

User Manual

FREE version

Table of Contents

1. WHAT IS CWORKS?	4
1.1 HOW IS IT USED?	5
1.2 WHAT SHOULD YOU DO BEFORE STARTING?	5
1.3 HOW DOES CWORKS WORK?	6
1.3.1 <i>CWorks Main Menu</i>	6
1.3.2 <i>Description of CWorks Modules</i>	6
1.3.2.1 Work Orders	6
1.3.2.2 Assets.....	7
1.3.2.3 Location.....	7
1.3.2.4 Preventive.....	7
1.3.2.5 Employee	8
1.3.2.6 Reports	8
1.3.2.7 Masters	8
1.3.2.8 Exit	8
1.4 MOUSE & KEYBOARD FUNCTIONS	9
1.4.1 <i>Mouse Actions</i>	9
1.4.2 <i>Keyboard Functions</i>	9
1.5 HOW TO LOG INTO CWORKS.....	10
2. WORK ORDERS	12
2.1 WHAT ARE WORK ORDERS?.....	12
2.2 HOW TO OPEN A NEW WORK ORDER	13
2.3 HOW TO FILL IN A NEW WORK ORDER	14
2.3.1 <i>How To Enter Notes To Technicians</i>	17
2.3.1.1 Notes to Technician: Asset.....	17
2.3.1.2 Notes to Technician: Location	17
2.4 WHAT IS WORK ORDER CLOSING?	18
2.5 HOW TO VIEW AND MODIFY EXISTING WORK ORDERS.....	19
2.6 HOW TO USE SEARCH.....	20
2.7 HOW TO CLOSE A WORK ORDER.....	22
2.8 HOW TO ADD LABOUR IN THE WORK ORDER	24
2.9 HOW TO ADD DIRECT ISSUE IN THE WORK ORDER.....	25
2.10 HOW TO VIEW TOTAL COST OF A WORK ORDER.....	26
2.11 HOW TO PRINT A WORK ORDER.....	27

2.12 HOW TO PRINT A BATCH OF WORK ORDERS.....30

3. ASSETS32

3.1 HOW TO ADD A NEW ASSET.....32

3.2 HOW TO ADD ADDITIONAL INFORMATION FOR A PARTICULAR ASSET35

3.3 HOW TO VIEW AND MODIFY EXISTING ASSETS36

3.4 HOW TO ADD THE RELATIONSHIPS OF A PARTICULAR ASSET TO OTHER ASSETS38

 3.4.1 *How To View And Modify Relationship On A Particular Asset*.....40

3.5 HOW TO VIEW AND MODIFY ADDITIONAL INFO ON A PARTICULAR ASSET40

3.6 HOW TO VIEW WORK ORDER HISTORY ON A PARTICULAR ASSET.....40

3.7 HOW TO DO SEARCH ON ASSET INFORMATION.....41

4. LOCATION.....43

4.1 HOW TO ADD A NEW LOCATION.....43

4.2 HOW TO VIEW AND MODIFY A LOCATION?44

4.3 HOW TO FILTER OUT LOCATION INFORMATION.....46

5. PREVENTIVE MAINTENANCE48

5.1 HOW TO REGISTER A NEW PM TASK49

 5.1.1 *How To View And Modify An Existing PM Task*.....50

 5.1.2 *How To Modify PM Tasks*51

5.2 HOW TO FILTER A PM TASK52

5.3 HOW TO ADD NEW PM SCHEDULE.....53

 5.3.1.1 Next PM Generation Types.....56

 5.3.2 *How To View PM Plan Forecast Screen*.....57

5.4 HOW TO FILTER PREVENTIVE MAINTENANCE SCHEDULES.....58

5.5 HOW TO MODIFY AN EXISTING PM SCHEDULE.....59

 5.5.1 *How To Disable An Existing PM Schedule*.....60

 5.5.2 *Amending The PM Schedule And Task*.....60

 5.5.2.1 For Scheduled Completion Date Type PM Generation:60

 5.5.2.2 For Actual Completion Date Type PM Generation:.....60

 5.6 *How To Generate PM Work Orders*.....61

6. EMPLOYEE.....63

6.1 HOW TO ADD A NEW EMPLOYEE/REQUESTER.....63

6.2 HOW TO VIEW AND MODIFY AN EMPLOYEE/REQUESTER DATA.....65

6.3 HOW TO FILTER OUT EMPLOYEE INFORMATION.....66

- 7. MASTERS68**
 - 7.1 HOW TO CREATE MASTER DATA68
 - 7.1.1 *Master - Department*.....68
 - 7.1.2 *Master - Failure Code*.....69
 - 7.1.3 *Master - Asset Category*.....70
 - 7.1.4 *Master - Suppliers/Contractors*71
 - 7.1.5 *Master - Location*.....73
 - 7.1.6 *Master - Assets*.....74
 - 7.1.7 *Master - Employee/Requester*75
 - 7.1.8 *Master - Misc*.....76
- 8. REPORTS.....78**
 - 8.1 REPORTS MAIN MENU78
- 9. FREQUENTLY ASKED QUESTIONS80**
 - 9.1 HOW TO COMPACT & REPAIR CWORKS APPLICATION.....80
 - 9.2 HOW TO CHANGE THE DATABASE SOURCE FILE.....81
 - 9.3 HOW TO DELETE DATA FROM THE DATABASE.....82
 - 9.4 HOW TO SETUP CWORKS IN A NETWORK ENVIRONMENT84
 - 9.5 HOW TO EXPORT DATA FROM CWORKS AND IMPORT DATA INTO CWORKS85
 - 9.6 IMPORT DATA89

1. WHAT IS CWORKS?

CWorks is a computerized maintenance management system, which delivers various benefits to organizations by delivering information to maintenance engineers and managers. These benefits include:

- Easy analysis of work order status.
- Simplified management decisions with the availability of equipment maintenance history.
- Simplified and documented process for Supplier Management.
- Readily available equipment preventive maintenance schedules.
- Automatically generated preventive maintenance work orders.
- An efficient and time-saving maintenance activity with CWorks's centralized database and communication.

The logo for CWORKS FREE is positioned in the bottom left corner. It features the word "CWORKS" in a bold, serif font above the word "FREE" in a similar bold, serif font. A vertical line is on the left side of the text, and a horizontal line is below it, forming a partial frame around the text.

CWORKS
FREE

1.1 How Is It Used?

CWorks is used to keep track of all aspects of maintenance performed on assets, equipment, locations and other items that make up your facility. It is flexible and easily customizable to meet your needs. You decide how you want CWorks to track your maintenance;

- Use it to store information about the things you maintain (e.g., equipment or locations) and the resources used to maintain them (e.g., labor and parts.)
- Use it to assign and schedule maintenance on your facility using the stored information.
- Most importantly, use it to track the history and cost of maintenance performed on your facility.

1.2 What Should You Do Before Starting?

1. Gather information about your maintenance facility based on the Masters list required by the system. For examples assets, locations and etc.
2. Organize your assets according to a hierarchical structure if required.
3. Enter your basic data into CWorks. You do not have to set everything up at once, but certain information must be entered before you can issue a work order.
4. Other information's can be added on as you use CWorks.
5. Now you are ready to use CWorks to manage your maintenance.

Remember that maintenance management involves significant amounts of data. We advise that you do not try to do everything at once.

1.3 How Does CWorks Work?

1.3.1 CWorks Main Menu

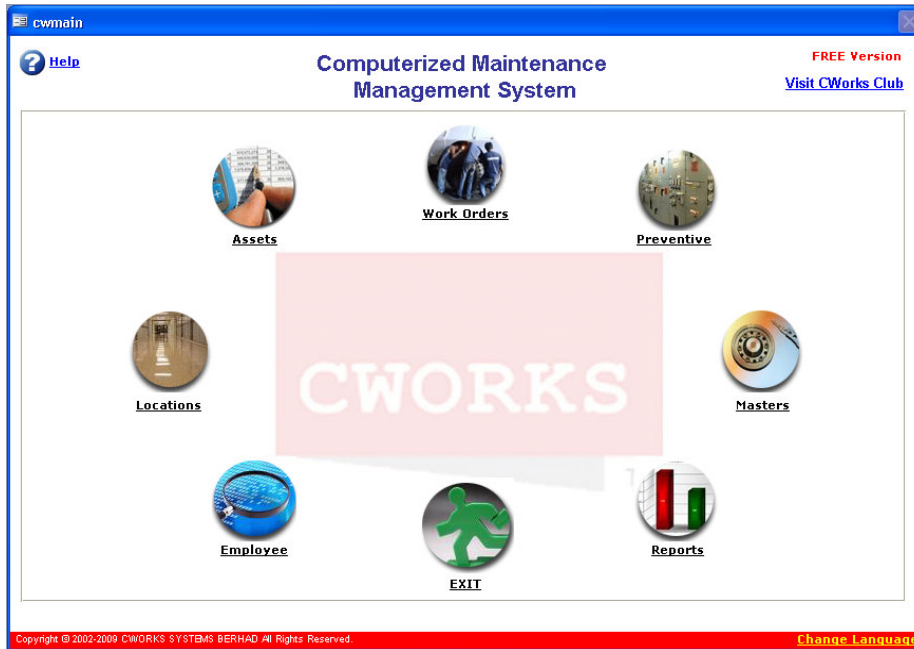


Figure 1: Main Menu

1.3.2 Description of CWorks Modules

1.3.2.1 Work Orders



The work order module provides the ability to view and manage all maintenance activities. It provides an accurate basis for work order costing, analysis and management of site activities. The work order module is integrated with the Planned Maintenance module in order to integrate scheduled preventive maintenance work with ad-hoc breakdown work. Work orders can also be raised for non-asset activities, such as changing a light bulb, repairing a leaking roof or plumbing problems. The module enables the capture of all Direct issue and labour costs and utilization.

1.3.2.2 **Assets**



The Asset module provides the facility to record and manage your organization's assets. It stores data on every asset that you want to maintain a record of maintenance activities. The following screens are available in the Asset module;

- Asset List Summary
- Current Asset Register
- New Asset Registration
- Additional Info. – Information about the registered asset can be listed in this section.
- Relationship – Enables an asset tree to be built using the parent-child relationship.
- Work Order History – List of all work orders opened on an asset.

1.3.2.3 **Location**



The Location module provides the facility to record and manage your facility's physical locations. It stores data on every location that you want to maintain a record of maintenance activities. The following screens are available in the Location Register;

- Location List Summary
- Current Location Register
- New Location Registration

1.3.2.4 **Preventive**



This Preventive Maintenance module describes how to schedule and generate preventive maintenance work orders within CWorks. A preventive maintenance (PM) master and schedule specifies work to be performed based on an elapsed time interval monitoring. PM schedules can be set-up for either an asset or a physical location.

1.3.2.5 Employee



The employee module provides the facility to record and manage your employee data. It stores data for every personnel employed in your company and records maintenance activities performed by employee. You can also view assets for which an employee is authorized or trained to operate and maintain.

1.3.2.6 Reports



This module provides a range of management reports. Reports produced by CWorks are a combination of related data contained in the system. Reports are used for management information purposes, documentation and accounting of the productivity and performance of the maintenance departments.

1.3.2.7 Masters



This module captures all your basic maintenance data which is required to start your CWorks. Below are the masters:-

- Department
- Failure Code
- Asset Category
- Suppliers/Contractors
- Assets
- Locations
- Employee / Requester
- Misc
 - Work Priority List
 - Work Status List
 - Work Type List
 - Warranty/Contract List
 - Asset Status List
 - Work Trade List
 - Asset Criticality List

1.3.2.8 Exit



To close or exit from CWorks program.



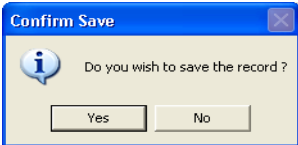
1.4 Mouse & Keyboard Functions

In CWorks user guide the following terms are used to describe mouse actions and keyboard functions:

1.4.1 Mouse Actions

Action	Result
Click	Press and release the left mouse button.
Double-click	Click the left mouse button twice.
Right-click	Press and release the right mouse button.
Put a Check in the Box	Move the mouse pointer over a check box and click it to activate or deactivate it. Turn on a box by putting a check in it.

1.4.2 Keyboard Functions

Action	Result
<Tab>	Move the focus of the cursor to the next available control.
<Enter>	Either moves the focus of the cursor to the next available control or commits a transaction.
<Delete>	Remove selected data from fields and some datasheets.
<ESC>	Stops a function.
	Click on this button to save any changes
	Click on this button to exit from the screen. In a "New" screen (for registering a new record), clicking this button will close the screen without saving the record. In a "Current" screen (for viewing and modifying existing records), clicking this button will prompt the user for confirmation to save or discard the changes (refer "Confirm Save" screen below).
	Click " <u>Y</u> es" to save the changes and exit the screen or <u>N</u> o to exit the screen without saving the changes.

1.5 How To Log Into CWorks

Upon launching the CWorks application file, the screen below would pop-up. The system will automatically refresh the database link. To change the database, refer to "How To Change The Database Source File."



Figure 2: Connect to Database

If the system cannot find the database file (CworksFoc_db) or (CworksFoc_Sample_db) a message box would pop-up for user to provide a valid link.

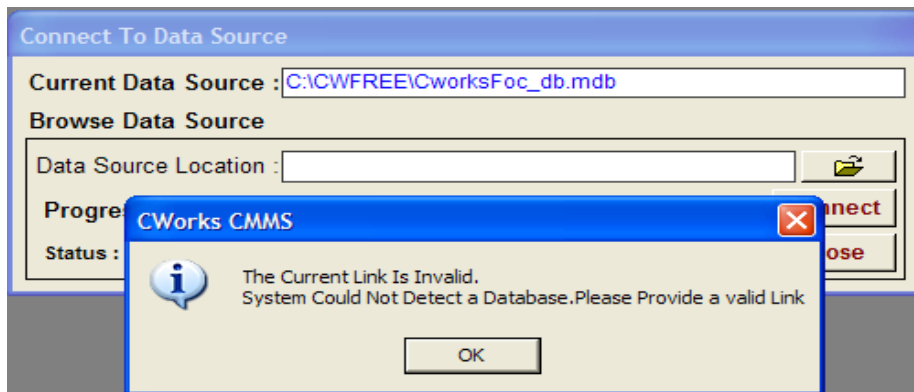


Figure 3: Invalid Link

WORK ORDER MODULE



2. WORK ORDERS

2.1 What Are Work Orders?

Work orders are written records of maintenance activities. They are used to assign maintenance to the areas and equipment that make up your maintenance program.

Work orders contain information about a maintenance activity, such as where and how it is to be done, who is supposed to do it and supplies needed to complete the task. They keep track of your maintenance activities and store valuable time and cost information that is used in reports. All tracked maintenance histories in CWorks are based on the information stored in your work order records.

Creating work orders for all your maintenance activities is the key to an efficient maintenance program.

Work Orders are created for two primary reasons:


1. Unscheduled work that is requested by tenants, customers, employees, and supervisors.
2. Regularly scheduled or preventive maintenance that is performed on a routine basis.

CWorks can create both types of work orders.

2.2 How To Open A New Work Order

A work order can be opened on an asset, a physical location or when services are required.



Click  button on the Main Menu page (see Figure 1). The Work Order List page (as seen below) will be displayed.

Work Order #	Work Type	Work Status	AssetNo	Problem Description	Requester	Act
0000000076	Reimbursable	Open		Repainting wall at Block A phase -	HASRINA ABDUL HALIL	
0000000074	Inspection	Open		Cracked wall inside male toilet no	HASRINA ABDUL HALIL	
0000000069	Manual Preventive	Open	0006	Plan Preventive Maintenance For	DANIEL SCHMIDT	
0000000068	Manual Preventive	Open	00002	Plan Preventive Maintenance For	JAMILAH OMAR	
0000000067	Manual Preventive	Open	TV001	Telephone not functioning at med	HASRINA ABDUL HALIL	
0000000066	Breakdown	Open	000010	Leaking at Peanut Storage Tank N	DAVID NG	
0000000064	Corrective	Open	P00006	Printer Not Functioning At Preside	ROSLI HASHIM	
0000000062	Breakdown	Open		Faulty eletrical wiring/equipment c	JIVARAJA AIL NADASON	
0000000059	Preventive	Open	P08-LVD-4A-A	LV DISTRIBUTION		
0000000057	Preventive	Open		PM Blanchers		
0000000056	Preventive	Open		PM Blanchers		
0000000054	Preventive	Open		PM Blanchers		
0000000053	Preventive	Open		PM Blanchers		
0000000052	Preventive	Open		PM Blanchers		
0000000051	Preventive	Open		PM Blanchers		
0000000050	Preventive	Open		PM A-Line		

Buttons: **New WorkOrder** | **Print WO by batch** | **View All** | **Export to Excel** | **Close**

No. of Records: **57**

Advance Search | List Sorting

Search criteria: Work Type, Work Status, Work Trade, Workorder No, Requester, Asset No, WO Priority, Failure Code, Prob. Desc., Location Desc, PM No., PM Task No., Received Date, Est Start Date, Act.Close Date, PM Target Start Date.

Find -> [] Search Reset

Figure 4: Work Order List

Click the “New WO” button. This will bring you to a blank Work Order form as shown in Figure 5. A New Work Order screen can also be activated in the Current Work Order screen by clicking the same button.

2.3 How To Fill In A New Work Order

Upon activation of the New Work Order screen, the Work Order # will display 000000000. Only upon saving the work order, will the system generate a work order number.


Figure 5: Sample Work Order

1. Fill up all the fields in the first section. Fields are described below:



Fields	Description
Work Order #	Automatically generated by the system upon saving the record.
Received Date/Time	System date and time.
Work Status	System defaults status to "Open". The current work order status describes which stage the work is in.
Problem Description	Describe the details of the problem for this particular work order.
Assign to	Assigning an employee for the work order
Required Date	Enter a required date and time if applicable.
Work Type	Select a work type for the work order. Additional work types can be defined in the Master module (Miscellaneous – Work Type.)

Fields	Description
Work Priority	Define the level of urgency assigned to a particular job. This data is set in the Master module. The system-default data are as follows. They can be added but cannot be removed. Normal, Urgent, Emergency, Routine, Safety
PM No.	Identifier of the PM Schedule master record.
PM Task No.	Identifier of the PM Task master record.

2. Fill up all the fields in the Employee/Requester Information section. Fields are described below:


Fields	Description
Emp/Req. Name	Select the person who requested for the work order /service from the list. The person could be an employee of the organisation or a customer to the organisation. Users can also view a list of employees/requesters, obtain details, amend current employees/requester data and add a new employee/requester into the master database by clicking on this right button  , which is located to the right of the field. To add new employee, refer to How To Add A New Employee/Requester for the field explanation.
Telephone No	Default based on data set in employee/requester master.
Fax No	Default based on data set in employee/requester master.
Mobile No	Default based on data set in employee/requester master.
E-mail	Default based on data set in employee/requester master.

3. Fill up all the fields in the Asset/Location Information section. Fields are described below:

Fields	Description
Location No	Select the location where the problem is originating from. Work orders can be created based just on a location.
Asset No	Choose from the list. a code assigned to an asset/ equipment and its description. This data is set in the asset module.
Asset Status	Default based on data set in asset master. This field describes the status of the asset.
Warranty/Contract	Default based on data set in asset master. This field specifies whether the asset maintenance is under warranty or contract.
Warranty End Date	Default based on data set in asset master. This is the warranty expiry date.
Notes to Technician	Asset (See Figure 6)
	Default based on data set in asset and line master. Field is used to describe additional important information pertaining to the asset.
	Location (See Figure 7)
	Default based on data set in asset master. Field is used to describe additional important information pertaining to the location.
Recieved By	Defaults to the log-in person who created the work order.
Work Order Trade	Trade or section that is primarily responsible for the work. This data is set in the Misc.- masters.
	Click on this button to save any changes
	Click on this button to close the screen without saving the record

2.3.1 How To Enter Notes To Technicians

2.3.1.1 Notes to Technician: Asset

This field is used to describe additional important information pertaining to the asset. This field can be updated by clicking on  button. The screen below would pop-up. Users can change the data here and the system will automatically update the asset master record.

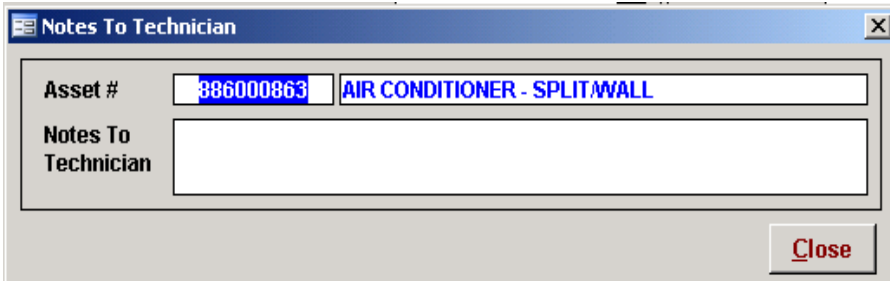



Figure 6: Notes to Technician - Asset

2.3.1.2 Notes to Technician: Location

This field is used to describe additional important information pertaining to the location. This field can be updated by clicking on  button. The screen below would pop-up. User can change the data here and the system will automatically update the line master record.

