

# Company Name

Available in MaintSmart 4.1  
December, 2013

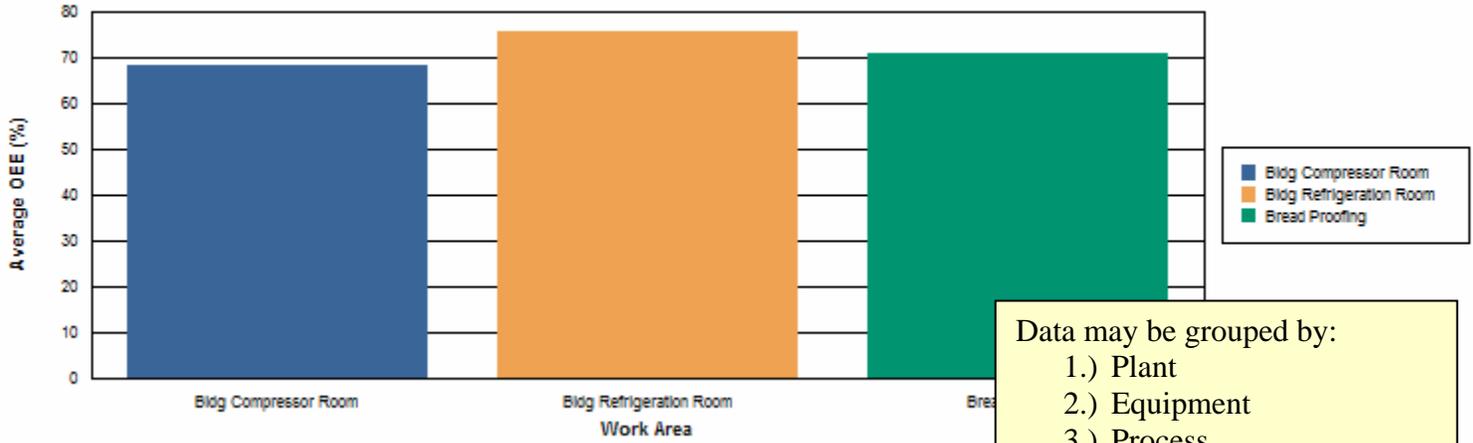
## OEE (Overall Equipment Effectiveness)

Print Date: 11:04:01AM

Start End Planned (min.) Down (min.) Availability Performance Quality OEE

### Sacramento

Average OEE / Work Area

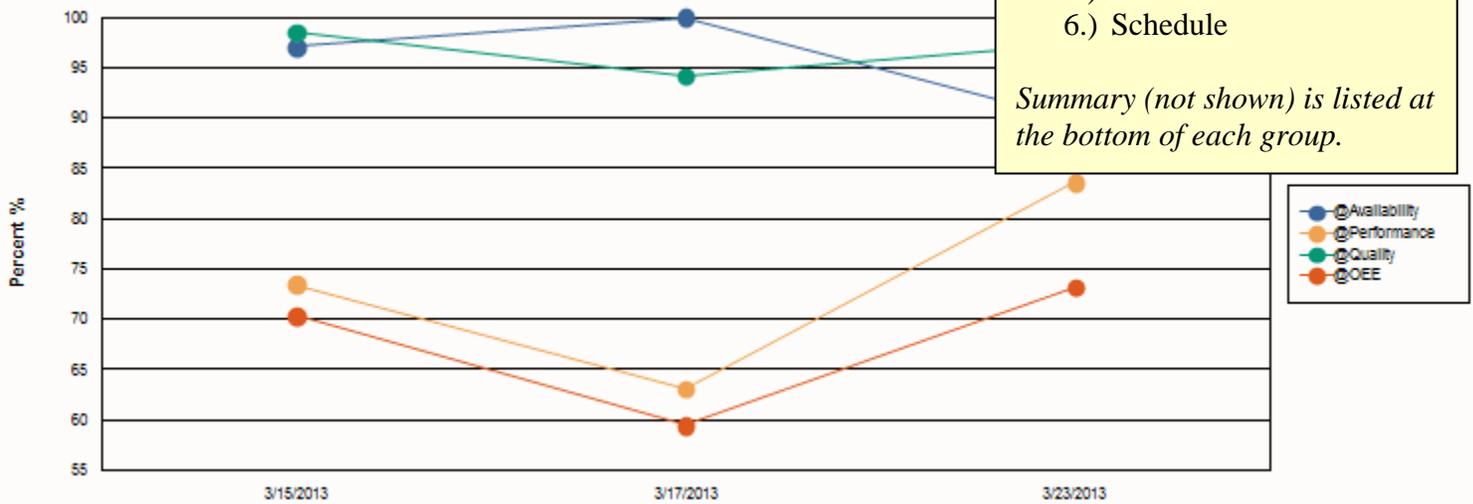


Data may be grouped by:

- 1.) Plant
- 2.) Equipment
- 3.) Process
- 4.) Line
- 5.) Work Area
- 6.) Schedule

Summary (not shown) is listed at the bottom of each group.

### Bldg Compressor Room



### Air Compressor #1

3/23/2013	11:43:08PM	3/24/2013	7:43:08AM	427	43	89.93%	83.64%	97.33%	73.21%
3/15/2013	2:04:37AM	3/15/2013	10:04:37AM	450	13	97.11%	73.50%	98.59%	70.37%
3/17/2013	12:04:37AM	3/17/2013	10:04:37AM	528	0	100.00%	63.13%	94.24%	59.49%
Average: - Air Compressor #1						95.68%	73.42%	96.72%	67.69%

### Air Compressor #2

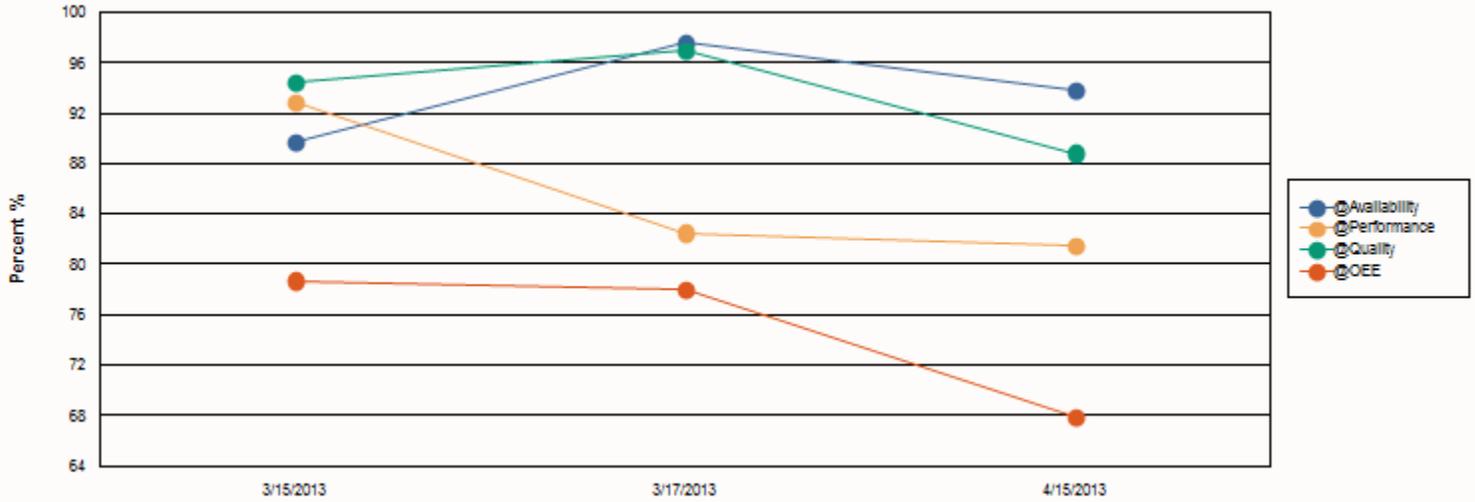
3/23/2013	11:43:08PM	3/24/2013	7:43:08AM	420	63	85.00%	89.97%	97.26%	74.38%
3/15/2013	2:04:37AM	3/15/2013	10:04:37AM	450	13	97.11%	73.50%	98.59%	70.37%
3/17/2013	12:04:37AM	3/17/2013	10:04:37AM	528	0	100.00%	63.13%	94.24%	59.49%
Average: - Air Compressor #2						94.04%	75.53%	96.70%	68.08%

### Air Compressor #3

3/23/2013	11:44:08PM	3/24/2013	7:43:08AM	419	40	90.45%	87.95%	94.24%	74.97%
3/15/2013	2:04:37AM	3/15/2013	10:04:37AM	450	13	97.11%	73.50%	98.59%	70.37%

Start	End	Planned (min.)	Down (min.)	Availability	Performance	Quality	OEE
3/17/2013 12:04:37AM	3/17/2013 10:04:37AM	528	0	100.00%	63.13%	94.24%	59.49%
Average: - Air Compressor #3				95.85%	74.86%	95.69%	68.28%
Average: - Bldg Compressor Room				95.19%	74.61%	96.37%	68.02%

### Bldg Refrigeration Room



### York Chiller #1

4/15/2013 2:04:37AM	4/15/2013 10:04:37AM	420	26	93.81%	81.52%	88.84%	67.94%
3/15/2013 3:04:37AM	3/15/2013 10:04:37AM	360	37	89.72%	92.88%	94.44%	78.70%
3/17/2013 2:04:37AM	3/17/2013 10:04:37AM	408	10	97.55%	82.50%	96.98%	78.04%
Average: - York Chiller #1				93.69%	85.63%	93.42%	74.89%

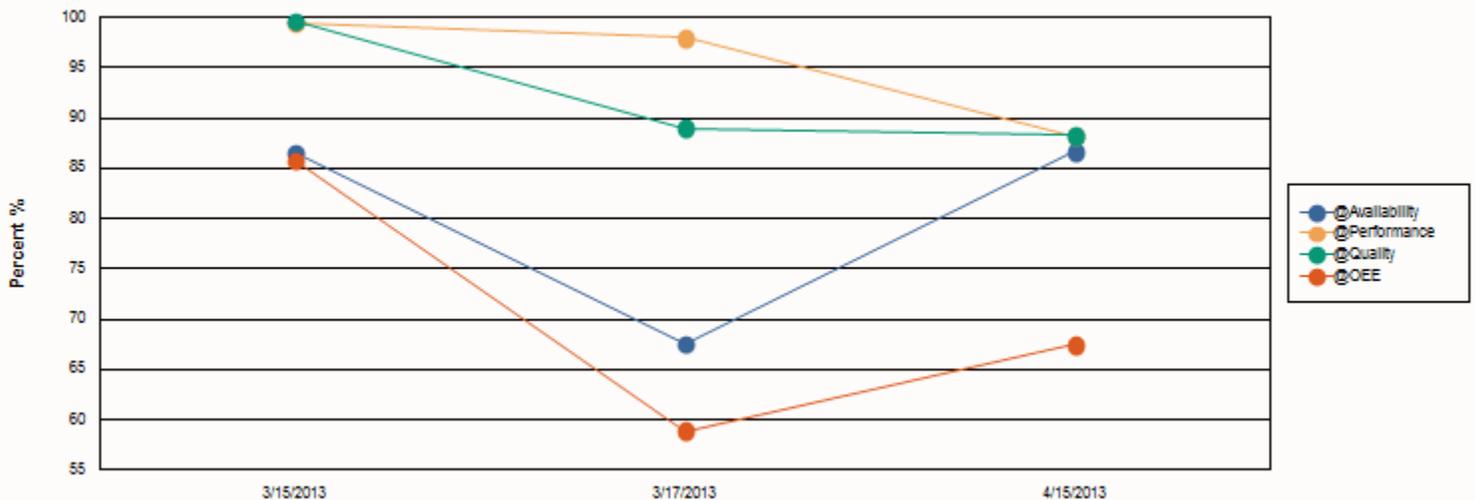
### York Chiller #2

4/15/2013 2:04:37AM	4/15/2013 10:04:37AM	420	56	86.67%	88.24%	92.37%	70.63%
3/15/2013 3:04:37AM	3/15/2013 10:04:37AM	360	37	89.72%	92.88%	94.44%	78.70%
3/17/2013 2:04:37AM	3/17/2013 10:04:37AM	408	12	97.06%	82.91%	99.26%	79.88%
Average: - York Chiller #2				91.15%	88.01%	95.36%	76.41%

Average: - Bldg Refrigeration Room

92.42%	86.82%	94.39%	75.65%
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### Bread Proofing



Start	End	Planned (min.)	Down (min.)	Availability	Performance	Quality	OEE
<b>Bread Proofbox L1PB</b>							
4/15/2013 2:04:37AM	4/15/2013 10:04:37AM	420	56	86.67%	88.24%	88.26%	67.50%
3/15/2013 3:04:37AM	3/15/2013 10:04:37AM	373	50	86.60%	99.44%	99.63%	85.79%
3/17/2013 2:54:37AM	3/17/2013 10:04:37AM	370	120	67.57%	97.95%	89.01%	58.91%
Average: - Bread Proofbox L1PB				80.28%	95.21%	92.30%	70.73%
Average: - Bread Proofing				80.28%	95.21%	92.30%	70.73%
Average: - Sacramento				91.78%	82.11%	95.03%	71.01%
Average:				91.78%	82.11%	95.03%	71.01%

# Company Name

PM Completion Rate 1/3/2011 11:52 AM - 5/20/2014 11:52 AM

Print Date: 5/20/2014

Engineer	Count Completed	Count Not Completed	Percent Complete
<b>Sacramento</b>			
David Hackworth 	16	228	6.56%
Shannon Reeves 	10	2	83.33%
Tom Jeffers	0	7	0.00%
Nick Dixon 	3	2	60.00%
Bill Raymond 	54	76	41.54%
Charlie Huston 	759	744	50.50%
Larry Pratts 	17	8	68.00%
No Assignment - 327 	30	23	56.60%
James Gilmore 	2	0	100.00%
<b>Sacramento</b>			
Count:	9		
Average:			51.84%
Total:	891	1090	
<b>All:</b>			
Count:	9		
Average:			51.84%
Total:	891	1090	

# Tastee Baking Company

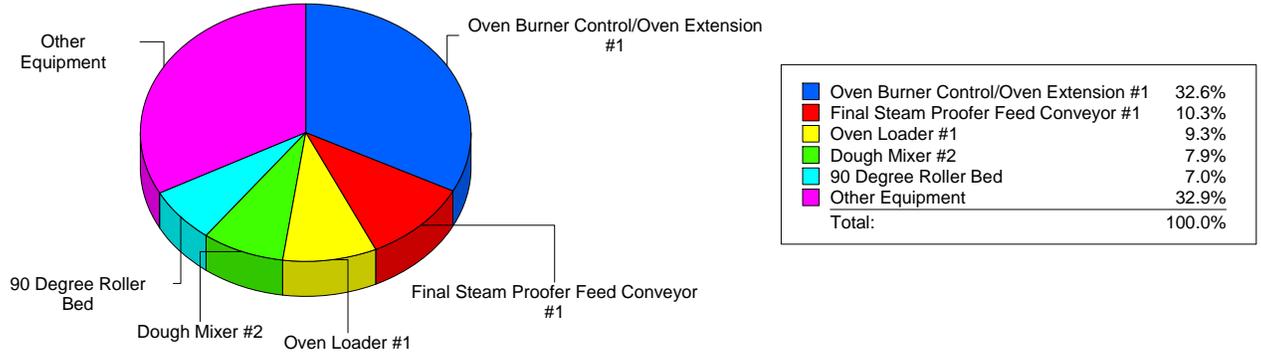
## Equipment Costs Grouped By Month

Print Date: 4/5/2012

Year - Month	WO Labor	WO Parts	PM Labor	PM Parts	Failure Labor	Failure Parts	Impact	Total Cost
<b>Plant 327</b>								

### Top 5 Most Costly Equipment Items

For 327



#### 90 Degree Roller Bed

2006-06	\$0.18	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.18
2007-06	\$20.79	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$20.79
2007-07	\$47.25	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$47.25
2007-08	\$22.38	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$22.38
2010-06	\$12.60	\$0.00	\$0.00	\$208.35	\$0.00	\$0.00	\$0.00	\$220.95
2010-07	\$0.00	\$0.00	\$0.00	\$312.53	\$0.00	\$0.00	\$0.00	\$312.53
2010-08	\$0.00	\$0.00	\$0.00	\$416.70	\$0.00	\$0.00	\$0.00	\$416.70

#### Summary:

<b>Total:</b>	\$103.20	\$0.00	\$0.00	\$937.59	\$0.00	\$0.00	\$0.00	\$1,040.78
<b>Average:</b>	\$14.74	\$0.00	\$0.00	\$133.94	\$0.00	\$0.00	\$0.00	\$148.68

#### 90 Degree Roller Bed #1

2003-07	\$0.00	\$0.00	\$0.00	\$0.00	\$1.13	\$0.00	\$41.67	\$42.80
2010-06	\$0.00	\$0.00	\$0.00	\$0.00	\$0.57	\$0.00	\$41.67	\$42.23

#### Summary:

<b>Total:</b>	\$0.00	\$0.00	\$0.00	\$0.00	\$1.70	\$0.00	\$83.33	\$85.04
<b>Average:</b>	\$0.00	\$0.00	\$0.00	\$0.00	\$0.85	\$0.00	\$41.67	\$42.52

#### 90 Degree Roller Bed #4

2010-06	\$0.35	\$0.00	\$0.00	\$0.00	\$0.57	\$0.00	\$41.67	\$42.58
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#### Bagger #2

1997-06	\$0.00	\$0.00	\$0.00	\$0.00	\$1.13	\$0.00	\$0.00	\$1.13
1997-07	\$0.00	\$0.00	\$0.00	\$0.00	\$2.84	\$0.00	\$0.00	\$2.84

#### Summary:

<b>Total:</b>	\$0.00	\$0.00	\$0.00	\$0.00	\$3.97	\$0.00	\$0.00	\$3.97
<b>Average:</b>	\$0.00	\$0.00	\$0.00	\$0.00	\$1.99	\$0.00	\$0.00	\$1.99

#### Bagger #3

1997-07	\$0.00	\$0.00	\$0.00	\$0.00	\$8.51	\$0.00	\$0.00	\$8.51
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#### Basket Conveyor #1

1997-07	\$0.00	\$0.00	\$0.00	\$0.00	\$1.42	\$0.00	\$10.85	\$12.27
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Above Average For: Plant

# Tastee Baking Company - Sacramento

## Preventive Maintenance List

Print Date: 4/5/2012

Plant 327

Printed By: Christian Thomas

Task:	Interval:	Start	Due	Hours	Parts Used/Comments
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### Yeast Refrigeration Compressor #1

S/N: 6734569379

Asset: 21347

Location: Roof

Building: A

Manufacturer: Trane

Model: YT-622

<input type="checkbox"/> 1	457	Charlie Huston	7	3/30/2011	4/6/2011		
Check Air Solenoid							

Notes:

<input type="checkbox"/> 2	415	Charlie Huston	7	3/30/2011	4/6/2011		
Check/Repair Hydraulic Oil Leaks							

Notes:

Parts Description:	Parts Number:	Quantity Needed:	Available:	Location:
<input type="checkbox"/> Tank Liner	LIN-A	1 EA	0 <b>No Stock</b>	J6W
<input type="checkbox"/> ATQR 15, MIDGET TIME DELAY TRANSFORMER FUSE, 15 AMP. 600V., CLASS CC	65757	2 EA	9	Parts Stock

<input type="checkbox"/> 3	25	Charlie Huston	7	3/30/2011	4/6/2011		
Check and Lubricate Bearings							

Safety first, when working on any electrical equipment. All power must be turned off prior to any work being performed.

Reset night light timers.

Emergency generator should be tested weekly. Perform P.M. as necessary, i.e., check oil and water levels, batteries, etc.

Exit lights - replace glass and bulbs as needed.

Light alarms - test weekly and perform P.M. as necessary. Change batteries, check bulbs, etc.

Fuses - screw, plug, cartridge type: replace as needed.

Replace receptacles and switches (110 V only), doorbells, switch, outlet covers and plates as required.

Replace ballast on light fixtures on 120 V or below.

Replace lamps as needed -roof lights, fluorescent, incandescent mercury vapor, halogen, standard and mogul base (interior exterior).

Replace all sockets and clips on fixtures as needed.

Replace light lenses and covers. Clean when necessary.

Re-secure all communication devises; i.e., house phones, P.A. speakers, intercom, etc.

Reset and secure secondary and 120 V. A.C. clocks other than master clocks.

Inspect the operation of school flashers (exterior of building) on a daily basis.

Secure all electrical panel boxes and control boxes (safety issue).

Secure all electrical covers on gang boxes, circuit breaker covers, control covers, fire eye control boxes, etc.

Notes:

<input type="checkbox"/> 4	426	Charlie Huston	7	3/30/2011	4/6/2011		
Check Air Hoses/Fittings For Leaks							



# Tastee Baking Company

## Excess/Insufficient Inventory

Print Date: 4/5/2012

Type	Date Acquired	ID	Part Number	Description	Quantity	Minimum Stock	Maximum Stock	Over/Under	Excess Parts Value
<b>Plant: 327</b>									
<b>Location: A12D</b>									
Inventory	2/3/2012	4650001	A-11	Battery	6 EA	1	1	+ 5	\$80.44
Inventory	2/2/2012	50000002	012137-DR	V Belt	5 EA	1	1	+ 4	\$15.16
Summary Location:									
Total:					11				\$95.60
Average:					5.50				\$47.80
Median:					5.50				\$47.80
<b>Location: B4Q</b>									
Inventory	9/2/2011	10004	Piston	P99-R4	26 EA	12	25	+ 1	\$51.43
Summary Location:									
Total:					26				\$51.43
Average:					26.00				\$51.43
Median:					26.00				\$51.43
<b>Location: Belt Stock</b>									
Inventory	2/2/2007	50090001	SS333	SS Wire Mesh belting #3	128 feet	0	0	+ 128	\$5,120.00
Summary Location:									
Total:					128				\$5,120.00
Average:					128.00				\$5,120.00
Median:					128.00				\$5,120.00
<b>Location: Bolt Stock</b>									
Inventory	9/17/2007	50000001	1/4-20	3" bolt grade 5	9 EA	10	20	- 1	(\$25.14)
Summary Location:									
Total:					9				(\$25.14)
Average:					9.00				(\$25.14)
Median:					9.00				(\$25.14)
<b>Location: BOLTS</b>									
Inventory	2/7/2012	50000003	BOLT-125	3/8-12 Bolt	13 EA	1	1	+ 12	\$14.40
Summary Location:									
Total:					13				\$14.40
Average:					13.00				\$14.40
Median:					13.00				\$14.40
<b>Location: D4E</b>									
Inventory	2/3/2012	9400017	.125	1/4-20 bolts	16 EA	1	1	+ 15	\$17.10

# MaintSmart 'Hot Sheet' provides a way for you to see all important maintenance information on one screen ~ instantly!

- ⇒ List, assign, print "late" preventive maintenance tasks.
- ⇒ List, assign, print upcoming preventive maintenance tasks assignments.
- ⇒ List work orders by "priority", "Status", "Requestor", "Equipment" and more.
- ⇒ Assign or edit work orders from the Hot Sheet.
- ⇒ List parts grouped by vendor or "Parts Group".
- ⇒ Requisition parts directly from the Hot Sheet.
- ⇒ List only those items below a minimum stock level as defined by you.
- ⇒ List important down time (equipment failure) instances from the previous day or any range defined by you.
- ⇒ Hot sheet definition is linked to your "User ID" so each logged in user see his/her own Hot Sheet.
- ⇒ Set the Hot Sheet to be your default screen.

