Repair Pump	9/25/2002	12	s	SRU2	Filter WO's Showing All Rows Where Employee Exists
need to be warm	9/25/2002	12	E	3ldg <mark>2</mark> _	Clear WO Filter
rectify speed control error	9/26/2002	12	s	SR <mark>1</mark> 2	SCOTT, MARVINE. ? COX, JERRY ?
REPAIR FAN MOTOR	9/26/2002	12	E	3 <mark>u</mark> ilding	1 SPENCER, KEITH W ? ?
valve at				RU2	? ? ?
Repair P	_			SRU2	? ? ?
Repair P Right-click OI	n Emp	oloy	ee	SRU2	? ? ?
to up	date				
		a b b	т		
Work Order's					
or to Filter w	ork o	rde	rs	_	
based on the	Emp				
	сшр	iUye	·C.		



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Scheduling – Assigning Employees

lection	Create Schedule	Actions	_ [] : X Close
-	-	Supervisor/ Planner	Area/ Department
		BCUR2025	SRU2 111
	WO S	-	
	assig	ned employ	yees,
+ 101	Resou	rces/Emplo	oyees'
	CNECK		er lett.
	Equi Seri 95A- 05-7 4 Worl 95A- 95A- 05 7	Equipment/ Serial Id 95P-20A 05-70-70 4 Workers 95P-20A 95P-20A 95P-20A rep assig 4 Workers bas Bas	Equipment/ Serial Id Supervisor/ Planner 95A-20A BCUR2025 95A-20A BCUR2025 4 Workers 95A-20A BCUR2025 4 Workers 95A-20A BCUR2025 95A-20A BC



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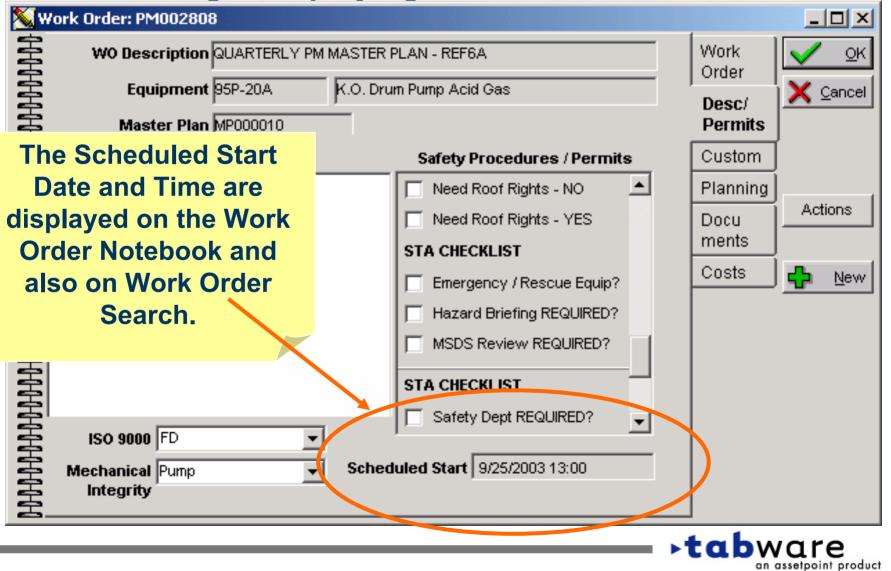
Scheduling – Saving and Printing Schedules

🐱 Work Order Schedule		
Schedule Category	Timeframe	Actions
Other:BC-Weekly 1/31/00	▼ Weekly ▼	X Cancel
	Select File to Save	
Sequence Work Order Number		
1 PM002808 0	Save in: EACKUP	
2 RT009028 F		
3RT009023 r		
4 RT009024 r		
The contents of the		
WO Schedule		
window can be		
saved to	File name:	Save
spreadsheet or file,	Save as type: Excel (*.xls)	▼ Cancel
and can also be		
printed.		





Scheduling – Displaying Scheduled Date/Time



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Scheduling – Interface to Microsoft Project

Define Schedule Schedule Category Timeframe Schedule Type Draft Schedule Work Ho Per	Other:BC-Weekly Weekly Weekly ITS Day 8.00	1/31/00	▼ ▼ ▼	∑ QK ∑ Cancel Schedule New ∑elete	The interfa works with Project 2000 2002. Already avail for TabWare Line.	MS 0 or lable
Resourd ELEC Mech		wailable ours 25.00 40.00 0.00 0.00		같 H⊴lp Project	×	
MS Project Database	Access File				Connect	ie oint product