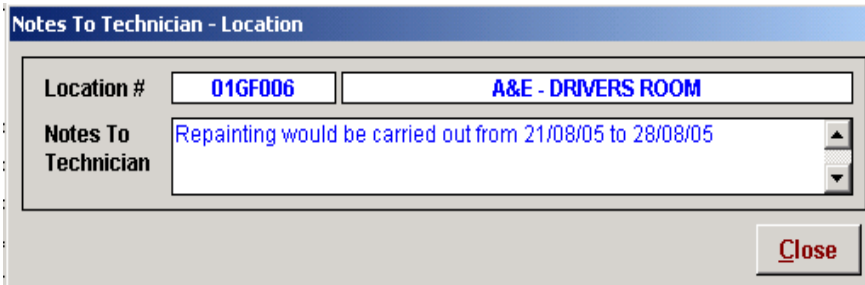


Figure 7: Notes to Technician - Location

2.4 What Is Work Order Closing?

When a work order is created, its default status is "Open" and cannot be changed. The work order closing tab can be used when first opening a work order. This tab allows users to enter additional remarks or to establish the estimated start / end dates to complete the work order. Entering estimated start dates are useful as they can assist in monitoring and planning work orders. Work order estimated start dates can be searched in the work order list form.

The screenshot shows a software window titled "New Work Order" with two tabs: "Work Order" and "Work Order Closing". The "Work Order Closing" tab is active. The form contains the following elements:

- Work Order #:** 0000000000
- Work Status:** Open (dropdown menu)
- Date / Time Details Table:**

	Estimated	Actual	PM Target Start Date
Assessment	<input type="text"/>	<input type="text"/>	<input type="text"/>
Start	<input type="text"/>	<input type="text"/>	PM Target Comp. Date
End	<input type="text"/>	<input type="text"/>	<input type="text"/>
- Handover Date/Time:**
- Estimated Duration:** 0.00
- Failure Code:**
- Accepted By:**
- Cause Descriptions:**
- Action Taken:**
- Prevention Taken:**
- Buttons:** Save, Close

Figure 8: Work Order – "WO Closing" Tab

2.5 How To View And Modify Existing Work Orders

Click the work order icon in the main menu (see Figure 1), and a Work Order list form would pop-up. The Work Order list form displays open, closed and cancelled work orders. To view all work orders in the list form, click the "View All" button.

Double-clicking on any of the work order will activate the Current Work Order screen, see . Users will be able to view and modify the detail on the particular work order in this screen.

Note - Closed work orders cannot be modified.

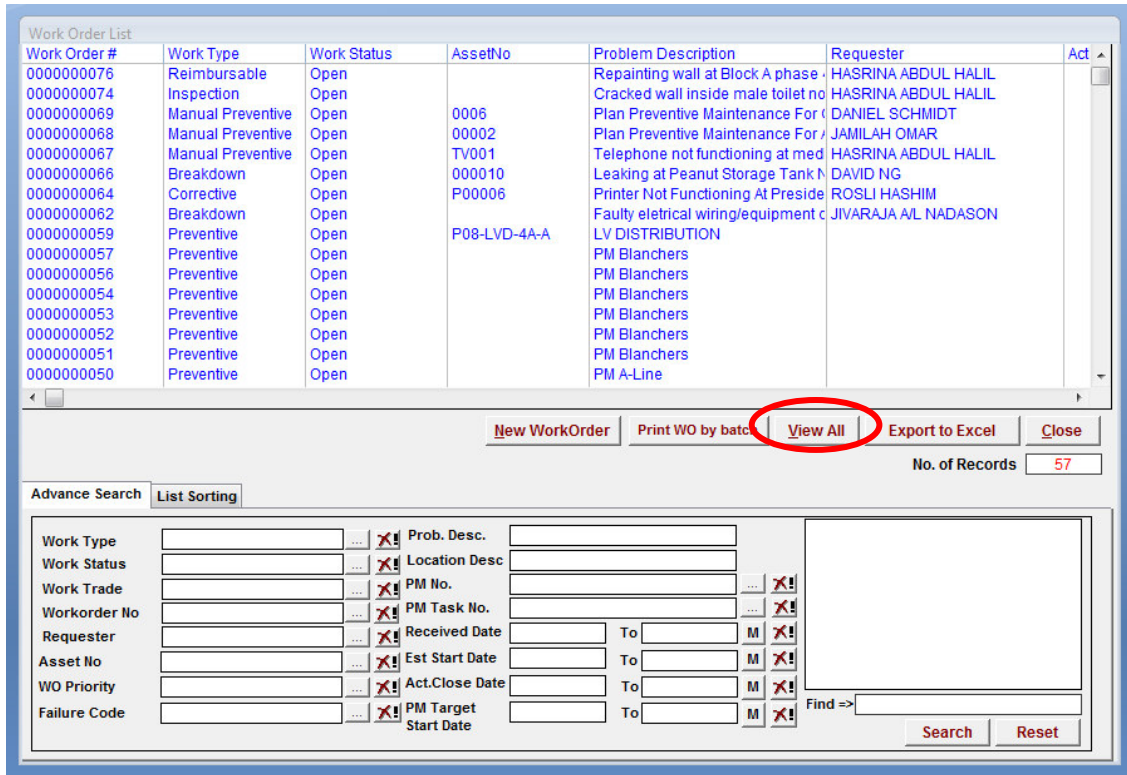


Figure 9: Work Order List

The Current Work Order screen is shown below (see Figure 10). To modify the data, just type over the current data and upon closing the form the system will prompt user whether you wish to save the changes. Click "Yes" to save the changes and Exit or "No" to exit the screen without saving the changes.

The screenshot shows a 'Work Order' form with the following details:

- Work Order #:** 000000002
- Received Date/Time:** 11/04/2003 10:52:29
- Work Status:** Closed
- Problem Description:** Lighting circuit faulty.
- Assign to:** Zelpheus Harringto
- Work Type:** Breakdown
- Work Priority:** Normal
- Employee/Requester Information:**
 - Emp/Req: Dr Gabriel Pilus
 - Telephone No: 089354985
 - Fax No: 089354984
 - Mobile No: 01 38695745
 - E-Mail: gabriel.pilus@hkkt.com
- Asset / Location Information:**
 - Location No: 01GF001
 - Location: A&E - EMERGENCY UNIT
 - Asset No: (empty)
 - Asset Status: (empty)
 - Warranty/Contract: (empty)
 - Warranty End Date: (empty)
 - Note to Technician: Repainting will be carried out from 11/10/2002 - 15/02/2002
 - Received By: Shafina Abdullah
 - Work Order Trade: Electrical

Buttons at the bottom include 'New WO', 'Close WO', 'Close', and 'Print WO'.

Figure 10: Sample Work Order

2.6 How To Use Search

A Search option is available in the Work Order List form. Its function is to enable filtering of work orders by a combination of parameters defined by the user. In the screenshot example below, work orders are filtered by Work Type "Breakdown" and Work Status "Open."

The screenshot shows an 'Advance Search' form with the following search criteria:


- Work Type: []
- Work Status: []
- Work Trade: []
- Workorder No: []
- Requester: []
- Asset No: []
- WO Priority: []
- Failure Code: []
- Prob. Desc.: []
- Location Desc: []
- PM No.: []
- PM Task No.: []
- Received Date: [] To [] M []
- Est Start Date: [] To [] M []
- Act. Close Date: [] To [] M []
- PM Target Start Date: [] To [] M []

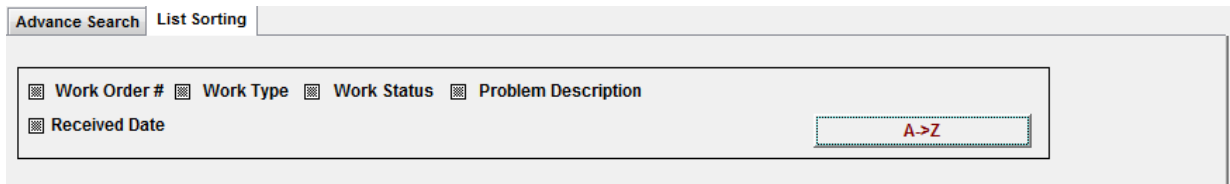
Buttons at the bottom include 'Search' and 'Reset'.


Figure 11: Search

Search can be done on:-

- Work Type
- Work Status
- Workorder No
- Prob. Desc.
- Received Date

To do a search, click on the field of choice, enter the field contents and click on the  button.



User can also sort a search results, ascending or descending order, by clicking on the  button.

2.7 How To Close A Work Order

When a job is completed, the work order in the system has to be closed. To close a work order, click Work Order button on the Main Menu. Double-click on the work order user wish to close from the list. Click on Work Order Closing tab and change the Work Status to Close.

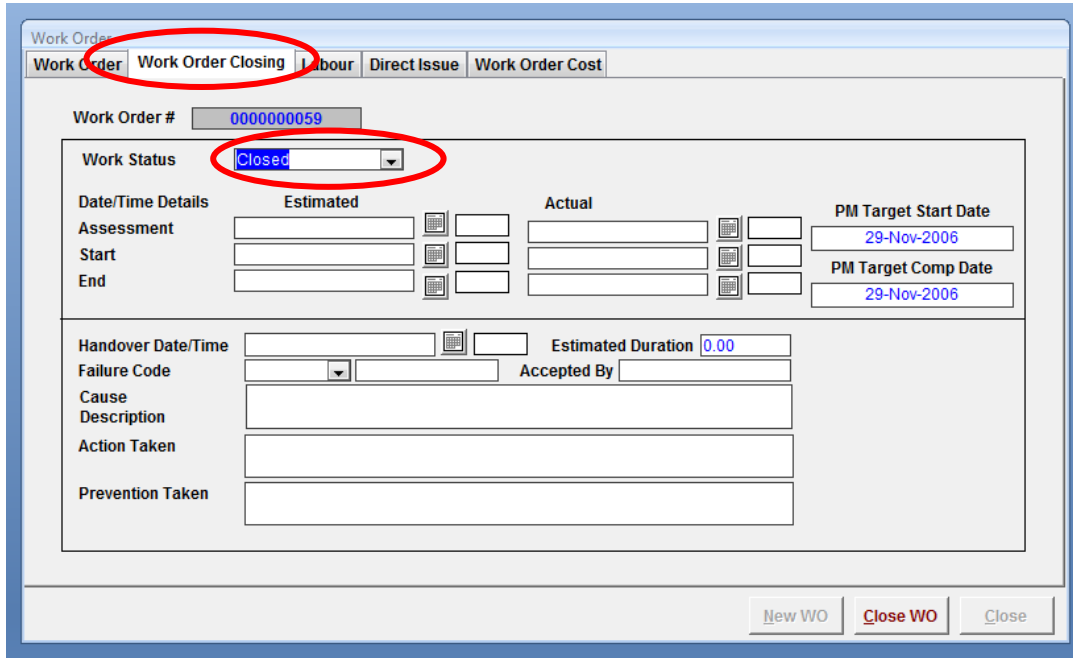



Figure 12: Work Order – “WO Closing” Tab

Fields	Description
Work Status	Upon completion of work order, set status to “Closed”
Estimated:	
Assessment Date/Time	Estimated date and time the work order is assessed.
Start Date/Time	Estimated date and time work start.
End Date/Time	Estimated date and time work completed.
Actual:	
Assessment Date/Time	Actual date and time that work was attended to.
Start Date/Time	Actual date and time of start work order. <i>Mandatory field.</i>
End Date/Time	Actual date and time work order completed. <i>Mandatory field.</i>
PM Target Start Date	Target start date of a preventive maintenance work order.
PM Target Comp. Date	Target complete date of a preventive maintenance work order.

Fields	Description
Accepted By	Requester who acknowledged the closed work order.
Handover Date/Time	Specify a handover date for the work.
Estimated Duration	Estimated duration time for the work order to complete.
Failure Code	Choose from the list. A unique code can be assigned for each breakdown work order. Failure codes are defined in the masters.
Cause Description	Memo field to describe the cause of the problem.
Action Taken	Memo field to describe the action taken.
Prevention Taken	Memo field to describe the prevention taken.
	Click on this button to close the work order. You will be prompted whether you wish to save the changes. Click <u>Y</u> es to save the changes and exit or <u>N</u> o to exit the screen without saving the changes. Note: Users cannot modify a closed work order.

2.8 How To Add Labour In The Work Order

Employee and man-hour details are entered in the Labour tab of the Work Order form. Click on “Work Order – Labour” tab to enter labour details.


Work Order # 000000059

	Hours				Total	
	Normal	OT1	OT2	OT3	Hours	Cost
	0.00	0.00	0.00	0.00	0.00	0.00

Employee	Start Date/Time	End Date/Time	Normal	OT1	OT2	OT3	Total Hours
ALEX LAI	17-Sep-2006 9:00:00 AM	17-Sep-2006 11:00:00 AM	2.00	0.00	0.00	0.00	2.00
DAVID NG	17-Sep-2006 10:00:00 AM	17-Sep-2006 1:00:00 PM	3.00	0.00	0.00	0.00	3.00

Total Hours : 5.00 Total Cost : 75.00

Figure 13: Work Order – “Labour” Tab

Fields	Description
Employee	Choose from the list. Names of employees who executed the job. Users can also add a new employee to the master database by clicking on the Employee button, which is located to the right of the field.
Start Date/Time	Date and time the employee started on the work order.
End Date/Time	Date and time the employee finished on the work order
Comments	Any comment written by the employee.
Hours	
Normal	Normal working hours
OT1, OT2, OT3	Over time hours
Total	
Hours	Total hours for each employee
Cost	Total Cost for each employee depending on the rates set in the employee masters.
	Click on save button to save the record.
Delete	To delete an erroneous entry, select the record by clicking once on it and hit the “Backspace” key.

2.9 How To Add Direct Issue In The Work Order

Parts or services without a part that are used in a work order can be defined in the Direct Issues tab. The Direct Issue tab allows users to key in details and parts used or services used without any pre-definitions.

Click on the "Work Order – Direct Issue" tab.

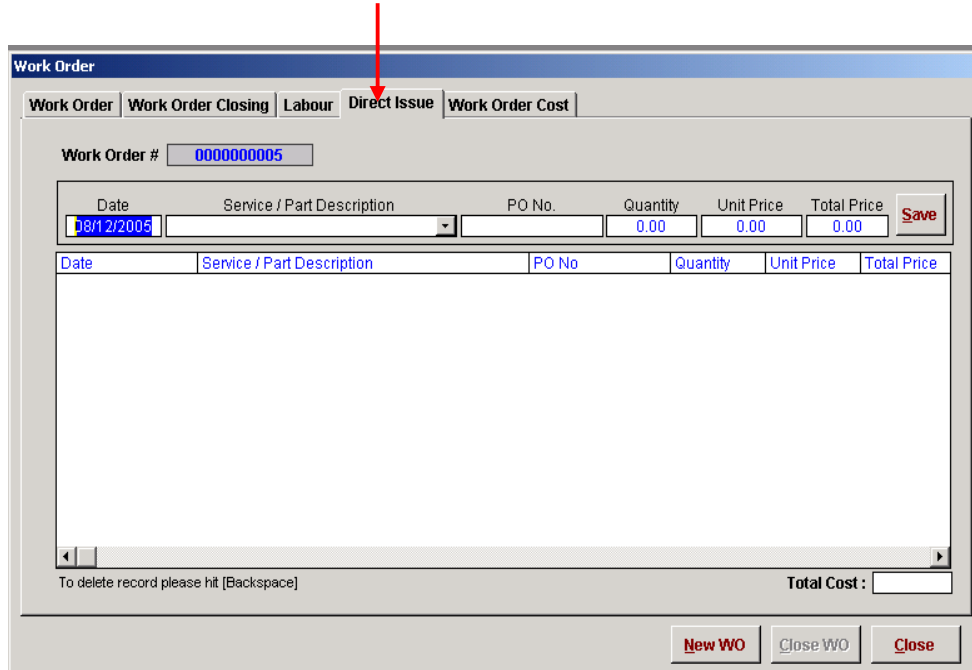



Figure 14: Work Order – "Direct Issue" Tab

Fields

Description

Date	Date when the transaction took place.
Service/Part Desc.	Part used on the work order not from the Material module
PO No	Purchase order number.
Quantity	Quantity part used
Unit Price	Price for the part
Total Parts	Automatically calculated by the system.

	Formula = Qty * Unit price Click on the save button to save the record.
---	--

Delete	To delete an erroneous entry, select the record by clicking once on it and hit the "Backspace" key.
--------	---

2.10 How to View Total Cost Of A Work Order

This section displays the total cost of a work order in local currency. This includes labour cost, direct issue cost and parts cost. Click on "Work Order – Work Order Cost" tab.

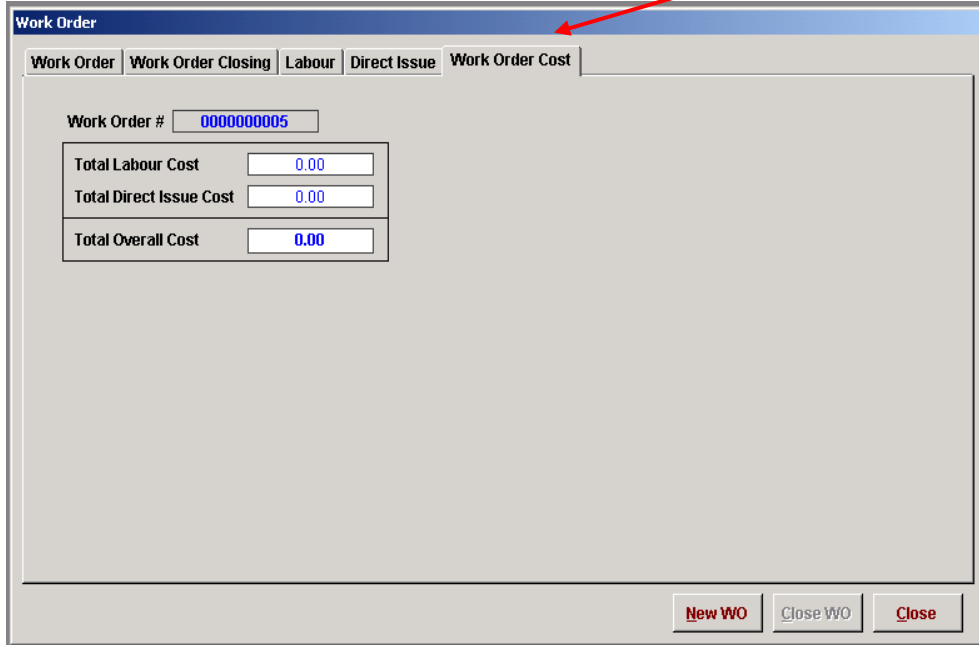


Figure 15: Work Order – "Work Order Cost" Tab

Fields	Description
Total Labour Cost	The system will automatically display the total. The data is from Labour tab.
Total Direct Issues Cost	The system will automatically display the total. The data is from direct issue tab.
Total Overall Cost	Total cost for the particular work order. The system will automatically display this figure. Labour Cost + Direct Issues Cost + Part Cost = Overall cost

2.11 How To Print A Work Order

A work order form can be printed out from the system for reporting and operational purposes. Select by double-clicking on work order which the user wish to print.

The screenshot displays a software interface for managing work orders. At the top, there is a table titled "Work Order List" with the following columns: Work Order #, Work Type, Work Status, AssetNo, Problem Description, Requester, and Act. The table contains several rows of data, with the row for Work Order # 0000000059 highlighted in black. Below the table, there are buttons for "New WorkOrder", "Print WO by batch", "View All", "Export to Excel", and "Close". A "No. of Records" field shows the value 57. Below these buttons is an "Advance Search" panel with "List Sorting" selected. This panel includes various search criteria such as Work Type, Work Status, Work Trade, Workorder No, Requester, Asset No, WO Priority, Failure Code, Prob. Desc., Location Desc., PM No., PM Task No., Received Date, Est Start Date, Act. Close Date, and PM Target Start Date. Each criterion has a corresponding input field and a search icon. A "Find =>" field and "Search" and "Reset" buttons are also present.

Work Order #	Work Type	Work Status	AssetNo	Problem Description	Requester	Act
0000000076	Reimbursable	Open		Repainting wall at Block A phase	HASRINA ABDUL HALIL	
0000000074	Inspection	Open		Cracked wall inside male toilet no	HASRINA ABDUL HALIL	
0000000069	Manual Preventive	Open	0006	Plan Preventive Maintenance For	DANIEL SCHMIDT	
0000000068	Manual Preventive	Open	00002	Plan Preventive Maintenance For	JAMILAH OMAR	
0000000067	Manual Preventive	Open	TV001	Telephone not functioning at med	HASRINA ABDUL HALIL	
0000000066	Breakdown	Open	000010	Leaking at Peanut Storage Tank N	DAVID NG	
0000000064	Corrective	Open	P00006	Printer Not Functioning At Preside	ROSLI HASHIM	
0000000062	Breakdown	Open		Faulty electrical wiring/equipment c	JIVARAJA AIL NADASON	
0000000059	Preventive	Open	P08-LVD-4A-A	LV DISTRIBUTION		
0000000057	Preventive	Open		PM Blanchers		
0000000056	Preventive	Open		PM Blanchers		
0000000054	Preventive	Open		PM Blanchers		
0000000053	Preventive	Open		PM Blanchers		
0000000052	Preventive	Open		PM Blanchers		
0000000051	Preventive	Open		PM Blanchers		
0000000050	Preventive	Open		PM A-Line		

Figure 16: Selecting Work Order for printing

The current work order form would pop-up. Refer to screenshot below.

Figure 17: Printing a Work Order

Click the **"Print WO"** button to print preview the work order form without Labour and Direct Issue Details. A print form in this format is typically used when distributing new work orders to employees.

In the print preview screen, the paper margins can be adjusted by clicking the Page Setup button in the print toolbar.

CWorks Free User Guide

To print the work order, click the printer button on the toolbar.