The screenshot displays the 'Hot Sheet' interface with a hierarchical tree structure. The tree is organized into several main categories:

- Preventive Maintenance Late:607**
  - Equipment
  - Process
    - Bread Late:343
    - Cookies Late:19
    - Crouton Line Late:14
    - Donut Line Late:62
    - Molding Late:3
      - Generator #1, Clean Housing (30) Due:4/13/2007
      - Generator #1, Check Wiring Connections (30) Due:4/13/2007
      - Generator #1, Check Winding (7) Due:3/21/2007
    - Other Late:121
    - Roll Line Late:45
- Work Orders Active:10 Requests:1 Emergency:14**
  - Priority
  - Requestor
    - Bill Wilson Emergency:1
    - Fred Smith Emergency:2
      - WO-142 (142) Priority:Emergency Status:Active
      - 152 (152) Priority:Emergency Status:Active
    - No Requestor - 327 Active:10 Emergency:9
    - RQ Request:1 Emergency:1
      - 158 (158) Priority:Routine Status:Request
      - 156 (156) Priority:Emergency Status:Done
    - Tom Jardine Emergency:1
  - Status
  - Inventory
  - Vendor
    - Bob the Builder Due:3
      - BOLT-125 3/8-12 Bolt Quantity:0 Min Stock:1
      - 012137-DR V Belt Quantity:0 Min Stock:1
      - .125 1/4-20 bolts Quantity:0 Min Stock:1
    - Freddie Vendor Due:1
    - Motion Industries Due:2
    - Smith Plastic Products Due:1

A context menu is open over the selected item 'BOLT-125 3/8-12 Bolt Quantity:0 Min Stock:1', showing the following options:

- Refresh
- Collapse Tree
- Expand Tree
- Edit Selection
- Create Requisition[s] for Selection
- Create Purchase Order[s] for Selection
- Clear Selection

Call for an online demonstration or phone-demo: 1-888-398-0450 (toll-free USA/Canada) or +1-541-751-0450

# Tastee Baking Company

## Unexpected Equipment Failures

Print Date: 4/5/2012

Date	Repair Time	X #	Repair Cost	Impact	Operator Cost	All Wage Cost
<b>Plant: 327</b>						
<b>Ac/dc Drive Fail/malfunction</b>						
90 Degree Roller Bed						
2/7/2012 12:20:53PM	DT-9318	0 1	\$0.00	0	\$0.00	\$0.00
1/24/2006 4:55:00PM	9289	0 1	\$0.00	0	\$0.00	\$0.00
2/2/2007 12:27:37PM	9297	0 2	\$0.00	0	\$0.00	\$0.00
7/30/2010 11:09:00AM	DT-9315	0 1	\$0.00	0	\$0.00	\$0.00
3/21/2007 8:36:00AM	DT-9301	2 1	\$0.57	2	\$3.47	\$4.04
Overcurrent code 54550.						
10/15/2007 4:50:54PM	DT-9306	4 2	\$2.27	4	\$0.00	\$2.27
90 Degree Roller Bed #1						
2/1/2005 12:00:00AM	9287	2 1	\$0.57	2	\$41.67	\$42.23
2/1/2005 12:00:00AM	9286	0 1	\$0.00	1	\$20.83	\$20.83
3/21/2007 8:36:00AM	DT-9302	2 2	\$1.13	2	\$41.67	\$42.80
Overcurrent code 12776.						
10/15/2007 7:39:49PM	DT-9307	2 2	\$1.13	2	\$41.67	\$42.80
10/15/2007 7:55:14PM	DT-9308	2 1	\$0.57	2	\$41.67	\$42.23
6/25/2010 2:08:00PM	DT-9313	2 1	\$0.57	2	\$41.67	\$42.23
Apollo Proportioner #1						
2/15/2006 9:04:02AM	9294	2 2	\$1.13	2	\$2.67	\$3.80
2/15/2006 8:58:31AM	9291	8 2	\$4.54	11	\$14.67	\$19.20
2/15/2006 9:01:32AM	9293	2 2	\$1.13	2	\$2.67	\$3.80
2/15/2006 9:01:06AM	9292	2 2	\$1.13	2	\$2.67	\$3.80
Water Meter #7						
10/16/2007 9:16:31AM	DT-9311	30 1	\$8.51	7	\$6.08	\$14.59
Weigh Scale #3						
7/18/2007 3:14:02PM	DT-9305	3 1	\$0.85	3	\$2.61	\$3.46
Summary: Cause						
Total:			\$24.11	44	\$263.99	\$288.10
Maximum:			\$8.51	11	\$41.67	\$42.80
Average:			\$1.34	2	\$14.67	\$16.01
Most Common:			Ac/dc Drive Fail/malfunction			
Percent of Total For Plant :				1.98%	1.21%	1.25%
<b>Actuator Failed/Broken</b>						
90 Degree Roller Bed						
1/6/2005 12:00:00AM	9284	1 2	\$0.57	1	\$1.74	\$2.30
2/22/2006 7:56:00AM	9296	2 1	\$0.57	2	\$3.47	\$4.04
90 Degree Roller Bed #1						
7/7/2003 7:01:00PM	9283	2 2	\$1.13	2	\$41.67	\$42.80
3/2/2012 8:34:26AM	DT-9320	0 1	\$0.00	0	\$0.00	\$0.00

# Tastee Baking Company

1212 S. Main St.  
Sacramento, CA 96554  
Phone: 399-9263  
Fax: 399-8230

P.O. Number: PO-2

Print Date:4/5/2012

## Purchase Order

### Bill Details:

Tastee Baking  
Kelly Greenling  
7786 Bar Rd  
Florence ,OR ,98776  
USA  
541-009-5467 Fax: 541-746-9933

### Ship To:

Christian Thomas  
216 S. 4th Ave.  
Lodi CA 95240  
USA  
209-333-9999 Fax: 209-369-9396  
Office

### Vendor

Motion Industries  
7177 Hazelton St  
Stockton CA 95206  
Phone: 465-9980 Fax: 209-477-9987

### Transaction Details:

P.O. Number: PO-2 (2)  
2/3/2012 Christian Thomas  
Freight Terms:  
Contract Number:  
Job Number:

### Comments/Instructions:

Description	Unit Price	Sub-Total:	Taxes:	Shipping & Handling:	Total
BB-112 * Brass Bushings 11 Inch <i>MR-5552-0098745 - Tools</i>	7@\$450.69 EA	\$3,154.83	\$0.00	\$0.00	\$3,154.83
FRAME-10276 * Framework <i>MR-5552-0098745 - Tools</i>	1@\$90.10 feet	\$90.10	\$0.00	\$0.00	\$90.10
6215 * Timkin Bearing <i>MR-5552-0098745 - Tools</i>	7@\$73.77 EA	\$516.39	\$0.00	\$0.00	\$516.39

TOTAL \$3,761.32 \$0.00 \$0.00 \$3,761.32

### Payment Details:

Payment Type: P.O. Shipping Date: 2/3/2012  
Check/Card Number: Terms:  
P.O. Number: PO-2

### Approval

_____
_____
_____

Date:	_____
Order Number:	_____
Ship Via:	_____
Sales Rep.:	_____

### Notes

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# Sacramento - Plant

## Employee Hours By Type: (7/23/2004 - 7/22/2008)

Print Date: 7/22/2008

Type	Count	Count Complete	Complete Ratio	Labor Hours	Estimated Hours	Hours Difference	Type Ratio
<b>Plant: Sacramento</b>							
<b>Bernie Grayson</b>							
Follow Up	3	2	66.7%	0.55	0.20	0.350	93.22%
PM	1	1	100.0%	0.04	0.02	0.020	6.78%
Summary:	4	3	75.0%	0.59	0.22	0.370	
<b>Bob Hackworth</b>							
Breakdown	3	2	66.7%	0.50	0.00	0.500	0.38%
PM	131	131	100.0%	27.64	24.65	2.984	21.24%
Work Order	9	3	33.3%	101.97	1.40	100.573	78.37%
Summary:	143	136	95.1%	130.11	26.05	104.058	
<b>Charlie Huston</b>							
PM	237	237	100.0%	20.74	15.18	5.559	100.00%
Summary:	237	237	100.0%	20.74	15.18	5.559	
<b>Clarice Thomas</b>							
Breakdown	1	1	100.0%	0.17	0.00	0.167	0.00%
PM	15	15	100.0%	6.69	4.14	2.552	0.00%
Work Order	2	2	100.0%	-99.18	0.00	(99.183)	0.00%
Summary:	18	18	100.0%	-92.33	4.14	(96.465)	
<b>Frank Pierce</b>							
Breakdown	1	1	100.0%	1.45	0.00	1.450	13.90%
PM	42	42	100.0%	8.80	9.39	(0.591)	84.35%
Work Order	1	1	100.0%	0.18	0.00	0.183	1.76%
Summary:	44	44	100.0%	10.43	9.39	1.043	
<b>Green Crew</b>							
Work Order	2	1	50.0%	0.76	1.00	(0.240)	100.00%
Summary:	2	1	50.0%	0.76	1.00	(0.240)	
<b>Ken Wright</b>							
PM	3	2	66.7%	0.34	0.34	0.000	3.17%
Service	1	1	100.0%	4.60	0.00	4.600	42.83%
Work Order	3	1	33.3%	5.80	0.00	5.800	54.00%
Summary:	7	4	57.1%	10.74	0.34	10.400	
<b>Larry Pratts</b>							
	1	1	100.0%	-1.38	0.00	(1.383)	0.00%
Work Order	1	1	100.0%	0.02	0.00	0.017	0.00%
Summary:	2	2	100.0%	-1.37	0.00	(1.367)	
<b>Nick Dixon</b>							
	1	1	100.0%	-1.38	0.00	(1.383)	-10.40%
PM	18	18	100.0%	1.79	1.65	0.137	13.45%
Work Order	5	0	0.0%	12.90	3.00	9.900	96.94%
Summary:	24	19	79.2%	13.31	4.65	8.653	
<b>No Assignment - 327</b>							
	25	8	32.0%	24.08	0.00	24.083	47.07%
Breakdown	8	4	50.0%	1.15	0.00	1.150	2.25%
Follow Up	5	2	40.0%	8.02	0.20	7.817	15.67%
PM	47	47	100.0%	12.01	11.31	0.694	23.47%
Project	3	1	33.3%	1.98	0.00	1.980	3.87%
Work Order	12	4	33.3%	3.92	0.00	3.923	7.67%
Summary:	100	66	66.0%	51.16	11.51	39.647	
<b>Red Crew</b>							
Work Order	1	0	0.0%	0.00	0.00	0.000	0.00%
Summary:	1	0	0.0%	0.00	0.00	0.000	
<b>Shannon Reeves</b>							
	1	0	0.0%	0.50	0.00	0.500	14.33%
Breakdown	1	1	100.0%	2.50	0.00	2.500	71.63%
PM	8	8	100.0%	0.24	0.49	(0.252)	6.88%
Work Order	1	1	100.0%	0.25	0.00	0.250	7.16%
Summary:	11	10	90.9%	3.49	0.49	2.998	
<b>Tom Jeffers</b>							
PM	4	4	100.0%	0.60	1.10	(0.496)	100.00%
Summary:	4	4	100.0%	0.60	1.10	(0.496)	
Total:	597	544	91.1%	148.24	74.08	74.1601	

# Tastee Baking Company

## Purchase Requisition 11

Printed By: Christian Thomas

Plant Sacramento

Print Date: 4/5/2012

11

Requisition:	11	Ship Contact:	Christian Thomas
Requisition Date:	4/5/2012	Ship Department:	Office
Requisition Status:	Open	Ship Address:	216 S. 4th Ave.
Date Needed:	4/6/2012	Ship City:	Lodi
P.O.:		Ship State:	CA
Blanket P.O.:		Ship Postal Code:	95240
Department		Ship Country:	USA
		Ship Phone:	209-333-9999
		Ship Fax:	209-369-9396

Vendor: Motion Industries 7 465-9980

1 Item No  
Approved:

Part Number:	6215	Unit Cost	\$ 73.77	Total Cost:	\$1,180.32
Part Description:	Timkin Bearing	Taxable	No		
Quantity:	16 EA	Account:	MR-5552-0098745 - Tools		
Sole Source:	No	Equipment:			
Cost Center:	CC-123-456 - AnyTown Plant	Work Order:		Down Time:	
Engineer					
Task:					

2 Item No  
Approved:

Part Number:	A-11	Unit Cost	\$ 16.09	Total Cost:	\$32.18
Part Description:	Battery	Taxable	No		
Quantity:	2 EA	Account:	MR-5552-0098745 - Tools		
Sole Source:	No	Equipment:			
Cost Center:	CC-123-456 - AnyTown Plant	Work Order:		Down Time:	
Engineer					
Task:					

3 Item No  
Approved:

Part Number:	BB-112	Unit Cost	\$ 450.69	Total Cost:	\$450.69
Part Description:	Brass Bushings 11 Inch	Taxable	No		
Quantity:	1 EA	Account:	MR-5552-0098745 - Tools		
Sole Source:	No	Equipment:			
Cost Center:	CC-123-456 - AnyTown Plant	Work Order:		Down Time:	
Engineer					
Task:					

4 Item No  
Approved:

Part Number:	FRAME-10276	Unit Cost	\$ 90.10	Total Cost:	\$450.50
Part Description:	Framework	Taxable	No		
Quantity:	5 feet	Account:	MR-5552-0098745 - Tools		
Sole Source:	No	Equipment:			
Cost Center:	CC-123-456 - AnyTown Plant	Work Order:		Down Time:	
Engineer					
Task:					

---

**Total Cost:** **\$2,113.69**



Equipment Reliability

Cost of Equipment

Causes of Failures

**PM Assignments**

Skill Matching

Extra Data

Sacramento

- + Air Compressor Room (Average PM Hours/Week During Past 1 Year : 0.2248789)
- + Bread Baggers/Wrappers (Average PM Hours/Week During Past 1 Year : 0)
- Bread Oven/Cooler (Average PM Hours/Week During Past 1 Year : 0)
  - Adjust Diverter - 2
  - + Proof Box #1
  - Seeder #1
    - Check Shut Off Linkage to Burners - 10
  - + Splitter #1
  - 90 Degree Roller Bed #1
    - Adjust Flame - 30
    - Check Shut Off Linkage to Burners - 10
    - Lube w/Food Grade Grease - 7
    - Lubricate and Clean Pump(s) - 30
    - Oil Valve Stem at Packing Gland - 7
    - Replace Ignitor - 30
    - Replace Mechanical Drive w/VFD - 7
    - Set Lateral Heat - 30
  - + Oven Loader #1
  - + Oven Burner Control/Oven Extension #1
  - + Oven To Depanner Conveyor #1
  - + Depanner #1
  - + Pan Grouper Conveyor #1
  - Pan Return Conveyor #1

Drag and drop equipment and/or tasks to adjust PM task lists.

## PM Assignments

When using zone-maintenance MaintSmart can choose the Technician to assign this PM task to.

Assign All New Tasks To Technician

Bernie Grayson

Refresh



## How MaintSmart Benefits Your Company

1. Organize your maintenance program.
2. Save time issuing work through automatic printing and emailing.
3. Provides consistency for your maintenance program.
4. Minimize costs using improved maintenance techniques.
5. Identify problem areas through powerful analysis tools.

## Organize Your Maintenance Program.

Reports on labor, parts usage, equipment reliability and more are available in seconds any time you need them.

MaintSmart provides all the tools you need to issue and track work orders, preventive maintenance task lists, inventory, purchasing and equipment reliability.

MaintSmart organizes this information making it simple to control your maintenance workload. MaintSmart is capable of automatically creating and issuing work orders, PMs, requisition lists and more exactly when you need them.

*All information entered into MaintSmart is immediately available for analysis.*

### Tastee Baking Company - Sacramento

#### Preventive Maintenance List

Print Date: 3/21/2008

Plant: 327

Printed By: Christian Thomas

Task: Interval: Start Due Hours Parts Used/Comments

#### Yeast Refrigeration Compressor #1

S/N: 6734569379  
Location: Roof

Asset: 21347  
Building: A

Example of a sequenced preventive maintenance task list including needed parts. These parts may be automatically drawn from stock too, if needed.

Task	Interval	Start	Due	Hours	Parts Used/Comments
<input type="checkbox"/> 1 Bob Hackworth Check/Repair Hydraulic Oil Leaks	7	12/31/2007	1/7/2008		

Notes:

Parts Description:	Parts Number:	Quantity Needed:	Available:	Location:
<input type="checkbox"/> Tank Liner	LIN-A	1 EA	2	J6W
<input type="checkbox"/> ATQR 15, MIDGET TIME DELAY TRANSFORMER FUSE, 15 AMP. 600V., CLASS CC	65757	2 EA	15	Parts Stock

<input type="checkbox"/> 2 Bob Hackworth Clean/Replace Filter(s)	30	12/31/2007	1/30/2008		
---	----	------------	-----------	--	--

## Save Time Issuing Work

Time is money, right? MaintSmart can automatically issue some or all work. This work may be triggered by schedules (for example: Issue preventive maintenance tasks for Production Line #1 every Monday at 7:00 AM and send list to Shop Printer). This saves time and provides great consistency in reporting and work issuance. Work may also be triggered by meters. A meter example could be: every 500 hours change the blades in a slicer machine. Once again, MaintSmart will issue the work order for this job complete with parts list, pictures and unlimited file attachments to then printer of your choice. Once these jobs have been issued, the print/email schedule is automatically reset to the next print/email instance.

*Automatically send reports, work orders, PM tasks lists to email recipients and/or printer(s). It can't be any easier than this, can it?*

The screenshot displays the '3 - Print/Email Jobs' tab in the software. It features a table with columns for Email Job, Print Job, Print Job Name, Next Print Date/Time, Report, WO Template, Print Schedule, and IntervalName. Below the table is a configuration panel for a selected job, including options for Print Job vs. Email Job, report type, schedule, and email recipients.

Email Job	Print Job	Print Job Name	Next Print Date/Time	Report	WO Template	Print Schedule	IntervalName	W
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Email Job1	1/27/2011 12:15:0	PM List (compact)		Last	Last In Month	TI
<input type="checkbox"/>	<input checked="" type="checkbox"/>	DailysPMs	1/23/2011 12:00:0	PM List (compact)		Daily	Every	S
<input type="checkbox"/>	<input checked="" type="checkbox"/>	DailysPMs	1/24/2011 12:00:0	PM List (compact)		Daily	Every	M
<input type="checkbox"/>	<input checked="" type="checkbox"/>	DailysPMs	1/25/2011 12:00:0	PM List (compact)		Daily	Every	Tu
<input type="checkbox"/>	<input checked="" type="checkbox"/>	DailysPMs	1/26/2011 12:00:0	PM List (compact)		Daily	Every	W

**Print Job: [1] PM List (compact) - Next Print Date/Time: 1/27/2011 12:15:00 PM**

Print Job    Print/Email Job Name:     Use This Schedule:     Use These Print Settings:

Select The Type of Report:     Select/Create Report Definition To Print/Email Report From:     Reports

Select Existing Work Order Template To Create Work Order From:     Refresh    Report File Format For This Print/Email Job:

Email List     Email (To) List (display only)::     Email (CC) List (display only)::      Email (BCC) List (display only):

Always Send This Print Job Directly To Printer     Automatically Print Scheduled Items (if applicable)     Use Default Email Sender    Deactivate Job

## Provides Consistency For Your Maintenance Program

As a manager, perhaps you'd like to see a 'Cost of Equipment' report for the previous week on your printer when you come to work every Monday at 8:00 AM. No problem! MaintSmart can do this, and best of all it only needs to be set up once. Thereafter this report generates automatically based upon your specification.

MaintSmart is fully configurable by you. This means that you can set up MaintSmart to fit your needs. Many shortcuts are available in setting up the information for your company. A company of 200 equipment items can be producing work orders within a couple of days.

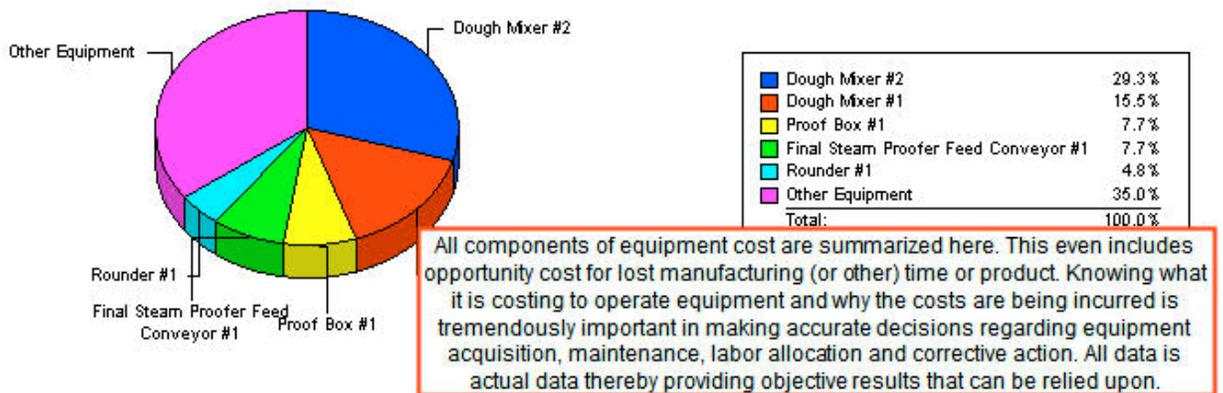
Using MaintSmart auto-print scheduler capability you can have work issued at precisely the correct time. *This prevents human error completely.*

### Tastee Baking Company Equipment Costs Grouped By Month

Print Date: 3/21/2008

Year - Month	W O Labor	W O Parts	PM Labor	PM Parts	Failure Labor	Failure Parts	Impact	Total Cost
Plant 327								

#### Top 5 Most Costly Equipment Items



#### 90 Degree Roller Bed

2006-06	\$0.00	\$0.00	\$61.31	\$0.00	\$0.00	\$0.00	\$0.00	\$61.31
2007-06	\$0.00	\$0.00	\$20.31	\$0.00	\$0.00	\$0.00	\$0.00	\$20.31
<b>Summary:</b>								
<b>Total:</b>	\$0.00	\$0.00	\$81.62	\$0.00	\$0.00	\$0.00	\$0.00	\$81.62
<b>Average:</b>	\$0.00	\$0.00	\$40.81	\$0.00	\$0.00	\$0.00	\$0.00	\$40.81

## Minimize Costs Using Improved Maintenance Techniques

MaintSmart may be used by everyone in your organization. MaintSmart provides 140 different levels of access permission to the various parts of the program. For example: 'rank-and-file' manufacturing employees may be given 'request only' access permissions and may only be able to enter a service request. Others may be able to approve purchases to a certain cost. Still other users may be able to generate cost reports. This powerful capability ensures that you'll get full use of your MaintSmart investment.

Rapid reporting and documentation of maintenance issues aids in rapid maintenance or corrective action being taken. This reduces costly unexpected breakdowns. Additionally since MaintSmart tracks and reports on overdue work it is simple to identify where work loads may need to be shifted and adjusted.

MaintSmart's 'Hot Sheet' may be configured for each employee to display the 'hot' items (important items) for the day. These items may be acted upon immediately from the hot sheet screen.

The Hot Sheet displays item important to you. These can be filtered as needed by you. The filters may be saved so that you will always see the hot items when needed.

**Hot Sheet** | Detail

- Preventive Maintenance Late:613
- Equipment
- Work Orders Emergency:1
  - Priority
  - Emergency Emergency:1
  - Requestor
  - Status
  - Inventory
  - Vendor
  - Bob the Builder Due:2
  - 1747-KTXA Allen Bradley Comm Card Quantity:0 Min Stock:1
  - BOLT-125 3/8-12 Bolt Quantity:0 Min Stock:1
  - Delta Rubber Due:1
  - Motion Industries Due:2
  - Smith Plastic Products Due:2
  - Down Time Downtime Count:33 Time to Repair:1492
  - Equipment
  - Bagger #2
  - Pan-O-Mat/K #1 Downtime Count:1 Time to Repair:47
  - Pan-O-Mat/K #1 Conveyor Belt Torn/Damaged 3/14/1997 Time Down:50 Time to Repair:47 Impact:221

Context Menu:

- Refresh
- Collapse Tree
- Expand Tree
- Create Requisition[s] for Selection
- Create Purchase Order[s] for Selection
- Clear Selection

## Identify Problem Areas Using Powerful Analysis Tools

MaintSmart uses data that you have previously entered to not only generate work orders, PMs, etc. but more importantly to provide powerful reports and analysis. All data analysis in MaintSmart is objective and can be relied upon.

*MaintSmart is the only CMMS program that uses 'military standard' reliability analysis to guide you in your maintenance program.* By using MTBF (average time between equipment failures) and integrating this information with your preventive maintenance program MaintSmart can guide you towards optimized PM task lists. MaintSmart has a powerful down time tracking system.

When you enter data into MaintSmart, MaintSmart rewards you with very powerful analysis tools that can be used with this data.

Line	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Bread Prod.	113	71	135	251	142	63	369
Bulk Ingredients		4	30				
Crouton				14			
Donut Packaging	131	10	20	30	17		68
Donut Prod.		2	14	6	20		
Live Bay			45				
Roll Packaging	92		66	112	29	11	
Roll Prod.	275	3	9	235	44	89	14

Wednesday Statistics		Saturday Statistics	
Total	889	Total	461
Average	127	Average	115
Minimum	6	Minimum	10
Maximum	251	Maximum	369
Variance	12847	Variance	29317
Variance (Population)	11011	Variance (Population)	21988
Standard Deviation	113	Standard Deviation	171
			148

Equipment failure (down time) data displayed by comparing minutes of down time on each "line" to the day of the week. This is just one of countless ways you can analyze this data.

By clicking the Excel icon below MaintSmart automatically imports this data set into Excel and even creates a chart for the selected data. There is no other CMMS that does this.

Total(s) of Time Down From 3/21/2008 Through 9000 Days Prior to 3/21/2008 Where Plant is Sacramento, Group By Line; Compare to Date of Down Time Occurrence Grouped by the Day of the Week.