Security Access for MS Project Interface

(Group				Module	
Plant	Group	<u> </u>	Module		Has Access	📙 Apply
81	All Access		Security		Yes	
1	AllAccess		Setup		Yes	
B3	B3-AllAccess		Shipping Orders		Yes	
CSR	All Access		Template Plannin	ng	Yes	 🗙 <u>C</u> ancel
DF0	1 Carrier		WO Schedule In	terfaces	Yes	
DF0	All Multi-Plant	-	Work Order		Yes	 Copy From
			Window	/Action		
Vindow	Description	Action		Has Access	Window Name	
licrosoft	Project Interface Execute	Execute			w_mpi_execute_interface	
licrosoft	Project Interface Setup	Current Database			w_mpi_interface_setup	
		Microsoft Access Datak	pase		w_mpi_interface_setup	
		Update			w_mpi_interface_setup	
	a Interface Options	Inquiry			w_pr_schedule_options	
rimavera		ll Indoto			w_pr_schedule_options	
	- P3/SureTrak Interface	Update Update			w_pr_schedule_execution	

Note the two window actions for MS Project Interface Setup.





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Interface to MS Project

 On TOL users, projects are stored in a local Microsoft Access database - not in the TabWare On-Line database. These software components must be installed on the local PC:

Microsoft Project 2000 or 2002
Microsoft Access 2000 or Microsoft Access ODBC Driver
TabWare Online Extended Client

- For TOS, projects are stored in the TabWare database.
- For TOS installations if the customer prefers that projects be kept outside of the TabWare database, then users can follow the instructions for TabWare On-Line users. Users will need Microsoft Access 2000, or the Microsoft Access ODBC Driver

WO / Maintenance

Additional 5.1 Enhancements to the Work Order and Equipment Modules

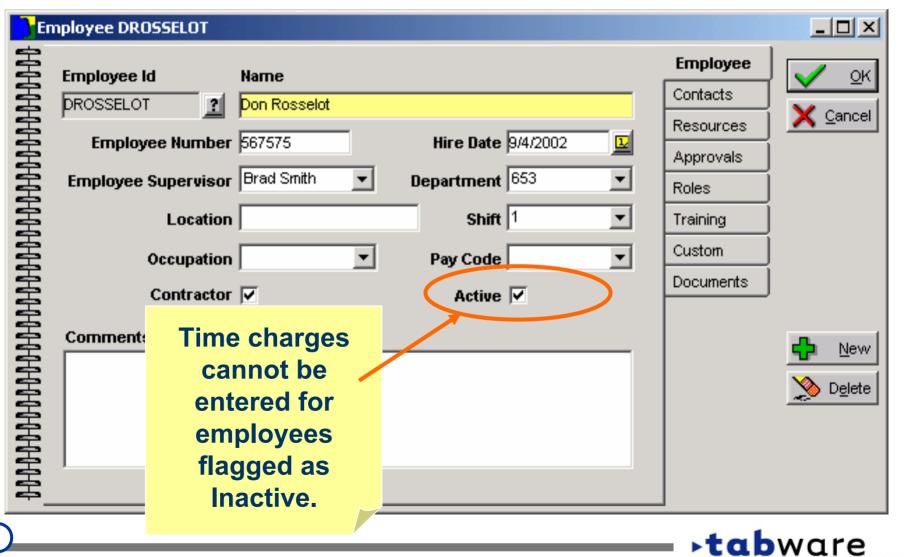




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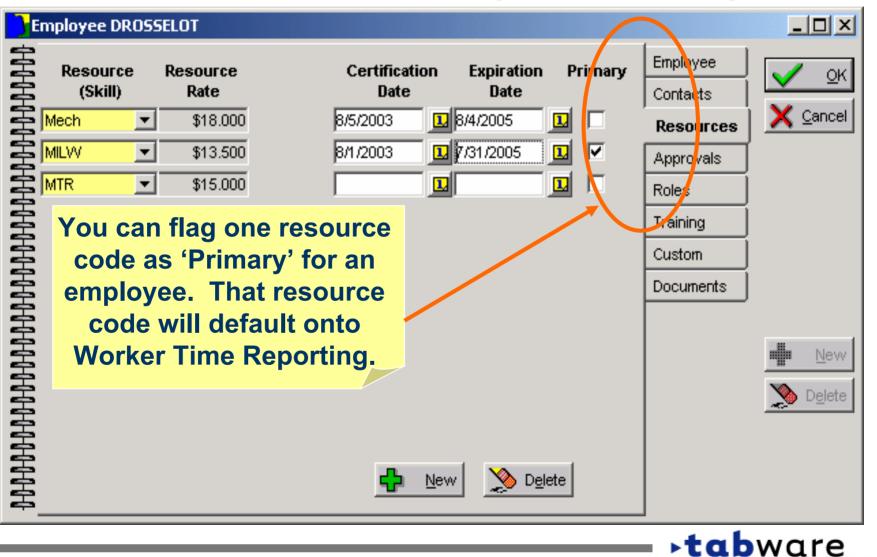
WO Enhancements – Inactive Employee Flag