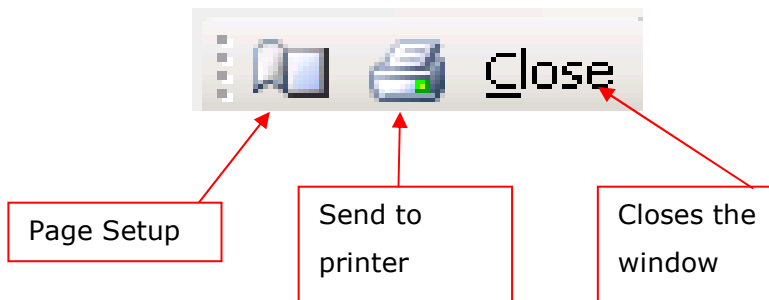
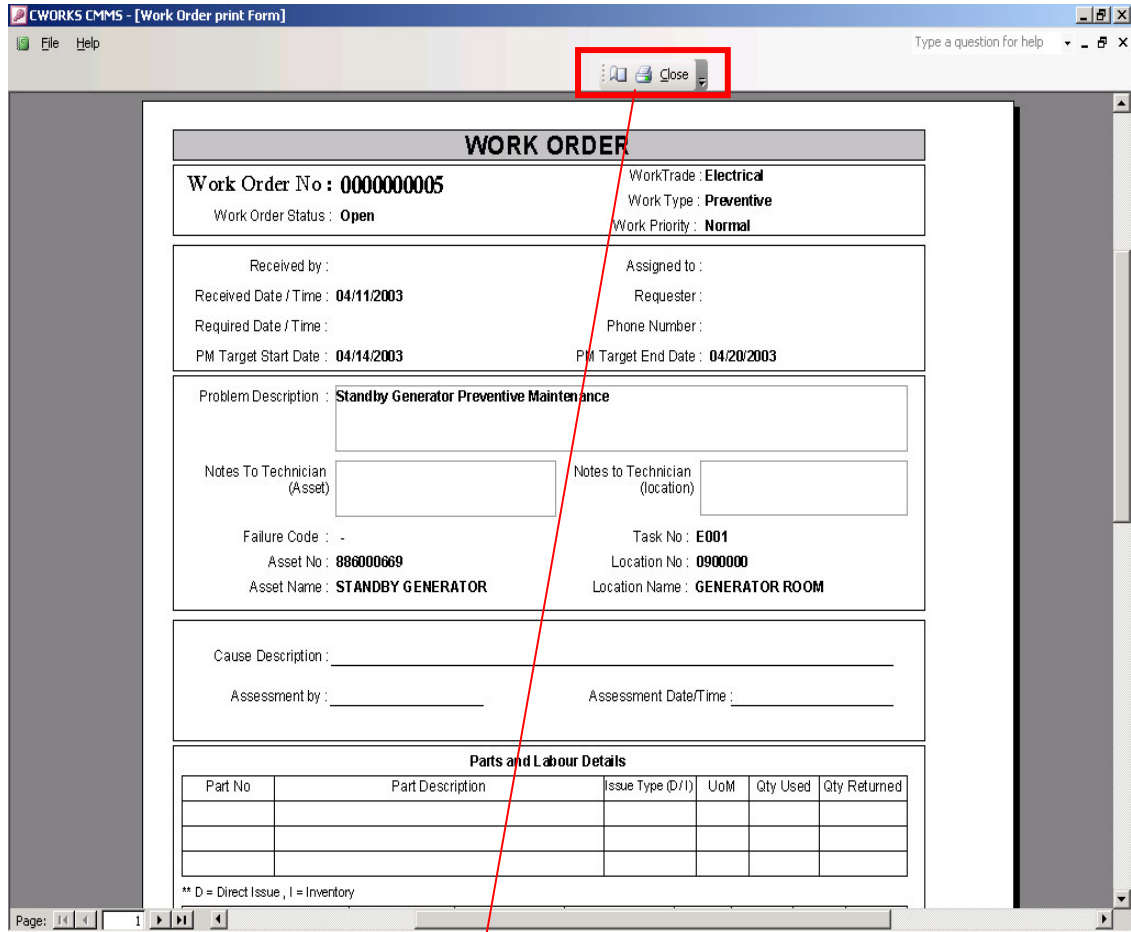


Figure 18: Toolbar - Printing

2.12 How To Print A Batch Of Work Orders

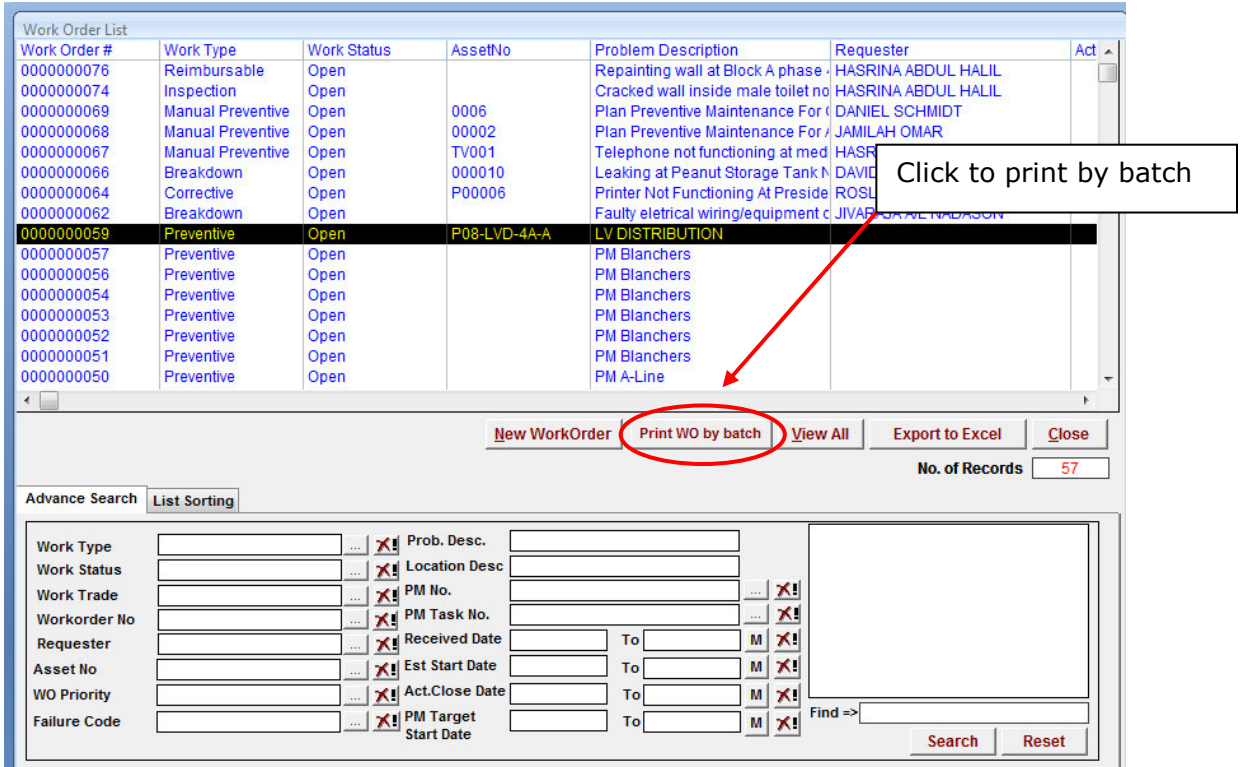


Figure 19: Printing Work Order By Batch

The screen below would pop-up and users can specify the range of work order number to print.

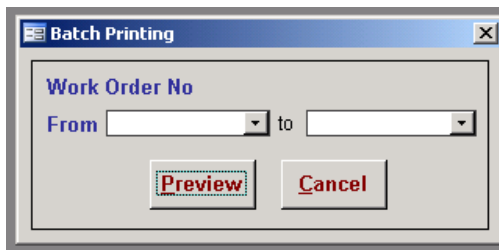


Figure 20: Batch Printing


Click on  to view the work order forms.

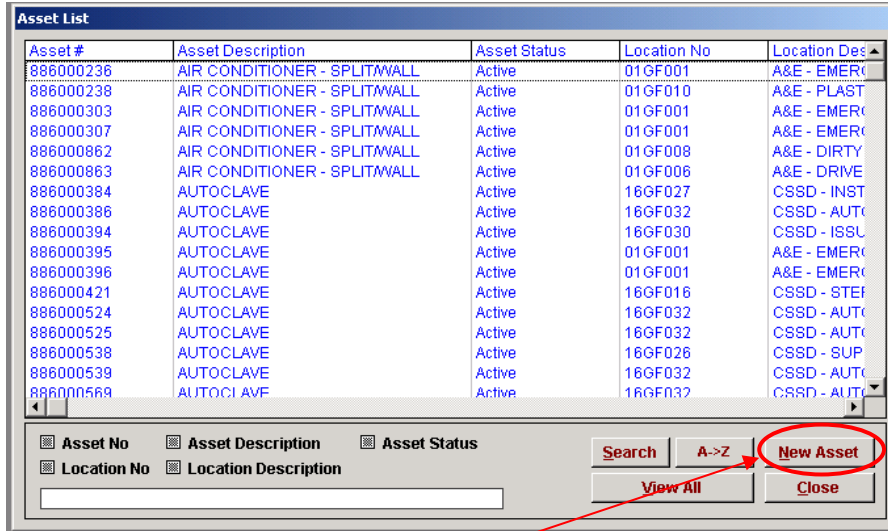
ASSET MODULE



3. ASSETS

3.1 How To Add A New Asset


Click on  button on the Main Menu, see Figure 1. A listing would pop-up.

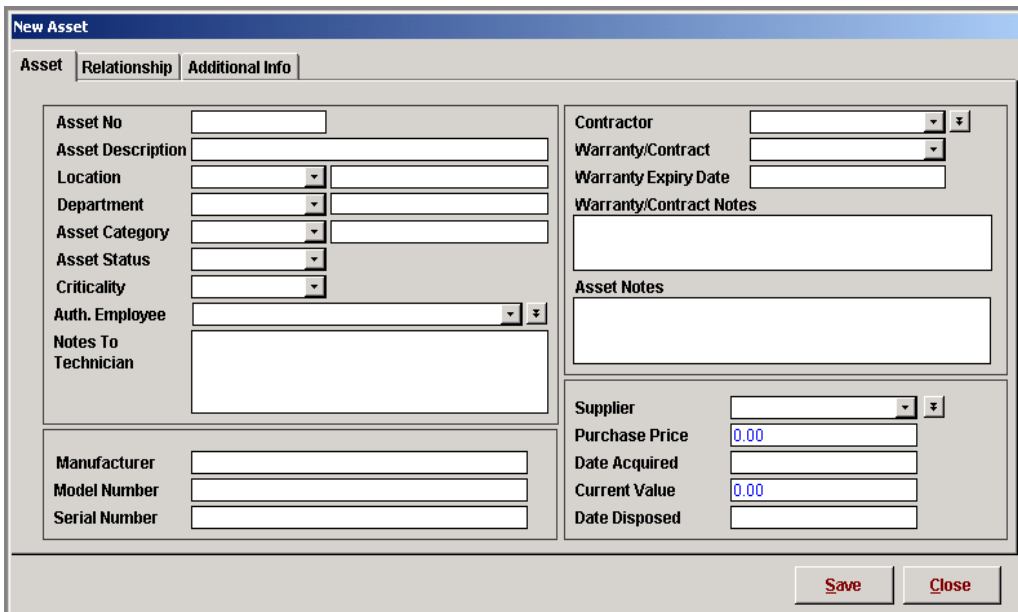


Asset #	Asset Description	Asset Status	Location No	Location Des
886000236	AIR CONDITIONER - SPLITWALL	Active	01GF001	A&E - EMER
886000238	AIR CONDITIONER - SPLITWALL	Active	01GF010	A&E - PLAST
886000303	AIR CONDITIONER - SPLITWALL	Active	01GF001	A&E - EMER
886000307	AIR CONDITIONER - SPLITWALL	Active	01GF001	A&E - EMER
886000862	AIR CONDITIONER - SPLITWALL	Active	01GF008	A&E - DIRTY
886000863	AIR CONDITIONER - SPLITWALL	Active	01GF006	A&E - DRIVE
886000384	AUTOCLAVE	Active	16GF027	CSSD - INST
886000386	AUTOCLAVE	Active	16GF032	CSSD - AUT
886000394	AUTOCLAVE	Active	16GF030	CSSD - ISSU
886000395	AUTOCLAVE	Active	01GF001	A&E - EMER
886000396	AUTOCLAVE	Active	01GF001	A&E - EMER
886000421	AUTOCLAVE	Active	16GF016	CSSD - STEF
886000524	AUTOCLAVE	Active	16GF032	CSSD - AUT
886000525	AUTOCLAVE	Active	16GF032	CSSD - AUT
886000538	AUTOCLAVE	Active	16GF026	CSSD - SUP
886000539	AUTOCLAVE	Active	16GF032	CSSD - AUT
886000569	AUTOCLAVE	Active	16GF032	CSSD - AUT

Buttons: Search, A->Z, **New Asset**, View All, Close

Figure 21: Asset List

To add new assets, click  button. A New Asset screen would pop-up.



New Asset

Asset | Relationship | Additional Info

Asset No:

Asset Description:

Location:

Department:

Asset Category:

Asset Status:

Criticality:

Auth. Employee:

Notes To Technician:

Contractor:

Warranty/Contract:

Warranty Expiry Date:

Warranty/Contract Notes:

Asset Notes:

Supplier:

Purchase Price:

Date Acquired:

Current Value:

Date Disposed:

Manufacturer:


Model Number:

Serial Number:

Buttons: Save, Close

Figure 22: New Asset

Fields	Description
Asset No	A unique number assigned to an asset.
Asset Description	Enter a description for the asset
Location	Choose from the list. Code assigned to a location and its description. This data is set in the masters.
Department	Choose from the list. Code assigned to a department and its description. This data is set in the masters.
Asset Category	Choose from the list. Different types of assets are grouped together under an asset category. This enables easy management of asset data and retrieval. This data is set in the masters.
Asset Status	<p>Choose from the list. The current asset status describes which operational state the asset is in. A code assigned to an asset status and its description. This data is set in the masters.</p> <p>Options are:</p> <p><i>Active</i> = an asset which is currently in service and on site</p> <p><i>In-active</i> = an asset which is not in service</p> <p><i>Disposed</i> = an asset which has been taken out of service permanently.</p> <p><i>Lost</i> = an asset which cannot be accounted for in an audit, therefore no disposable details.</p> <p><i>In-storage</i> = an asset which is currently in service but not kept on site.</p> <p>Note : If there is any OPENED PM work order, system will prompt a message when user wants to change the status.</p>
Criticality	Choose from the list. Defines the criticality depending on the usage of the equipment. A code assigned to a criticality and its description. This data is set in the masters.
Auth. Employee	Choose from the list. Authorised Employee is an employee which has been given the rights and accountabilities for that particular asset. A code assigned to an employee with its description. This data is set in the masters. User can also add a new employee to the master database by clicking on the button, which is located to the right of the field.
Notes to Technician	This field is used to describe additional important information pertaining to the asset. User is allowed to update this field from the work order.

Fields	Description
Model Number	Enter the model number of the asset which can be obtained from the warranty card or on the asset nameplate.
Serial Number	Enter the serial number of the asset which can be obtained from the warranty card or on the asset nameplate.
Manufacturer	Enter the manufacturer of the asset in this field. Choose from the list. A contractor is an external company which is
Contractor	authorized to service and maintain an equipment. A unique code assigned to a contractor and its description. This data is set in the masters. Choose from the list. A unique code assigned to a warranty/contract and its description. This data is set in the masters.
Warranty/Contract	Options are: <i>Warranty</i> = assets which are within the manufacturer warranty period. <i>Contract</i> = assets which are under service contracts
Warranty Expiry Date	Enter the date of the warranty expiry.
Warranty/Contract Notes	Enter additional notes on the warranty or contract, if applicable.
Asset Notes	Enter additional notes on the warranty or contract, if applicable . Choose from the list. A supplier is a company which supplies the assets.
Supplier	A unique code assigned to a supplier and its description. This data is set in the masters. User can also add a new supplier to the master database by clicking on the  button, which is located to the right of the field.
Purchase Price	Enter the purchase price of the asset.
Date Acquired	Enter the date the asset was acquired. Calculated field based on a linear depreciation rate.
Current Value	$\text{Current Value} = \text{Purchase Price} - \left[\frac{(\text{Today's Date}) - (\text{Date Acquired})}{\text{Estimated Life}} \right]$
Date Disposed	Enter the date when the asset was disposed (if applicable)
	Click on this button to save any changes
	Click on this button to close the screen without saving the record

Note: Once an asset has been registered, the system would not allow removal of the asset number. However, details on the asset can be modified.

3.2 How To Add Additional Information For A Particular Asset


The screenshot shows a window titled "New Asset" with three tabs: "Asset", "Relationship", and "Additional Info". The "Additional Info" tab is selected and circled in red. Below the tabs is an "Asset No" field. The main area contains 20 text input fields, labeled "Additional Info 1" through "Additional Info 20", arranged in two columns of ten. At the bottom right, there are "Save" and "Close" buttons.

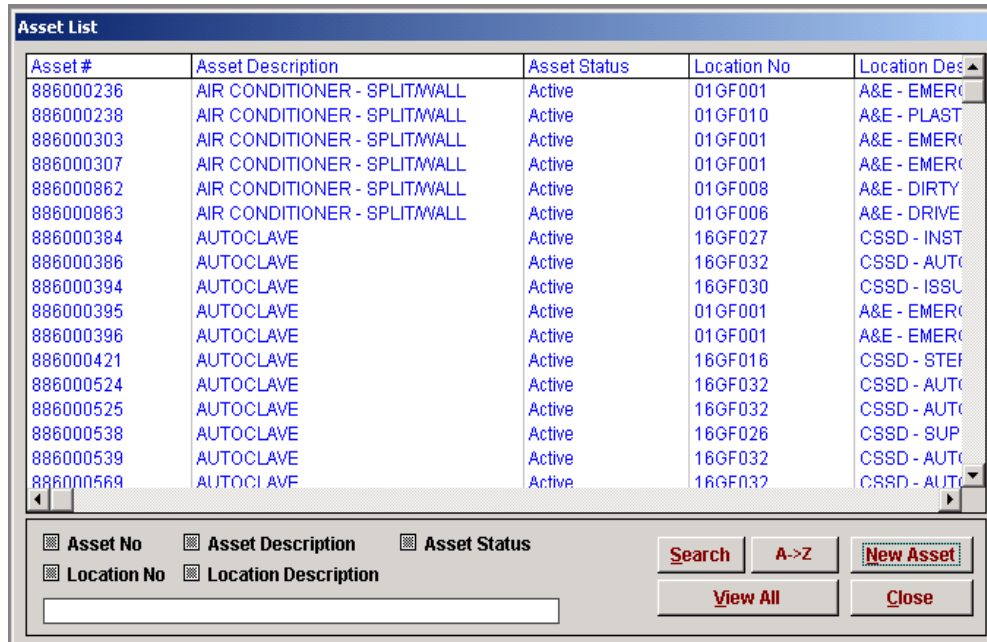
Figure 23: Assets – “Additional Info” Tab

Click on "Assets – Additional Info tab". Using the fields Additional Info 1 through 20, enter any additional information regarding the particular asset which the customer may require. These fields can be used for customizing the information to be stored for your assets.

3.3 How To View and Modify Existing Assets

CWorks allows the user to view existing assets in the system. If the user finds any incorrect data or wishes to change any of the fields, they could modify the data as required.

Click  button on the main menu (see Figure 1). Asset listings would pop-up. It will show the user a list of all the assets in the database.



Asset #	Asset Description	Asset Status	Location No	Location Description
886000236	AIR CONDITIONER - SPLITWALL	Active	01GF001	A&E - EMERGENCY
886000238	AIR CONDITIONER - SPLITWALL	Active	01GF010	A&E - PLASTER
886000303	AIR CONDITIONER - SPLITWALL	Active	01GF001	A&E - EMERGENCY
886000307	AIR CONDITIONER - SPLITWALL	Active	01GF001	A&E - EMERGENCY
886000862	AIR CONDITIONER - SPLITWALL	Active	01GF008	A&E - DIRTY
886000863	AIR CONDITIONER - SPLITWALL	Active	01GF006	A&E - DRIVE
886000384	AUTOCLAVE	Active	16GF027	CSSD - INSTANT
886000386	AUTOCLAVE	Active	16GF032	CSSD - AUTOCLAVE
886000394	AUTOCLAVE	Active	16GF030	CSSD - ISSUED
886000395	AUTOCLAVE	Active	01GF001	A&E - EMERGENCY
886000396	AUTOCLAVE	Active	01GF001	A&E - EMERGENCY
886000421	AUTOCLAVE	Active	16GF016	CSSD - STEEL
886000524	AUTOCLAVE	Active	16GF032	CSSD - AUTOCLAVE
886000525	AUTOCLAVE	Active	16GF032	CSSD - AUTOCLAVE
886000538	AUTOCLAVE	Active	16GF026	CSSD - SUPPLY
886000539	AUTOCLAVE	Active	16GF032	CSSD - AUTOCLAVE
886000569	AUTOCLAVE	Active	16GF032	CSSD - AUTOCLAVE


Asset No Asset Description Asset Status
 Location No Location Description

Figure 24: Asset List

Double-click on any of the assets to view and modify details on the particular asset. The screen below will appear, see Figure 25.