Use Excel \*\* (9) Records

Plant: Sacramento | Row Heading: Line | Column Heading: Sunday, Monday, Tuesday, Wednesday | Value Field: Time Down

(Excel chart of this data is on next page)

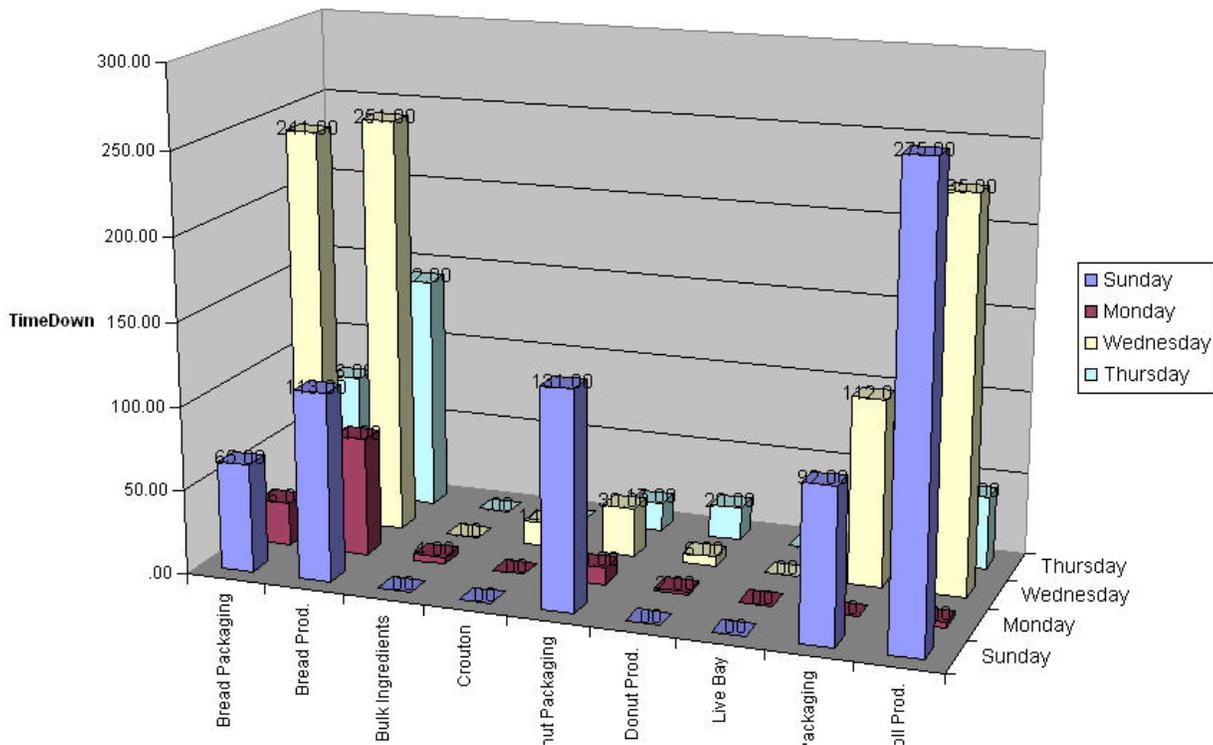
MaintSmart will save your company money with normal use.

MaintSmart Software, Inc. has been providing CMMS solutions for over 10 years (we are one of three CMMS companies that can make this claim).

MaintSmart is in use in 29 countries worldwide.

We have a very satisfied customer base. Many of our customers rely exclusively on MaintSmart for all of their maintenance requirements.

Total(s) of Time Down From 3/21/2008 Through 9000 Days Prior to 3/21/2008 Where Plant is Sacramento, Group By Line; Compare to Date of Down Time Occurrence Grouped by the Day of the Week.



Why wait any longer to get control of your maintenance operation? Why wait any longer to start saving money in equipment costs, labor costs and lost product?

**Call us today: 1-888-398-0450 (USA/Canada), +1-541-751-0450**

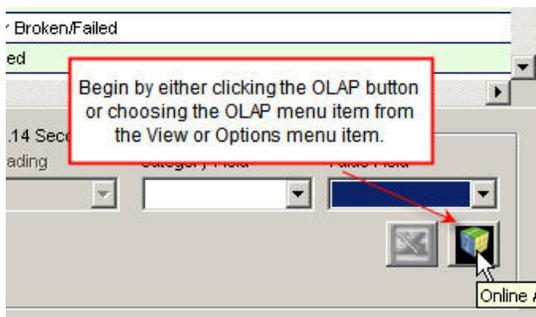
MaintSmart Software, Inc., 66164 Homestead Rd., North Bend, Oregon, 97459, USA  
Toll-free 1-888-398-0450 1-541-751-0450

# MaintSmart 4.1 OLAP (Online Analytical Processing) Component

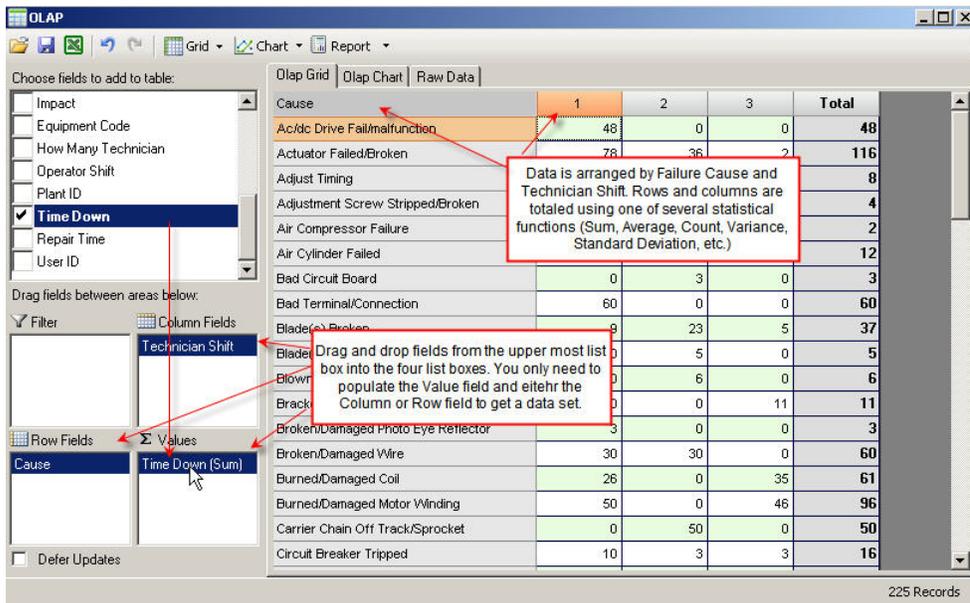
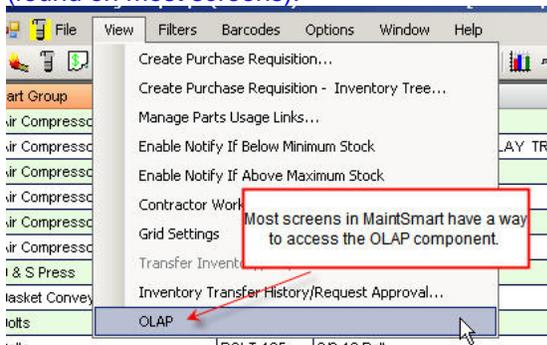
OLAP is a tremendously powerful component that provides analytical processing features similar to those found in Microsoft Excel Pivot Tables and Pivot Charts. Drag-and-drop views give you real-time information, insights, and results in seconds. Drag up to five column fields, five row fields and five value fields to generate a user-defined two or three dimensional data set of virtually any data in the MaintSmart database.

MaintSmart leverage the data queries you create in the MaintSmart Analysis screens by linking to these user defined data sets with the OLAP component. Additionally OLAP is available on most other screens including work order, down time, purchasing, inventory and preventive maintenance screens. Data from any of these screens may be arranged as needed by drag and drop in the OLAP screen. This data may then be totaled by row and column using one of several statistical functions. This data set is then charted automatically.

Clicking on a grid cell in the OLAP data grid causes the underlying data for that cell to be displayed in a separate grid. The OLAP data grid may be exported directly to Excel (just like all grids in MaintSmart) for further analysis.

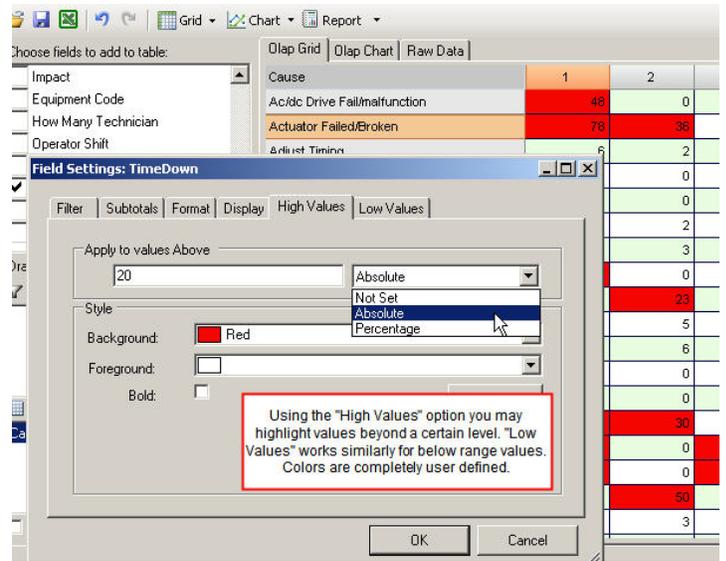
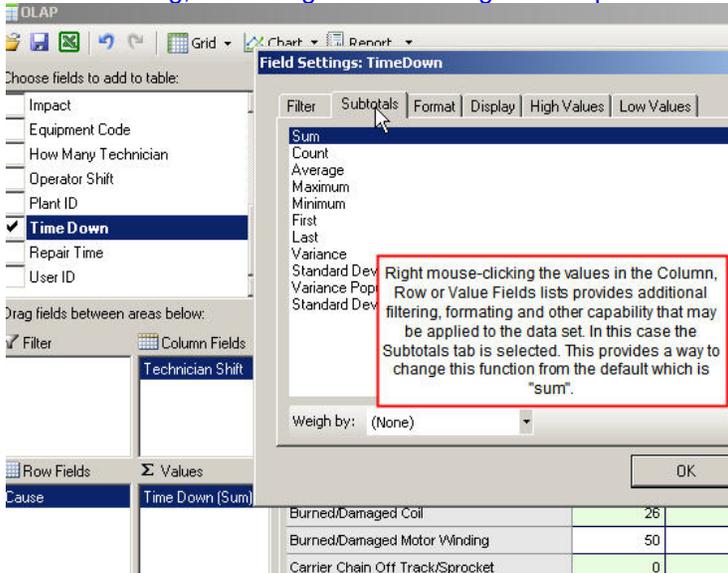


Click the OLAP button (found on some screens OR click the OLAP menu item (found on most screens)).



When OLAP screen appears drag and drop fields from the uppermost filed box to the lower list boxes. You may drag up to five fields into each box, however the data grid and chart may become cluttered with this much data.

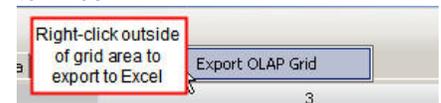
There are several options available by right-clicking on the selected field(s) and choosing from the resulting dialog screen. These include filtering, formatting and formatting based upon the value.



Below shows how multiple fields are displayed. In this example there are two column fields and two value fields. The value fields are summed in this case in separate columns, grouping by Operator and Technician Shift. Rows are also summed.

Cause	Time Down	Repair Time	Time Down	Repair Time	Total	Total
Roller Broken/Failed	0	0	0	0	15	15
Roller(s) Bad	0	0	0	0	5	5
Safety Interlock Open	0	0	0	0	59	59
Scaper Damaged or Fell Out	0	0	0	0	60	60
Shaft Bearing Failed	0	0	0	0	38	25
Sprocket Slipped	0	0	0	0	95	95
Sprocket Worn	15	12	0	0	15	12
Stop Plate Failed	0	0	0	0	7	7
Structural Failure	0	0	0	0	2	2
Switch (Other) Failed	0	0	0	0	33	24
Switch Sticking Switch Sticking Switch Sticker	0	0	0	0	2	2
Table Top Chain Broken	6	6	0	0	47	45
Table Top Chain Off	0	0	0	0	5	5
Temp. Controller Malfunction	45	2	0	0	45	2
Temperature Sensor Loose or Fail	0	0	0	0	2	2
Track Belt	0	0	0	0	3	3
Variable Pulley Failed	0	0	0	0	14	14
Water in Machine or Electrical	0	0	0	0	325	325
<b>Total</b>	<b>349</b>	<b>289</b>	<b>2</b>	<b>2</b>	<b>2,931</b>	<b>2,747</b>

Easily export the resulting data from grid to Excel.



Cause	Time Down	Repair Time	Time Down	Repair Time	Time Down	Re
Ac/dc Drive Fail/malfunction	41	57	7	6	0	
Actuator Failed/Broken	34	29	44	44	0	
Adjust Timing	6	6	0	0	0	
Adjustment Screw Stripped/Broken	2	2	0	0	0	
Air Compressor Failure	2	2	0	0	0	
Air Cylinder Failed	0	0	10	10	0	
Bad Circuit Board	0	0	0	0	0	
Bad Terminal/Connection	0	0	60	60	0	
Blade(s) Broken	0	0	0	0	9	
Blade(s) Dull	0	0	0	0	0	
Blown Fuse	0	0	0	0	0	
Bracket Failed	0	0	0	0	0	
Broken/Damaged Photo Eye Reflector	0	0	3	3	0	
Broken/Damaged Wire	0	0	30	30	0	
Burned/Damaged Coil	0	0	26	26	0	
Burned/Damaged Motor Winding	0	0	50	50	0	
Carrier Chain Off Track/Sprocket	0	0	0	0	0	
Circuit Breaker Tripped	0	0	0	0	10	
Clutch/Brake Worn/Fail	0	0	5	5	0	
Contacts Burned/Damaged	0	0	0	0	30	
Conveyor Belt Torn/Damaged	0	0	5	5	50	
Conveyor Broken/Failed	0	0	8	8	55	

This is the resulting Excel spreadsheet. You may also click the Excel icon at top of screen however this option simply saves the data as Excel but doesn't automatically open the spreadsheet after saving.

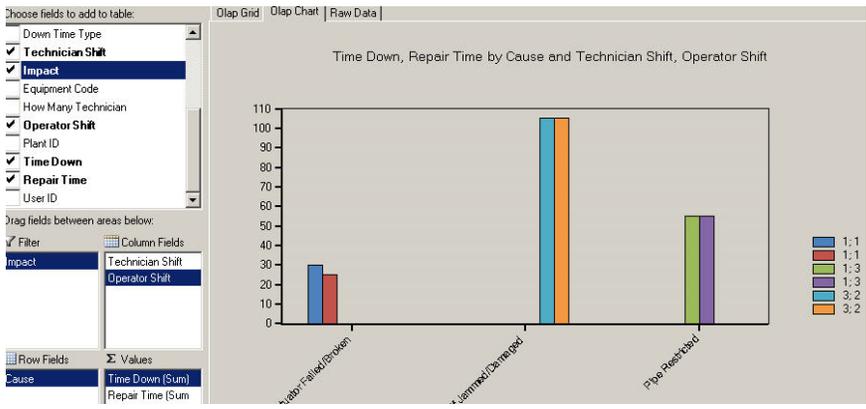
Cause	Time Down	Repair Time	Time Down	Repair Time	Time Down	Repair Time
Bun Wrapping	5				15	
No Area Assignmer	5				5	
Bread Slicers	59				59	
No Area Assignmer	60				60	
Bread Baggers/Wrapping Machine	38				38	
No Area Assignmer	95				95	
Bread Baggers/Wrapping Machine	15				15	
No Area Assignmer	7				7	
No Area Assignmer	2				2	
Bun Cooler	33				33	
	2				2	
	47				47	
	5				5	
	45				45	

Right clicking in the grid area on a particular cell causes the underlying data that generated the value in that cell to be displayed in a separate grid.

Right-click on a grid cell to see a grid of the underlying data that generated the value for that grid cell. (Note: actual field names are displayed in this case)

Right-click a Value field and you will have the opportunity to format, filter or change the subtotal setting for that value. Subtotal settings include: Sum, Average, Max, Min, Variance, Standard Deviation and more.

Format colors based upon high or low value constraints as shown below:



MaintSmart will also create a corresponding chart for the data.

Cause	1		3		Total	Total
	Time Down	Repair Time	Time Down	Repair Time		
Actuator Failed/Broken	0	0	0	0	30	25
Oven Shelf Jammed/Damaged	0	0	105	105	105	105
Pipe Restricted	55	55	0	0	55	55
<b>Total</b>	<b>55</b>	<b>55</b>	<b>105</b>	<b>105</b>	<b>190</b>	<b>185</b>

This is an example of a filtered data set. In many cases you'll want to filter the data especially if you want a legible uncluttered chart.

As you can see this is a tremendously powerful and useful tool. The OLAP component is very flexible and available on all screens where appropriate.



# MaintSmart

version 4.1

## Basic Quick Start Tour

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Get the **MaintSmart User Manual** (197 pages) as Adobe:  
[http://www.maintsmart.com/MaintSmart\\_User\\_Guide.pdf](http://www.maintsmart.com/MaintSmart_User_Guide.pdf)

Get the **MaintSmart Purchasing/Inventory Manual**  
<http://www.maintsmart.com/Support/MaintSmart3EPurchasingUserGuide.pdf>

**Full Quick Start** (includes task and equipment configuration topics):  
[http://www.maintsmart.com/Quick\\_Start\\_Full.pdf](http://www.maintsmart.com/Quick_Start_Full.pdf)

**Have a Question?** Pick Up the phone and call toll-free: 1-888-398-0450 or 1-541-751-0450 or email us at [sales@maintsmart.com](mailto:sales@maintsmart.com)

# How to Use the Quick Start Tour

If you'd like to participate in an online demo or have any questions at all about MaintSmart do not hesitate to call: 1-888-398-0450 (toll-free USA/Canada) +1-541-751-0450. We're here to help.

Quick start is designed to give you a quick overview of a couple of MaintSmart's powerful features. Quick start only small percentage of MaintSmart's basic features. Procedures that are covered are not covered in detail; however you are encouraged to explore each screen further. It's recommended that you also download the MaintSmart User Guide. The User Guide covers all topics of MaintSmart in detail and provides a handy reference if you need to explore MaintSmart's features in depth.

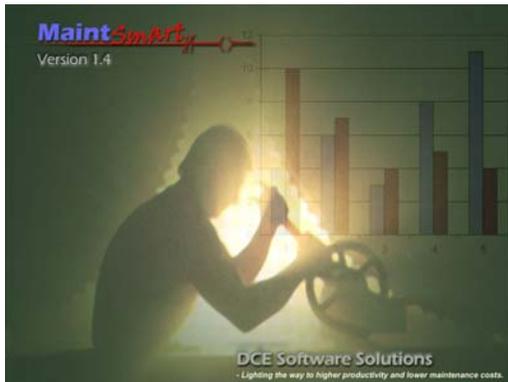
**Important:** The sample data contained in the Demo is for a manufacturing facility. However MaintSmart works great for building, fleets, schools, hospitals, etc. Top level entity: "Plant" may be easily changed to "Building", "School", "Fleet" etc.

## How to Use the Quick-Start Tour:

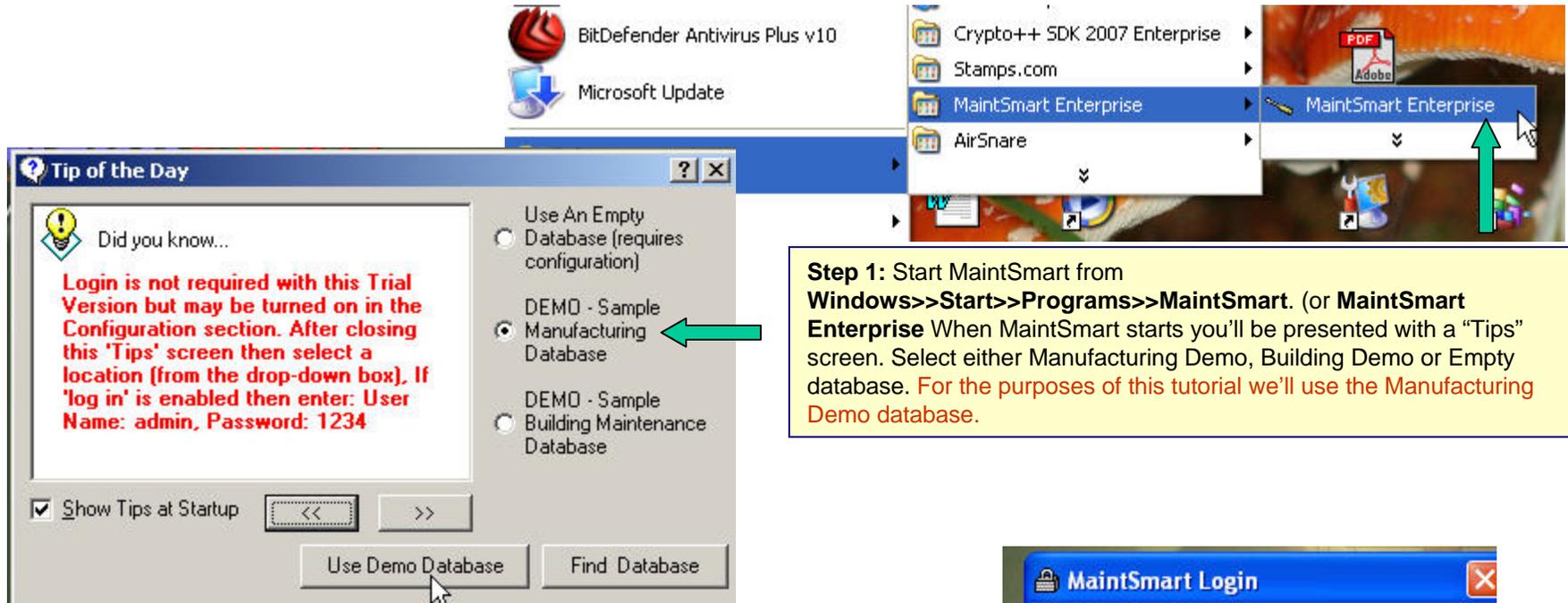
This tutorial assumes you have already entered basic configuration data into MaintSmart or are using one of the "demo" databases provided with MaintSmart. For the purposes of this tutorial we'll use the manufacturing demo database. For information on configuring MaintSmart please see the full User Manual. The MaintSmart Demo is the full MaintSmart program with a 30 day limit. This time may be extended once if needed. The Demo contains three databases: Manufacturing Data, Building Data and a blank database that you may configure with your own data. If you decide to use the blank database you can simply email the System ID as displayed under:

**Help>>About>>License>>Register** along with a P.O. number or call in a credit card and we'll issue an immediate extension of the license.

Other resources are available too such as: web help, online tutorials, MaintSmart Help (menu items: **Help>>Contents**) and status bar help (set screen focus on many screen items by tabbing to the item with the <TAB> key. For the purposes of this Quick-Start Tour **topics or concepts of special importance are in green text. Warnings are presented in red text. Items of emphasis are underlined Screen labels are in bold type.** The MaintSmart User Guide contains additional details and information on using MaintSmart. It is available for free from our web site: <http://www.maintsmart.com>



# Log On to MaintSmart



**Step 1:** Start MaintSmart from **Windows>>Start>>Programs>>MaintSmart**. (or **MaintSmart Enterprise** When MaintSmart starts you'll be presented with a "Tips" screen. Select either Manufacturing Demo, Building Demo or Empty database. For the purposes of this tutorial we'll use the **Manufacturing Demo** database.

**Step 2:** For the sample databases the login is entered for you by default: When MaintSmart starts you'll be presented with a log in input screen. Select a "Plant" (or "Building") Enter **ADMIN** for the user ID and **1234** for the password.

**Note:** This version of MaintSmart is translatable into nearly any language. If no language is chosen MaintSmart defaults to English.

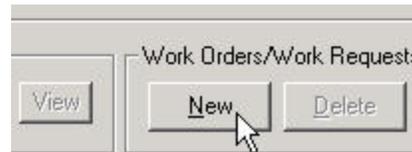


# Create a Simple Work Order

**Step 1:** Click the wrench icon at the top of the screen to open the work order data entry screen.



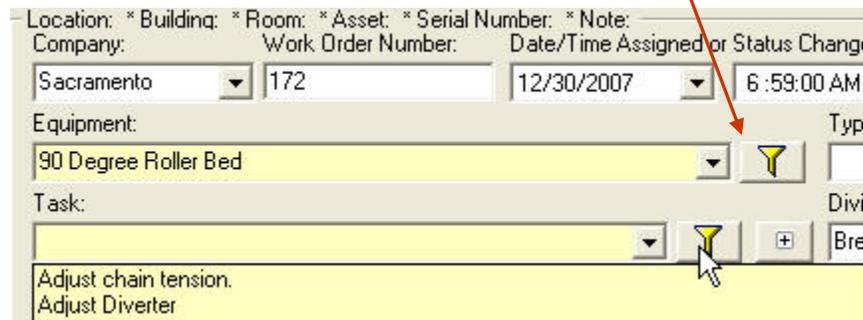
**Step 2:** When the work order screen appears click the **New** button with the left mouse button.



**Step 3:** Enter a work order number or let MaintSmart enter a work order number or auto-increment for you automatically (see menu items: **Options>>Work Order Numbering>>?**). Next select an equipment item from the drop-down. Filter the equipment drop-down if needed by clicking the **Filter** button. Select a task from the **Task** drop-down.

**Note:** selecting an equipment item automatically populates **Department** and **Work Area/Location**. This is the default action but may be easily changed from the menu items **Options>>Defaults>>Equipment Drop-Down**.

 Use the **Filter** button (optional) to limit the selections in the drop-down box on the **Task** and the **Equipment** fields. Create a new task on the fly with **New** button.



