

SMMS Equipment Database

The equipment database provides the focus of all your maintenance activities, storing all information related to the equipment assets in your Company.

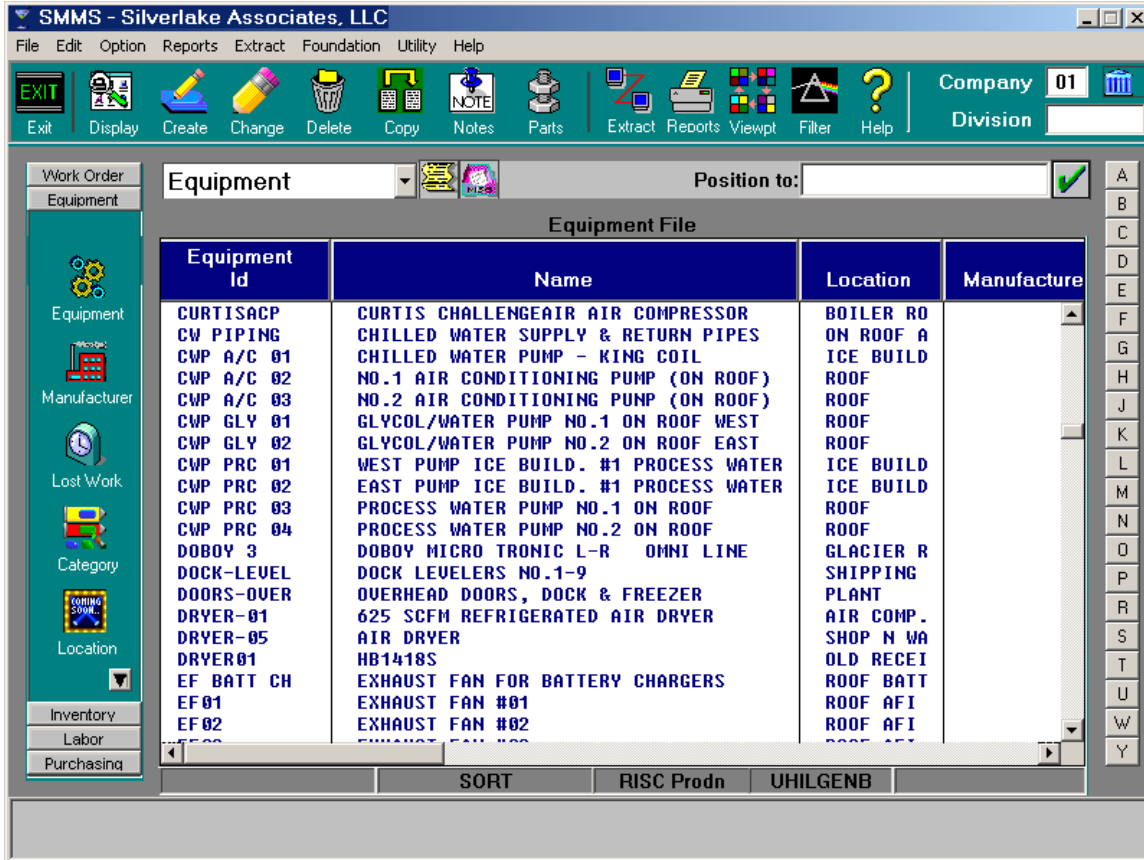


FIGURE 1

The Equipment List screen shown above allows you to access all equipment functions from a single list screen. In addition to maintaining the equipment file, you can access open work orders, equipment notes, parts lists, work order history, part usage history, PM schedules, and meter readings.

Because many equipment items are fundamentally alike, SMMS gives you the ability to create "generic" equipment items that can then be copied to create unique equipment items.

The Equipment List screen is selectable in ten standard sort sequences. You have the option of filtering out equipment assets that are no longer in service, and you can also access all equipment-related reports from the Equipment List screen.