Current Asset			
Asset	Relationship	Additional Info	Work Order History
Asset No.	886000236		
Asset Description	AIR CONDITIONER - SPLITWALL		
Location	01GF001	A&E - EMERGENCY UNIT	
Department	104	Accidents & Emergencies	
Asset Category	100-001	AIR CONDITIONER - SPLITWALL	
Status	Active		
Criticality	Normal		
Auth. Employee	Eddie Cunningham		
Notes To Technician			
Manufacturer	CARRIER INC		
Model Number	CARRIER 42J8-012		
Serial Number	4003678		
Contractor	Applied Industrial Resou		
Warranty/Contract	Warranty		
Warranty Expiry Date	05/22/2003		
Warranty/ContractNotes			
Asset Notes			
Supplier	Applied Industrial Resources		
Purchase Price	6,000.00		
Date Acquired	05/22/2002		
Current Value			
Date Disposed			

Figure 25: Sample of Current Asset

To modify the fields in any tabs, simply put in the changes and click . A message box would pop-up requesting confirmation. Click "Yes" to save the changes or "No" to undo all changes.

3.4 How To Add The Relationships Of A Particular Asset To Other Assets

Some assets may be part of a hierarchy, in that it is the child of one asset and a sibling of another. This information is particularly important when an equipment breaks down, it can be replaced by a similar asset in the hierarchy. It can also be used to describe a system (refer to example below).

Following is an example of a Relationship tree and how it is handled in CWorks.

EXAMPLE:

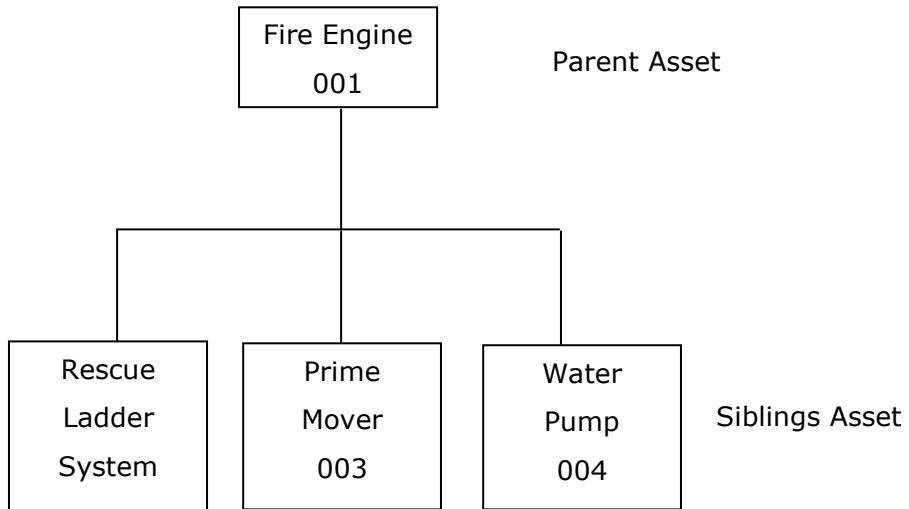


Figure 26: Example of Asset Relationships

CWorks Screen Representation: Assets 002, 003 & 004 are saved as Siblings to the Parent (001)

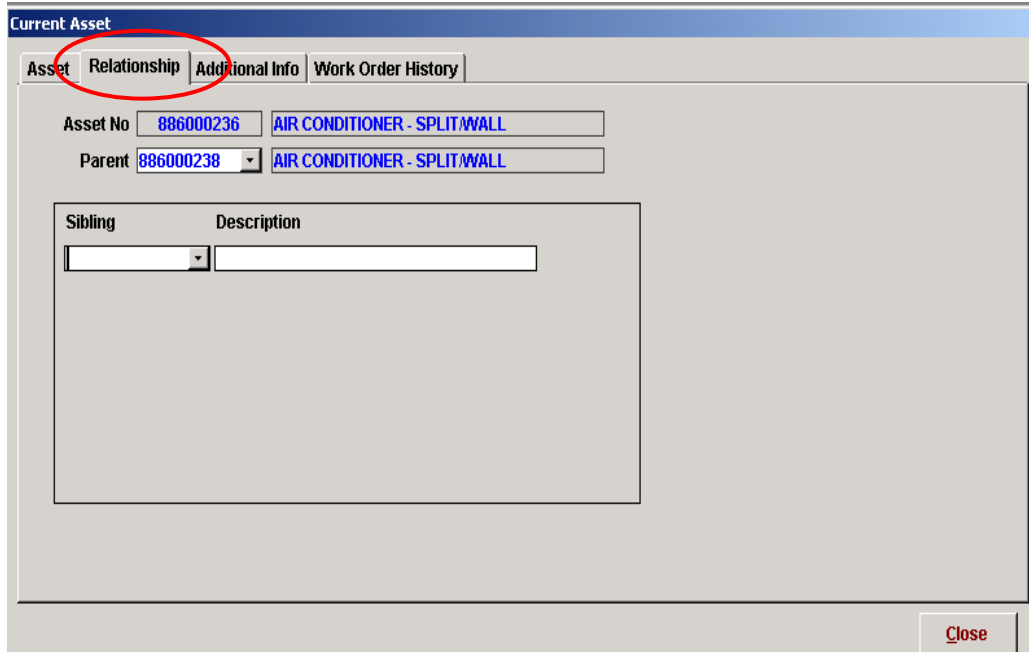
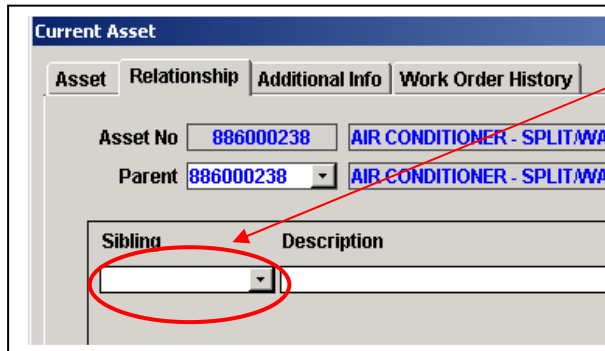


Figure 27: Current Asset - Relationship

Asset No 001 - Fire Engine, will appear automatically as the "Parent" asset when in any of the sibling Asset Forms. This avoids erroneous assigning of Relationships.



Note: To delete an entry, highlight the unique no and hit the "Delete" key.

Figure 28: Deleting Relationship

Fields	Description
Parent	Automatically.
Sibling	Choose from the list. A code assigned to an asset and its description. This data is set in the masters. This asset is of parallel relation to the asset picked.
Status	Displays the status of the asset

3.4.1 How To View And Modify Relationship On A Particular Asset

Refer to "How To Add The Relationships Of A Particular Asset To Other Assets"

3.5 How To View And Modify Additional Info On A Particular Asset

From the Current Asset page (see Figure 25), select the Additional Info tab. To modify any field in the page above, simply put in the changes and click Close. A message box would pop-up requesting for confirmation. Click "Yes" to save the changes or "No" to undo all changes.

3.6 How To View Work Order History On A Particular Asset

When a work order is raised on a specific asset, the system will automatically display all work orders related to the asset. This is very useful when trying to generate a history of all work done on an asset. Click on any registered assets and select the Work Order History tab (see Figure 29)

A list of all work orders raised on the asset will be displayed. Among other information displayed is work order status, received date, start date, end date.

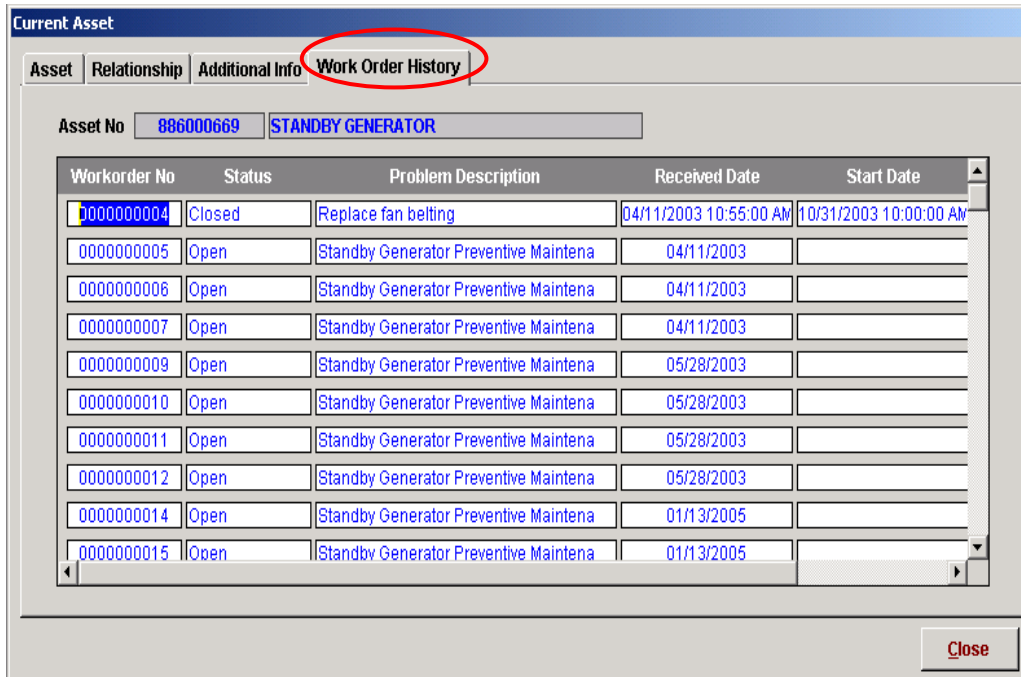
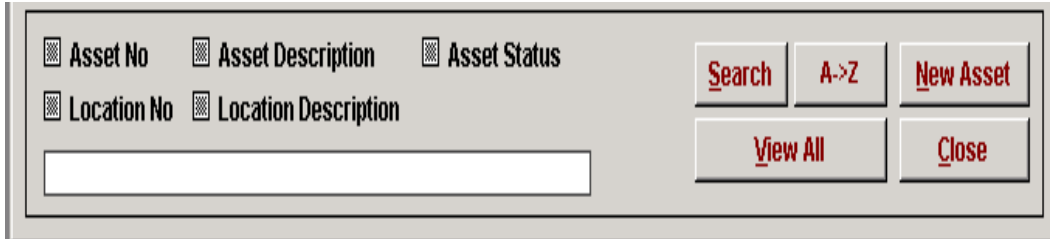


Figure 29: Work Order History

3.7 How To Do Search On Asset Information

A Search option is available in the Asset List form. Its function is to enable filtering of assets by a combination of parameters defined by the user.



The screenshot shows a search interface with a text input field at the bottom left. Above it are five checkboxes: 'Asset No', 'Asset Description', 'Asset Status', 'Location No', and 'Location Description'. To the right of the checkboxes are five buttons: 'Search', 'A->Z', 'New Asset', 'View All', and 'Close'.

Figure 30: Advance Search

Search can be done on:-

- Asset No.
- Asset Desc.
- Location No.
- Location Desc.
- Asset Status

To do a search, click on the field of choice, enter the field contents and click on the

 button.

User can also sort a search results, ascending or descending order, by clicking on the

 button.


LOCATION MODULE



4. LOCATION

4.1 How To Add A New Location

Locations can be organised by assigning codes. This would help users locate buildings, floors and rooms easily. Users can also use location codes to raise service work order.

Click on  in the Main Menu, see Figure 1. Location listing would pop-up.

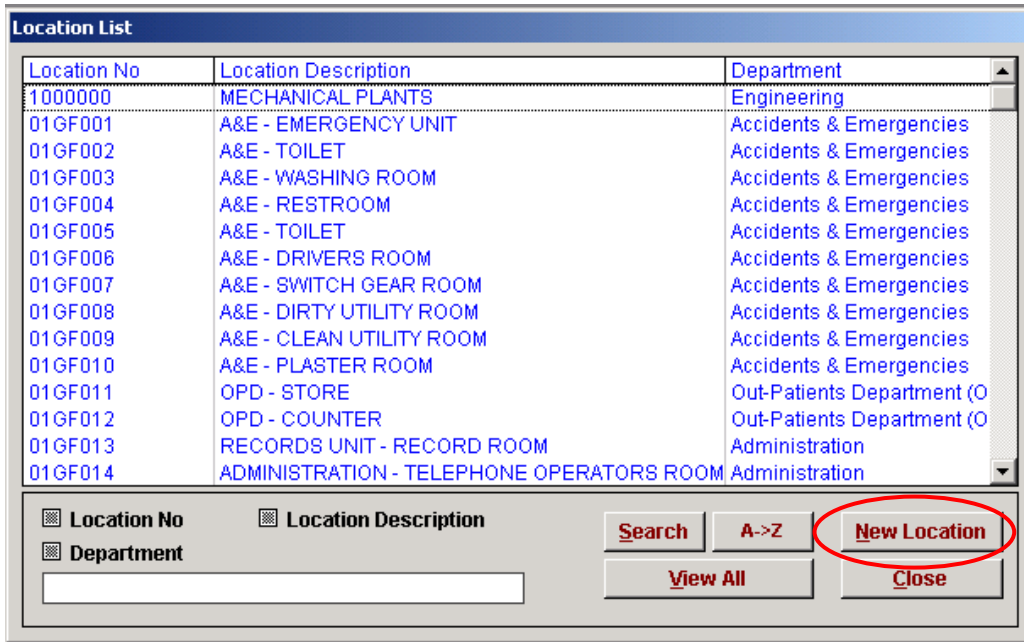


Figure 31: Location List

To add a new location, click  button. A New Location screen would pop-up.

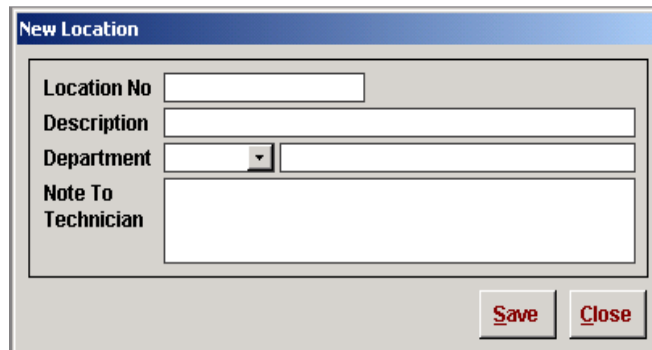

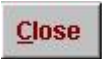



Figure 32: New Location

Fields	Description
Location No	Assign a unique number to the new location you wish to register.
Description	Enter a description of the location.
Department	Choose from the list. User could be assigned a department to a location. This data is set in the department - masters.
Notes To Technician	This field is used to describe additional important information pertaining to the location.
	Click on this button to save any changes.
	Click on this button to close the screen without saving the record.

4.2 How To View And Modify A Location?

Click  button on the main menu, a Location List will pop-up. It will show you a list of all the locations in your database. Once a location has been registered, the system would not allow removal of the location number. However, details on the location can be modified.

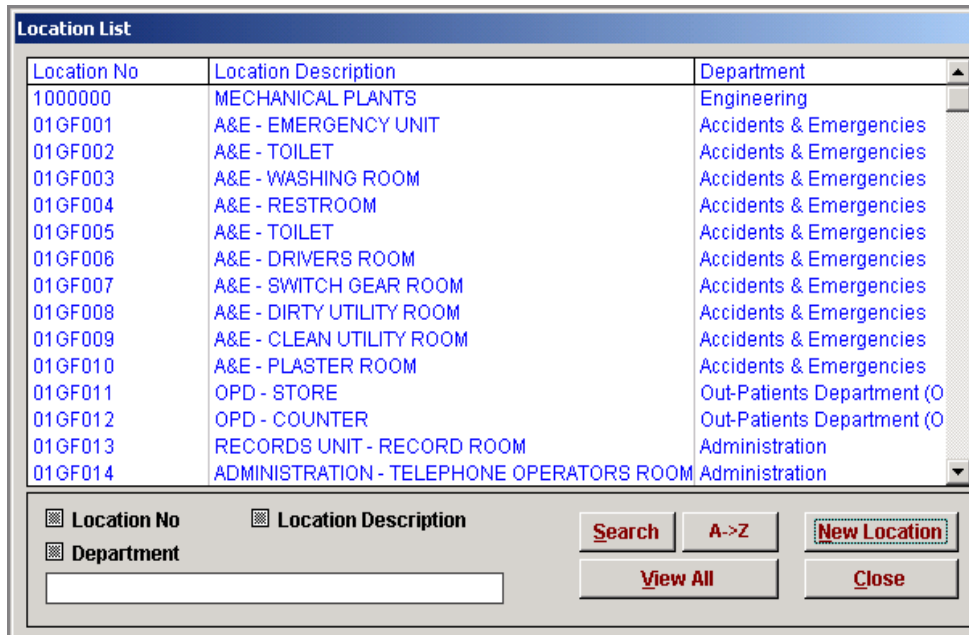


Figure 33: Location List

Double-click on any of the locations and you are able to view and modify details on the particular location. The Current Location screen, see Figure 34, would pop-up. Modify the fields in the form and click Close. You will be prompted whether you wish to save the changes. Click "Yes" to save the changes and exit or "No" to exit the screen without saving the changes.

The screenshot shows a software window titled "Current Location". It contains several input fields and a table. The "Location No" field contains "01GF014". The "Location Description" field contains "ADMINISTRATION - TELEPHONE OPERATORS R". The "Department No" field is a dropdown menu showing "101" and "Administration". To the right is a "Notes To Technician" text area. Below these is a "Work Order History" table with columns for Workorder No, Status, Received Date, Problem Description, and Start Date. One row is visible with the following data: Workorder No: 000000003, Status: Closed, Received Date: 04/11/2003, Problem Description: Roof leaking at Administration - Oper, Start Date: 02/23/2004 9:00:00 AM. A "Close" button is located at the bottom right of the window.

Workorder No	Status	Received Date	Problem Description	Start Date
000000003	Closed	04/11/2003	Roof leaking at Administration - Oper	02/23/2004 9:00:00 AM

Figure 34: Current Location

4.3 How To Filter Out Location Information

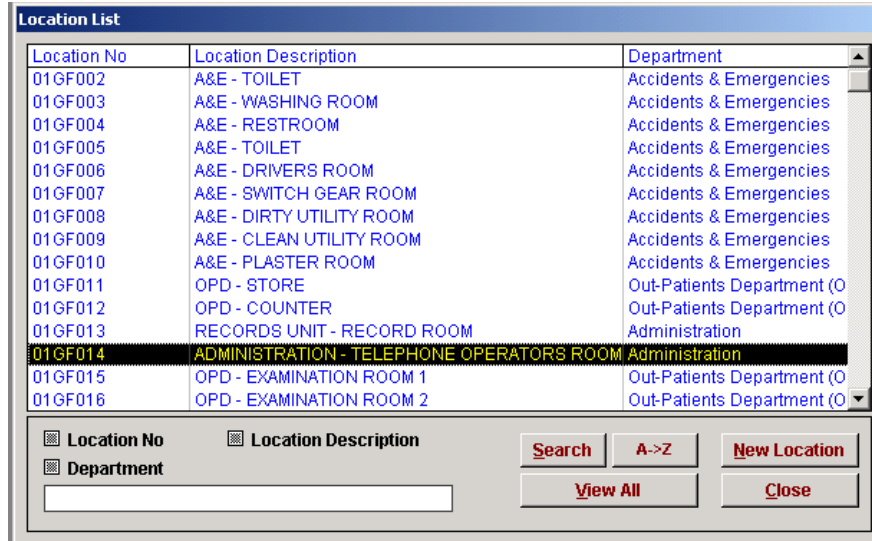


Figure 35: Search Options

The above options will allow you to filter or narrow down your search result. The options are :

- Location No
- Location Description
- Department

To do a search, click on the field of choice, enter the field contents and click on the **Search** button. User can also sort a search results, ascending or descending order, by clicking on the **A->Z** button.

PREVENTIVE MAINTENANCE MODULE



5. PREVENTIVE MAINTENANCE

Preventive Maintenance activities in CWorks can be scheduled either by fixed time intervals or by meters / condition monitoring. The following components are available in the Preventive Maintenance Screen.

- PM Task List – Displays the PM Task List master. New PM Tasks can be added and existing PM Tasks can be viewed or modified in this section.
- PM Schedule - Displays the master list of PM Schedules. New PM schedules can be added or existing PM schedules can be viewed or modified in this section.
- PM Generation - Automatic generation of fixed time based PM Work Orders is accomplished via this screen.
- Close – Exits the menu.

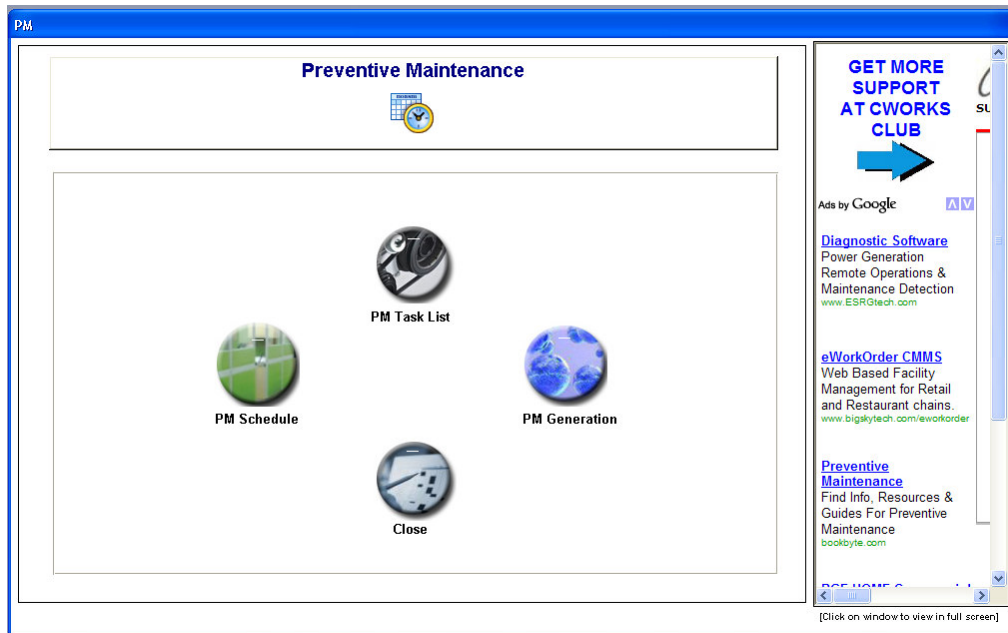



Figure 36: PM Main Menu

5.1 How To Register a New PM Task

Click on the Preventive icon in the main menu, see Figure 1. Click on  in the PM main-menu, see Figure 37. The PM Task screen (as seen below) would pop-up.