**Step 4:** Press the **Save** button. That's it you're done!



## Create a Detailed Work Order (optional)

**Step 1:** Follow steps 1-3 on the previous page to begin creating a new work order.

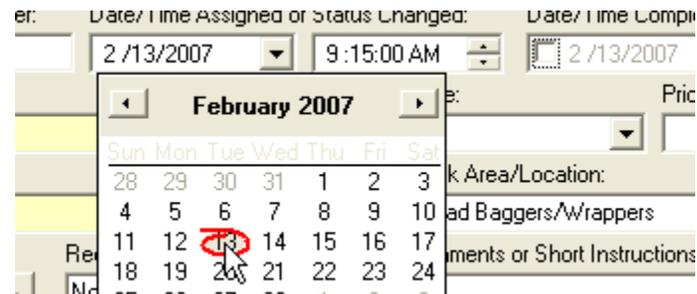
**Step 2:** Select the date/time the work order is created. MaintSmart uses today's date by default but this may be changed by clicking the down arrow on the date box.

**Step 3:** Select the work order **Type, Priority and Status**. Note: select **New Type...** to create a new work order type (also applies to **Priority and Status**).

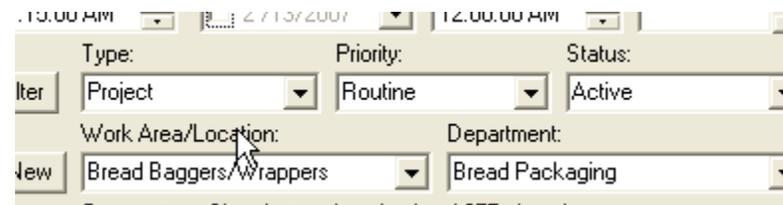
**Step 4:** Select an maintenance technician for this work order. If this is a work request you may select a **Requestor**. Later in this tutorial we'll show you how to add multiple maintenance technicians to each work order and even have MaintSmart time their work automatically.

**Note:** the term "Technician", "Department", "Work Area/Location" may all be changed to suit your maintenance operation from the **Program Configuration** screen.

topic continued on next page...

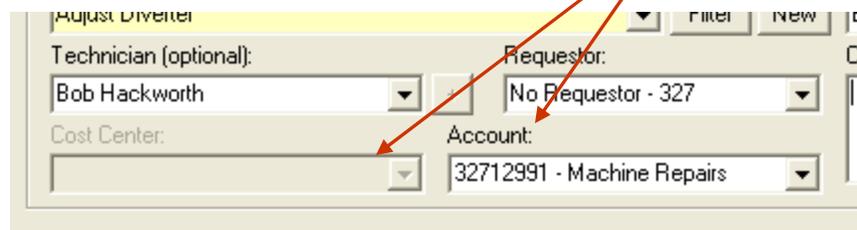


er: Date/Time Assigned or Status Changed: Date/Time Completed  
2/13/2007 9:15:00 AM 2/13/2007  
February 2007  
Sun Mon Tue Wed Thu Fri Sat  
28 29 30 31 1 2 3  
4 5 6 7 8 9 10  
11 12 13 14 15 16 17  
18 19 20 21 22 23 24  
25 26 27 28 29 30 31



Type: Project Priority: Routine Status: Active  
Work Area/Location: Bread Baggers/Wrappers Department: Bread Packaging

 Optionally link work order to Cost Center and/or Account. Either or both of these fields may be forced and locked by Administrator too.



Adjust Diverted  
Technician (optional): Bob Hackworth Requestor: No Requestor - 327  
Cost Center: Account: 32712991 - Machine Repairs

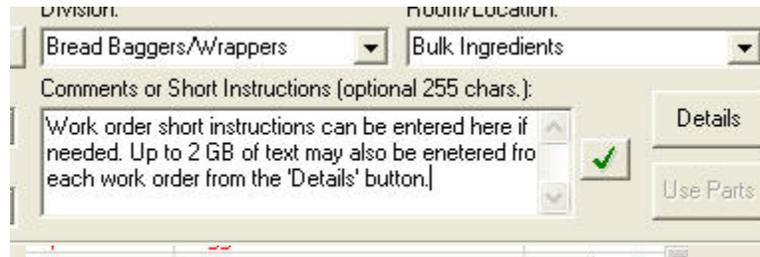
## Create a Detailed Work Order (continued)

**Step 5:** Add up to 255 characters of text for a short work order instruction (optional).

**Step 6:** Add up to 2 GB of text instructions (optional) by pressing the "Details" button. After details have been entered press the OK button on the Details pop-up screen. Don't forget to save the entire work order when you're done by pressing the Save button on the main work order screen. To print work orders with details you should select one of the "detail" work order report formats from the menu items:Options>>Work Order Format...

**Step 7:** Link unlimited files to any work order as needed by pressing the Add button. To view or remove a link to a work order click the file attachment then press **View** or **Remove**. Add any type of file supported by your computer: MS Word, Excel, AutoCad, etc.

**Step 8:** Press the **Save** button. The next couple of pages discuss work order options, saving and printing.

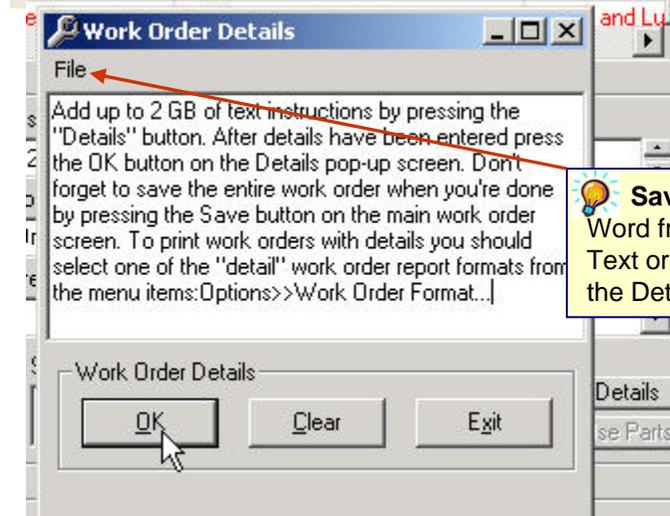


DIVISION: Bread Baggers/Wrappers ROOM/LOCATION: Bulk Ingredients

Comments or Short Instructions (optional 255 chars.):

Work order short instructions can be entered here if needed. Up to 2 GB of text may also be entered from each work order from the 'Details' button.

Details Use Parts



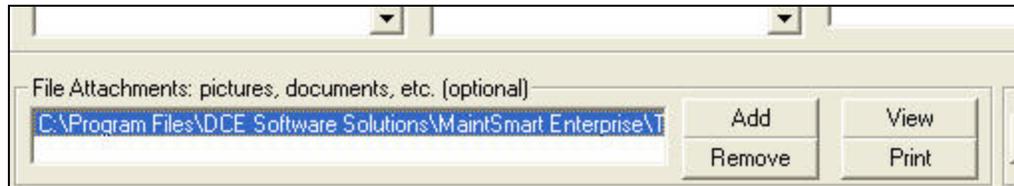
Work Order Details

File

Add up to 2 GB of text instructions by pressing the "Details" button. After details have been entered press the OK button on the Details pop-up screen. Don't forget to save the entire work order when you're done by pressing the Save button on the main work order screen. To print work orders with details you should select one of the "detail" work order report formats from the menu items:Options>>Work Order Format...

OK Clear Exit

 **Save** details as .rtf (Rich Text is a MS Word friendly format). **Open** MS Word, Text or Rich Text documents directly into the Details screen.



File Attachments: pictures, documents, etc. (optional)

C:\Program Files\DCE Software Solutions\MaintSmart Enterprise\T

Add View Remove Print

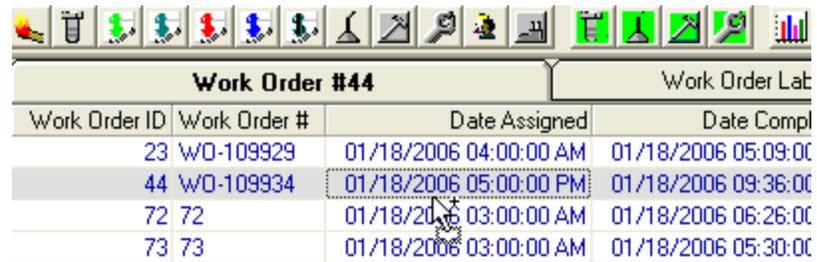


Order/Work Request

Delete Save Cancel

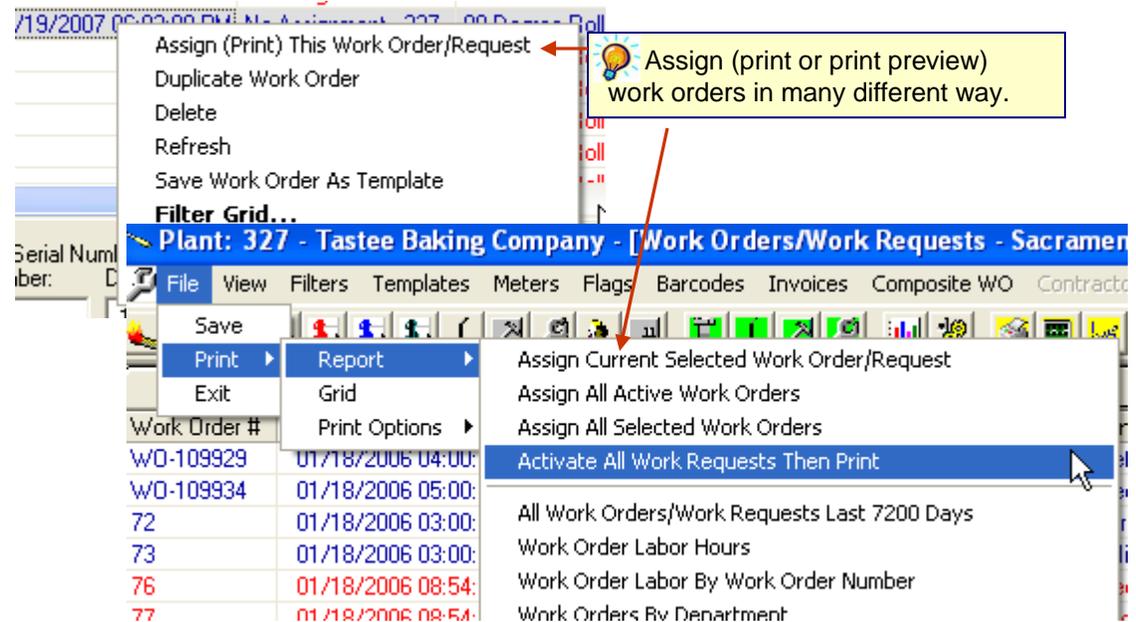
## Edit, Delete or Print A Work Order

**Step 1:** From the work order data entry screen left mouse-click the grid row containing the work order you want to edit or delete. Notice that once the work order has been selected that the boxes below the grid become available. Make changes in these boxes then press **Save** to edit this work order. To delete the selected work order click the **Delete** button. Click the **Cancel** button to deselect the work order.



Work Order #44			Work Order Lab	
Work Order ID	Work Order #	Date Assigned	Date Compl	
23	WO-109929	01/18/2006 04:00:00 AM	01/18/2006 05:09:00	
44	WO-109934	01/18/2006 05:00:00 PM	01/18/2006 09:36:00	
72	72	01/18/2006 03:00:00 AM	01/18/2006 06:26:00	
73	73	01/18/2006 03:00:00 AM	01/18/2006 05:30:00	

**Step 2:** There are several ways to print work orders. We'll illustrate one simple way of doing this. Select a work order again by left mouse-clicking the grid row containing the work order. Next right-mouse-click the selected row and select **Assign (print) This Work Order/Request** from the pop-up menu. Work orders may also be printed from the **File>>Print>>??** Menu items as illustrated below.



Assign (print or print preview) work orders in many different way.

Plant: 327 - Tastee Baking Company - [Work Orders/Work Requests - Sacramento]

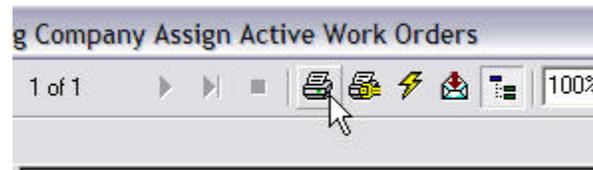
File View Filters Templates Meters Flags Barcodes Invoices Composite WO Contract

Save  
Print  
Exit

Report  
Grid  
Print Options

Assign Current Selected Work Order/Request  
Assign All Active Work Orders  
Assign All Selected Work Orders  
Activate All Work Requests Then Print  
All Work Orders/Work Requests Last 7200 Days  
Work Order Labor Hours  
Work Order Labor By Work Order Number  
Work Orders By Department

**Step 3:** Now that the print preview screen is showing go ahead and print the work order by clicking the print icon at the top of the print preview screen.



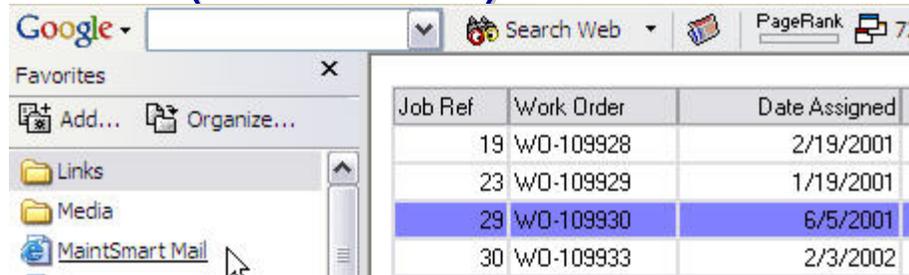
g Company Assign Active Work Orders

1 of 1

100%

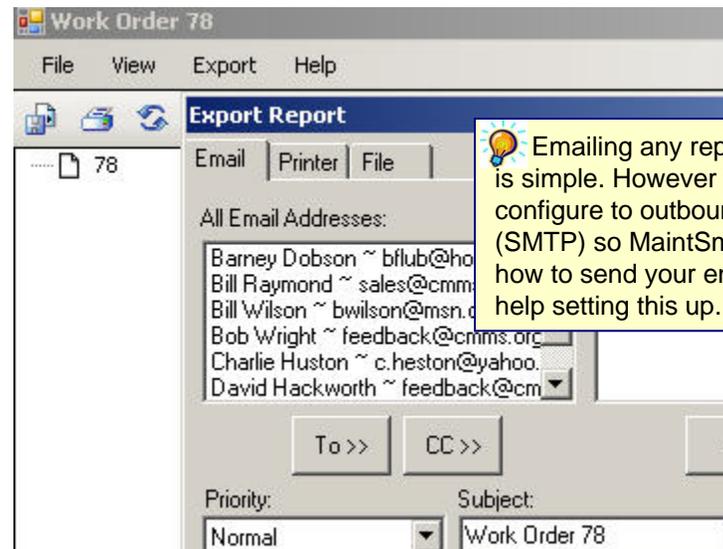
# Saving/Emailing Work Orders (advanced)

**Step 1:** There are several ways to save work orders. To save the entire work order grid select the menu items: File>>Save then select the saved format (HTML, text, ..xls (Excel), etc. Picture on right shows grid saved as a web page.



Job Ref	Work Order	Date Assigned
19	W/O-109928	2/19/2001
23	W/O-109929	1/19/2001
29	W/O-109930	6/5/2001
30	W/O-109933	2/3/2002

**Step 2:** In most cases you'll probably want to save individual work orders in a work order format rather than the entire grid of raw data. To save a work order select a work order by left-mouse clicking the desired row in the grid. Right mouse click the grid to display pop-up menu then select **Assign Current Selected Work Order/Request**. When the work order print preview screen appears click the **Export** menu at the top of the print preview screen. A pop-up screen appears giving you many options for saving, printing or emailing this work order. Some of the formats include: Excel, HTML, MS Word, simple text, etc. **To set up your MaintSmart email configuration call us +1-541-751-0450.**



**Export Report**

Email | Printer | File

All Email Addresses:

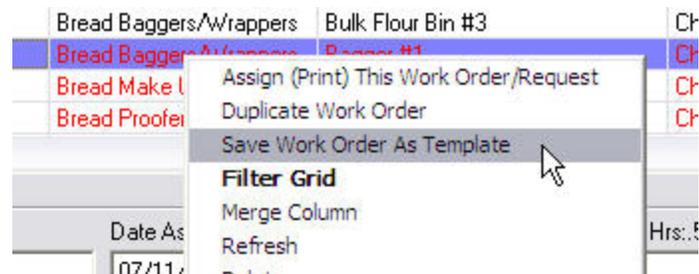
- Barney Dobson ~ bflub@ho
- Bill Raymond ~ sales@cmm
- Bill Wilson ~ bwilson@msn.d
- Bob Wright ~ feedback@cmm
- Charlie Huston ~ c.hoston@yahoo.
- David Hackworth ~ feedback@cm

To >> CC >>

Priority: Normal Subject: Work Order 78

 Emailing any report in MaintSmart is simple. However you'll first need to configure to outbound email settings (SMTP) so MaintSmart will know how to send your email. Call us for help setting this up.

**Step 3:** Work orders may also be saved as "templates" or boiler-plates. A work order template is a copy of an existing work order that you can make countless copies of either directly or automatically. Once again select a grid row by clicking it. Next right mouse-click to show pop-up menu. Select the menu item **Save Work Order As Template**. A small box appears prompting you for a name for this new template. Enter a name or use the default



Bread Baggers/Wrappers Bulk Flour Bin #3 CF

Bread Baggers/Wrappers Bulk Flour Bin #1 CF

Bread Make l CF

Bread Profer CF

Assign (Print) This Work Order/Request

Duplicate Work Order

Save Work Order As Template

Filter Grid

Merge Column

Refresh

Date As 07/11/ Hrs: f

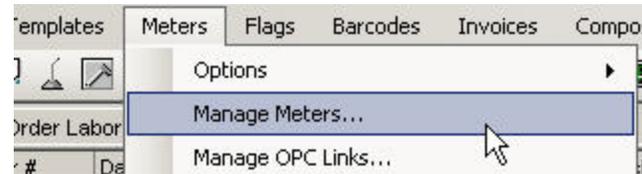
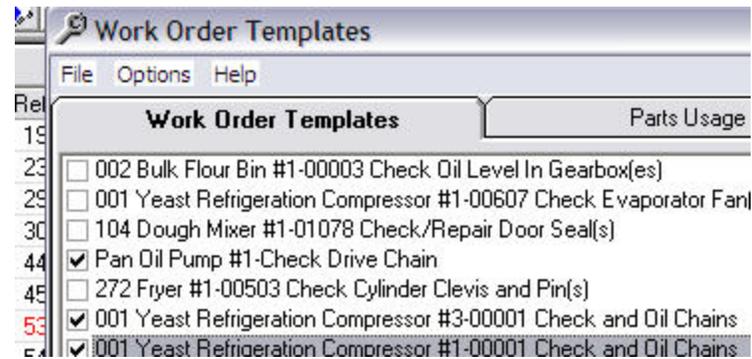
**topic continued on next page...**

## Saving/Emailing Work Orders (advanced)

**Step 4:** To create a work order from a template select the menu items **Templates>>Create Work Order From Template**. When the template pop-up screen appears check the template(s) you want to create work orders from then press the button labeled **Create WO**.

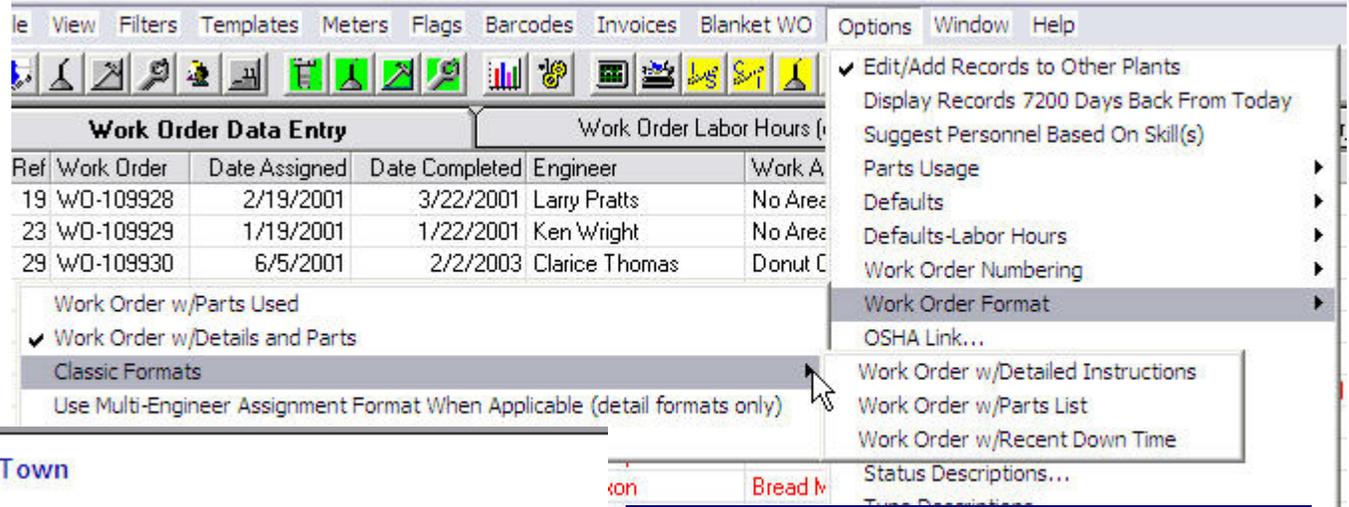
**Step 2: Optional Advanced Topic** MaintSmart has the ability to link work order templates to “meters”. Meters are user-defined incremented values from practically any source. For example a meter could be a counter that counts saw cuts or perhaps an hour meter on an equipment item. These meters may be entered manually into MaintSmart through MaintSmart’s meters section. MaintSmart also provides a way for you to link meters to an OPC data item. If work order templates are linked to these updated meters work orders will be created automatically from the templates should the meter reach its threshold value (user-defined). OPC is used by many common PLC and HMI network programs like RSLinx or Wonderware. Meters may be linked to PLC addresses thereby creating work orders based upon values read from actual equipment items.

Select the Meters menu item then view the various options under the Options menu



# Work Order Options (advanced)

**Step 1:** Select the **Options** menu item. Note some of the various options available to you. Next select the **Work Order Format** menu item and check the menu item **Work Order w/Details and Parts**. Select (job ref.) #23 from the grid then assign the work order. Below is a picture of the first page of this work order.



The screenshot shows the software interface with the 'Options' menu open. The menu items include: Edit/Add Records to Other Plants, Display Records 7200 Days Back From Today, Suggest Personnel Based On Skill(s), Parts Usage, Defaults, Defaults-Labor Hours, Work Order Numbering, Work Order Format, OSHA Link..., Work Order w/Detailed Instructions, Work Order w/Parts List, Work Order w/Recent Down Time, and Status Descriptions... The 'Work Order Format' sub-menu is also visible, showing: Work Order w/Parts Used, Work Order w/Details and Parts (checked), Classic Formats, and Use Multi-Engineer Assignment Format When Applicable (detail formats only).

Ref	Work Order	Date Assigned	Date Completed	Engineer	Work Area
19	WO-109928	2/19/2001	3/22/2001	Larry Pratts	No Area
23	WO-109929	1/19/2001	1/22/2001	Ken Wright	No Area
29	WO-109930	6/5/2001	2/2/2003	Clarice Thomas	Donut C



The screenshot shows the work order details page for 'Tastee Baking Company - AnyTown'. The work order is WO-109929, Job Reference: 23, and is printed by [Name]. The plant is 327, Priority is Emergency, and the work area/location is No Area Assignment - 327. The equipment is Bulk Yeast CIP System #1. The requested by is Tom Jardine, and the requestor phone is 555-1213 ext 3398. The work order details show it was assigned on 1/19/2001, is Active, assigned to Ken Wright, and the task is Rebuild Pump(s). The instructions are Rebuild sanitizer pump. The parts used for this work order are listed in the table below.

Part Number	Description	Quantity Used	Available	Location	Item To
V99	Drive Belt	3	2	Low Stock	Belt Rack
* REORDER: 3.00ea / Drive Belt - V99 *					

**Step 2:** Below is a brief description of some of these options. To receive an in depth explanation of how each of these options work please see the MaintSmart User Guide or give us a call 1-888-398-0450.

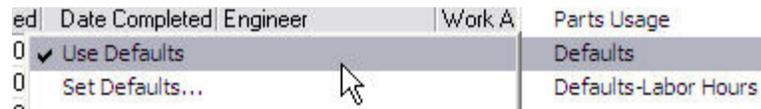
- 1. Display Records... Days Back From Today** (filter) provides a way to limit the records displayed by date.
- Parts Usage is used for linking parts usage to work order templates. Parts may be automatically used from stock when a work order is created.
- Defaults - Labor Hours** refers to options and setting that may be used when adding multiple personnel to one work order. This feature also times the start and end time/date of labor hours for each person.
- Work Order Numbering** provides a way to either use the **Job Ref.** of the work order as the work order number or auto-increments your own numbering system.
- Defaults>>** provides shortcuts and more (described on the next page)

# Setting Work Order Defaults (advanced)

**Step 1:** Work order “defaults” provide a way for MaintSmart to automatically fill in some or most of the data fields for you whenever you create a new work order by pressing the **New** button. To set defaults begin by pressing the **New** button. Select or type in the data values you want to use as defaults in the boxes below the grid (same as you’d do when creating a new work order).