The screenshot shows the 'Equipment Maintenance' software window. The title bar reads 'Equipment Maintenance' and the menu bar includes 'File', 'Edit', 'Report', 'Extract', 'Utility', and 'Notebook Help'. The toolbar contains icons for 'Ok', 'Cancel', 'Exit', 'Create', 'Delete', 'Copy', 'Next', 'Extract', 'Reports', 'Messages', 'Output', and 'Help'. On the right, there are fields for 'Company 01' and 'Division'. Below the toolbar is a tabbed interface with tabs for 'Equipment', 'Nameplate', 'Notes', 'Parts', 'Safety', 'User Defined', 'Manufacturer', and 'Work Orders'. The 'Equipment' tab is active, displaying the following information:

- Equipment Id:** ACP490.1
- Equipment Name:** QUINCY-AIR COMPRESSOR NO.3
- Category:** COMPR (Compressor)
- Location:** WEST ROOM
- Sub Location:** WEST-A
- Current Meter Hours:** 28.002
- Priority:** 1
- Status:** Active
- Corporate:**
 - Master Equipment Id:** ACP490
 - Corp Equipment Id:** ACP490.1
 - Cost Center:** 006 (CENTRAL MAINTENANCE)
 - Fixed Asset Number:** 484358475

FIGURE 2

The equipment database detail screen stores the basic information about your maintenance assets:

• <i>Manufacturer</i>	• <i>Maser Equipment Id</i>
• <i>Model Number</i>	• <i>Installation & Warranty Dates</i>
• <i>Serial Number</i>	• <i>Cost Center (Budget Authority)</i>
• <i>Fixed Asset Number</i>	• <i>YTD Costs: Labor & Parts</i>
• <i>Location</i>	• <i>Equipment Maintenance Notes</i>

The Equipment maintenance screen is used to enter and track all information related to the equipment items in your system. Nameplate information is defined on this screen based on the “equipment category.” You also enter safety and HAZMAT procedures, user-defined data (such as calibration information), maintenance notes, and manufacturer data on this screen.

The “Parts” cross-reference screen provides a “top down” view of inventory parts “where used.” You can update and manage the parts cross-reference screen manually, or have the system automatically maintain the cross-reference based on inventory consumption.

Master Equipment items are items in your Equipment database that represent “equipment collections”, such as assembly lines that are composed of many different items. This allows you to establish “parent/child” relationships in your equipment file and extends your history and cost reporting capabilities.

You can also create Equipment Id codes that represent aliases of an item in the Corporate Equipment file. The Corporate Equipment file ties together identical equipment items from other locations that may have different codes. Lookup capabilities allow you to find components, spare parts, and related items that may be available at another location.

The screenshot shows the 'Equipment Maintenance' software interface. At the top, there is a menu bar with 'File', 'Edit', 'Report', 'Extract', 'Utility', 'Notebook', and 'Help'. Below the menu is a toolbar with icons for 'Ok', 'Cancel', 'Exit', 'Create', 'Delete', 'Copy', 'Next', 'Extract', 'Reports', 'Messages', 'Output', and 'Help'. On the right side, there are fields for 'Company 01' and 'Division'. Below the toolbar is a tabbed interface with tabs for 'Equipment', 'Nameplate', 'Notes', 'Parts', 'Safety', 'User Defined', 'Manufacturer', and 'Work Orders'. The 'Equipment' tab is active, showing 'Equipment Id: ACP490.1' and 'QUINCY-AIR COMPRESSOR NO.3'. Below this is a table with the following columns: Order #, STAT, Procedure, Type, Schedule Date, Completed, Project, and Skill. The table contains 18 rows of work order data.

Order #	STAT	Procedure	Type	Schedule Date	Completed	Project	Skill
116072	Open	ACP235.100	PM	9/29/00			MECH2
116071	Open	ACP235.100	PM	9/22/00			MECH2
115978	Open	TBD	NS	9/15/00			MECHANIC
115930	Canceled	ACP235.100	PM	9/22/00			
115703	Canceled	ACP235.100	PM	9/08/00			
115553	Open	ACP3MOPV	PM	9/02/00			MECHANIC
115552	Canceled	ACP235.100	PM	8/25/00			
115424	Completed	ACP235.105	PM	8/26/00	9/11/00		MECHANIC
115423	Canceled	ACP235.100	PM	8/18/00			
114989	Canceled	ACP490.110	PM	7/29/00			
114988	Completed	ACP235.105	PM	7/29/00	9/15/00		MECHANIC
114348	Open	ACP235.105	PM	7/01/00			MECHANIC
48535	Open	ACP235.105	PM	7/02/00			MECHANIC
47578	Completed	ACP235.105	PM	4/09/00	4/08/00		MECHANIC
47398	Completed	ACP3MOPV	PM	3/19/00	3/18/00		MECHANIC
47286	Completed	ACP235.105	PM	3/12/00	3/18/00		MECHANIC
47082	Completed	ACP490.100	PM	2/25/00	8/10/00		MECH2

FIGURE 3

The Equipment Maintenance screen also displays the complete work order array for the equipment item, including open, completed and canceled work orders! This list provides you with a quick overview of all of the maintenance procedures and schedules performed over time.