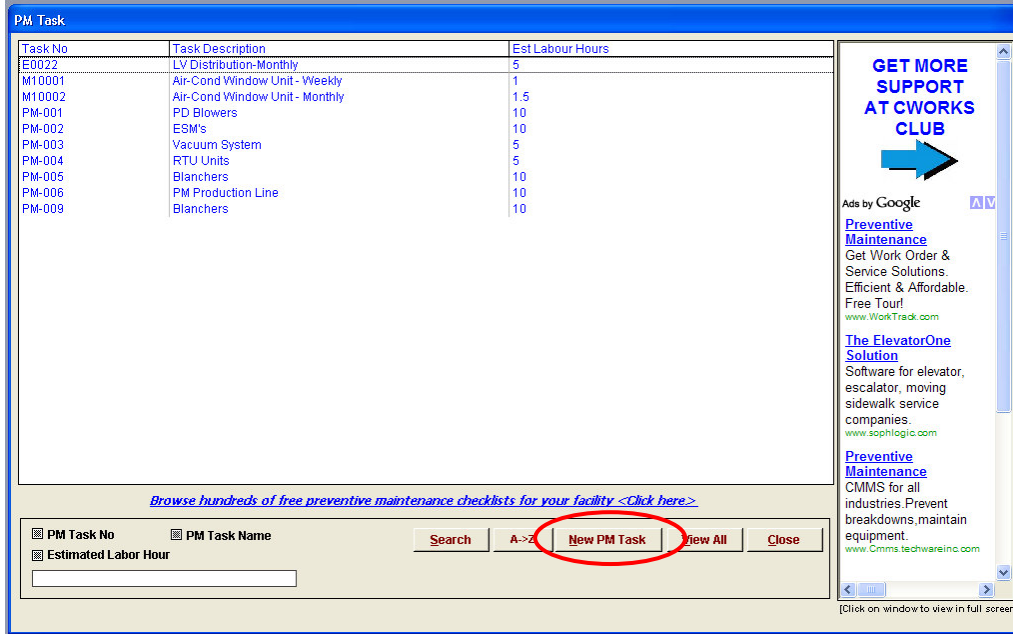



Figure 38: PM Task List

Click on  in the PM Task List screen to activate the New PM Task screen.

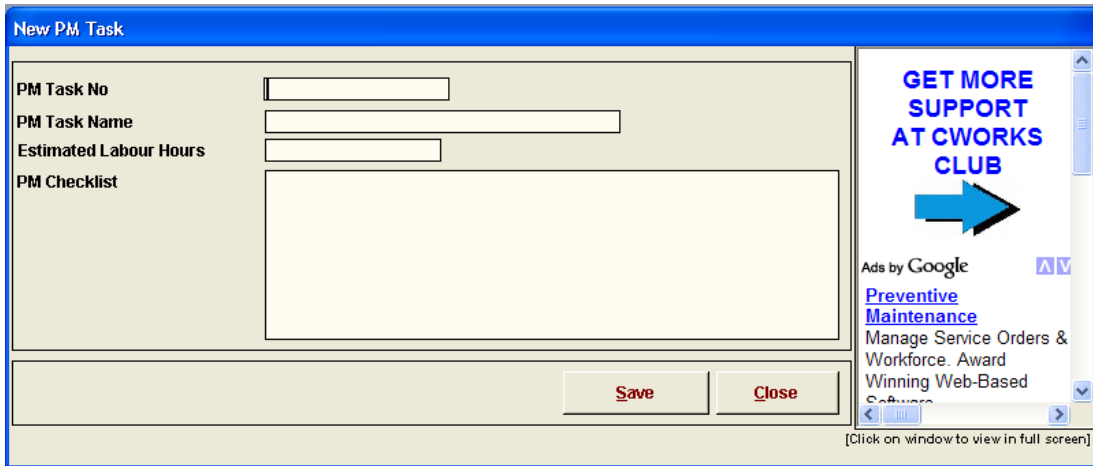



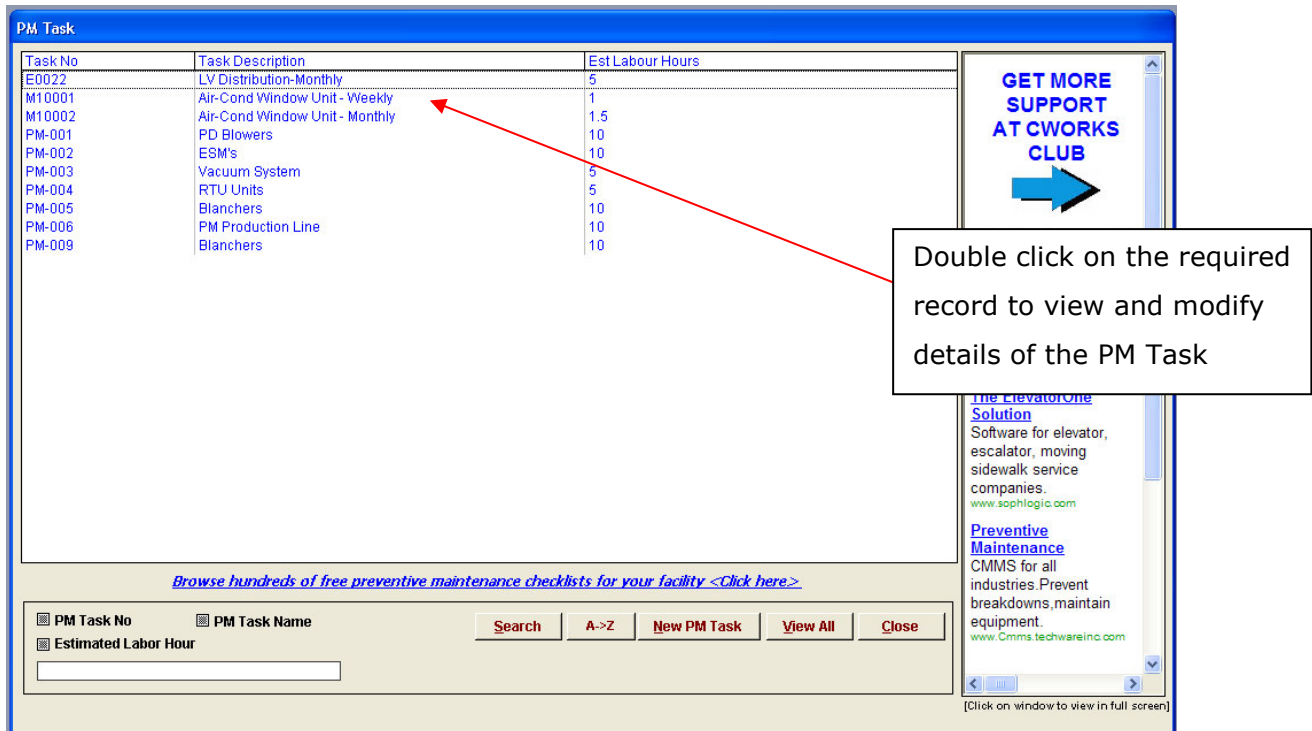
Figure 39: New PM Task

Field	Description
PM Task No	Identifier of the PM Task master record.
PM Task Name	Description of the PM Task master.
Estimated Labour Hours	The estimated labour hours to complete the PM Task.
PM Checklist	The list of tasks to be carried out for this PM

5.1.1 How To View And Modify An Existing PM Task

Click on **“PREVENTIVE”** button on the main menu, a PM submenu would pop-up.

Click on . The PM Task screen (below) would pop-up. It will show you a list of all the PM Tasks in your database.



Task No	Task Description	Est Labour Hours
E0022	LV Distribution-Monthly	5
M10001	Air-Cond Window Unit - Weekly	1
M10002	Air-Cond Window Unit - Monthly	1.5
PM-001	PD Blowers	10
PM-002	ESM's	10
PM-003	Vacuum System	5
PM-004	RTU Units	5
PM-005	Blanchers	10
PM-006	PM Production Line	10
PM-009	Blanchers	10

Double click on the required record to view and modify details of the PM Task

GET MORE SUPPORT AT CWORKS CLUB

[The ElevatorOne Solution](#)
Software for elevator, escalator, moving sidewalk service companies.
www.sophitegic.com

[Preventive Maintenance](#)
CMMS for all industries. Prevent breakdowns, maintain equipment.
www.Cmms.techwareinc.com

Browse hundreds of free preventive maintenance checklists for your facility <Click here>

PM Task No PM Task Name Estimated Labor Hour

Search A->Z New PM Task View All Close

[Click on window to view in full screen]

Figure 40: PM Task List

5.1.2 How To Modify PM Tasks

To modify an existing PM Task, double click on the required record in the PM Task List screen.

To modify the task descriptions, double click on the record to be amended, see Figure 39.

Note: Once a PM Task has been registered, the system would not allow removal of the PM Task number. However, details on the PM Task can be modified. The Current PM Task screen will appear, see Figure 41. Modify the fields in the form and click Close.

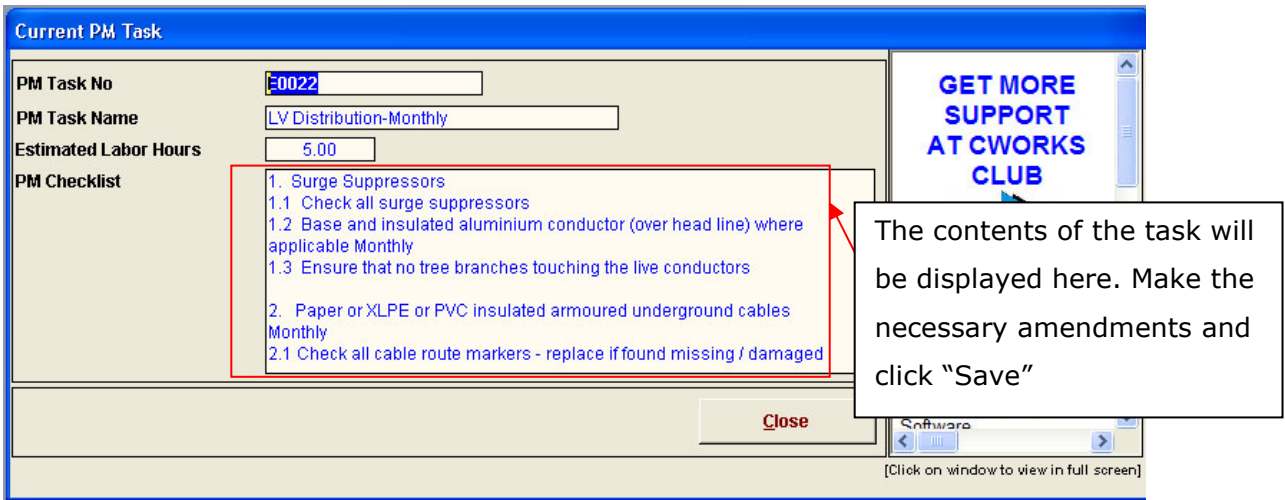
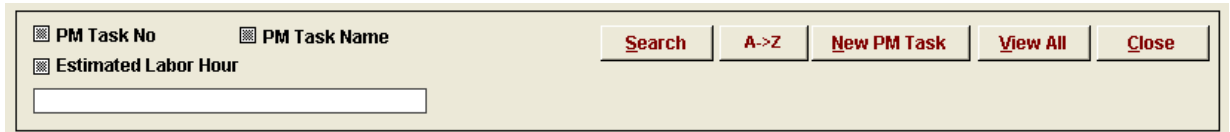


Figure 41: Current PM Task

5.2 How To Filter A PM Task






The screenshot shows a search options bar with a light beige background. On the left, there are three filter options, each with a small square icon: 'PM Task No', 'PM Task Name', and 'Estimated Labor Hour'. Below these is a white text input field. On the right side of the bar, there are five buttons: 'Search', 'A->Z', 'New PM Task', 'View All', and 'Close'. The 'Search' and 'A->Z' buttons are highlighted with a grey border.


Figure 42: Search Options

Below the PM Task listing screen, there is a bar which will allow users to filter or narrow down the search result. The options are:

- PM Task No
- PM Task Name
- Estimated Labour Hours

To do a search, click on the field of choice, enter the field contents and click on the  button.  also sort a search results, ascending or descending order, by clicking on the  button.

5.3 How to Add New PM Schedule

Click on  in the main PM menu, see Figure 36, the screen (below) see Figure 42 would pop-up. It will show you a list of the entire PM schedule in your database.

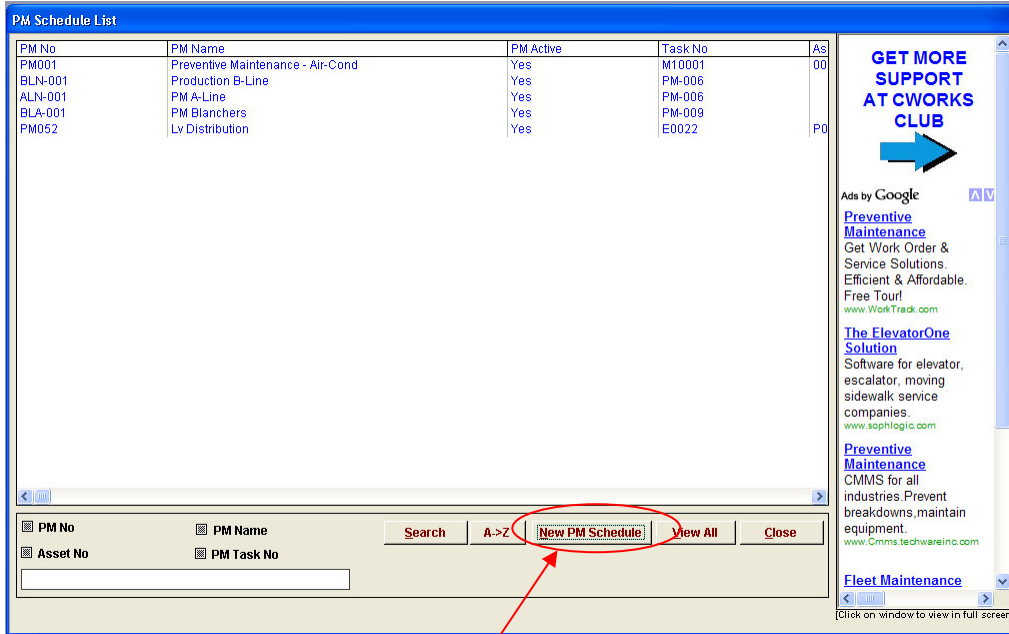


Figure 43: Selecting PM Type

This will activate new PM Schedule screen as below.

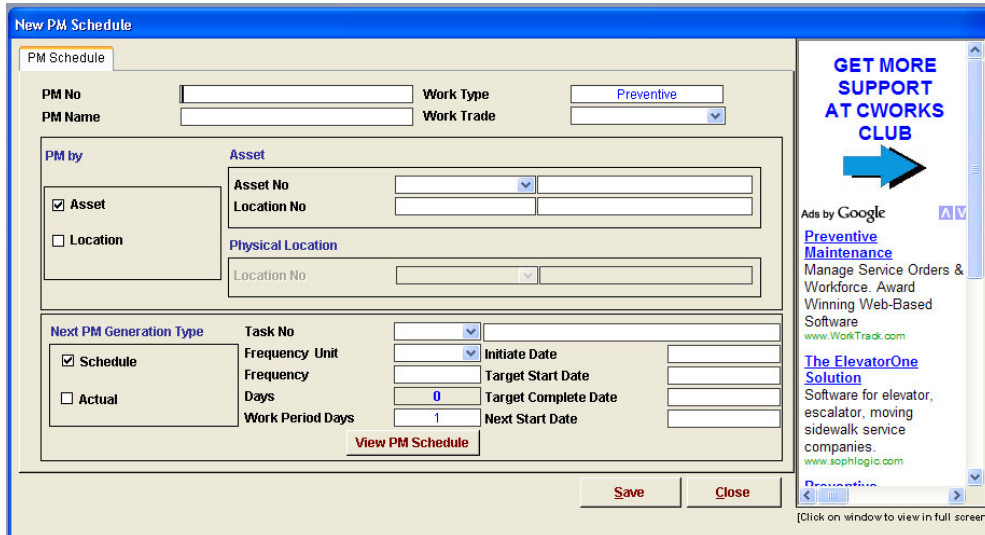


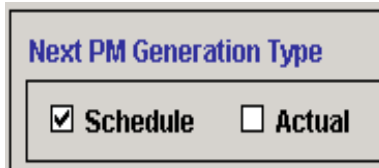
Figure 44: New PM Schedule

Fixed time interval based PM Schedules for assets or physical locations are created in the New PM Schedule screen. Upon completing all fields in the screen, click on Save to save the record or Close to exit without saving the record.

Field	Description
PM No	Identifier of the PM Schedule master record.
PM Task Name	Description of the PM Schedule master record.
Work Type	Classification of type of work order. Defaults to Preventive. <i>Read only field.</i>
Work Trade	The trade or section that is primarily responsible for the work (obtained from the Work Trade Master)
PM by – Asset or Location	Selection option of whether the PM Schedule is to be scheduled by Assets or Physical Locations.
Asset – Asset No & Description, Location No & Description	Defines the asset on which the preventive maintenance is to be done. The Location No identifies the location of the asset as defined in the Asset Master. The asset must be registered in the Asset Master for preventive maintenance scheduling. The Asset & Location Descriptions are displayed from the Asset & Location masters respectively. Select the asset no from the drop down list.
Location No & Description	Defines the physical location on which the preventive maintenance is to be done. The physical location must be registered in the Location master for preventive maintenance scheduling. Select the location no from the drop down list.
Next Generation Type (tick boxes)	Defines whether the next generation of the preventive maintenance work order shall be by the scheduled date or by actual work order completion date.
Multiple PM (tick box)	A tick box to indicate whether the PM consists of multiple tasks. Selecting this will activate the Multiple PM feature.
Task No	Defines the first preventive maintenance task to be assigned for the schedule. The tasks are selected from the drop down list which displays all registered tasks in the PM Task master.
Frequency Unit	Defines the frequency unit of the PM. Available units are Day (1 day), Week (7 days) and Month (28 days).
Frequency	Defines the factor for which the Frequency Unit is multiplied to

Field	Description
Days	<p>provide the number of days that should elapse between generation of PM work orders.</p> <p>The number of days that should elapse between generation of PM work orders. This is a read only field and is automatically calculated.</p> <p>Formula:</p> $\text{Days} = \text{Frequency Unit (in Days)} \times \text{Frequency}$
Work Period Days	<p>Defines the number of days, which shall be taken to complete the PM Task. Defaults to 1 day.</p>
Initiate Date	<p>Defines the system initiate date for the PM work order.</p>
Target Start Date	<p>Defines the first Target Start Date of the PM record. The date defined by the user must be greater than the last PM Generation date.</p>
Target Complete Date	<p>This is a read only field, which is automatically calculated. It displays the target completion date of the PM work order.</p> $\text{Target Complete Date} = \text{Target Start Date} + (\text{Work Period Days} - 1 \text{ day})$
Next Start Date	<p>This is a read only field, which is automatically calculated. It displays the next target start date for the PM schedule.</p> <p><u>For first generation</u></p> $\text{Next Start Date} = \text{Target Start Date} + \text{Days}$ <p><u>For subsequent generation (in the Current PM Schedule Form)</u></p> <p><i>for Next PM Generation by Scheduled Date;</i></p> $\text{Next Start Date} = \text{Target Start Date} + \text{Days}$ <p>for Next PM Generation by Actual Date;</p> $\text{Next Start Date} = \text{Last PM WO Complete Date} + \text{Days}$ <p>(Note: No Next Start Date will be displayed until the concerned PM work order is closed)</p>

5.3.1.1 Next PM Generation Types



The screenshot shows a form titled "Next PM Generation Type" in blue text. Below the title, there are two radio button options: "Schedule" with a checked box and "Actual" with an unchecked box.

Figure 45: Next PM Generation Type

The Next PM Generation Type option allows users to specify the criteria for the Next PM Start Date. Two options are available;

1. Schedule – the Next Start date will be based on the last PM work order Target Start Date, irrespective of the work order status (Target Start Date + Frequency in Days).
2. Actual – the Next Start date will be based on the last PM work order Actual End Date. No PM work orders can be generated until the last PM work order is closed. The Next Start Date = Last PM WO Complete Date + Frequency in Days.

The default Next PM Generation Type is "Schedule". To select Actual type, just click on the Actual tick box in the New PM Schedule form. Once Actual type PM is selected, users will note that no other Next Start Date will be given in the form. The Next Start Date will be calculated and displayed only after the last PM work order for the schedule is closed.