**Step 2:** Select the **Options>>Defaults>>Set Defaults...** menu item. When the Set Defaults pop-up screen appears press the **Refresh** button. MaintSmart places all of the data selected/typed into the work order boxes into the Defaults grid. Note the checkboxes next to the grid. To include the adjacent grid data be sure the checkbox is checked. Press OK when you have the appropriate defaults selected/checked. Press the **Exit** button to close the Defaults screen. Note the message when closing.

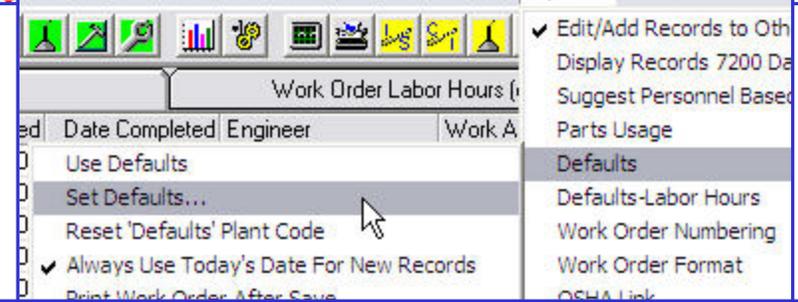
**Step 3:** To enable Defaults be certain to check the menu item Use Defaults (pictured below).



**Step 4:** Test these new default settings by creating a new work order (press New button on work order screen). Defaults may be changed or disabled at any time as needed.

**Note:** MaintSmart uses data that you enter to optimize your maintenance operation through analysis and query. Be sure to view the Quick Tour: **Analyzing MaintSmart Data** to see how MaintSmart benefits you not only by archiving and reporting but also by analyzing the data you enter and providing answers that help you improve your maintenance operation.

Work Order #29				Work Order Labor Hours (optional)	
Work Order	Date Assigned	Date Completed	Engineer	Work Area/Location	
109928	2/19/2001	3/22/2001	Larry Pratts	No Area Assignment -	
109929	1/19/2001	1/22/2001	Ken Wright	No Area Assignment -	
109930	6/5/2001	2/2/2003	Clarice Thomas	Donut Cooler/Make Up	
109933	2/3/2002	3/22/2002	Charlie Huston	No Area Assignment -	
109934	3/23/2002	5/28/2002	Charlie Huston	Bread Oven/Cooler	



Equipment	90 Degree Roller Bed #2	<input checked="" type="checkbox"/> Equipment
Status	Active	<input checked="" type="checkbox"/> Status
Priority		<input type="checkbox"/> Priority
Task	Calibrate Gauge(s)	<input checked="" type="checkbox"/> Task
Type		<input type="checkbox"/> Type

Set Work Order Defaults

Press the 'New' button on the work order data entry screen to activate the data entry boxes. Select items you wish to use as defaults from these boxes. Press the 'OK' button on this screen to save the values as defaults. Thereafter when the 'New' button is pressed on the work order screen these values are automatically used.

These Settings Are For Plant: 327 Only.

# What Are PMs And How Do They Differ From Work Orders?

**MaintSmart provides a way to handle preventive maintenance tasks (PMs) separately from the work order section of MaintSmart if needed:** This is beneficial because when PMs are updated (validated as complete) MaintSmart automatically recycles them to the new **Start Date** and calculates the **Due Date** by using the completion interval (i.e. 7 days, 30 days, etc.).

Additionally PMs are listed usually with many on one sheet of paper. PMs are similar to work orders in that you may still add up to 2 GB of detailed instruction text for each equipment/task.

David Hackworth Employee Number: 5306

**Yeast Refrigeration Compressor#1**

S/N: Asset:  
 Location: Building:

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Check and Oil Chains 7 6/13/2003 6/20/2003

Notes:

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Replace Refrigeration Particulate Filters and Service King Valve 7 1/22/2004 1/29/2004

Step 1 Check the Refrigerant for Acid

- If the compressor has burned out, change the compressor, refrigerant, and oil. Also, change the filter driers (adding a suction-line filter is recommended if one is not already installed). Go to step 2.
- If the compressor has not burned out, use a Mainstream QwikCheck® to determine if the refrigerant is acidic.
- o If the refrigerant tests highly acidic (QwikCheck indicator turns red), change the refrigerant and oil. Also, change the filter-driers (adding a suction-line filter drier is recommended if one is not already installed). Go to step 2.
- o If the refrigerant tests mildly acidic (QwikCheck indicator turns orange), you need not change the refrigerant or the oil, but you should change the filter-driers. Go to step 2.
- o If the refrigerant does not test acidic (QwikCheck indicator stays yellow) skip all subsequent steps, no acid treatment is necessary.

Step 2 Determine the Size of the Filter-Drier in the System

- Determine the recommended filter-drier for the system. If the equipment manufacturer does not make any specific recommendations, a

Notes:

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Part Description	Part Number	Quantity Needed	Available	Part Location
<input type="checkbox"/> Part	45-99	2 feet	39	U7j

**PM Formats:** Several PM list formats are available ranging from compact (list just task and equipment item to detailed instruction formats with required parts listings).

**Filters:** MaintSmart provides a simple way to create a filter then save the filter as a menu item. This makes it simple for an employee to simply select the menu item to print their PM list. The bottom of the PM Validation screen is devoted to filtering. Filter by date range, task, employee, equipment or work area (group of equipment items).

**Printing PM Lists:** Print, save as .pdf, excel, MS Word or numerous other formats. Email a PM list after saving it as a .pdf or web page. To further speed up the PM validation process MaintSmart provide shortcuts such as **Use Average Hours** and **Use Due Date**. If **Use Average Hours** is checked MaintSmart looks at the historical average time to complete the PM task for this equipment item then uses it automatically. MaintSmart can also assign PMs based upon an employee's skill set (advanced feature).

**Remember, as with all data in MaintSmart, all completed PMs along with parts records and labor hours are saved for future analysis by MaintSmart**

# Update and Print PMs (basic)

**Step 1:** Click the oil can icon (gray background) at the top of the screen to open the preventive maintenance (PM) validation screen.

**Step 2:** When the PM screen appears left mouse-click the row you want to update or hold down the <CTRL> key and left click a few rows in the PM screen (or select a row the hold <SHIFT> and click another row below the first to select a block of PMs). These selected PMs are the ones you'll now update. Updating a PM simply logs the PM (equipment/task) as completed then recycled the PM to the next start date.

**Step 3:** Select the **Date Completed** and enter the hours (or fractional part in decimals) that it took to complete the PM. Enter any appropriate **Task Completion Comments** if needed. Press the **Save** button. All selected rows are immediately updated. The update process archives the current PMs start dates and completion dates, time to complete and who completed the actual work. Next a new record is automatically created for the next time this PM needs to be completed based upon the completion date and the interval.

**Note:** **Task Completion Comments** are comments back to you from the person who performed the PM. These comments are not recycled with the PM when it's updated but are archived for future reference. Details, unlike Comments (see **Details** button) are part of the PM and are recycled with the PM. Details may be up to 2GB per PM record and are useful for providing detailed instructions on how to perform a PM, tools needed, etc.

**Step 4:** To print a PM task lists select the menu items as pictured on the right. There are several different formats to choose from under the **Options>>PM List Format>>?** Menu items. Details appear only on certain formats.

**Note:** MaintSmart handles PMs separately from work orders. This provides a way to update 100s or even 1000s of PM task completions in seconds. You may create PM (type) work orders if needed too.



90 Degree Roller Bed	<input type="checkbox"/>	Check Pop Off Valve
90 Degree Roller Bed	<input checked="" type="checkbox"/>	Check Regulator(s) and Setting
90 Degree Roller Bed	<input checked="" type="checkbox"/>	Check Sprockets/Replace
90 Degree Roller Bed	<input checked="" type="checkbox"/>	Check/Repair Cords and Conduits
90 Degree Roller Bed	<input checked="" type="checkbox"/>	Check/Secure Chain Gaurds
90 Degree Roller Bed	<input checked="" type="checkbox"/>	Check/Tighten Electrical Connections
90 Degree Roller Bed	<input checked="" type="checkbox"/>	Drain Water Trap(s)
90 Degree Roller Bed	<input checked="" type="checkbox"/>	Lubricate Chain /Adjustment.
90 Degree Roller Bed	<input checked="" type="checkbox"/>	Replace Mechanical Drive w/VFD

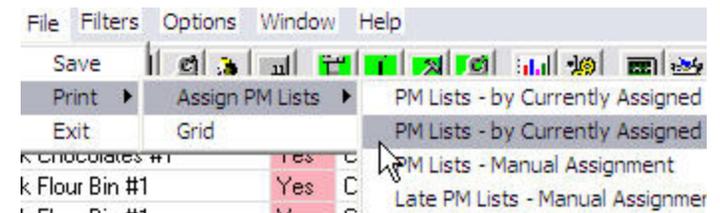
n Effect

Completed:  Hours:

Use Due Date  Use Average

Task Completion Comments (255 characters):

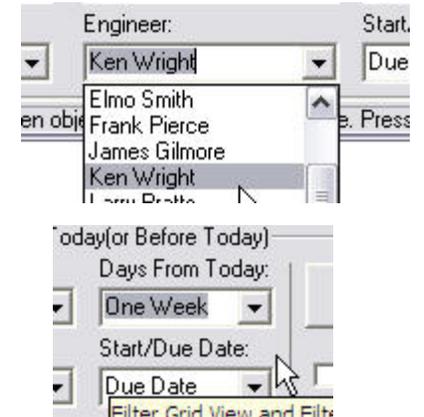
Found loose set screw on sprocket while servicing drive chain.



## Filter and Print PMs (advanced)

**Step 1: Simple Filtering:** Print a PM list from a filtered data set as follows: from the filter drop-down box labeled **technician** select the name Ken Wright. The grid now show PMs for Ken Wright only. From the **File>>Print>>Assign PM Lists** menu items notice the last entry refers to Ken Wright's PMs. Select this menu item to print Ken Wright's PMs.

**Note:** you can just as easily filter the PMs by Work Area, Equipment or Task too. You may also filter the PMs by how many days from today the **Start Date** or **Due Date**. Select **Due Date** from the **Start/Due Date** drop-down box. Select **One Week** from the **Days From Today** drop-down box. The PM data grid is refreshed to display PMs for ken Wright that have a **Due Date** of one week from to day and all PMs *due prior to one week from today*.



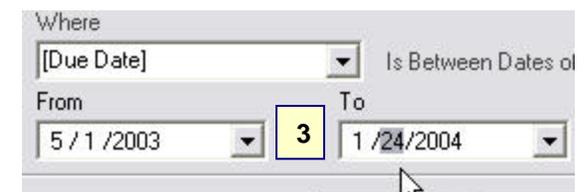
**Step 2: Advanced Filtering:** Right mouse-click the grid area to display the pop-up menu then select the menu item **Filter Grid** (pictured below left). From the first tab of the **Filter Grid** pop-up screen make the selections as pictured below including the date selections. Assuming today's date is 1/17/2004 this filter displays ken Wright's PMs between these dates. Go to Step 3.

ins	7	5/31/2003	6/
level	30	5/31/2003	6/31
vis and Pin(s)	7	10/7/2002	10/1
Alignment			1/1
) For Leaks/Repa			1/31
ar(s)			1/31

1



2

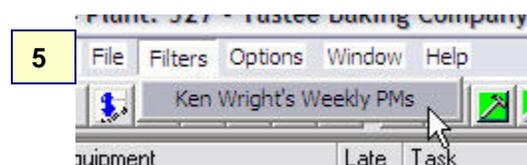


3

**Step 3: Advanced Filtering:** From the second tab on the **Filter Grid** pop-up screen and enter the text for the **Filter Name** as pictured below. The filter description is optional. Make sure the checkbox **Use Relative Date** is checked. Press **Save** and close the **Filter Grid** screen. On the main PMs screen select the menu items **Filters>>Ken Wright's Weekly PMs**. This new menu item always prints Ken Wright's PMs that are due between the date period of today to 7 days after today and 8 months(because 5/1/2003 was selected in **From:** in **Filter Grid**) before today. Now this is a powerful feature, isn't it?



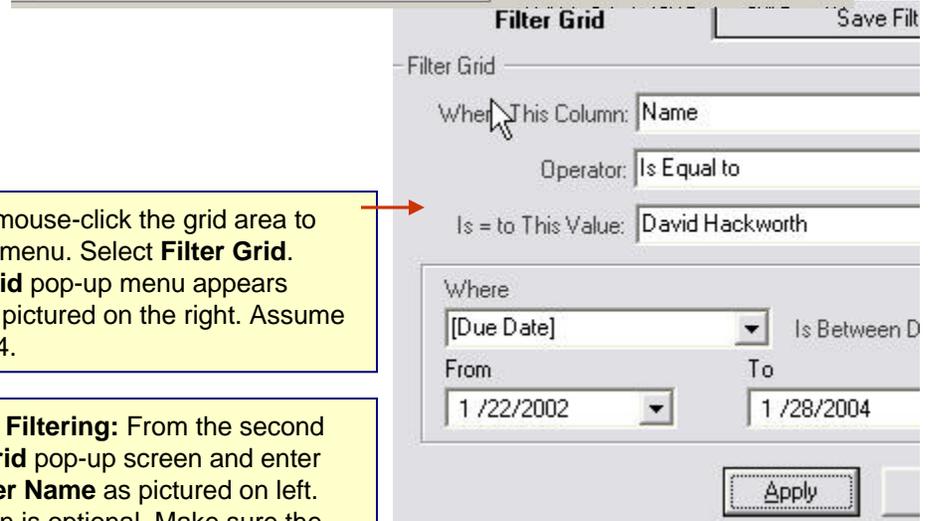
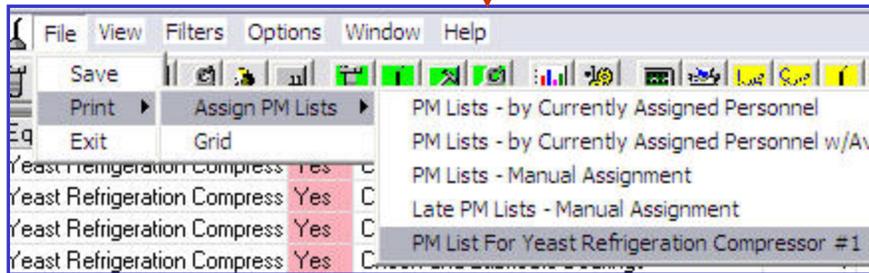
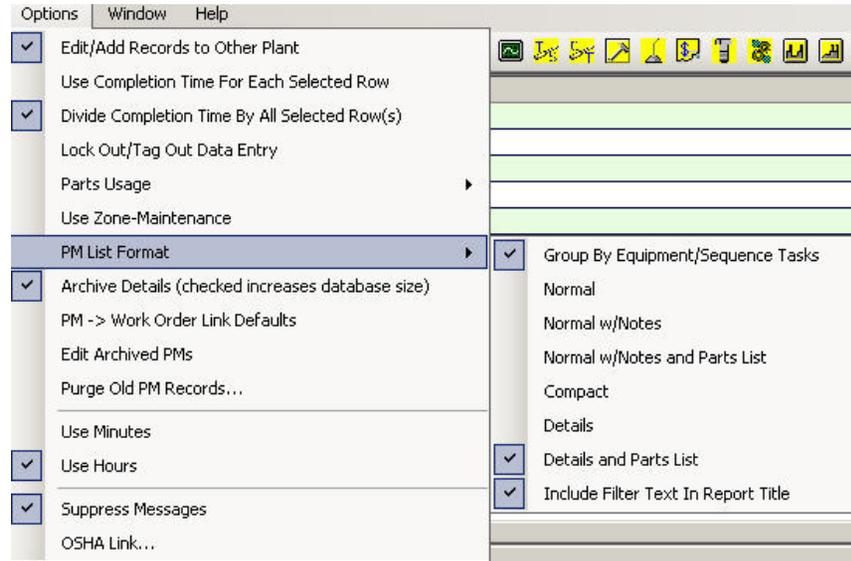
4



5

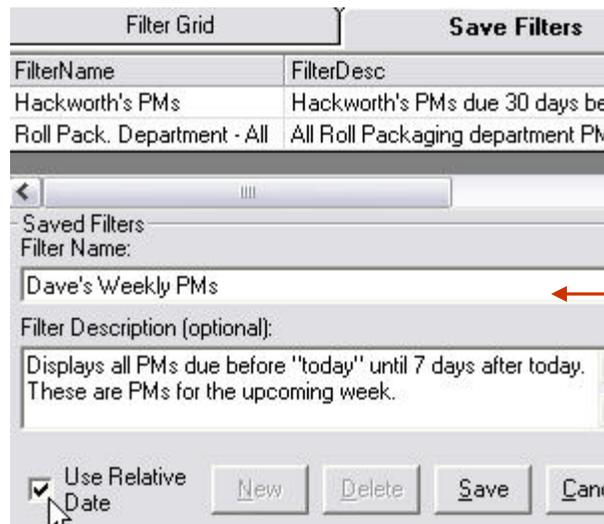
# PMs Options (advanced)

**Step 1:** From the **Validate PM Tasks** screen select the **Options** menu item. There are 6 different PM list formats to choose from. Select the last format **Details and Parts List**. Next (near bottom of screen) select a grid filter from the drop-down box labeled **Equipment Item**. Select the "Yeast Refrigeration Compressor #1". Notice the grid now only displays PMs for this equipment item. Select the menu items as pictured below.



**Step 2:** Next right mouse-click the grid area to display the pop-up menu. Select **Filter Grid**. When the **Filter Grid** pop-up menu appears select the items as pictured on the right. Assume "today" is 1/22/2004.

**Step 3: Advanced Filtering:** From the second tab on the **Filter Grid** pop-up screen and enter the text for the **Filter Name** as pictured on left. The filter description is optional. Make sure the checkbox **Use Relative Date** is checked. Press save.



**Step 4:** Test your new filter. It is now an easily accessible menu item. This filter will always displays **Dave's Weekly PMs** that are due in the coming week.



## Task Groups and Task Descriptions (advanced)

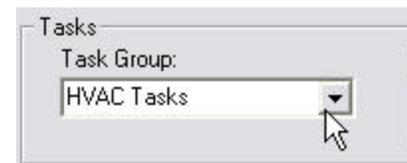
**Step 1:** Click the oil can icon (yellow background) at the top of the screen to open the preventive maintenance (PM) configuration screen.



**Step 2:** When the PM Configuration screen appears click the first tab labeled: task Groups then click the **New** button with the left mouse button to create a new record. Enter the task group "HVAC Tasks". Press **Save** to save the new task group. This group simply represents a grouping of tasks related to HVAC preventive maintenance tasks. "Groups" are used by MaintSmart for filtering and organizing data items.



**Step 3:** Click the next screen tab labeled **Tasks**. From the **Task Group** drop-down select the task group that you created in the previous step (HVAC Tasks). We are going to create a new task that is related to the group: HVAC Tasks. Tasks may be easily moved from one task group to another by selecting the task in the grid (left mouse-click grid row) then changing the group selection in the drop-down below the grid.



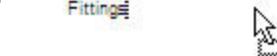
**Step 4:** Type the task description: "Service the Evaporator" into the **Task Description** box. Then press **Save**.

**Note:** this task description is a short description up to 255 characters. You may enter a much larger task description under the **Details** button on the last tab of this screen (this is covered later in this tutorial). The reason MaintSmart uses a short task instruction is that later when you are analyzing your maintenance operation through one of MaintSmart's analysis screen the database that stores your data will be able to query the data (including task data) you've entered efficiently and deliver answers that guide you towards improvement if needed. Databases don't query from text strings longer than 255 characters.



**Step 5:** Press the **New** button and add another task ("Pressure Test Hi and Low Side and Apply Leak Detection Fluid To All Valves and Fittings") to this task group. **Note:** You may drag and drop existing task text from another program like MS Word or copy/paste task text into MaintSmart's **Task Description** box.

Pressure Test Hi and Low Side and Appl  
Leak Detection Fluid To All Valves and  
Fittings



**Drag and Drop  
Task Text Into  
MaintSmart**

Task Description (255 chars.):  
Pressure Test Hi and Low Side and Apply Leak Detection Fluid To

# Task Packages - Speed PM Task List Creation (advanced)

**Step 1: Understand what a task package is and how it can help you set up your PM task lists.** *A task package is simply a group of similar tasks that have the same completion interval.* It is important to understand that task packages are simply groups of task descriptions that may be applied to an equipment item's PM list all at the same time. Task packages are used as a shortcut for building PM lists. Their use is optional but very useful for building PM task lists quickly.

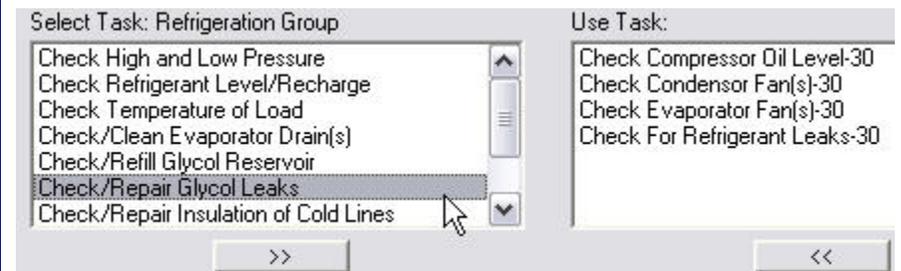
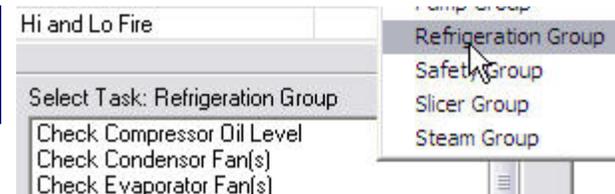
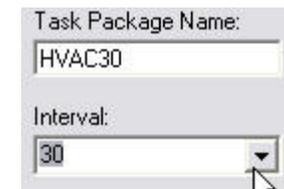
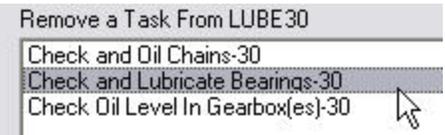
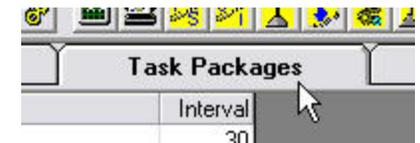
**Here's an example:** suppose you have a set of lubrication tasks that are commonly performed on several equipment items every 30 days. You could create a Task package called LUBE30 (name is not important) that contains three tasks related to lubrication and then set the interval for 30 days. Picture on right lists tasks. When the time comes to create the actual PM lists (**PM Lists** tab on **PM Configuration** screen) you may apply this task package to as many PM task lists as you want. Each time you apply this task package to a PM list all three of these lubrication tasks (at 30 day intervals) are added to the PM list all at once. This saves time as opposed to adding each task individually.

**Step 2:** From the third tab on the PM configuration screen labeled **Task Packages** press the **New** button to create new task package. Enter a name for the task package that identifies this task package in a way that is meaningful to you. For this example enter the name "HVAC30". This represents a task package of HVAC related tasks performed every 30 days. Select the interval of 30 from the drop-down.

**Step 3:** Right mouse-click the list box labeled **Select Task**. Select from the subsequent pop-up menu the **Refrigeration Group** menu item. By doing so only tasks from the **Task Group** named **Refrigeration Group** are loaded into the list box making it easier to locate the needed tasks.

**Step 4:** Right mouse-click the list box labeled **Select Task**. Select from the subsequent pop-up menu the **Refrigeration Group** menu item. By doing so only tasks from the **Task Group** named **Refrigeration Group** are loaded into the list box making it easier to locate the needed tasks. Left-click the desired tasks then press the **>>** button to move the tasks to the **Use Task** list box. Press the **Save** button when you have the desired tasks in the task package.

**Note:** Task Packages may also be edited or deleted by left-clicking the desired row in the grid. Add/remove tasks from an existing task package with the **>>** or **<<** buttons after selection in the grid.



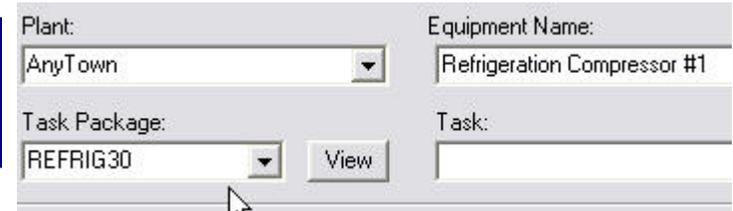
## Job List Templates - Another Shortcut (advanced)

**Step 1: Understand what a Job List Template is.** A job list template is another shortcut that can speed up PM task list creation. Unlike a task package ([similar type of tasks](#) with same completion interval) a job list is a group of tasks that all pertain to a [similar type of equipment](#). Job list templates contain multiple tasks with potentially different completion intervals. If you have more than one of the same [type](#) of equipment item job list templates can greatly speed up PM task list creation; and you should consider using them.

**Here's an example:** XYZ Apartments Service has 50 washing machines. Although these washing machines are not all the same brand they are fairly similar and for the most part require the same PM tasks. We'll create one job list template consisting of 25 PM tasks with varying completion intervals for the first washing machine.

When the time comes to build the actual PM task lists for these 50 washing machines we'll simply apply this job list template to each of the washing machine thereby applying all of the tasks in one action. By using job list templates and/or task packages you may configure comprehensive and consistent PM task lists very quickly.