Procedures

The Procedures database contains information about how to perform specific maintenance assignments on your equipment inventory...the “cookbook” of your maintenance operation. Procedures vary in complexity and scope, from broad, routine preventive maintenance to very specific, detailed operations.

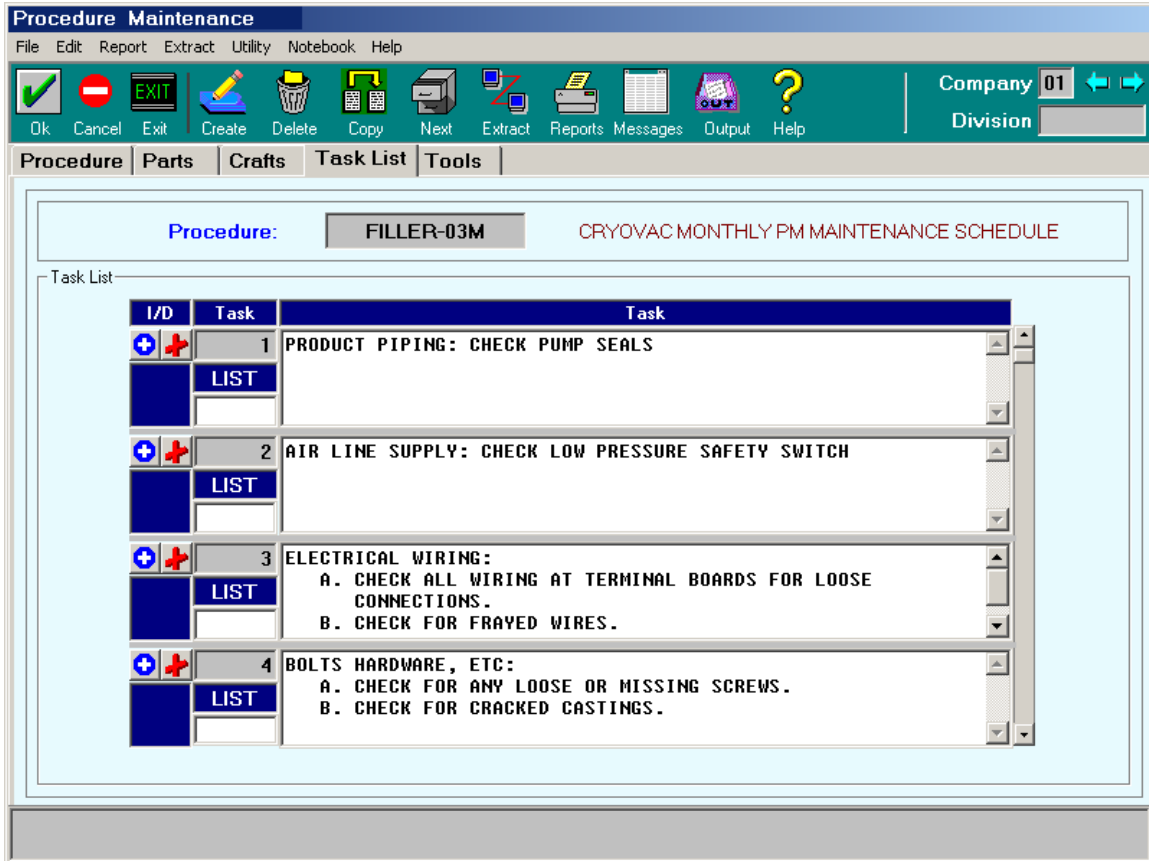


FIGURE 4

Procedures are made up of task lists, tool list, labor requirements, replacement part requirements, and special safety notes and instructions. Every element of the procedure can be maintained from a single screen. Shown above is the procedure task for a monthly PM schedule.