*Note that the Next PM Generation Type **cannot** be amended once a PM schedule has been saved. It can only be defined when a new PM schedule is created.*

5.3.2 How To View PM Plan Forecast Screen

Click on PM Schedule click on **View PM Schedule** button.

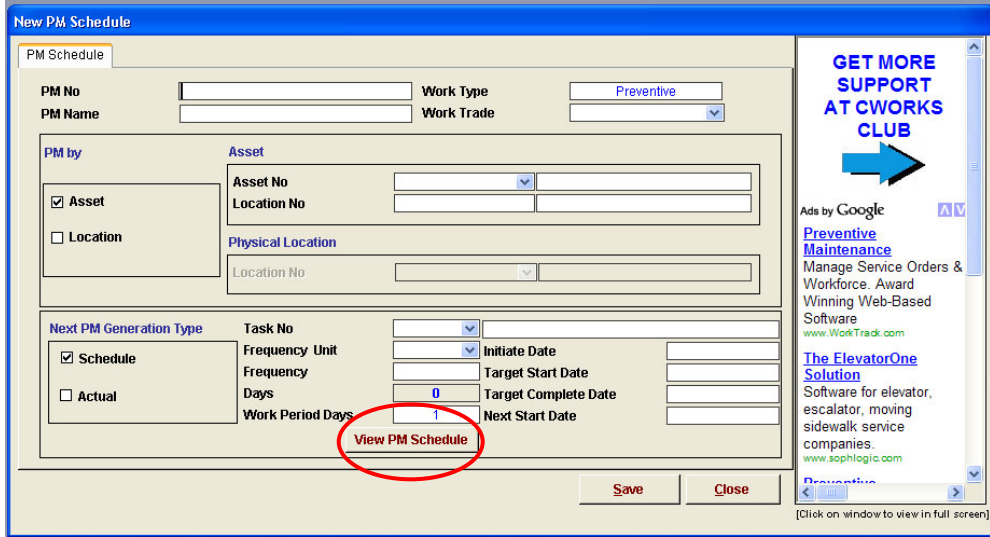


Figure 46: Accessing PM Plan Forecast


The PM plan forecast would pop-up as below.

The screenshot shows a table titled 'PM Plan Forecast - Schedule'. The table has columns for 'PM Sch Date', 'PM Seq', 'PMTask1', 'PMTask2', and 'PMTask3'. The first row shows a date of 08/01/2005, PM Seq 11, and PMTask1 C0012. The rest of the rows show dates from 08/02/2005 to 08/22/2005 with PM Seq values of 0. A 'Show more' button is circled in red at the bottom right of the table.

PM Sch Date	PM Seq	PMTask1	PMTask2	PMTask3
08/01/2005	11	C0012		
08/02/2005	0			
08/03/2005	0			
08/04/2005	0			
08/05/2005	0			
08/06/2005	0			
08/07/2005	0			
08/08/2005	0			
08/09/2005	0			
08/10/2005	0			
08/11/2005	0			
08/12/2005	0			
08/13/2005	0			
08/14/2005	0			
08/15/2005	0			
08/16/2005	0			
08/17/2005	0			
08/18/2005	0			
08/19/2005	0			
08/20/2005	0			
08/21/2005	0			
08/22/2005	0			

Figure 47: PM Plan Forecast

The PM Plan Forecast screen displays the forecast PM work order Target Start Dates for the PM plan for all tasks (for a period of 1 year).

Note: If the complete 1 year schedule does not display in the form, click on the  button.

5.4 How To Filter Preventive Maintenance Schedules

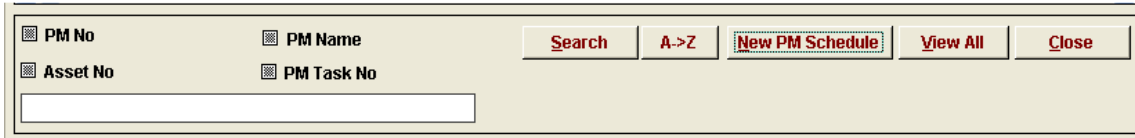
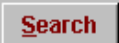



Figure 48: Search Options

Below the PM Schedule listing screen, there is a bar which will allow users to filter or narrow down the search result. The options are:

- PM No
- PM Name
- Asset No
- PM Task No

To do a search, click on the field of choice, enter the field contents and click on the  button.

User can also sort a search results, ascending or descending order, by clicking on the  button.

5.5 How To Modify An Existing PM Schedule

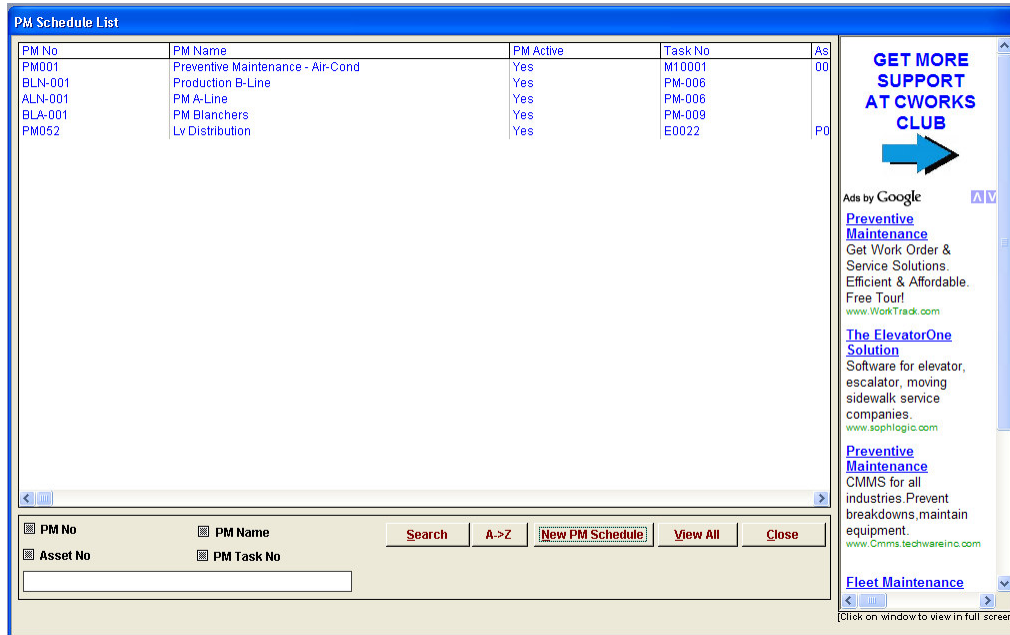


Figure 49: PM Schedule List

In the PM Schedule List screen as above, double click on the PM record to be amended. The Current PM Schedule screen, see **Error! Reference source not found.49** will be activated.

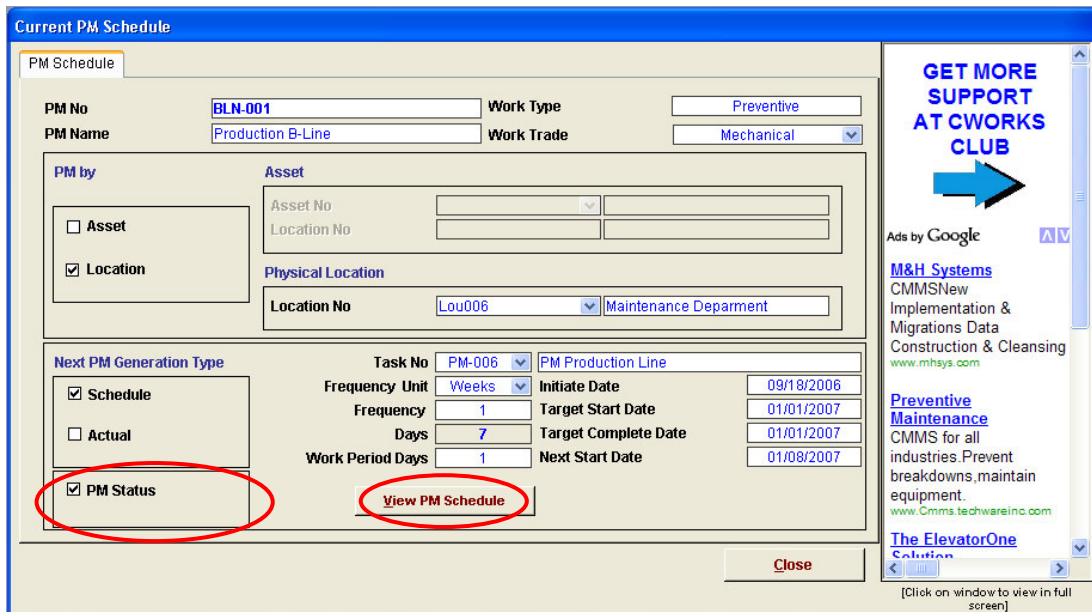



Figure 50: Current PM Schedule

5.5.1 How To Disable An Existing PM Schedule

To disable an existing PM schedule, click the PM Status tick box  to remove the tick. This will disable the PM schedule from further work order generation.

5.5.2 Amending The PM Schedule And Task

Make the necessary amendments to the Asset/Location No, Task No, Frequency fields and the work period. To amend or shift the next PM work order generation date, the following fields need to be edited;

5.5.2.1 For Scheduled Completion Date Type PM Generation:

Change the **Target Start Date**. The next PM work order will be generated according to the edited Target Start Date.

5.5.2.2 For Actual Completion Date Type PM Generation:


Change the **Next Start Date**. The next PM work order will be generated according to the edited Next Start Date. *The last PM work order for the particular PM Schedule must first be closed before amendments to the Next Start Date can be made.*

Notes:

1. The amended dates must be larger than the last PM Generation "To" date.
2. An existing PM Schedule next PM generation type (scheduled or actual completion dates) cannot be amended in the Current PM Screen. To change the generation type, the existing PM schedule shall have to be disabled and a new PM schedule created.

Click Close to exit the form. You will be prompted whether you wish to save the changes. Click "Yes" to save the changes and exit or "No" to exit the screen without saving the changes.

5.6 How To Generate PM Work Orders

To generate PM work orders, click on  button in the PM Main Menu. The PM Generation screen will be activated.

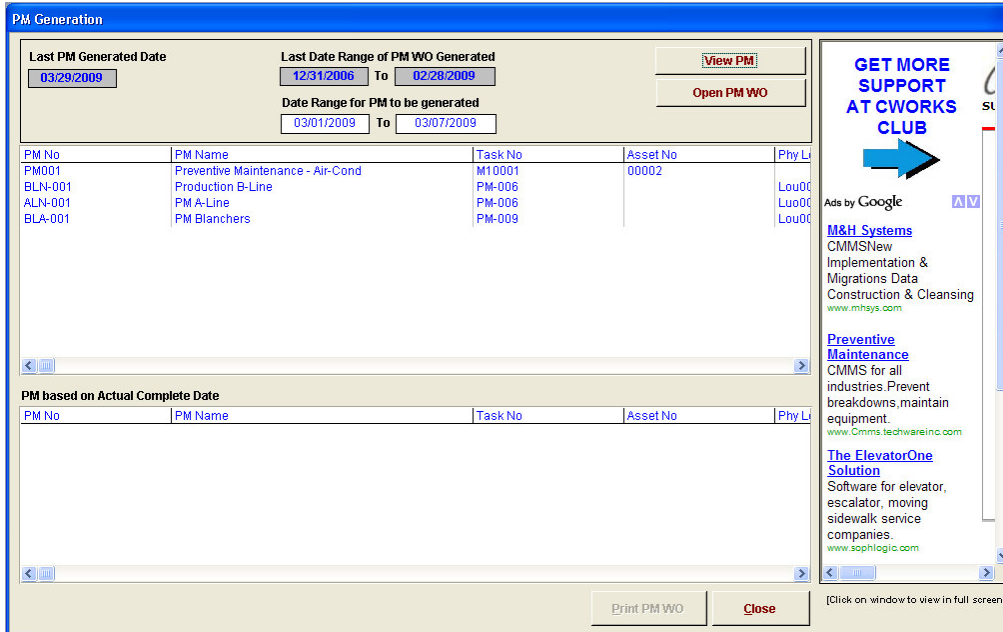





Figure 51: PM Generation

Field	Description
Last PM Generation Date	Displays the last PM work order generation date (read only field).
Last Date Range of PM WO Generation (From – To)	Displays the Target Start Date range of the last PM work order generation (read only field)
Date Range for PM to be generated (From – To)	Fields to input the next range of Target Start Dates. Any PM record which next PM Target Start Date falls within this range will be identified for generation


Enter a date range and click on  to view the PMs which next Target Start Dates fall within the defined range. Click on  to generate the work orders. The PM list will be updated with the work order number displayed for reference. To print hardcopies of the generated PM work orders, click the  button. Click Close to exit from the screen.

EMPLOYEE MODULE



6. EMPLOYEE

6.1 How To Add A New Employee/Requester

Click on Employee button  on the Main Menu, see Figure 1. An employee listing would pop-up.

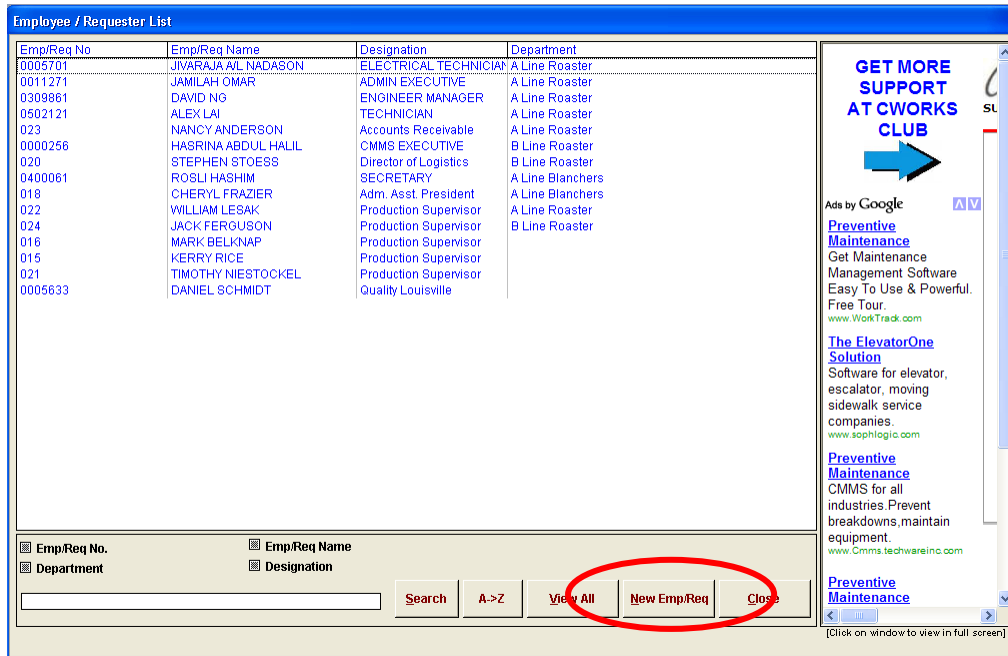



Figure 52: Employee/Requester List

To add a new employee / requester,  button. A New Employee/Requester screen will be displayed.

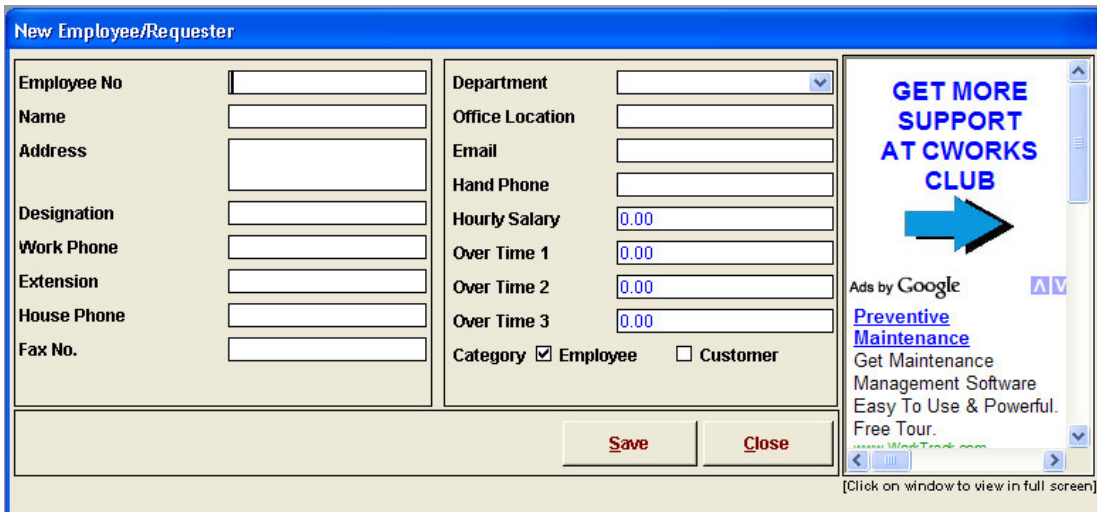




Figure 53: New Employee/Requester

Fields	Description
Employee No	Assign a unique number to the new employee or requester you wish to register.
Name	Enter the name of the employee or requester
Address	Enter the address of the employee or requester
Designation	Enter the job or work designation of the employee or requester
Telephone Ext No	Enter the office phone number and phone extension where employee or requester can be contacted
Fax No	Enter the facsimile number of the employee or requester
Mobile No.	Enter the mobile phone number of the employee or requester
House Phone	Enter the home phone number of the employee or requester
Department	Choose from the list. A unique code assigned to a department and its description. This data is set in the masters.
Office Location	Enter the office location of the employee or requester
Email	Enter the email address of the employee or requester
Hourly Salary	Enter the wage rates per hour for the employee or requester
Over Time 1-3	Enter the overtime rates for the employee or requester
Category	When user ticks on "Employee" means that he/she is part of the maintenance organisation / department. When user ticks on "Customer" means that he/she is not part of the maintenance organisation / department and functions as a customer to the maintenance organisation. The person could also be an employee of the organisation or a customer to the organisation.
<input checked="" type="checkbox"/> Employee <input type="checkbox"/> Customer	
	Click on this button to save any changes
	Click on this button to close the screen without saving the record

Note: Once an employee has been registered, the system would not allow removal of the employee number.

6.2 How To View And Modify An Employee/Requester Data

Click the Employee button on the main menu, an Employee / Requester List would pop-up, see Figure 54. It will show you a list of all the employees or requesters in your database. Double-click on any of the employees/ requesters and the Current Employee/Requester screen would pop-up. The user will be able to view and modify the Employee/Requester details in this screen.

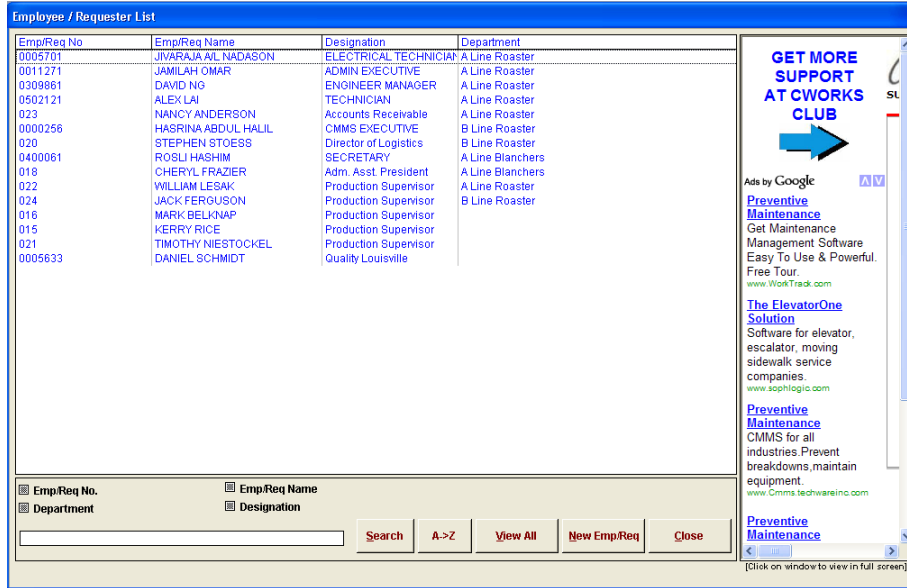


Figure 54: Employee/Requester List

Apart from the employee data, you are able to view the assets assigned to the employee, see Figure 55, as defined in the Asset Register. Modify the fields in the form and click Close. You will be prompted whether you wish to save the changes. Click “Yes” to save the changes and exit or “No” to exit the screen without saving the changes.

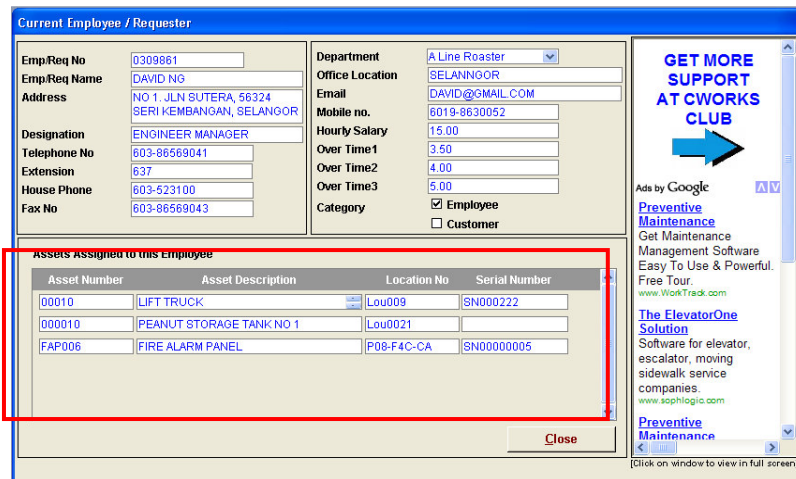


Figure 55: Current Employee/Requester Records

6.3 How To Filter Out Employee Information



The screenshot shows a search interface with a light beige background. On the left, there are four checkboxes with labels: 'Emp/Req No.', 'Emp/Req Name', 'Department', and 'Designation'. Below these is a text input field. To the right of the input field are five buttons: 'Search', 'A->Z', 'View All', 'New Emp/Req', and 'Close'. The 'Search' and 'A->Z' buttons are highlighted with a darker background.