**Step 2:** From the fourth tab on the PM configuration screen labeled **Job List Templates** press the **New** button to create a new job list template. From the **Equipment** drop-down box select the **Refrigeration Compressor #1** (or other if not available). Next select the task package REFRIG30 from the **Task Package** drop-down box. Press **Save**.



**Step 3:** Press **New** again to add more tasks to this job list template. This time select an individual task from the Task drop-down. Select a completion interval for this task too. Press Save. Add more tasks and/or task packages to this job list as needed.



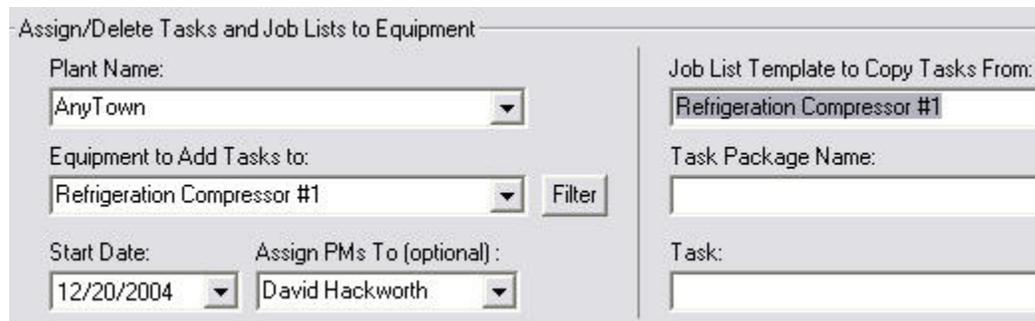
**Note:** Remember task packages and job list templates are entirely optional and are not the actual PM task list you'll distribute to your maintenance personnel but rather are used to speed up PM task list creation. The next page illustrates how to create PM task list very quickly

## PM Task List Creation (advanced)

**Step 1: Understand what a PM Task List is.** A PM task list is a set of preventive maintenance tasks that describe work needed to prevent failure or prolong the life of an equipment item. MaintSmart uses time-based PMs in its preventive maintenance section and uses meter-based or time based PMs in its work order section. Create a PM task list once then the tasks recycle each time they're marked complete. You may add task package, job list templates or individual tasks at any time. Delete individual tasks as needed too.

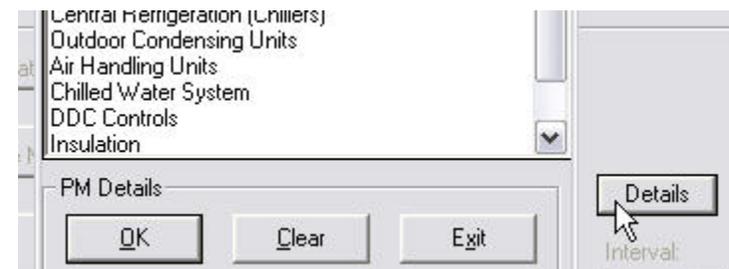
**Step 2:** From the fifth tab on the PM configuration screen labeled **PM Lists** press the **Edit (or Add)** button to create a new PM list or to edit an existing one. Make the selections as depicted below. Notice we are adding the job list template we created on the previous page. At first this may seem confusing that we are adding the job list template "Refrigeration Compressor #1" to the PM list for the equipment item: "Refrigeration Compressor #1" but if you think about this the job list template isn't actually a PM list but rather a set of tasks that could be applied to any equipment item. In this case we'll apply these tasks (contained by the job list) appropriately to the "Refrigeration Compressor #1". Press **Save**.

Press the **Add (or Edit)** button again then select the equipment item "Refrigeration Compressor #2" from the drop-down labeled **Equipment To Add Tasks To:**. Press **Save** again. Suppose you had 100 "Refrigeration Compressors". You could create consistent PM list for all 100 equipment items in a matter of minutes using these shortcuts.



**Note:** Add task packages or individual tasks to this PM task list too.

**Step 3:** You may optionally add **Details** (pictured on right) to any PM record. This is particularly useful in the case where you want to provide a tool list, check list, or detailed instructions for the task. Left mouse-click the row containing the PM record you want to add details to. Press the **Details** button. Enter up to 2 GB of text then press the **OK** button on the **Details** screen. Press **Save** on the PM screen to link these details to the PM record.





# MaintSmart

version 4.1

## Equipment Hierarchy Set-Up Quick Start Tour

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Get the **MaintSmart User Manual** (197 pages) as Adobe:  
[http://www.maintsmart.com/MaintSmart\\_User\\_Guide.pdf](http://www.maintsmart.com/MaintSmart_User_Guide.pdf)

Get the **MaintSmart Purchasing/Inventory Manual**  
<http://www.maintsmart.com/Support/MaintSmart3EPurchasingUserGuide.pdf>

**Have a Question?** Pick Up the phone and call toll-free: 1-888-398-0450 or +1-541-751-0450 or email us at [sales@maintsmart.com](mailto:sales@maintsmart.com) Skype ID 'maintsmart'

# How to Use the Quick Start Tour

Quick start is designed to give you a quick overview of one or more of MaintSmart's powerful features. It's recommended that you also download the MaintSmart User Guide. The User Guide covers all topics of MaintSmart in detail and provides a handy reference if you need to explore MaintSmart's features in depth. If you have any questions call (toll-free USA/Canada) 1-888-398-0450 or +1-541-751-0450. Email: [support@maintsmart.com](mailto:support@maintsmart.com).

**Important:** The sample data contained in the Demo is for a manufacturing facility. However MaintSmart works great for building, fleets, schools, hospitals, etc. Top level entity: "Plant" may be easily changed to "Building", "School", "Fleet" etc.

## How to Use the Quick-Start Tour:

This tutorial assumes you have already entered basic configuration data into MaintSmart or are using one of the "demo" databases provided with MaintSmart. For the purposes of this tutorial we'll use the manufacturing demo database. For information on configuring MaintSmart please see the full User Manual. The MaintSmart Demo is the full MaintSmart program with a 30 day limit. This time may be extended once if needed. The Demo contains three databases: Manufacturing Data, Building Data and a blank database that you may configure with your own data. If you decide to use the blank database you can simply email the System ID as displayed under:

**Help>>About>>License>>Register** along with a P.O. number or call in a credit card and we'll issue an immediate extension of the license.

Other resources are available too such as: web help, online tutorials, MaintSmart Help (menu items: **Help>>Contents**) and status bar help (set screen focus on many screen items by tabbing to the item with the <TAB> key. For the purposes of this Quick-Start Tour **topics or concepts of special importance are in green text. Warnings are presented in red text. Items of emphasis are underlined. Screen labels are in bold type.** The MaintSmart User Guide contains additional details and information on using MaintSmart. It is available for free from our web site: <http://www.maintsmart.com>

**Click the "Airplane" icon on several selected screens for an audible guided tour of MaintSmart. Turn your speakers on if you have some.**

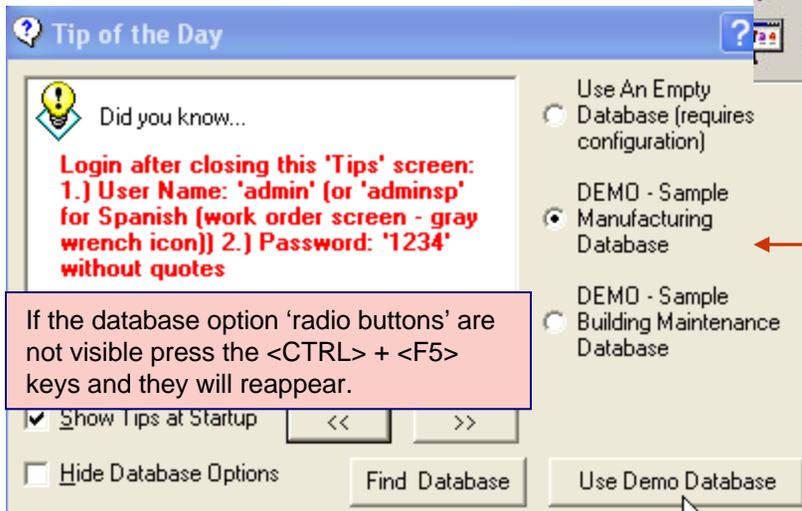
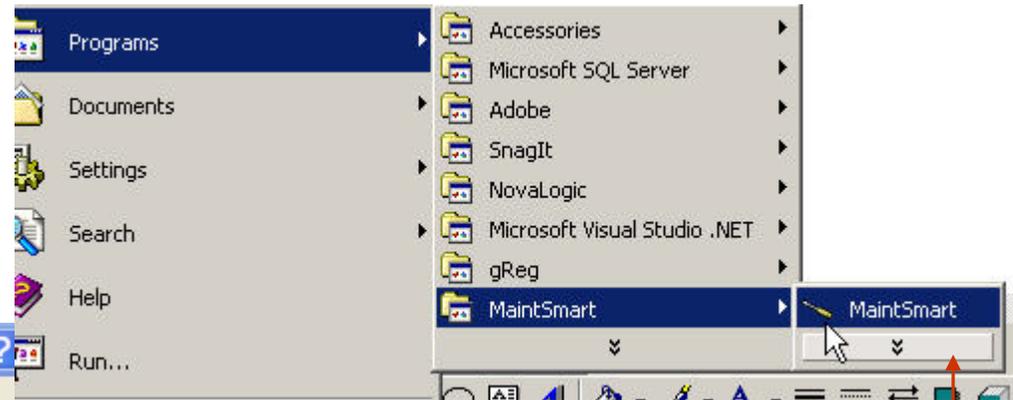


## Other Quick Start Topics Include:

- PM Configuration
- Inventory and Purchasing
- Preventive Maintenance
- Analyzing MaintSmart Data



# Log On to MaintSmart



**Step 1:** Start MaintSmart from **Windows>>Start>>Programs>>MaintSmart**. (or **MaintSmart Enterprise** When MaintSmart starts you'll be presented with a "Tips" screen. Select either Manufacturing Demo, Building Demo or Empty database. For the purposes of this tutorial we'll use the **Manufacturing Demo database**.)

If the database option 'radio buttons' are not visible press the <CTRL> + <F5> keys and they will reappear.

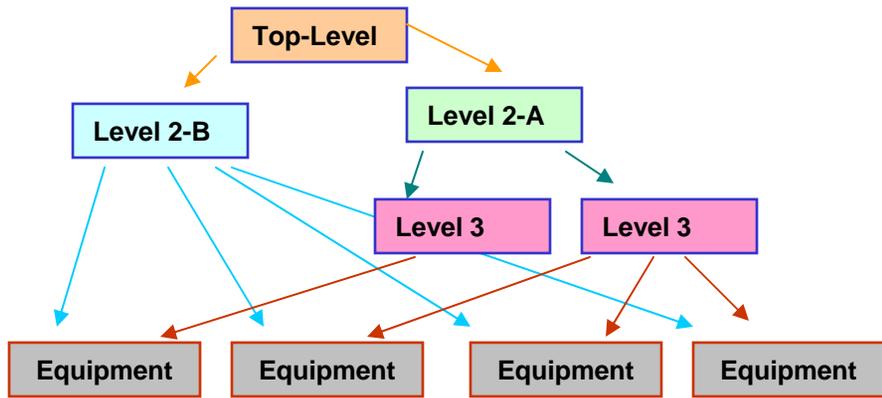
**Step 2:** For the sample databases the login is entered for you by default: When MaintSmart starts you'll be presented with a log in input screen. Select a "Plant" (or "Building") Enter **admin** for the user ID and **1234** for the password.

**Spanish Language:** To see work order data entry screen (partially translated) in Spanish enter the user name: **adminsp** and the password **1234**. MaintSmart may be translated into most languages. To see this partial translation open the work order data entry screen after logging in.



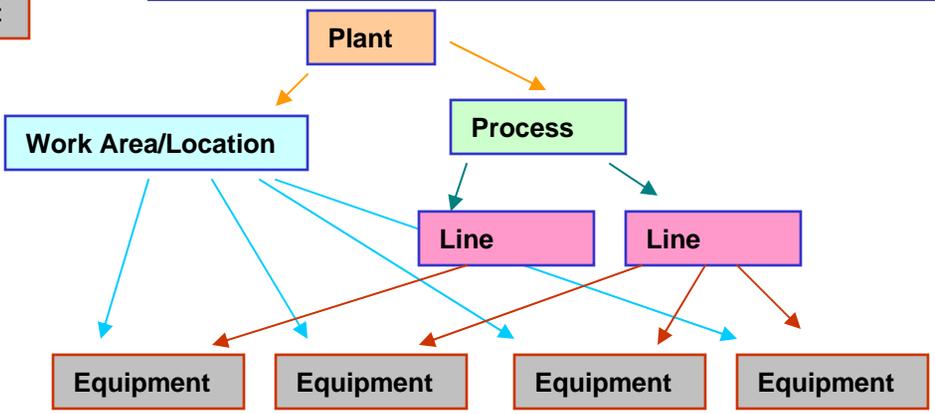
# Understanding MaintSmart's Equipment Hierarchy

Equipment Hierarchy: General Description of Hierarchy Levels

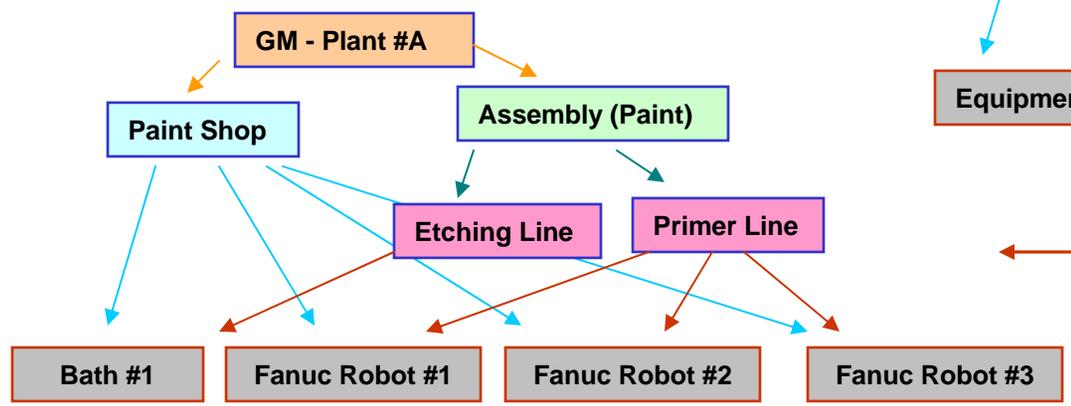


Be certain that you understand the difference between the equipment **hierarchy labels** and the **actual data items** contained within each level of the labeled hierarchy. If you have ANY questions call 1-541-751-0450 or email [support@maintsmart.com](mailto:support@maintsmart.com).

Equipment Hierarchy: Labeled Hierarchy Levels (User-Defined)



Equipment Hierarchy: Actual Hierarchy Data Items (User-Defined)

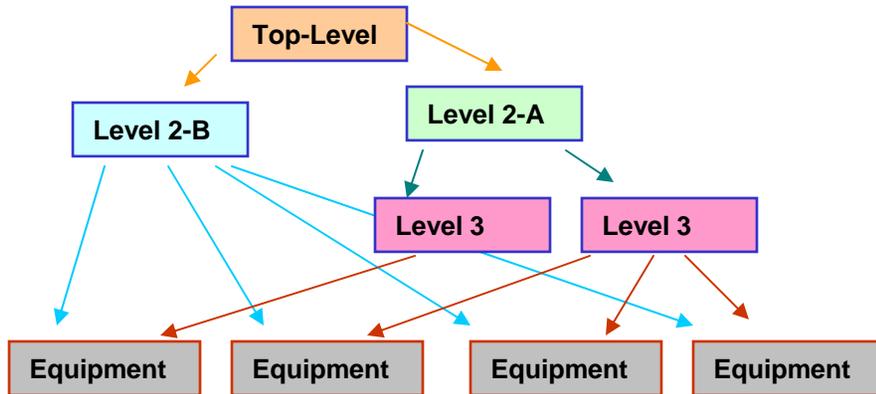


**Example:** Plant: General Motors <contains> Process: Assembly (paint). This process <contains> Line: Primer Line. This line <contains> Equipment: Robots 1-3. This Equipment is also contained by Work Area/Location: Paint Shop.

# Labeling MaintSmart's Equipment Hierarchy

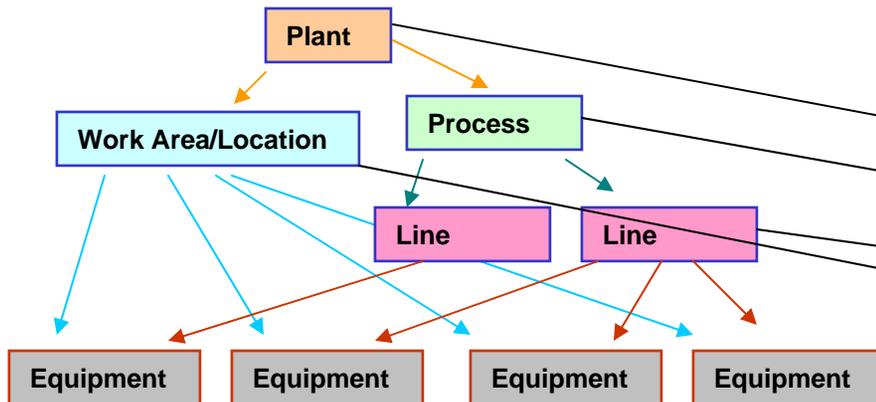


Equipment Hierarchy: **General Description of Hierarchy Levels**



Open 'Program Configuration' to label the 'Equipment Hierarchy.'  
NOTE: All yellow background buttons are for configuration (set-up).

Equipment Hierarchy: **Labeled Hierarchy Levels (User-Defined)**



**Configuration** | Configuration - More | User Access

Connection String  
 pw Database Password="" Jet OLEDB:Create System Database=False;Jet OLEDB:Encrypt

Always Use This Database (should be checked unless testing Demo database(s)) Set Database Location

Default Name: address: State: Plant

Hierarchy #1: Top-Level Entity (Plant, Building, Fleet) (12 char.) → Plant

Hierarchy #2-A: This level contains hierarchy #3 (20 char.) → Process

Hierarchy #3: This level contains equipment (20 char.) → Line

Hierarchy #2-B - This level contains equipment (20 char.) → Work Area/Location

Maintenance Personnel Description (20 char.) → Technician

The above hierarchy descriptions must be unique. NO DUPLICATES.

Save All Above As Global Settings On Exit From This Screen

Type in the names (labels) of the equipment hierarchy levels that best fits your maintenance operation. Simply close the 'Program Configuration' screen to save these changes. *These labels are cascaded to all parts of the program and all reports but may be easily changed from this screen at anytime.*

# Labeling MaintSmart's Equipment Hierarchy



Set up Top Level(s) (Level #1) 'Plant'.

IMPORTANT NOTE: Do not confuse the LABEL for each of the equipment hierarchy levels with the actual physical levels that you enter as data. For example: the level **label** might be 'Line' and the **actual data** (physical level) might be 'Oven Line #3'.

**General Motors - [Plant and Technician]**

File Filters Options Window Help

Notice how label for Top-Level (Level #1) changes to the text 'Plant'..

Plant ID	Plant Identifier	Address	City
327	GM - Plant #B	1212 S. Main St.	Florence
328	GM - Plant #C	216 S. Fairmont	North Ber
329	GM - Plant #D	1234 Main Street	Coos Bay
330	GM - Plant #A	601 Piquette	Detroit

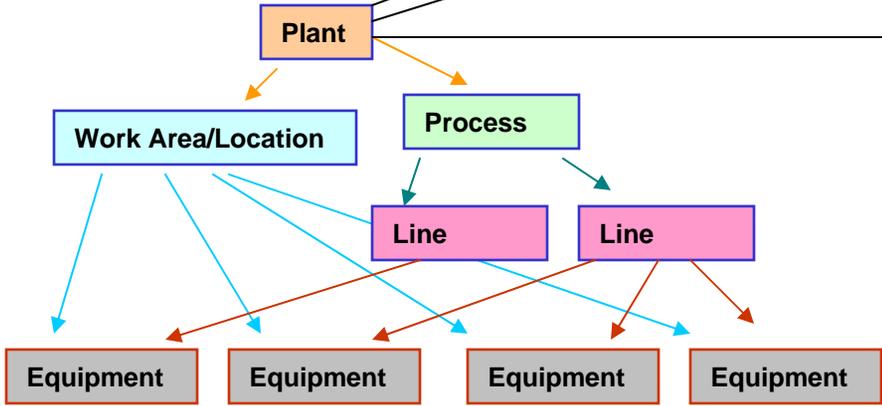
Location/Contact | Billing Information |

Plant

Plant Code: 330 Location/Uniqued Identifier: GM - Plant #A

City: Detroit State/Province: MI

Equipment Hierarchy: **Labeled Hierarchy Levels (User-Defined)**



## Configuring the Top-Level (Level #1) of the Equipment Hierarchy

Plant		Work Area/Location			Technician		Technician-Skills		Technician-Extra Data	
Plant ID	Plant Identifier	Address	City	State/Province	Postal Code	Country	Phone	FAX	Contact	Notes
327	G					USA	399-9263	399-8230	Bob Schluff	
328	N					U.S.A.	541-367-0450	541-369-9396	Daniel Cook	
329	C					USA	777-0099	666-0098	Bob Smith	

Type in all required fields (yellow background boxes). The 'Plant Code' may be between 100-900 but is best to let it auto-increment. This 'Plant' is represented by it's 'Location/Unique Identifier' throughout the program.

**Step 1:** Click 'New' button.  
**Step 2:** Enter information for this 'Plant' in each box on both screen tabs ('Location/Contact' and 'Billing Information').  
**Step 3:** Press 'Save' button.

Location/Contact | Billing Information

Plants

Plant Code: 330 Location/Uniqued Identifier: GM - Plant #A Address: 601 Piquette

City: Detroit State/Province: MI Postal Code: Country: U.S.A

Contact: Phone: FAX:

Notes:

Copy To Plant Billing Info

Add Plant

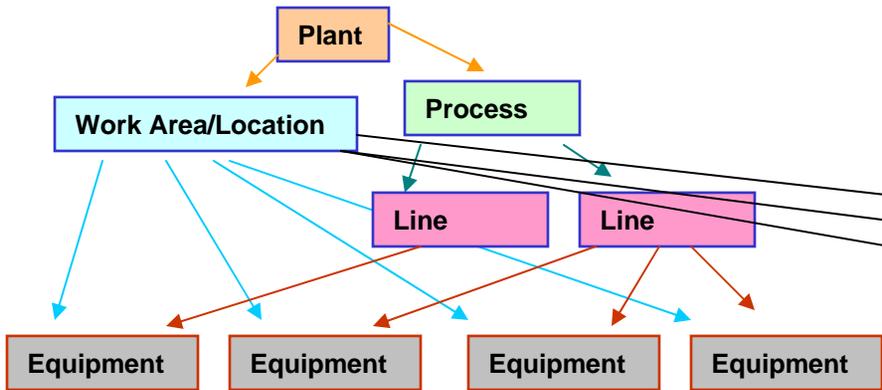
This is the top-level entity and contains all Lines, equipment, employees, etc. You may create up

# Configuring Level #2-B of the Equipment Hierarchy



Equipment Hierarchy: **Labeled Hierarchy Levels (User-Defined)**

Set up Level 2-B 'Work Area/Location'



**Step 1:** Click 'New' button.  
**Step 2:** Enter a 'Work Area/Location' in yellow box.  
**Step 3:** Press 'Save' button.

Work Area/Location ID	Plant ID	Work Area/Location Desc.	Work Area/Location Num
3270001	327	Paint Shop	
3270003	327	Oven	
3270004	327	Inspection	
3270005	327	Cooler	
3270007	327	Welding	7
3270008	327	Interior	8
3270009	327	Chassis Shop	9
3270010	327	Inactive	

Work Area/Location ID	Plant ID	Work Area/Location Desc.
3270001	327	Paint Shop
3270003	327	Oven
3270004	327	Inspection
3270005	327	Cooler
3270007	327	Welding
3270008	327	Interior
3270009	327	Chassis Shop
3270010	327	Inactive
3270011	327	Utilities
3270012	327	Bun Oven/Proofer

Work Area/Location

Plant:  Work Area/Location (unique):

Add Work Area/Location

If you want to use zone-maintenance (optional) then create a Work Area/Location for each employee's PM equipment. Otherwise Work Area/Locations can be used as a logical grouping of equipment items from the maintenance perspective.

Type in all required fields (yellow background boxes). The 'Work Area/Location' must be unique within each 'Plant'. Equipment may be later added to this level of the equipment hierarchy.