Note that a vendor task list can be permanently linked to a procedure task list. When a work order is created using a procedure task that requires a vendor operation, the system cuts a requisition for the preferred vendor based on the task list entry and the Vendor quotation file.

You can create your procedures to be specific to a machine, or as periodic standard maintenance procedures that can be scheduled for many machines. You can also copy existing procedures to make new procedures.

Schedules

The Schedule file defines your PM schedules and is used by the system to determine when a Preventive Maintenance work order should be created. By joining an Equipment item with a Procedure, and initializing a calendar or run time interval, the Schedule file will initiate work orders with no additional effort on your behalf.

The screenshot displays the 'Schedule' application window. The title bar reads 'Schedule'. The menu bar includes 'File', 'Edit', 'Report', 'Extract', 'Utility', 'Notebook', and 'Help'. The toolbar contains icons for 'Ok', 'Cancel', 'Exit', 'Create', 'Delete', 'Copy', 'Next', 'Extract', 'Reports', 'Messages', 'Output', and 'Help'. On the right side of the toolbar, there are fields for 'Company' (01) and 'Division'.

The main window has three tabs: 'Schedule', 'Notes', and 'Work Orders'. The 'Schedule' tab is active and contains the following fields:

- Equipment Id:** WEXTOPSEA1
- Procedure Id:** CASESEAL1M **WEXXAR CASESEALER 1 MONTH PM-LINE 6 & 7**
- Maintenance Type:** Preventive
- Schedule Basis:** Scheduled
- Status:** Active
- Frequency - Days:** 30
- Schedule Day:** Thursday
- Schedule Priority:** 1
- Schedule Type:** Days

Below these fields, there is a section for 'Last Order' with the following information:

- Completed Date:** 8/18/00
- Meter:** 11060
- Scheduled Date:** 12/11/00

At the bottom of the form, there are additional fields:

- Equipment Shutdown?** Yes
- Plant Shutdown?** No
- Skill:** MECHANIC
- Project Id:** [Empty field]
- Assign to:** [Empty field]
- Shift:** 0
- Requested by:** [Empty field]
- Work Request:** [Empty field]

FIGURE 5

Figure 5 shows a 30-day PM schedule. In addition to the PM interval, the Schedule screen also shows information about the schedule, including last date scheduled and last date completed. If you desire, schedules can be permanently assigned to an employee, charged to a cost center, or created for the duration of a specific project.

Schedule
File Edit Report Extract Utility Notebook Help

Company 01
Division

Schedule Notes Work Orders

Equipment Id: WEXTOPSEA1
Procedure Id: CASESEAL1M WEXXAR CASESEALER 1 MONTH PM-LINE 6 & 7

Work Order#	Status	Maint Type	Scheduled Date	Completed Date	Project	Skill	Plant Shutdown
116850	Open	PM	10/12/00			MECHANIC	N
115834	Open	PM	9/12/00			MECHANIC	N
115349	Completed	PM	8/13/00	8/18/00		MECHANIC	N
114927	Completed	PM	7/14/00	7/20/00		MECHANIC	N
48503	Completed	PM	6/22/00	7/20/00		MECHANIC	N
48198	Canceled	PM	5/23/00				
47890	Completed	PM	4/23/00	5/15/00		MECHANIC	N
47450	Completed	PM	3/24/00	4/04/00		MECHANIC	N
47153	Completed	PM	2/23/00	3/09/00		MECHANIC	N
46812	Completed	PM	1/24/00	2/07/00		MECHANIC	N
46378	Completed	PM	12/25/99	1/18/00		MECHANIC	N
46084	Completed	PM	11/25/99	2/09/00		MECHANIC	N
45422	Completed	PM	9/26/99	10/10/99		MECHANIC	N
45022	Completed	PM	8/27/99	9/29/99		MECHANIC	N
44649	Completed	PM	7/28/99	8/05/99		MECHANIC	N

FIGURE 6

The Schedules screen also contains the complete work order list for the schedule. This list is displayed in descending sequence and covers all work orders for the schedule: open, completed and canceled.

This list screen differs from the one included on the Equipment Maintenance screen in that the orders listed represent a specific schedule (Equipment & Procedure combination). The Equipment orders list includes all schedules for a particular equipment item.