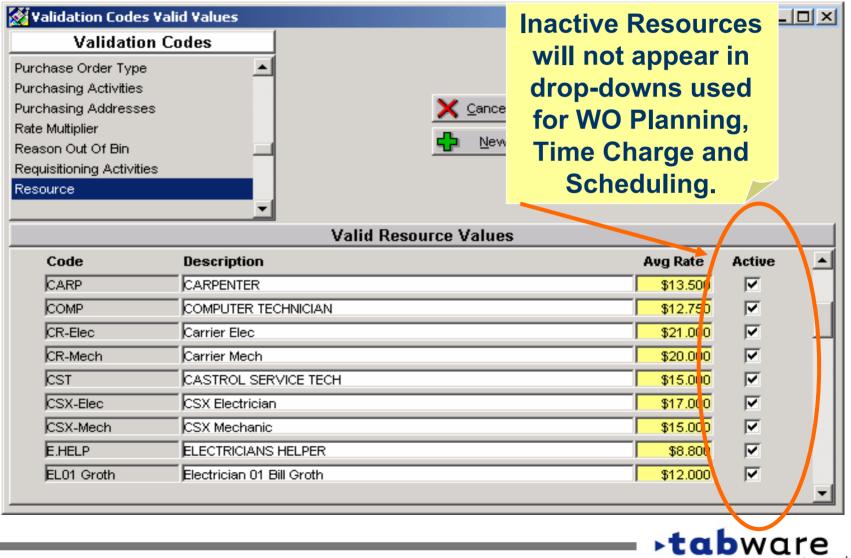
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WO Enhancements – Primary Resource Flag





WO Enhancements – Active Resource Flag



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WO Enhancements – New Labor Activity Data

📶 🔟 🗙							
	Employee	?	Query Basic	<u>_</u>	_		Cinange 🗙 Close
	Work Order	?	1			Startup Query	
Plant	Transaction Date	Transaction Time	Work Order #	Employee Id		Leoor Activity Account	Employee Supervisor
DFO	4/3/2003	11:44:39:312	RT009706	TRAIN5			
	5/27/2003	10:08:19:956	RT009708	BCUR2025	7		
	6/23/2003	16:43:43:270	RT009709	BCUR2025	Γ		
	6/24/2003	16:27:54:332	RT009710	BCUR2025			
	9/12/2003	12:07:28:342	RT009669	TRAIN2		R008-602-5010	BEDEMO10
Labor Activity Account: WO				TRAIN5		Other-20	
A	Account at	the mom	ent that	TRAIN6	\square		001
1	time was c	charged.	Also,	TRAIN	1	000-CPC-Intl23	001
Er	nployee N	lumber, El	mployee	7 RAIN6		000-CPC-Intl23	001
Supervisor, Location,							
Occupation, Shift, Pay Code							
	can be	e displaye	ed. 🗡				

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WO Enhancements - Print Open WO's for Equipment

Equipment Hierarchy : 95P

95P Pumping System ⊕ 200 95P-20A K.O. Drum Pump Acid Ga: 95P-20B K.O. Drum Pump Acid Ga: 95P-20B K.O. Drum Pump Acid Ga:

Displays open work orders for highlighted equipment and child equipment. This screen can now be printed.

•

	Open Work Order	rs for Equip	🗸 ок
Work Order	Status	Description	X Cancel
95P-20A			
RT009626	20- In Planning	Repair Pump	
RT009641	60-Ready to Work	Repair Pump	
RT009655	50-Reserve Material	Training woi	
RT009662	50-Reserve Material	Repair drum	
95P-20B			🚑 Print
EM000034	60-Ready to Work	check vibrat	
EM000035	60-Ready to Work	take reading	
EM00053	60-Ready to Work	Repair Pump	
PM006838	50-Reserve Material	Change wat	
RT009617	0-Work Order Entere	: Repair Pump	
RT009618	20- In Planning	Repair Pump	
RT009627	20- In Planning	Repair Pump	Actions
•		Þ	

WO / Maintenance

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WO Enhancements – Event Notebook and Search