Figure 56: Search Options

The above options will allow you to filter or narrow down your search result. The options are:

- Employee No
- Employee Name
- Designation
- Department

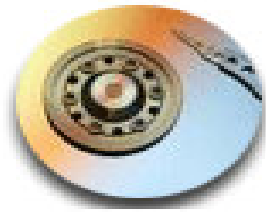
To do a search, click on the field of choice, enter the field contents and click on the

 button.

Users can also sort a search results, ascending or descending order, by clicking on the

 button.


MASTER MODULE



7. MASTERS

Frequently used codes and descriptions are recorded here for quick lookup by users. Masters are updated during first-time usage and later, on an as and when basis. This module captures all your basic maintenance data, which is required to start your CWorks. CWorks require some basic data before it could fully function.

7.1 How to create master data

Click on this  and the screen below would pop-up.

7.1.1 Master - Department

Click on "Master – **Department**" tab. This is the masters for "Department."

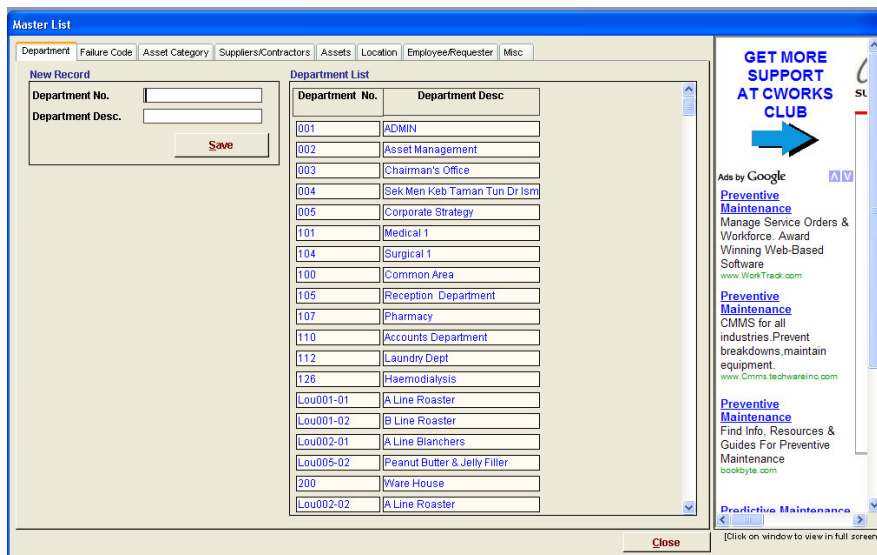



Figure 57: Department Master List

Fields	Description
Department No.	A unique number assigned to a department
Department Desc.	A name assigned to a department.
	Click on Save button to save the record.

7.1.2 Master – Failure Code

Click on “Master – **Failure Code**” tab. This is the masters for “Failure Code.”

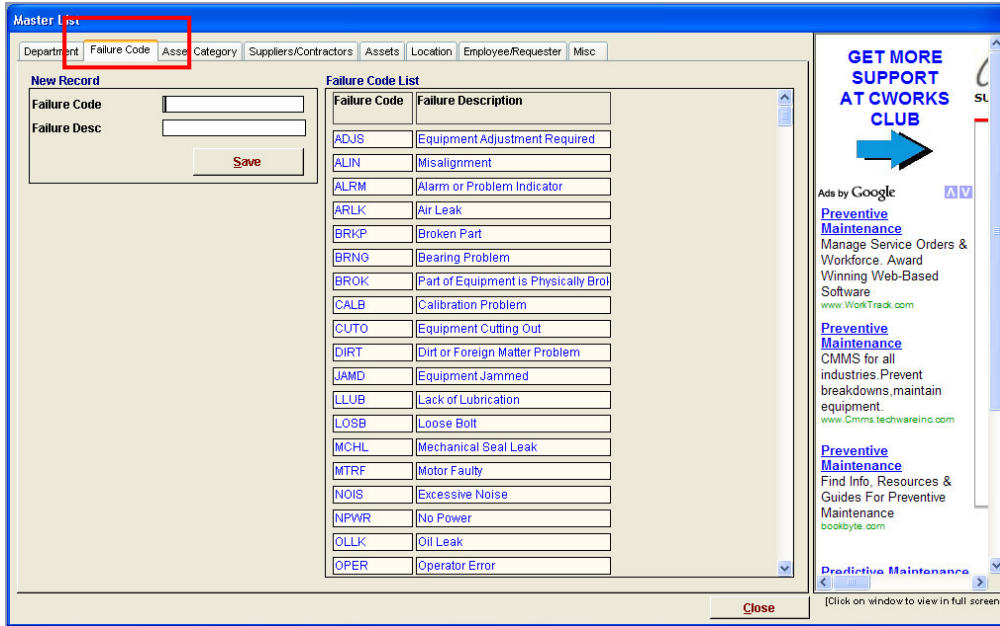



Figure 58: Failure Code Master List

Fields	Description
Failure Code	A unique number assigned to a failure
Failure Desc.	A description of the failure.
	Click on Save button to save the record.

7.1.3 Master – Asset Category

Click on “Master – **Asset Category**” tab. This is the masters for “Assets Category.”

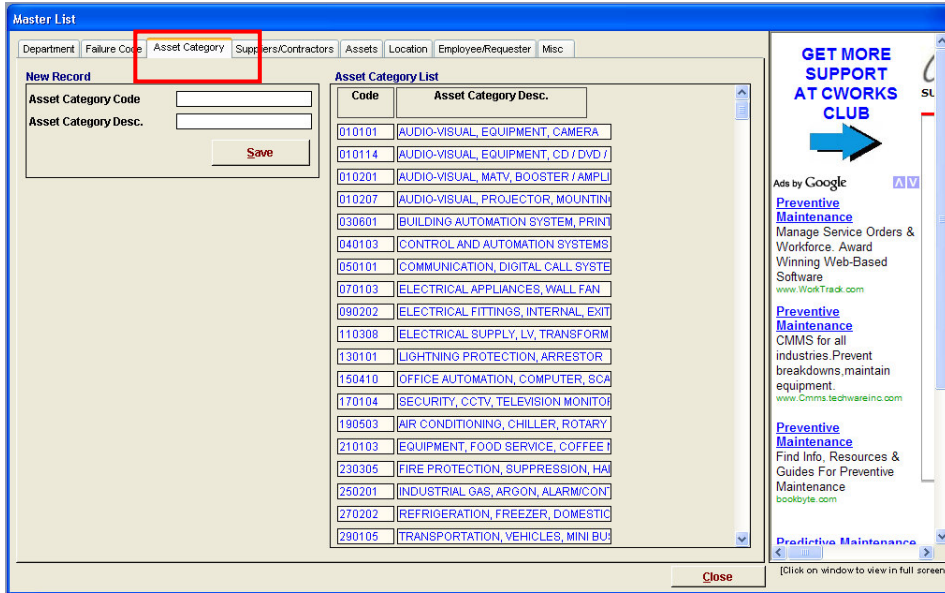



Figure 59: Asset Category Master List

Fields	Description
Assets Category Code	A unique number assigned to a category code
Asset Category Desc.	A name assigned to a category.
Asset Category List	All the category code in your database
	Click on Save button to save the record.

7.1.4 Master – Suppliers/Contractors

Click on “Master – **Suppliers/Contractors**” tab. This is the masters for “Contractor”

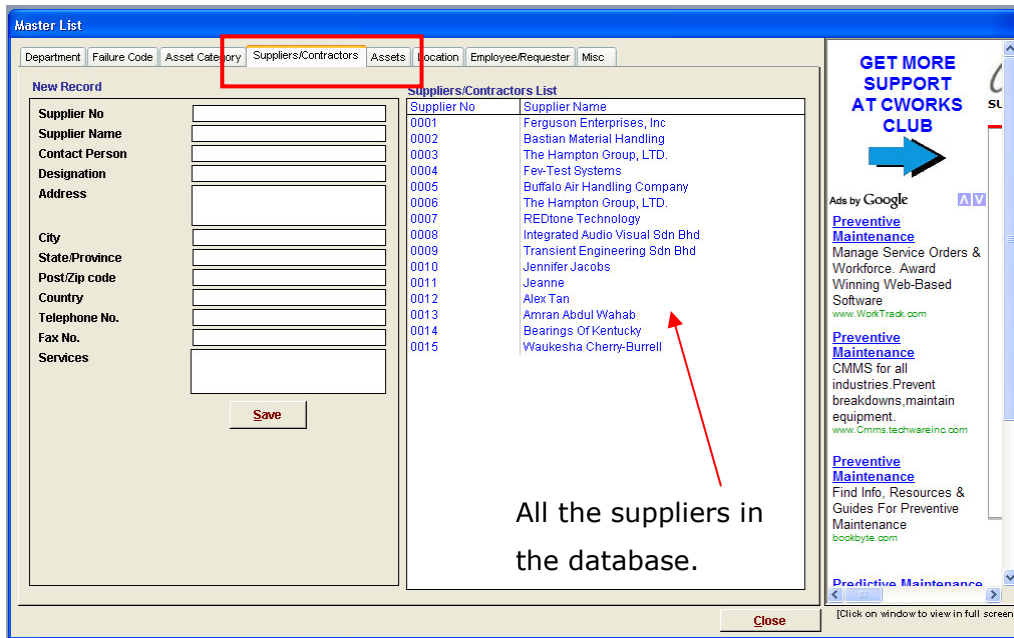



Figure 60: Suppliers/Contractors Master List

Double-click on any of the record in the list and user can view and modify details on the particular record. To add new Suppliers/Contractors, click the “New Supplier” Button and screen below will pop up.

Figure 61: New Supplier/Contractor

Fields	Description
Supplier No.	A unique number assigned to a supplier
Supplier Name	The Supplier's name
Contact Person	Name of a person
Designation	Designation of the above persons
Address	Contractor's postal or company office address
City	City name
State/Province	State name
Post/Zip code	Postcode
Country	Country name
Telephone No.	Contractor's telephone number
Fax No.	Contractor's fax number
Email	Contractor's e-mail address
Services	Type of services given by this contractor
	Click on Save button to save the record.

7.1.5 Master - Location

Click on "Master - **Location**" tab. This is the masters for "Location"

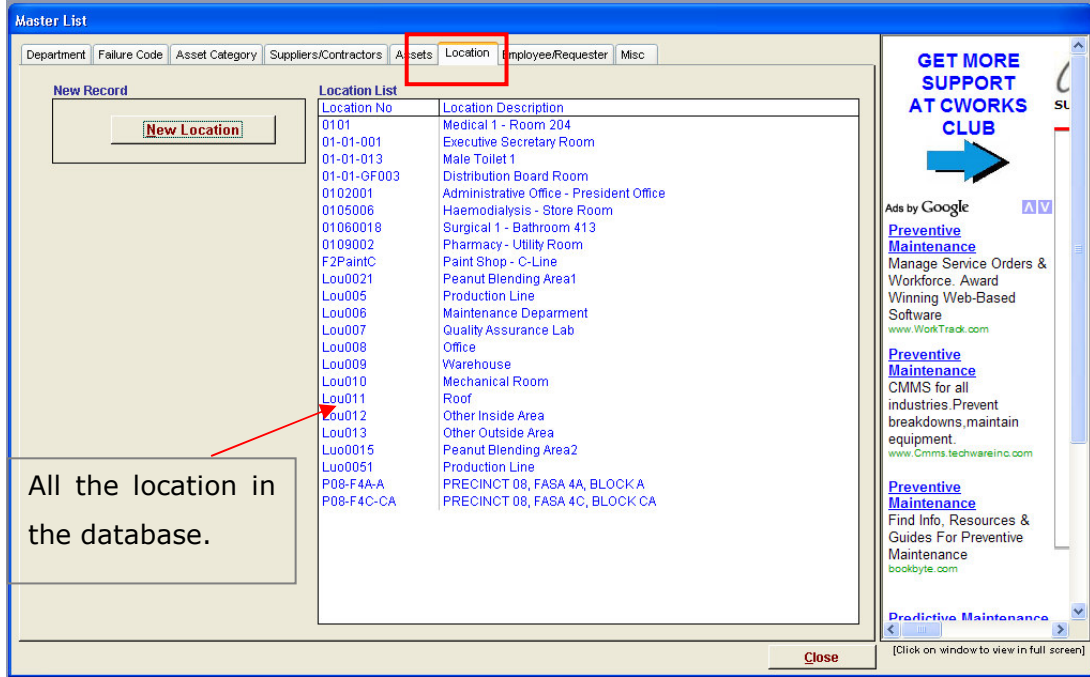


Figure 62: Location Master List

Click on "New Location" to add new records. Double click on the location on the right and you will be able to modify the data. For field explanation please refer to How To Add A New Location.

7.1.6 Master - Assets

Click on "Master - **Assets**" tab this is the masters for "Assets"

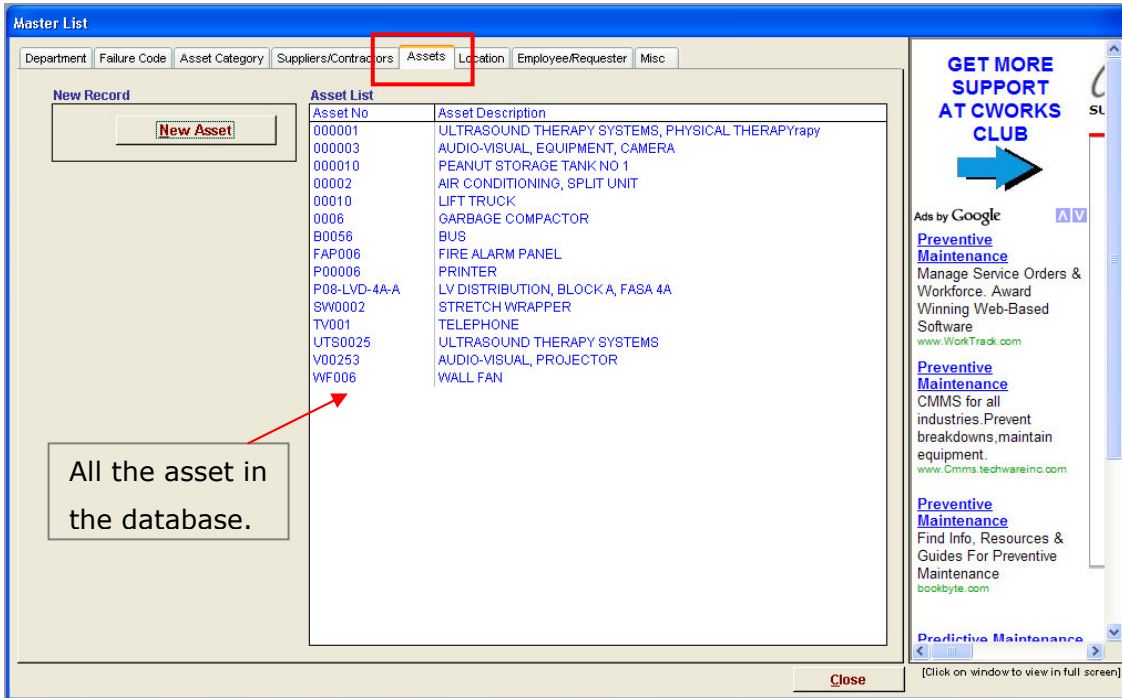


Figure 63: Assets Master List

Click on "New Assets" to add new records. Double click on the assets on the right and you will be able to modify the data. For field explanation please refer to How To Add A New Asset.

7.1.7 Master – Employee/Requester

Click on “Master – **Employee/Requester**” tab This is the masters for “Employee/Requester”

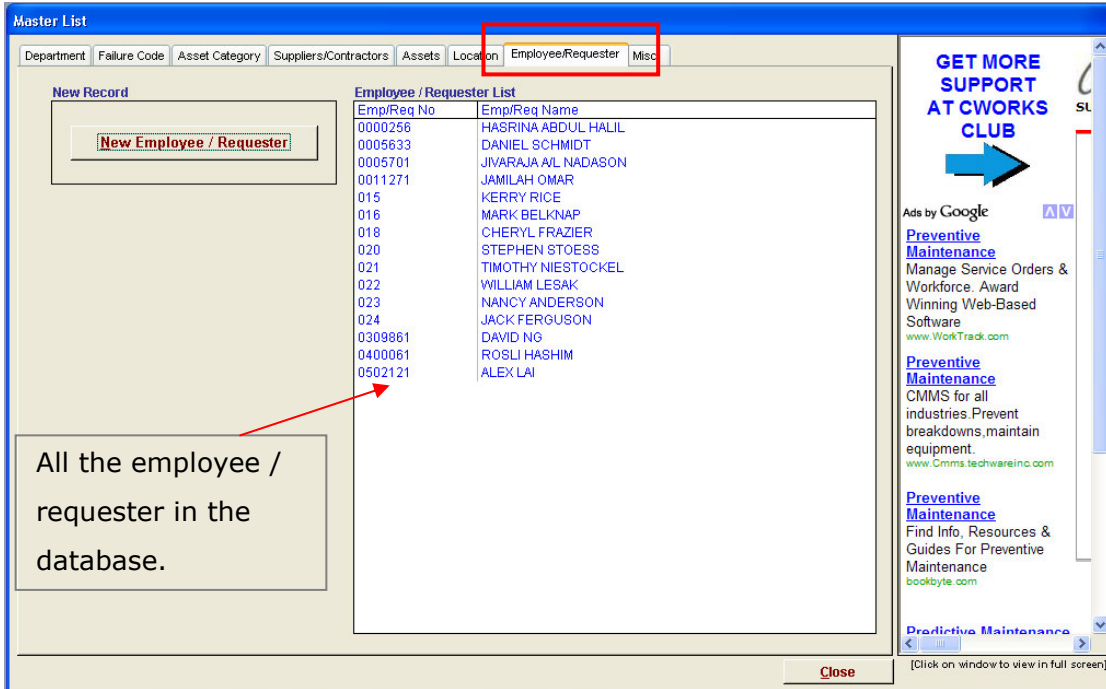


Figure 64: Employee Master List

Click on “New employee” to add new records. Double click on the employee on the right and you will be able to modify the data. For field explanation please refer to How To Add A New Employee/Requester.

7.1.8 Master - Misc

Click on “Master – **Misc**” tab This is the masters for “Work Status, Work Priority, Part Location, Work Type, Work Trade, Part Location, Payment Location, warranty/Contract, Asset Criticality and Asset Status. ”

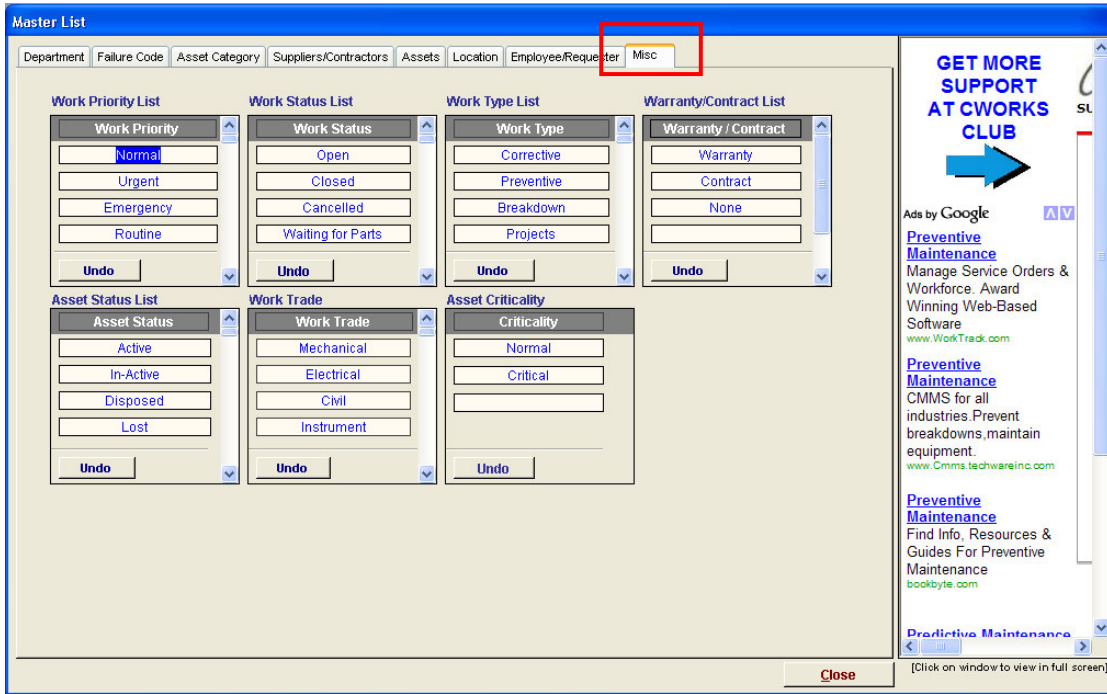


Figure 65: Miscellaneous Master List

This master contains default data for CWorks to function. User cannot delete the existing data but you could add more to it. Data entered into this master will be saved upon exiting.