# Configuring the Level #2-A of the Equipment Hierarchy



Set up Level 2-A 'Process' and Level 3 'Line'

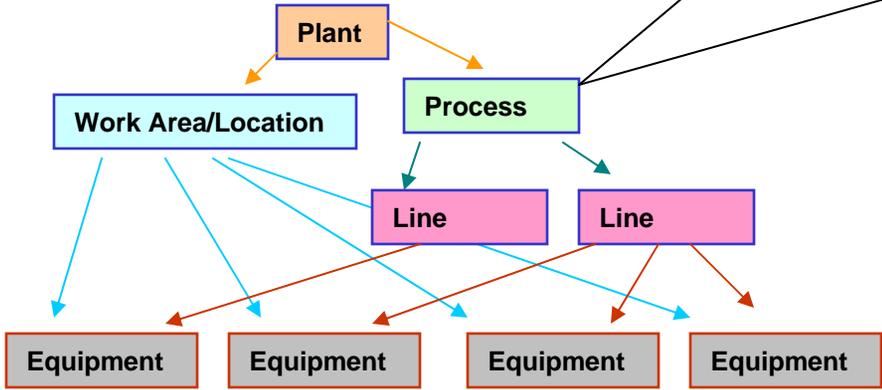
Process			
Plant Identifier	Process	Process Number	Plant ID
GM - Plant #B	Assembly (Interiors)	327308	327
GM - Plant #B	Assembly (Mechanical)	327309	327
GM - Plant #B	Assembly (Ovens)	327304	327
GM - Plant #B	Assembly (Paint)		
GM - Plant #B	Building Exterior		
GM - Plant #B	Other		
GM - Plant #B	Outside Grounds		
GM - Plant #B	Plant-General		
GM - Plant #B	Vehicles		

Process:	Process Description:
Plant:	Assembly (Interiors)
GM - Plant #B	

NOTE: the 'Process Number' and 'Plant ID' are used internally by MaintSmart. These numbers are created automatically and you will never need to interface with them as MaintSmart uses only user-friendly text descriptions.

Equipment Hierarchy: Labeled Hierarchy Levels (User-Defined)



# Configuring Level #2-A of the Equipment Hierarchy



Set up Level 2-A 'Process' and Level 3 'Line'

Plant Identifier	Process	Process Number	Plant ID
GM - Plant #B	Outside Grounds	327100	327
GM - Plant #B	Building Exterior	327101	327
GM - Plant #B	Vehicles	327102	327
GM - Plant #B	Assembly (Ovens)	327304	327
GM - Plant #B	Other	327305	327
GM - Plant #B	Assembly (Interiors)	327308	327
GM - Plant #B	Assembly (Mechanical)	327309	327
GM - Plant #B	Plant- General	327310	327

**Step 1:** Press the 'New' button  
**Step 2:** Type in the 'Process' ('Assembly (Paint)' in this case)  
**Step 3:** press the 'Save' button to save this new record.

**NOTE:** In some cases the equipment hierarchy level label ('Process' in this example) may not perfectly represent all of the contained data. You should strive for a 'best-fit' when labeling the hierarchy levels but don't expect it to always fit perfectly. For example: a 'Process' called 'Offices' although this data needs to be entered at some level of the equipment hierarchy it may not actually be a 'Process' per se.

Process Description: Assembly (Paint)

Plant Identifier	Process	Process Number	Plant ID
GM - Plant #B	Outside Grounds	327100	327
GM - Plant #B	Building Exterior	327101	327
GM - Plant #B	Vehicles	327102	327
GM - Plant #B	Assembly (Ovens)	327304	327
GM - Plant #B	Other	327305	327
GM - Plant #B	Assembly (Interiors)	327308	327
GM - Plant #B	Assembly (Mechanical)	327309	327
GM - Plant #B	Plant- General	327310	327
M - Plant #B	Assembly (Paint)	327314	327

Process Description: Assembly (Ovens)

To change (edit) an existing record left mouse-click the grid row containing the record you want to change. Next make changes in yellow box below the grid and then press 'Save'.

# Configuring Level #3 of the Equipment Hierarchy

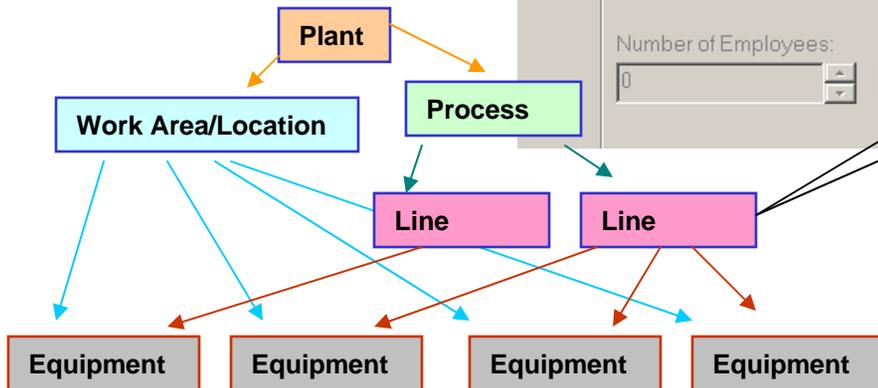


Set up Level 2-A 'Process' and Level 3 'Line'

These are the actual 'Lines' that have been created.

Process							Line	
Plant Identifier	Process	Line	Personnel Count	Wage Rate	Affects Schedule	Plant ID	Process Number	
GM - Plant #B	Assembly (Interiors)	Caulking Line	0	\$0.00	<input type="checkbox"/>	327	327308	
GM - Plant #B	Outside Grounds	Parking Area	4	\$26.05	<input type="checkbox"/>	327	327100	
GM - Plant #B	Outside Grounds	Security	7	\$26.05	<input checked="" type="checkbox"/>	327	327100	
GM - Plant #B	Other	Bulk Storage	0	\$26.05	<input type="checkbox"/>	327	327305	
GM - Plant #B	Assembly (Ovens)	Oven Line #1	4	\$20.00	<input checked="" type="checkbox"/>	327	327304	

Equipment Hierarchy: Labeled Hierarchy Levels (User-Defined)



Line

Plant: [ ] Process: [Other] Line (unique): [Bulk Storage]

Number of Employees: [0] Hourly Wage: [26.05]

The Equipment Run-Time Schedule is Lengthened When Equipment in This Line Fails Causing Lost Labor Hours for Non-Maintenance Personnel

# Configuring Level #3 of the Equipment Hierarchy

Set up Level 2-A 'Process' and Level 3 'Line'

This utility concatenates the 'Process' with the 'Line' to aid in keeping the 'Line' name unique. It is optional and normally not needed. If you want to use it you must check this menu item.

If this box is not visible then simply type the 'Line' name into the 'Line (unique)' box.

**Step 1:** Press the 'New' button

**Step 2:** Select the 'Process' to add the 'Line' to.

**Step 3:** Type in the name of the 'Line' into the 'Line (unique)' box OR optionally use the 'Include Process in Line...' utility (see red box above).

**Optional Step 4:** Enter the count of employees (non-maintenance) normally working on this 'Line' if stoppages on this 'Line' interrupt the process and cause lost product, manufacturing time or any other 'opportunity cost'. Enter their average wage rate in the 'Hourly Wage' box. Check the checkbox.

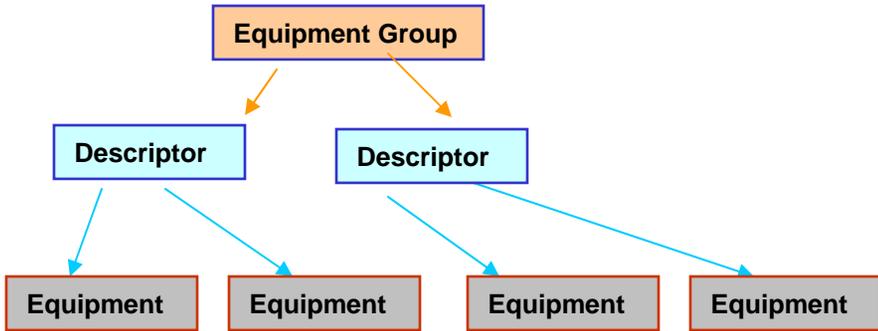
**Step 5:** Press the 'Save' button to save this new record.

# Configuring Equipment

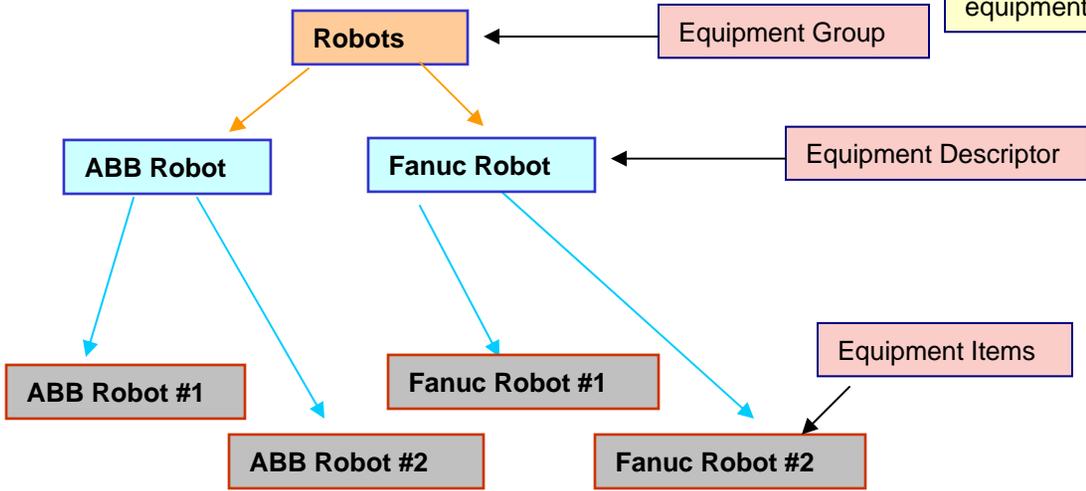


Equipment Set-Up: Relationship of Equipment Groups, Equipment Descriptors and actual physical Equipment items.

Set up Equipment Groups, Equipment Descriptors and Equipment Items



**Equipment Groups** are used to classify and group similar equipment. Equipment groups are used primarily for filtering equipment item drop-down boxes to limit the selections and make it easier to find the equipment item needed.



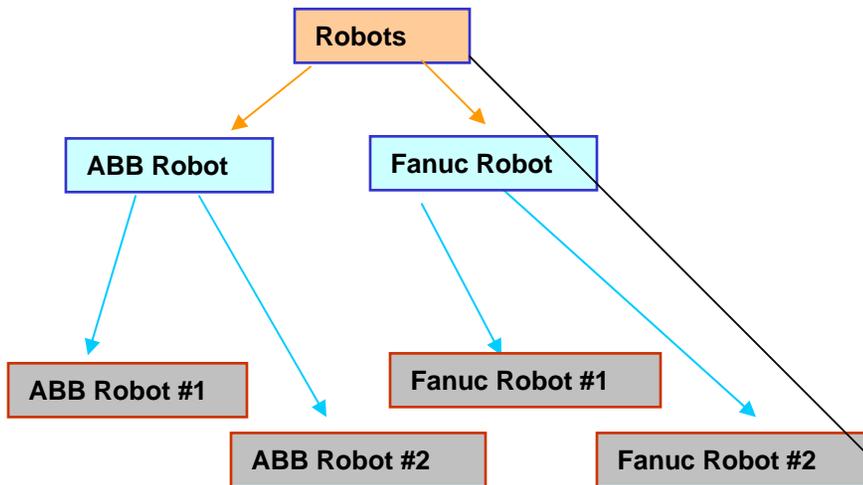
**Equipment Descriptors** are simply text items that are used to help you build your equipment item list quickly and consistently. Descriptors are NOT the actual physical equipment and therefore when naming descriptors a general name should be used. (see example on left). Equipment descriptors are building blocks to use when creating actual physical equipment items.

**Equipment Items** are the actual physical equipment that are maintained. Equipment items are displayed in user-friendly text that you configure. You may use the equipment descriptor to help you build your equipment list.

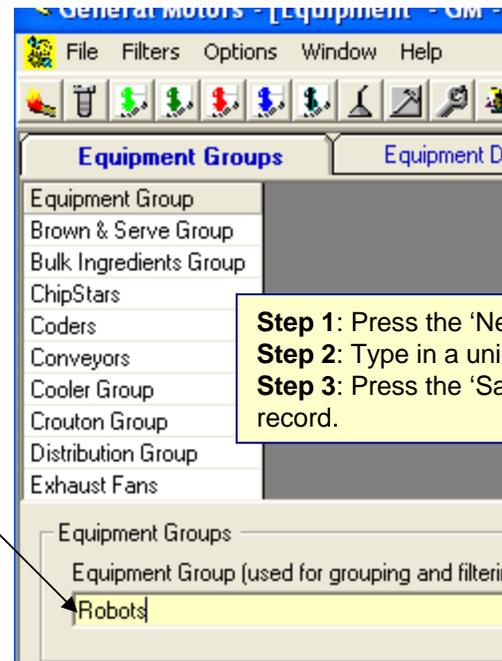
# Configuring Equipment Groups



Set up **Equipment Groups**, Equipment Descriptors and Equipment Items



**Equipment Groups** simply provide a filter when looking for an equipment item. That's it.



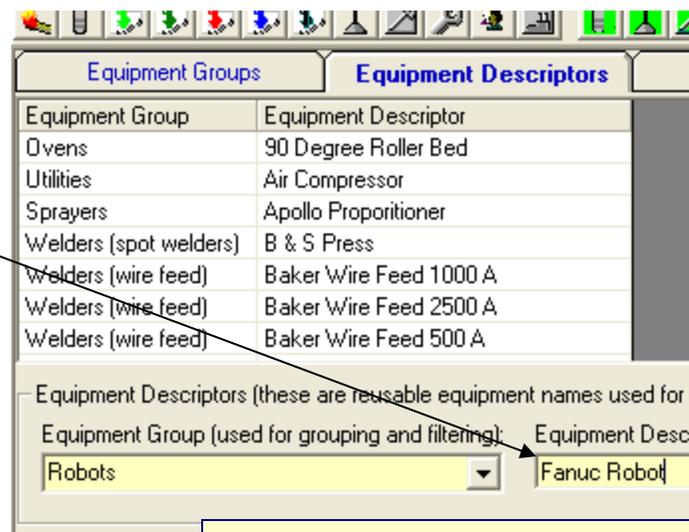
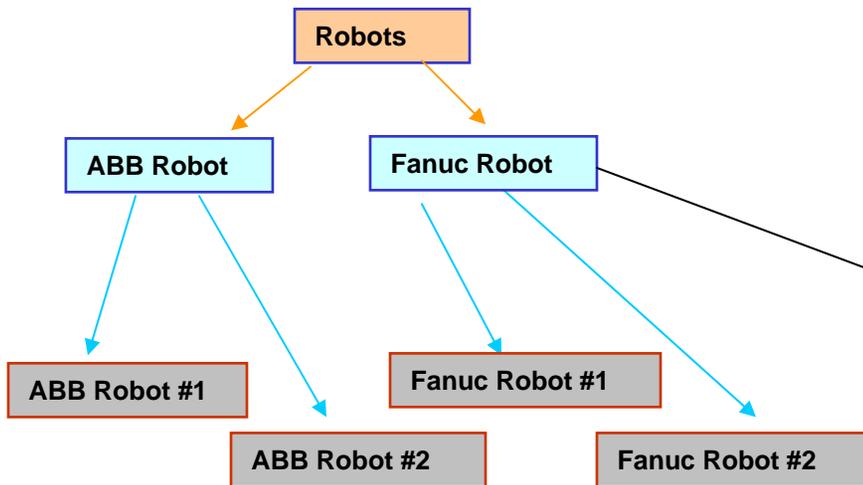
**Step 1:** Press the 'New' button  
**Step 2:** Type in a unique Equipment Group.  
**Step 3:** Press the 'Save' button to save this new record.

**Equipment Groups are NOT** part of the equipment hierarchy but rather simply a filtering tool.

# Configuring Equipment Descriptors



Set up Equipment Groups, Equipment Descriptors and Equipment Items

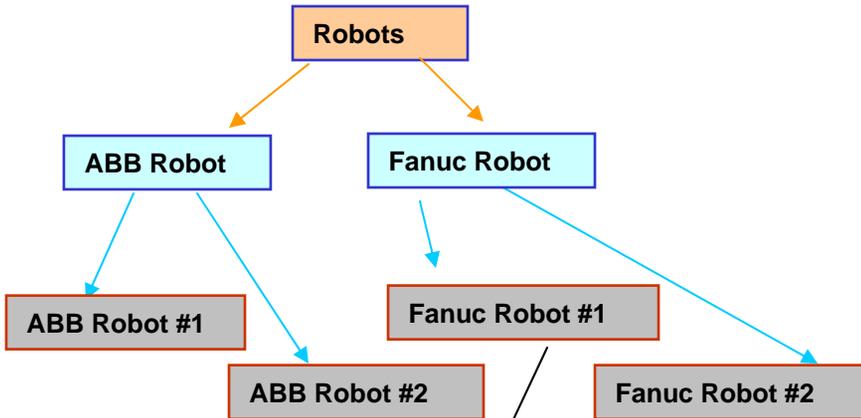


**Equipment Descriptors** are not the actual physical equipment item. Descriptors are simply text data used as building blocks for easily and consistently creating the equipment items (in the next and final step)

**Step 1:** Press the 'New' button  
**Step 2:** Select the Equipment Group.  
**Step 3:** Type in a unique Equipment Descriptor.  
**Step 4:** Press the 'Save' button to save this new record.

Equipment Descriptors have a secondary use : call for more information on this: 1-541-751-0450

# Configuring Equipment Items (actual physical equipment)



Set up Equipment Groups, Equipment Descriptors and **Equipment Items**

**Equipment Items** are the actual physical equipment items located in your facility. These items are associated with a 'Line' and a 'Work Area/Location'. The Equipment Descriptor may be concatenated with the 'Equipment Index' to auto-create an 'Equipment Display Name'. This user-friendly name is how this equipment is represented throughout MaintSmart.

- Step 1:** Press the 'New' button
- Step 2:** Select data for each yellow box.
- Step 3:** Accept auto-created 'Equipment Display Name' or type in your own equipment name.
- Step 4:** Press the 'Save' button to save this new record.

Equipment Groups		Equipment Descriptors		Equipment Items	
Plant Identifier	Equipment	Equipment Index	Line		
GM - Plant #B	90 Degree Roller Bed		1	Parking Area	Inspection <input checked="" type="checkbox"/>
GM - Plant #B	90 Degree Roller Bed #1		1	Security	Oven <input checked="" type="checkbox"/>
GM - Plant #B	90 Degree Roller Bed #2		2	Lighting	Paint Shop/Transfer <input checked="" type="checkbox"/>

Equipment Item List (configure your physical equipment items here)

Plant: GM - Plant #B Line: Primer Line Work Area: Paint Shop

Equipment Descriptor: Robots

Equipment Name: Fanuc Robot Equip. Index: 1

Equipment Display Name (shown in drop-down boxes, grids): Fanuc Robot #1  In Use

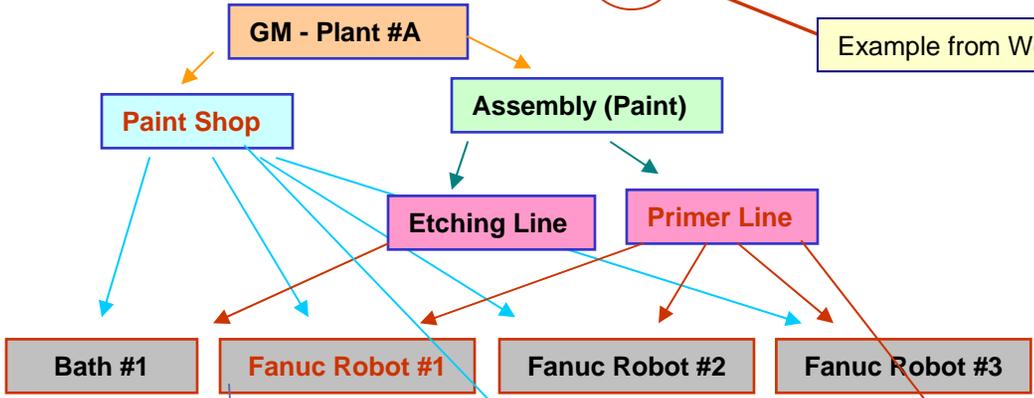
Add Equipment

Equipment items are the actual equipment in your operation. Equipment items are created from the 'Equipment Name' and 'Equipment Index'. MaintSmart creates an equipment code used internally by

New Delete Save Cancel

The 'Equipment Index' has no significance other than to help build the 'Equipment Display Name'.

# Example: Equipment Item and Position in Hierarchy



Example from Work Order Data Entry screen

Below is a practical example of how the MaintSmart equipment hierarchy works. Notice user friendly 'Equipment Display Name' in 'Equipment' box.

Date Assigned	Date Completed	Technician
01/18/2006 05:34:00 AM		Ken Wright
01/18/2006 05:00:00 PM	01/18/2006 09:36:00 PM	Charlie Huston
01/18/2006 05:00:00 PM		
01/18/2006 05:00:00 PM		
01/18/2006 05:00:00 PM		

Left-click the filter icon to display the pop-up menu with all 'Equipment Groups'. Select a group and it populates 'Equipment' drop-down box with equipment from that group only OR simply select equipment from full list without filtering.

- Furnace
- Generator
- Make Up Group
- Mixing Group
- Ovens
- Pan System Group
- Printers
- Refrigeration Groups
- Robots
- Saws
- Sprayers
- Utilities
- Welders (robot welders)
- Welders (wire feed)

Equipment	Task
Fast Refrigeration Compressor #1	Set Knife
Degree Roller Bed #1	Check a
en Burner Control/Oven Extension #2	Check C
ugh Mixer #1	Check C
Degree Roller Bed	Blow Out

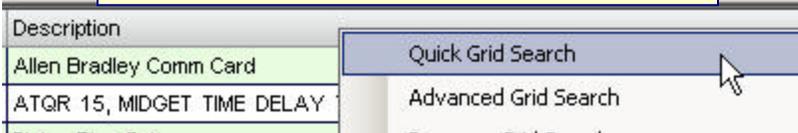
Selecting the equipment causes the 'Line' and 'Work Area/Location' to auto-populate.

Plant:	Work Order Number:	Date/Time Assigned or Status:
GM - Plant #B	WO-147	6 / 1 / 2007
Equipment:	Fanuc Robot #1	
Task:	PLC Group	
Task:	Replace Bad I/O Card	
Technician (optional):	Requestor:	
Ken Wright	Bill Wilson	
Cost Center:	Account:	
CC-123-456 - AnyTown Plant	MR-5552-009899 - Machine Repair	

Work Area/Location:	Line:
Paint Shop	Primer Line
Comments or Short Instructions (optional 255 chars.):	
Replace burned up Input/Output card 1747-0A16	

## Data Grid Utilities - Searching Data Grids

**Step 1 :** To search any column on selected data grids begin by right mouse-clicking the column header for the column you want to search. This feature works on most data entry grids.



**Quick Grid Search:** column header becomes a text box.

Part Number	Description
Ww-004	Filter Element
Ww-004	Filter Element
Ww-004	Filter Element
88-UU	Bearing
UUU888	Filter
UUU888	Filter
S-100	Spring

**Search in grid column Description**

Search from Beginning of Field

Bolt

Or  
 And

Nut

AND/OR grid search available from **Advanced Grid Search**

**Step 2 :** Begin typing the search text into the now white text box that has replaced the column header. Located item(s) containing the search text (in any position within the word) become highlighted with the default selection row color.

s	Description	Quantity	Un
UUU888	Filter	6	ea
S-100	Spring	5	ea
S-100	Spring	11	ea
SCN-9987a	Sifter Screen	4	ea
R55	Rubber Balls	46	ea
R55	Rubber Balls	10	ea
K-444-HU-1	Impeller	0	ea
B7	Barrel Housing	0	ea

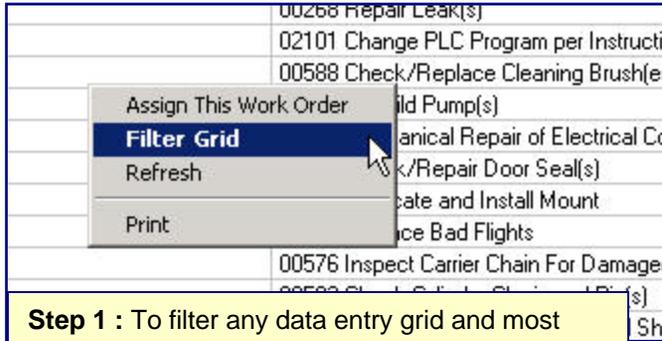
s	Description	Quantity	Units	Ur
UUU888	Filter	6	ea	
S-100	Spring	5	ea	
S-100	Spring			
SCN-9987a	Sifter Scre			
R55	Rubber B			
R55	Rubber B			

**Filter Grid**

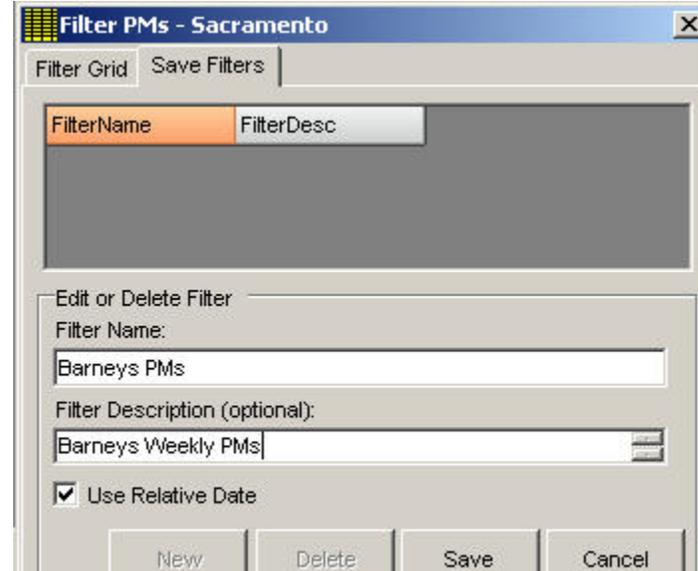
- Cancel Search
- Refresh

**Step 3 :** To cancel searching right mouse-click anywhere on the grid to display the pop-up menu. Next select the menu item **Cancel Search**.