200 E	vent: RT000922		
宝	Work Order	Description	Event 🗸 🔍
室	RT000922	WATER FOUNTAINS, C203, FILTERS, JOHN O'QU	Remarks V Capcel
	Equipment WC203	Description WATER COOLERS CENTRE TWO 3RD FLOOR	Analysis Codes
	Work Order RT000922 Equipment WC203 Event Type Routine Failure Lost Production Production UOM FollowUp Required Go direct	Event Status Employee ID Closed	Custom Docu ments Costs
HAMAMAMAM	Failure 🗌 Lost Production Production UOM	Start Date-Time 1/21/1997 10:53 0 End Date-Time 1/27/1997 11:15 Duration Hours 144 Min. 22	<u>♪</u> New <u>></u> Delete
HHHHHH	FollowUp Required		
HANANA	Go direct Display M	ly from Event Notebook to Waster Plan Number on Event	

- Go directly from Event Notebook to Work Order Notebook.
- **Display Master Plan Number on Event Search, to see how** many of the corresponding PM WO's generated a follow-up. tabware



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WO Enhancements - Printing WO Documents _ 🗆 🗵 Document Interface Control Print Documents with Work Order 💢 <u>C</u>ancel OK Spicer Print TabWare Options Standard Links Spicer Print Options Maximum Pages to Print Per Document 10 This window in Print Page Number on Header 🔽 Setup allows you to Print File Path on Header 🔽 configure the addon software used Print Work Order Number on Header 🔽 to print Work Order documents. ▶**tab**ware

WO Enhancements - Change to WO Completion Edit

👯 Define Item Types				
Item Type Service ServiceC Delete	Item Type ServiceC C Permanent C Temporary © No Item Created	Description ServiceC		
Work Order Planned Work Order Actual Cost Cost To Update To Update Services Services-C Do Het Flag Shortages-Consider as Available	Tolerance Percent for Over Receipt 0.00% Print On Pie	Order Method (New Item Default)		
Allow W0 Completion regardless of open purchases				
 Allow Maintenance Technician To Request Item Do Not Allow Additional Purchase-Item now observite Allow Entry Of Purchase Description on Requisition Allow Entry Of Unit Cost on WO/Charge-to-Accour At Receipt, Add to Qty in Receiving (New Item Description) Automatic Issue Upon Receipt Allow Service Contract Charges Automatic Approval For Purchase on WO/Charge 	ion IN 'Alle nt Req ID re fault) ID D ID DUT ID C	w Item Type option ow WO Completion gardless of open chases' - use when ceipt/payment is delayed.		
		V OK X Cancel		
		- tabware		

Additional Enhancements - Requisitioning

- You can now prevent specific Item Types from being requested on various types of requisitions. For example, you may want to prevent the requisitioning of Nonstocks or Services on Charge-to-Account requisitions. Three checkboxes have been added to the Define Item Types window:
 - Do not allow on Charge-to-Account Requisition
 - •Do not allow on Manual Order Requisition
 - Do not allow on Work Order Requisition
- Supplier Name has been added to Requisition Print.



Additional Enhancements - Inventory

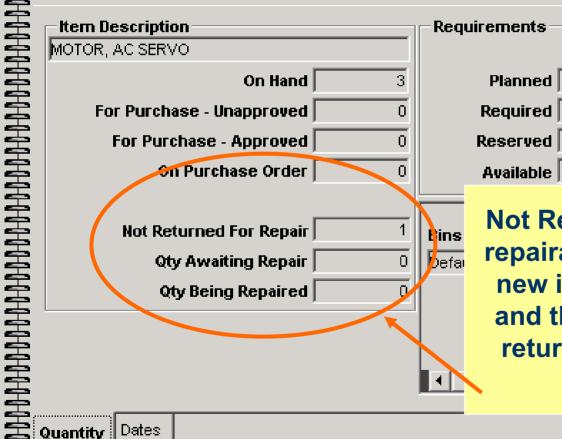
- Supplier Name has been added to Stores Activity Search and Requisition Search.
- Shipping Order Search can be sorted and grouped by Supplier Name.
- Stores Activity Search includes transactions for services and general items, where there is no corresponding item record or item description. For such transactions, Stores Activity Search will now show the item description from the PO line.
- Buyer Code is displayed on the PO Receipts window.
- When creating a new item by copying an existing item, the Rank #1 Supplier is now copied. All data is copied other than Last Price Paid and Current Price.



Inventory

Repairables - Tracks Qty Not Returned for Repair

Ttem: 00000G0201-3066



uirements	Item	🗸 <u>о</u> к
	Custom	X Cancel
Planned 0	Documents	
Required 0	Suppliers	
Reserved 0	Replenish	
Available 3	Quantities	

Not Returned for Repair – tracks repairables between the time the new item is issued from stores and the time the broken item is returned for repair; part of the reorder calculation.