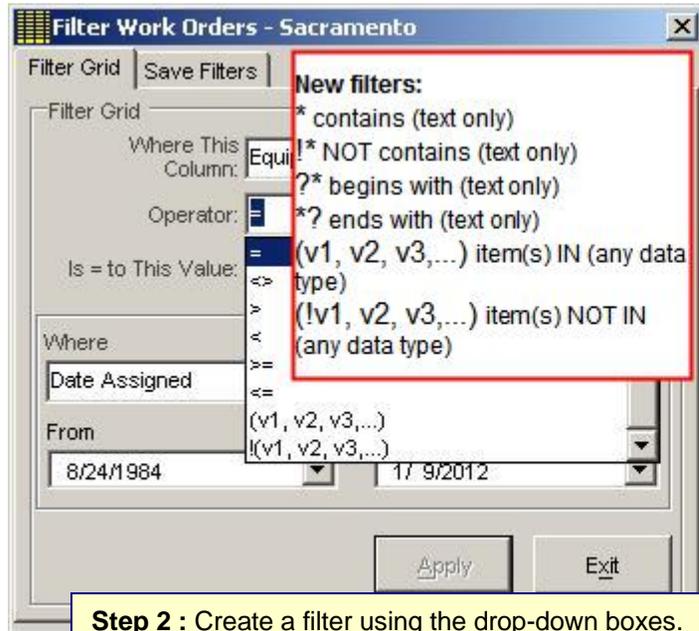
Data Grid Utilities - Filtering Data Grids



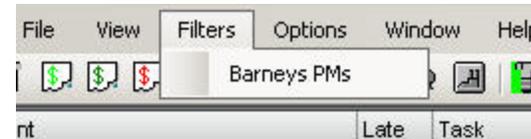
**Step 1 :** To filter any data entry grid and most configuration grids begin by right mouse-clicking anywhere on the grid. Select the option **Filter Grid** (if available).



**Step 3 :** To save the filter as a menu item on the data screen select to tab labeled **Save Filters**, press the **New** button, enter a filter name (this appears as a menu item after saving) and a description (optional). Press **Save**. NOTE: by checking **Use Relative Date** MaintSmart will use a floating date range.



**Step 2 :** Create a filter using the drop-down boxes. Be sure to use a valid date period if applicable. Press **Apply** to apply the filter to the data grid.



**Note:** Anytime you need to access this filter simply select the menu item! You can delete filters too.

## Data Grid Utilities - Display Options

### Set Grid Preferences:

Select the **Program Configuration** menu button  from the button bar at the screen. Select the tab labeled **System**. Locate the box at the lower right labeled **Set Grid Colors**. Select the option you wish to set. Available color settings relate to grid row selection, grid back color, font color and line color. After selecting the option press the **Set Color** button. When the color dialog box appears select a color then press **OK**.

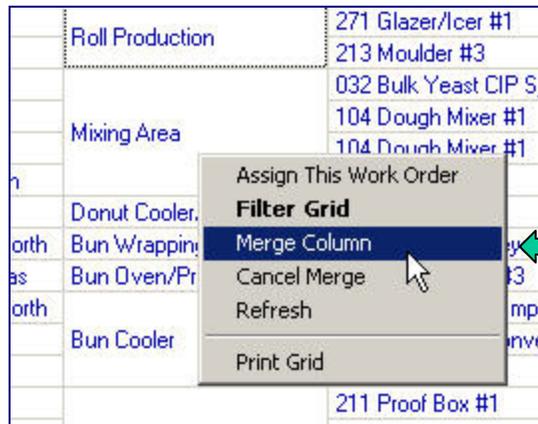
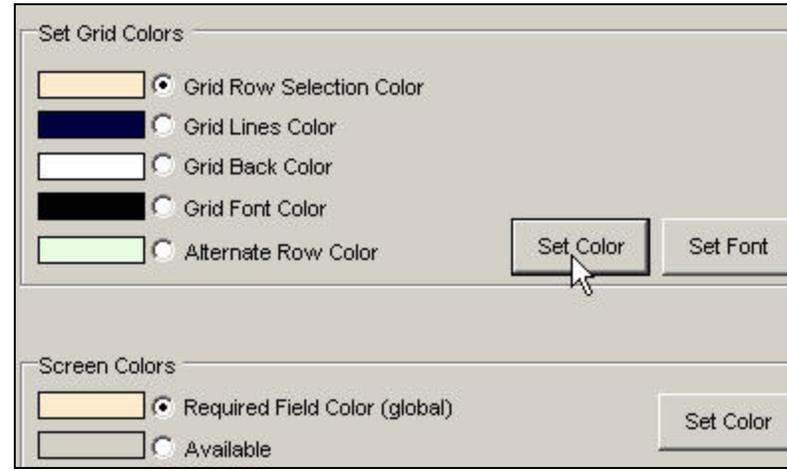
### Merging Grid Columns

MaintSmart grids provide merging capability. Grid merges group identical data in a column with similar data. This is useful for grid viewing and evaluation purposes.

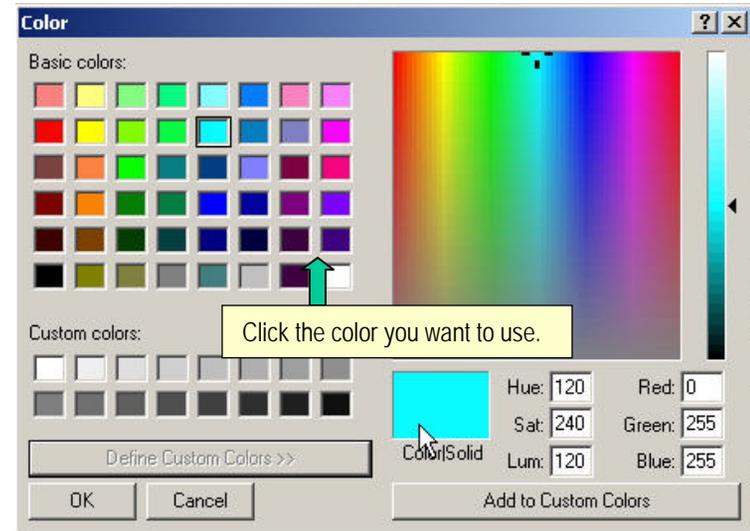
To merge a column place the mouse cursor over the column you want to merge. Press the right mouse button. When the pop-up menu appears select the menu item **Merge Column**.

### Sorting Grids:

Left mouse-click the column header of any grid row to alternately sort a grid column ascending/descending.



Merging a grid column. Cancel the merge by selecting **Cancel Merge**.



Sort a grid column with left mouse button-click. Alternates Ascending/Descending order

## Data Grid Utilities - More Options and Functions

### Analysis Grid Options:

Analysis grids provide additional functionality over configuration and data entry grids. Analysis grid implement additional function to provide a way for you to display the data that's important to you and provide some simple column statistics.

### Dragging Grid Columns

To drag a grid column to a different position press the left mouse button down (and hold it down) over the grid column header you want to drag. Drag the column to the desire position as indicated by the highlighted vertical bar then release the mouse button to drop the column. Column dragging may provide a more useful view of the analysis data presented in the grid.

### Sizing and Hiding Grid Columns:

The following data grids contain this functionality: work order, down time, inventory configuration and PM validation. To use this feature begin by setting the size of the columns. This is done by left mouse-clicking the grid column header the dragging to the left while holding down the left mouse button. **Note:** it is difficult to completely hide the column in this manner as depicted in picture #1, however MaintSmart will completely hide column that are sized in this manner after saving the column sizes and activating this feature (next couple of steps).

Next select **Save Column Widths** from the **View>>Grid Settings** menu items as depicted on the right (picture #2). This action saves the grid column settings for this screen. To activate the column settings check the menu items **View>>Grid Settings>>Use Saved Column Widths**. Whenever this screen is loaded the grid displays with the saved column widths as long as this menu item is checked. You may restore the original (all columns displayed) view by un-checking **View>>Grid Settings>>Use Saved Column Widths**.

### Grid Column and Row Freezing:

Selected data grids enable you to freeze one or more columns or in some cases rows. To freeze a column place your mouse cursor over the left-most column grid line (not grid header line) until the small lock icon appears (picture #4). Press the left mouse button down while dragging to the right to freeze one or more columns (picture #5). To un-freeze reverse the drag direction.

This is a useful feature especially when working with wide data grids.

	Equipment	Cost Labor	Cost Parts
5	271 Glazer/Icer #1	\$23.65	\$30.00
8	471 Vert. Switch Empty Basket #2	\$23.58	
15	440 Wrapping Machine #1	\$4.71	
9	104 Dough Mixer #1	\$56.52	
22	246 Pan Cleaner #3	\$11.78	
24	455 Full basket Conveyor #1	\$75.36	
25	104 Dough Mixer #1	\$16.48	
30	272 Fryer #1	\$103.62	
31	211 Proof Box #1	\$150.72	
32	502 Cuber #1	\$101.27	

This column (Cost Parts) will be located between **Equipment** and **Cost Labor** if the mouse button is release at this point. Note: highlighted vertical bar.

Lead	Eng_Hours	City	Comments
.1		Anytown	Repair leak
.0	1	Anytown	Rebuild sani

Save grid column widths and sort order

- Grid Settings
  - Use Saved Column Settings
  - Use Word Wrap
  - Save Grid Settings

Freeze one or more leftmost columns then scroll grid under these frozen columns.

WD-109928	2/19/2001
WD-109929	1/19/2001
WD-109930	6/5/2001
WD-109933	2/3/2002
WD-109934	3/23/2002
WD-109935	2/19/2001

Work Order	Equipment
WD-109928	Dough Mixer #1
WD-109929	Bulk Yeast CIP System

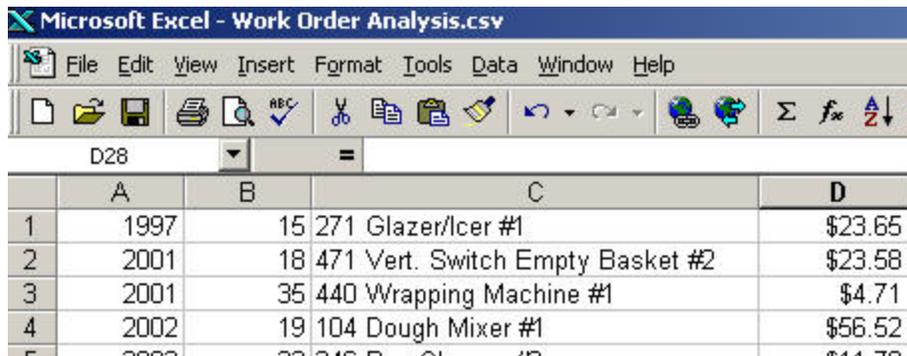
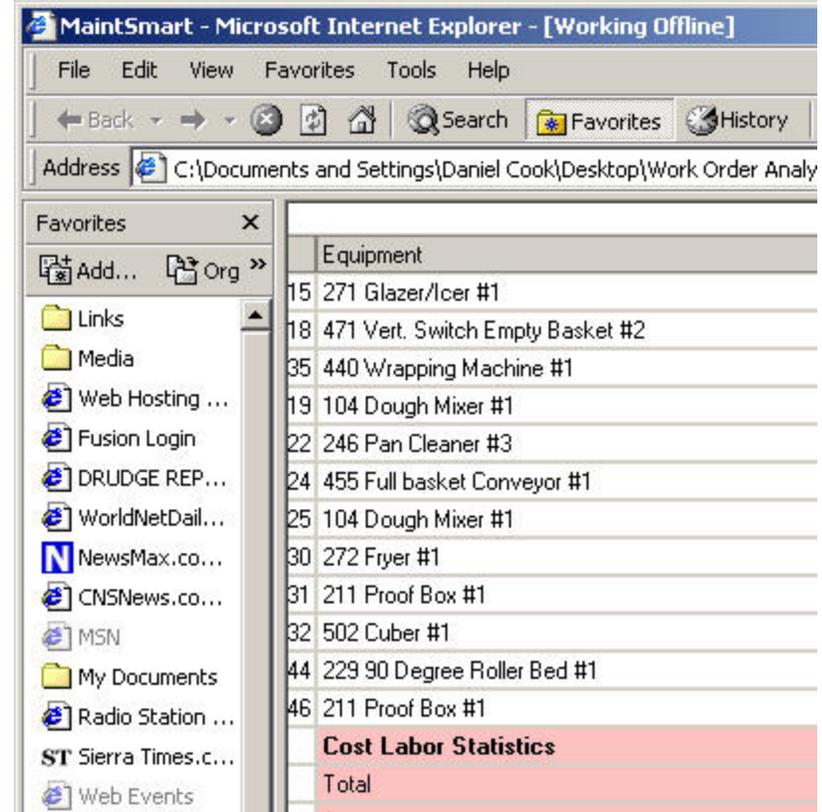
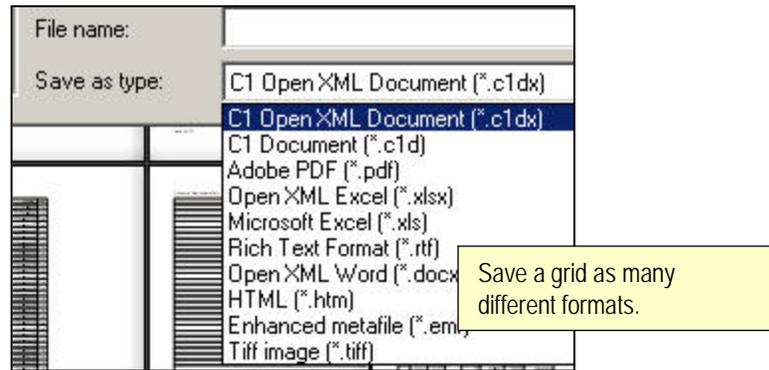
## Data Grid Utilities - Printing and Saving

### Saving Grids

MaintSmart provides several different formats for saving grids. Select the menu items **File>>Save**. Select the save file format then press the **Save As** button. Saving a grid as a web page is handy and then you can post the grid to your company web site or email it from your browser. To save a grid for use with Excel select the .csv save format.

### Printing Grids

MaintSmart provide direct grid printing or you can save a grid as Excel or HTML format then print from your browser or from Excel.



## Data Grid Utilities - Filtering Grid Columns

### Filtering Grid Columns

Filter any grid column in any grid in MaintSmart by clicking arrow in column header of grid. Select individual items, groups of items or create a custom filter to the column. Once the data set is filtered add additional filters to this filtered data set.

Invoices Composite WO Contractor Work Options Window Help

ory (optional)

	Date Completed	Technician	Status	Priority	Type
00:00:00		No Assignment - 327	Active	Emergency	Foll
21:36:00	1/18/2006 21:36:00	Charlie Huston	Done	Routine	Cod
	1/18/2006 06:26:00	No Assignment - 327	Done		
	1/18/2006				
00:00:00		No Assignment - 327	Active		rgency Cod
00:00:00	1/18/2006				
		No Assignment - 327	Active		
		No Assignment - 327	Active		

Grid Column filtering: left click the column header (small arrow) that you want to filter. The filter dialog screen will appear.

es Composite WO Contractor Work Options Window Help

nal)

Date Completed	Technician	Status	Priority	Type	Equipment
	(Select All)				
1/18/2006 21:36:00	Bernie Grayson				ion Co
1/18/2006 06:26:00	<input checked="" type="checkbox"/> Bill Raymond				Bed #
1/18/2006 05:30:00	<input checked="" type="checkbox"/> Bob Wright				ontrol/O
	Charlie Huston				Bed
1/18/2006 00:00:00	Clarice Thomas				Bed
	David Hackworth				Bed
	Frank Pierce				Bed
1/18/2006 07:30:00					Bed
1/18/2006 16:30:00					Bed
	No Assignment - 327	Act			

Un-check the "Select All" box then check the desired items for viewing. Click the "Apply" button at bottom of this dialog screen.

B Text Filter Apply Clear Cancel

der History (optional)

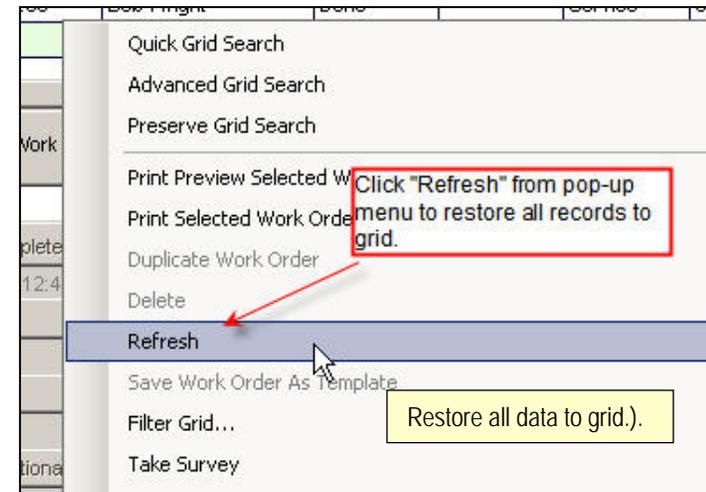
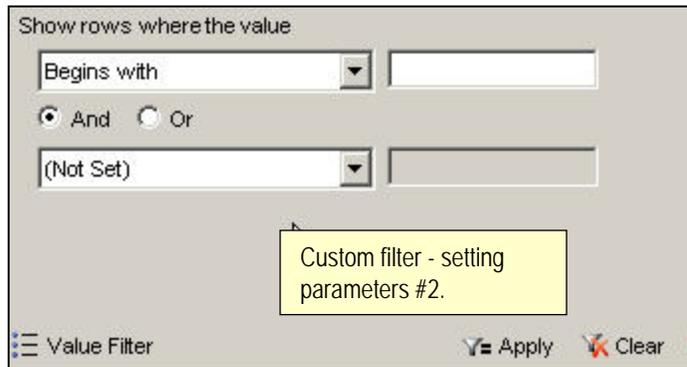
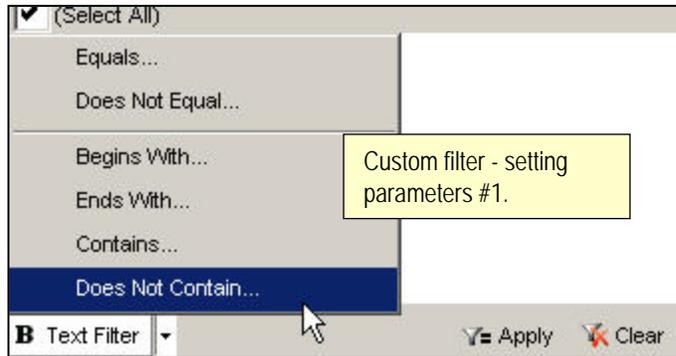
Date Due	Date Completed	Technician	Status	Priority	Type	Equip
8/20		Bob Wright	Active	Emergency	Code Complis	90 D
8/20		Bob Wright	Done		Service	90 D
		Bob Wright	Active	Emergency	Work Order	Yea
		Bob Wright	Done	Emergency	Work Order	Yea
26/20		Bill Raymond	Done	Urgent	PM	Wrap
6/2010 00:00:00		Bob Wright	Active	Routine	Work Order	Yea
2/2012 11:58:00	1/8/2012 19:47:00	Bob Wright	Done	Routine	Work Order	Yea

This is a view of the resulting data. Notice check mark in filtered column header. You can further filter this data set from other columns as needed, then export to Excel, etc.

## Data Grid Utilities - Printing and Saving

### Filtering Grid Columns

Filter any grid column in any grid in MaintSmart by clicking arrow in column header of grid. Select individual items, groups of items or create a custom filter to the column. Once the data set is filtered add additional filters to this filtered data set.



(Partial User List)

- |   |                                    |  |
|---|------------------------------------|--|
| AB Tube Processing Inc.                   | Franklin Bronze and Alloy Co. Inc. | Pioneer Plastics                           |
| Acculogix                                 | G & H Diversified Manufacturing LP | Plasma Coatings, Inc                       |
| Aceros Alfa S.A.                          | G.A. Food Service, Inc.            | Plastechnic Marketing PTE Ltd.             |
| ACS Internacional                         | Garden State Freezers, Inc.        | Prime PVC                                  |
| Al-Zamil Co. Inc.                         | Georgia College & State University | Professional International (Kuwait)        |
| Amersham Bio Sciences                     | Giddens Industries                 | PT VARTA BATTERIES                         |
| Amick Farms                               | Gilster-Mary Lee                   | Ramkota Hotel                              |
| Andres Wines Ltd.                         | Gleanings For The Hungry           | Randall Metals Corp.                       |
| APC Corporation                           | Goldco Inc.                        | Rea Magnet Wire                            |
| Applied Materials, Inc.                   | Golden Krust Caribbean Bakery Inc. | Rizo Lopez Foods, Inc.                     |
| Avistar Inc                               | Hannibal Industries, Inc.          | Rockbestos Surprenant Cable Corp.          |
| Andy's Seasonings                         | Hexion Specialty Chemical          | Logansport Electrical Utility              |
| BACMAN Geothermal Power Plant             | Hill Crest Hospital                | Roman SA                                   |
| Bayloff Die & Machine Co.                 | Hitol Ltd.                         | Ropak Can-Am                               |
| Blount Fine Foods                         | Huntington Steel                   | Rotellas Italian Bakery                    |
| Boston Scientific Precision Vascular      | Innerpac                           | Royal Ridge Fruit                          |
| Bimbo Bakeries ( <i>21 large plants</i> ) | Insys Solutions Sdn Bhd            | S & S Industries Inc                       |
| Bredero Shaw Australia Pty Ltd.           | Villa de Matel Center              | Saint Gobain Proppants ( <i>3 plants</i> ) |
| DS Textile Mills                          | James River Correctional Center    | Samuel Strapping Systems                   |
| Buse Timber and Sales Inc.                | Kaiser Permanente                  | Sandvik Mining and Construction (x2)       |
| Bush Bros. & Company (TN)                 | LB Manufacturing, LLC.             | Sara Lee Bakery                            |
| Bush Bros. & Company (WI)                 | Len Busch Roses                    | Tiwi Geothermal Power Plant                |
| Bush Bros. & Company (MAIN)               | Lesotho Milling Company            | Smith Pipe and Steel                       |
| Cam Tran                                  | Little Lady Foods                  | Smithsonian Institution                    |
| Cam Tran Pacific Ltd                      | Loxon Philippines, Inc.            | Snack Alliance, Inc.                       |
| Cardinal Health                           | Mac Papers Envelope Converters     | Softlite Windows                           |
| Carolina Cotton Work Inc.                 | Mack Molding                       | Sojourner Center                           |
| Cedar Sinai Hospital                      | MBA Poultry                        | Rosenboom Machine and Tool, Inc.           |
| Century Elson Limited                     | Medical Action                     | Rotellas Italian Bakery                    |
| Champion Feed Services Ltd.               | Metech International Inc.          | Sundance Products Inc.                     |
| Chiron America                            | Michels Furniture Company          | Sweet Briar College                        |
| Cinch Connectors, Inc.                    | Mitsubishi Motors                  | Systems Electro-Coating                    |
| City of Delray Beach (x3)                 | Mother's Enterprises Ltd.          | Tectron Tube Corporation                   |
| Cocoa Beach Motel                         | Motorola                           | SolarWorld                                 |
| Columbus Salame Company                   | Mr. Binman Ltd.                    | The Dexter Company                         |
| General Electric Lighting                 | Ondeo Nalco                        | The Toro Company                           |
| Concrete Stone and Tile                   | Sizuca Steel                       | TieTek                                     |
| Continental Cable Company                 | Nailor Industries, Inc             | Torca Great Britain Ltd.                   |
| Coroplast Inc.                            | National Hanger Company, Inc.      | Total Systems Design, Inc.                 |
| David Sherman, Corporation                | Naval Oceanographic Office (Navy)  | Tufco, LP                                  |
| De United Food Industries Ltd.            | Niguel Shores Community Assn.      | Tuttnauer USA Co. Ltd.                     |
| Deerfield Specialty Papers                | Norcom-Griffin Plant               | UFR Urban Forest Recyclers, Inc.           |
| Digital Angel Corp.                       | Norcom-Norcross Plant              | Uniflex Holdings, Inc.                     |
| Domino Sugar/ American Sugar              | Norton Proppants                   | Universal Manufacturing                    |
| Eagle Precision Tech. Inc                 | Oldcastle Easton                   | University of Michigan, Flint              |
| Excelda Manufacturing                     | Ondeo Nalco                        | West Point Military Academy                |
| Express Reinforcements LTD                | Organic Milling Corp.              | VeriCenter                                 |
| Ferriot Inc.                              | Oskaloosa Food Products Corp.      | Vestal Manufacturing Co.                   |
| Ohio State University Medical Center      | Ohio University - Zanesville       | W D Chips, LLC                             |
| Farm Fresh Poultry                        | PackerWare - Berry Plastics        | Watts Brothers Frozen Foods                |
| Fushe-Kruje Cement Factory Sh.            | Par-Pak Ltd.                       | Waymouth Farms Inc.                        |
| FMC Technologies                          | PBF Pita Bread Factory             | York International, Corp.                  |