Repairables

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Repairables - Repair Req Approver Flag

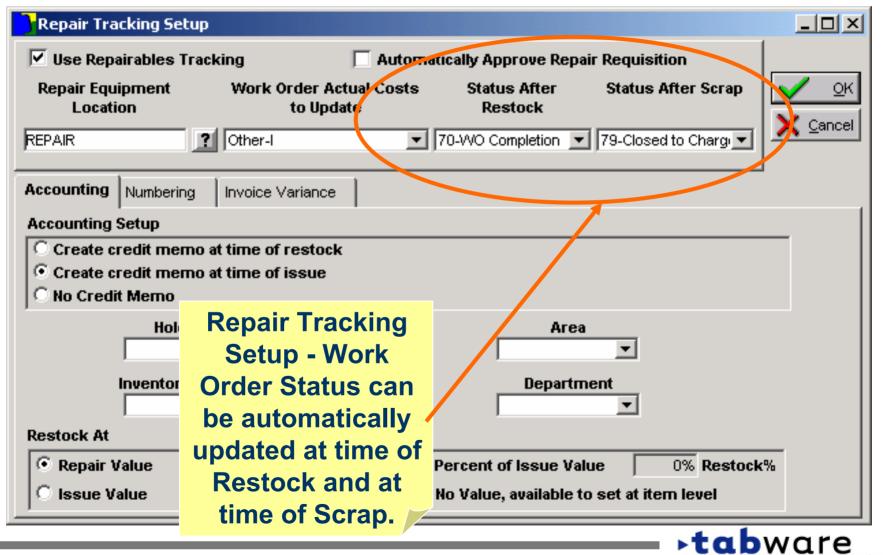
<mark>)</mark> E	mployee 3300002					- D ×
00000000000	Requisition Reorder Repair Approver Snipping Order Invoice Default Reviewers Repair Re	Approvals			Employee Contacts Resources	<mark>✓ <u>O</u>K ★ <u>C</u>ancel</mark>
E	Requisition	Reviewer 🗖	Approval Limit	\$0.000	Approvals	ļ
Ż	Reorder	Approver			Roles	
Ê	Repair Approver	Approver 🗹			Training	
	Snipping Order	Approver	Birect Charge	The new	v Repair A	Approver
E	Invoice	Approver 🔲	Approval Limit	chec	kbox allo	ws for
НОНОН	—Default Reviewers				ration of een appi	
HANA	Re	quisition	•		rs and ap tside rep	•
E	кераіг ке	equisition	<u> </u>			
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					tab	are

Repairables

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Repairables – Update WO Status at Restock/Scrap



Setup Options for Mobile Maintenance Application

Handheld Setup	
General	V <u>o</u> k
Download work orders at status Ready to Work	X Cancel
Allow execution of work orders entered on device	
Require entry of completion codes at WO Execution	
Allow selection from all resources on Time Charge	
Rounding time charges	
🖲 Do not round	
C Round to the nearest 6 minutes	
C Round to the nearest 15 minutes	
Send error messages to AAAA1234	

This window appears in Security regardless of whether the customer has purchased MMM.



Setup

User Setup – Plant Code for Handhelds

User Setup			
Change Login Password	K Colors Colors K X Cancel		
☑ Warn if Duplicate Window Opened Messages	Language American English		
Enable Message Notification Within Tab	Ware Check Messages Every 1 🕂 Minutes		
🗌 Send My Messages Via E-Mail Delete Information/User Messages After 🤒 🕂 Days			
When Entering Requisition Lines, Copy Label Printer	04\LN17_CS		

On TabWare's User Setup window, each handheld user identifies their plant code for running the handheld applications of MIM and MMM.



Setup

Additional Enhancements - Purchasing Interface

- When the Purchasing system cancels a TabWare requisition line (the Xorc transaction), the following will now happen:
 - the Ready for Review checkbox and the Next Reviewer on the requisition line will be cleared.
 - a message will be sent to the requisitioner telling the user that the requisition line has been rejected and needs to be updated and re-submitted for approval.



Additional Enhancements - General

- Release 5.1 is compatible with Oracle9i.
- We have added a date/timestamp to 8 tables containing master file data for Suppliers, Items and Equipment. The timestamp can be used when writing interfaces, to determine which rows need to be passed to another system, instead of passing all rows.
- TabWare contains three Rename programs, for renaming Items, Equipment and Suppliers. The Security setting for the Rename program has been split into three settings – so, for example, you can give a user access to Item Rename but not to Equipment Rename.



General