IMPORTANT NOTE: Changing the Misc-Masters directly from the database table may have an impact on the smooth operation of CWorks CMMS. Please contact us at info@cworks.com.my for further details or clarification.

REPORT MODULE



8. REPORTS

8.1 Reports Main Menu

Data entered into the system are retrievable in report format, depending on the type of reports the user needs. Click on the Reports button in the CWorks Main Menu. The screen below would pop-up and consists of all CWorks reports. Some reports will ask user to key-in parameters. Click on "Preview" to view and print the report.

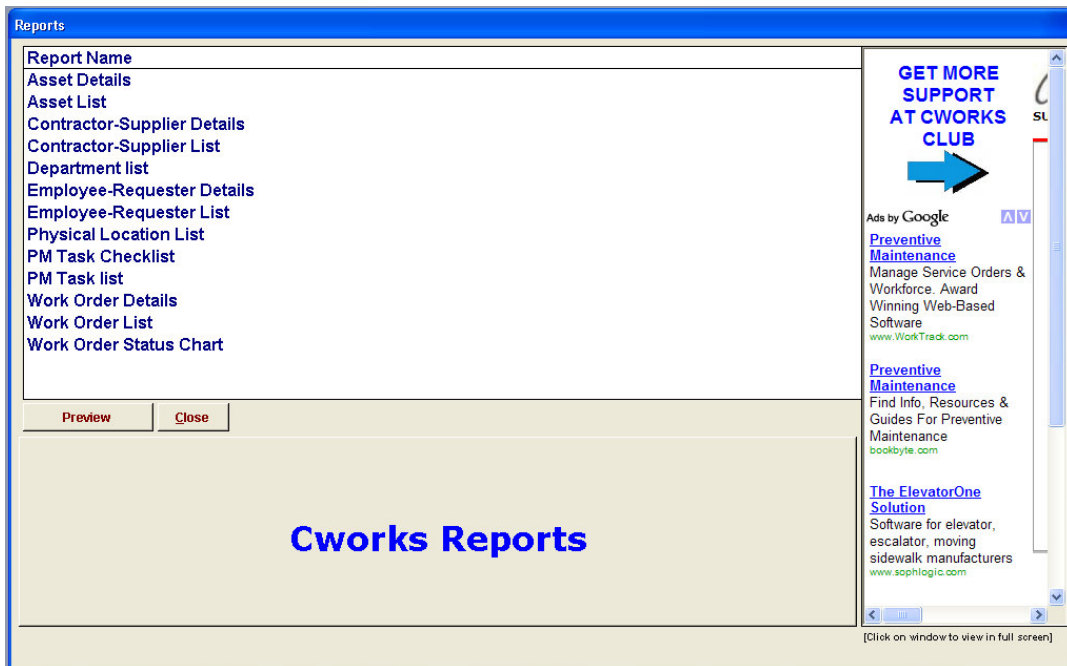


Figure 66: Reports Main Menu

OTHERS

9. Frequently Asked Questions

9.1 How To Compact & Repair CWORKS application.

1. Depress the "Shift" key and launch CWorksFoc. Do not release the "Shift" key until CWorks is launched. This will allow you to access the source codes.
2. At the menu bar click, **Tools – Database Utilities – Compact and Repair database.**

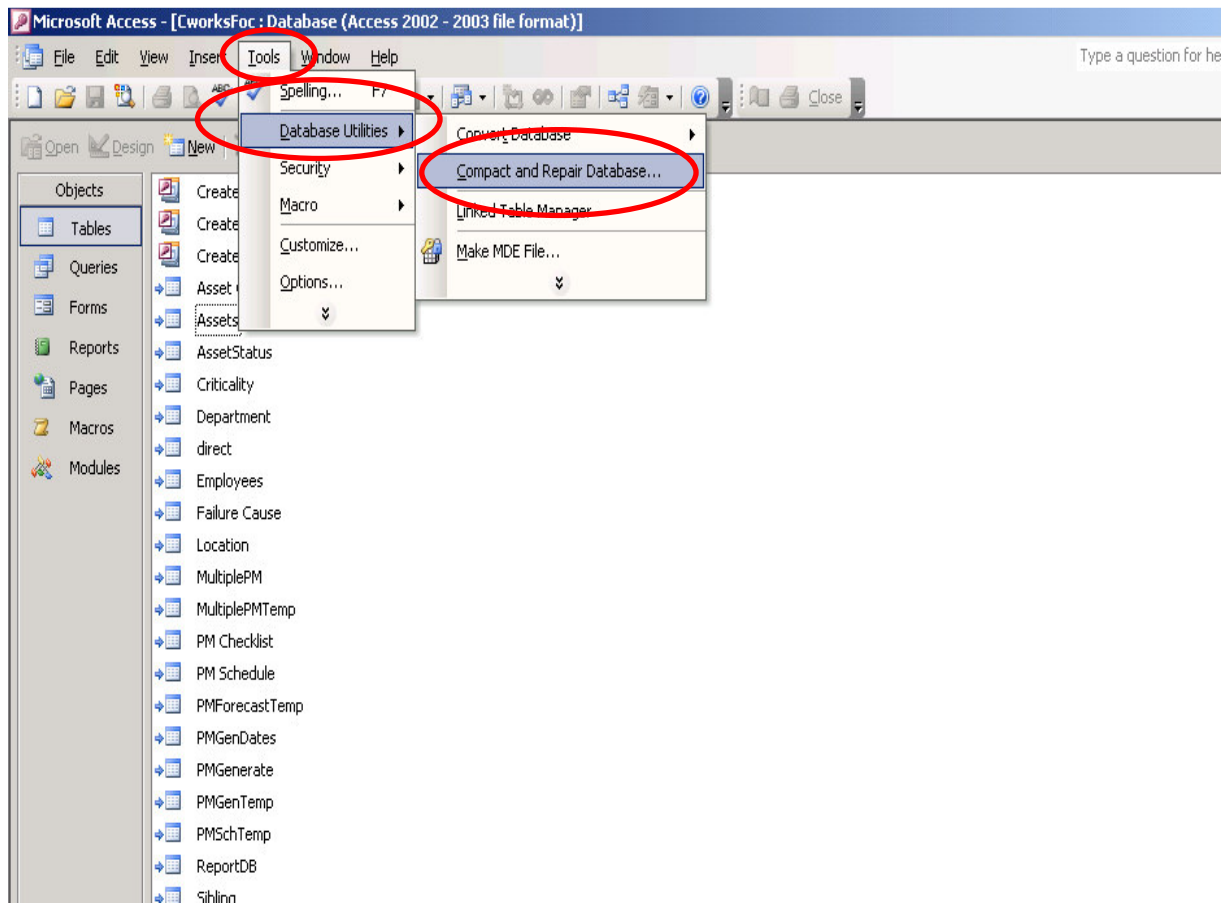


Figure 67: Compact and Repair

9.2 How To Change The Database Source File

A default Access 2000 database file is installed in the CWorks directory with each installation of CWorks CMMS. CWorks CMMS can also be configured to a different CWorks data source file in another directory.

Upon login into CWorks, the system will automatically connect to the database in the same folder. If the system cannot find the database a message would pop-up requesting for user to connect to the correct database.

Empty database filename is **CworksFoc_db.mdb** or sample database filename is **CworksFoc_Sample_db.mdb**.

User can also change the data link manually from the main program by, selecting File in the program menu bar and click on DataLink.

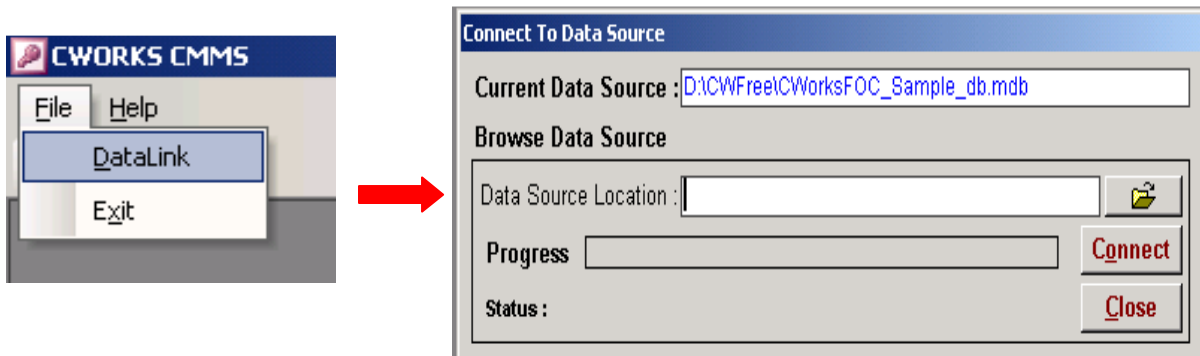



Figure 68: Connect To Data Source

The Connect To Data Source utility screen would pop-up. The current database source is displayed at the top of the screen. To connect to a database stored in a different directory or different computer within a network, define the location of the file in "Data Source Location:" field. You can browse for the file by clicking . Select or specify the database file path and click on **Connect**. A message will appear to confirm that the connection is successful. To view a sample database, connect to CWorks Sample Database c:\CWFree\CworksFoc_Sample_db.mdb

9.3 How To Delete Data From The Database

WARNING: The system would not be able to retrieve back deleted information therefore we would advice user to backup the database before deleting any information. Also, do not delete any standard default data as it is connected to the standard reports in CWORKS.

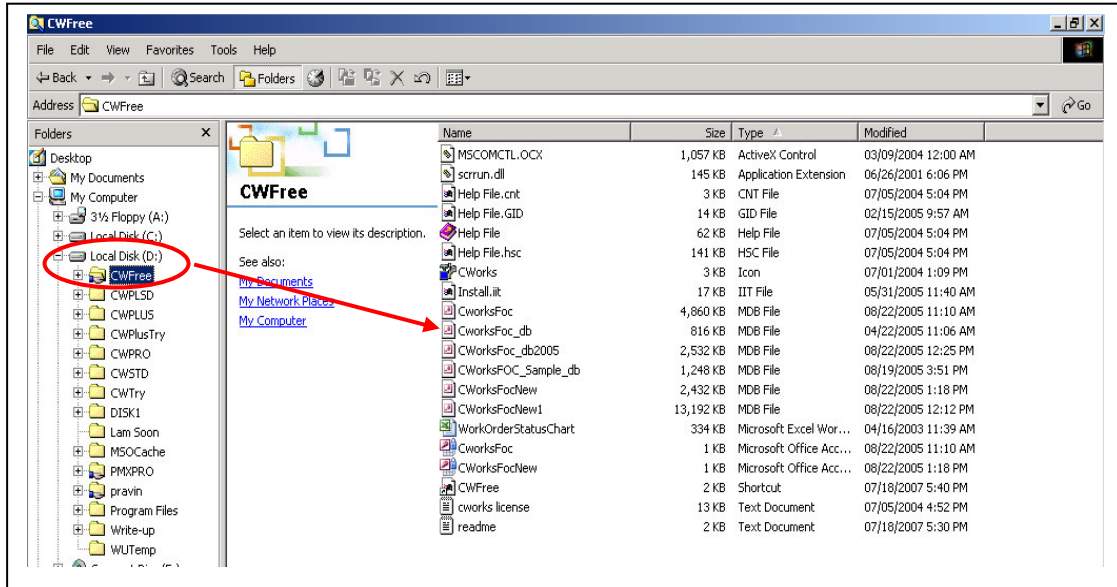


Figure 69: Opening The Database

1. Go to Windows Explorer
2. Click on CWorkFree directory
3. Click once on CworksFoc_db
4. Press on "SHIFT + ENTER" on your keyboard together.
5. The below screen would pop-up.

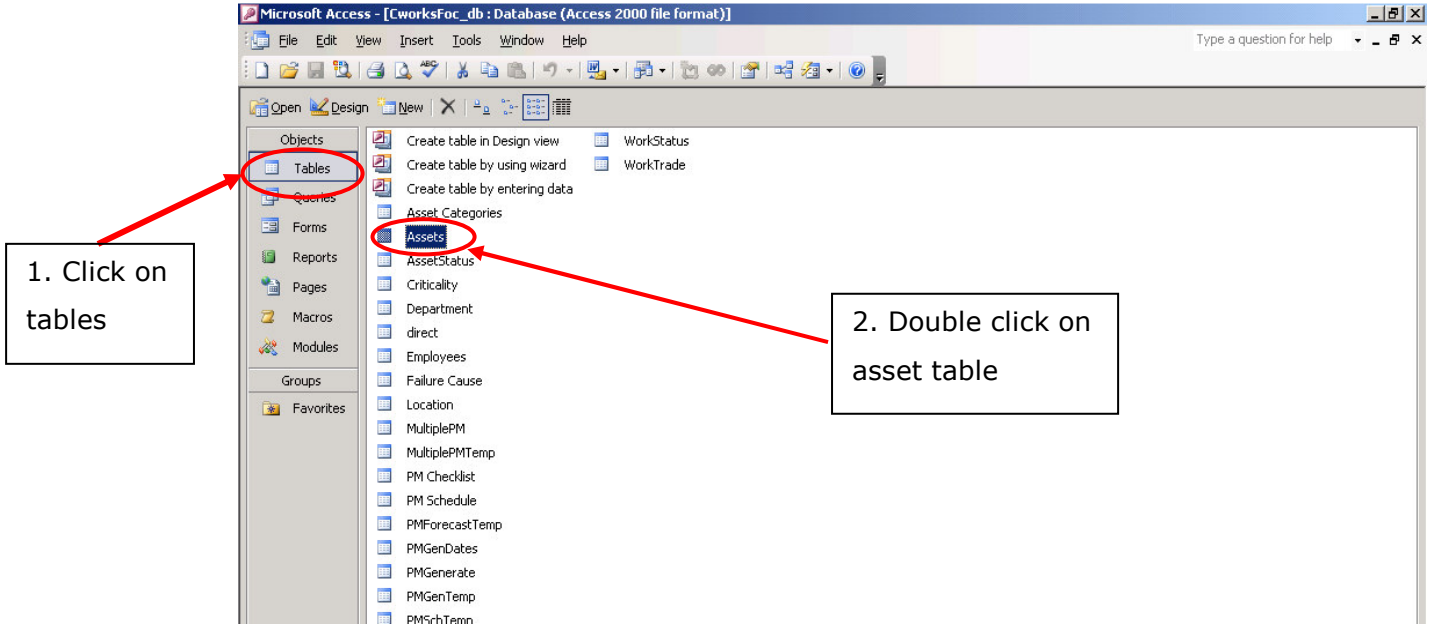


Figure 70: Opening Assets Table

Asset ID	Asset Description	AssetNumber	Employee ID	EmployeeNo	LocationNo	LocationID	Asset
425	AIR CONDITIONER - SPLITWALL	886000236		005	01GF001		
426	AIR CONDITIONER - SPLITWALL	886000238		005	01GF010		
464	VEHICLE - AMBULANCE	886000248		0212	0300000		
475	Vehicle 1	886000300		007	01GF006		
427	AIR CONDITIONER - SPLITWALL	886000303		005	01GF001		
428	AIR CONDITIONER - SPLITWALL	886000307		005	01GF001		
431	AUTOCLAVE	886000384		005	16GF027		
432	AUTOCLAVE	886000386		005	16GF032		
433	AUTOCLAVE	886000394		005	16GF030		
434	AUTOCLAVE	886000395		005	01GF001		
435	AUTOCLAVE	886000396		005	01GF001		
445	FIRE EXTINGUISHER - DRY POWDER	886000402		004	01GF014		
446	FIRE EXTINGUISHER - DRY POWDER	886000403		004	01GF022		
436	AUTOCLAVE	886000421		005	16GF016		
437	AUTOCLAVE	886000524		005	16GF032		
438	AUTOCLAVE	886000525		005	16GF032		
439	AUTOCLAVE	886000538		005	16GF026		
440	AUTOCLAVE	886000539		005	16GF032		
441	AUTOCLAVE	886000569		005	16GF032		
442	AUTOCLAVE	886000570		005	16GF032		
443	AUTOCLAVE	886000581		005	16GF026		
467	WASHER - BED PAN	886000629		003	16GF024		
468	WASHER - BED PAN	886000639		003	16GF024		
469	WASHER - BED PAN	886000641		003	16GF024		
470	WASHER - BED PAN	886000657		003	16GF024		
463	STANDBY GENERATOR	886000669			0900000		
471	WASHER - BED PAN	886000675		003	16GF024		
447	FIRE EXTINGUISHER - DRY POWDER	886000787		004	01GF025		
448	FIRE EXTINGUISHER - DRY POWDER	886000788		004	01GF012		
449	FIRE EXTINGUISHER - DRY POWDER	886000789		004	01GF001		
450	FIRE EXTINGUISHER - DRY POWDER	886000790		004	01GF022		
451	FIRE EXTINGUISHER - DRY POWDER	886000793		004	01GF006		

Figure 71: Deleting Data

9.4 How To Setup CWorks In A Network Environment

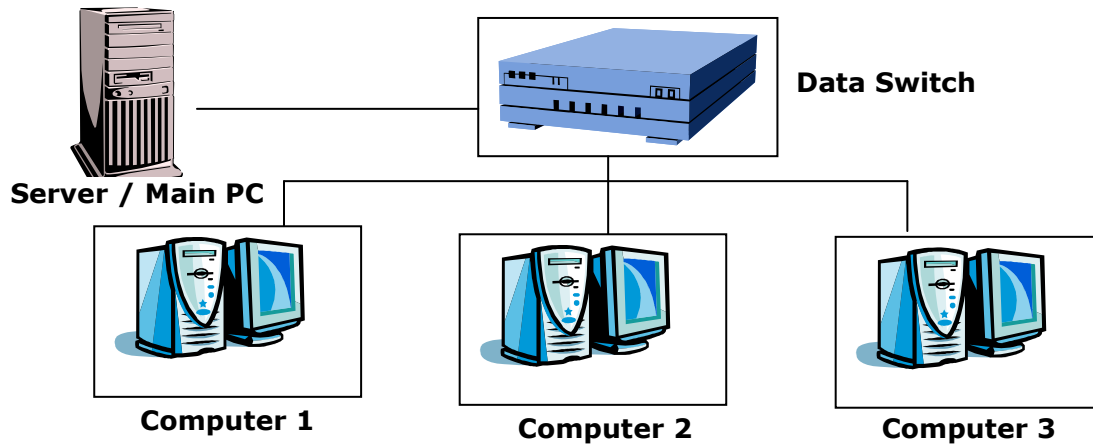


Figure 72: Network Environment

- Step 1
 - Install *.exe (installer file) into computer 1, 2 & 3 .
- Step 2
 - Install *.exe (installer file) into the server / main PC and share the directory.
- Step 3
 - Delete CworksFoc_db.mdb in computer 1, 2 & 3 but DO NOT delete in the server / main PC.
- Step 4
 - Click on CWorks icon on desktop for computer 1. Before key-in the user name & password click on **FILE -> Data Link** at the menu bar. In data source location, find for cworkFoc_db.mdb file in the server /main PC and click connect. Repeat this for computer 2 & 3. With this setup, the system will save all the data into a central database.

9.5 How To Export Data From CWorks And Import Data Into CWORKS

- 1) Go to Windows Explorer



- 2) Find for CWORKS directory called
CWFREE = For CWorks FREE version

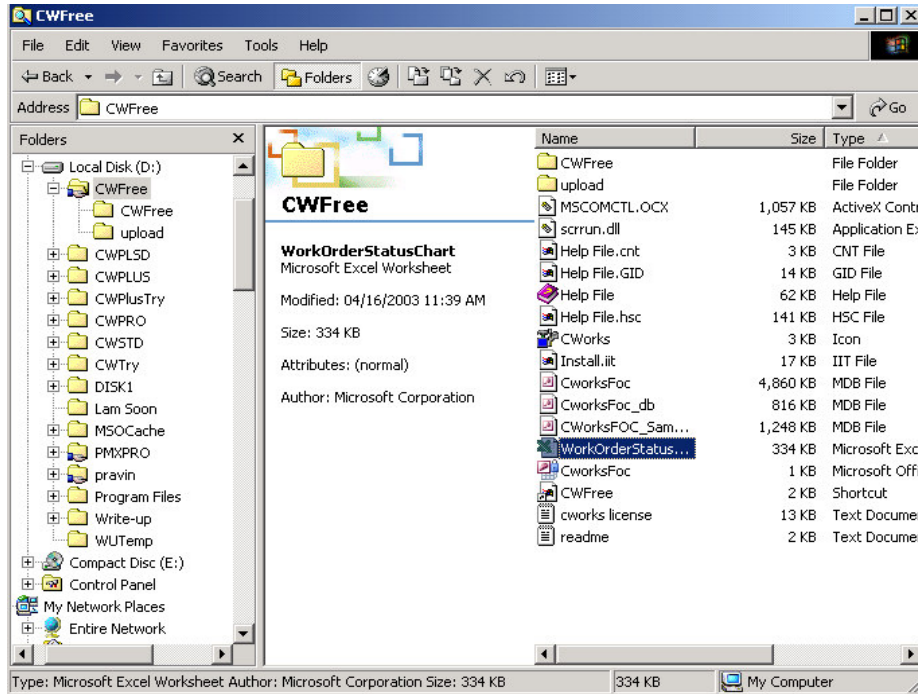


Figure 73: Searching For File

- 3) Find for a file called
CworksFoc_db = For CWorks FREE version
- 4) Click once on the above file
- 5) SHIFT + ENTER on the file(Depress and Hold the shift key)
- 6) The screen (refer below) would pop-up.

CWorks Free User Guide

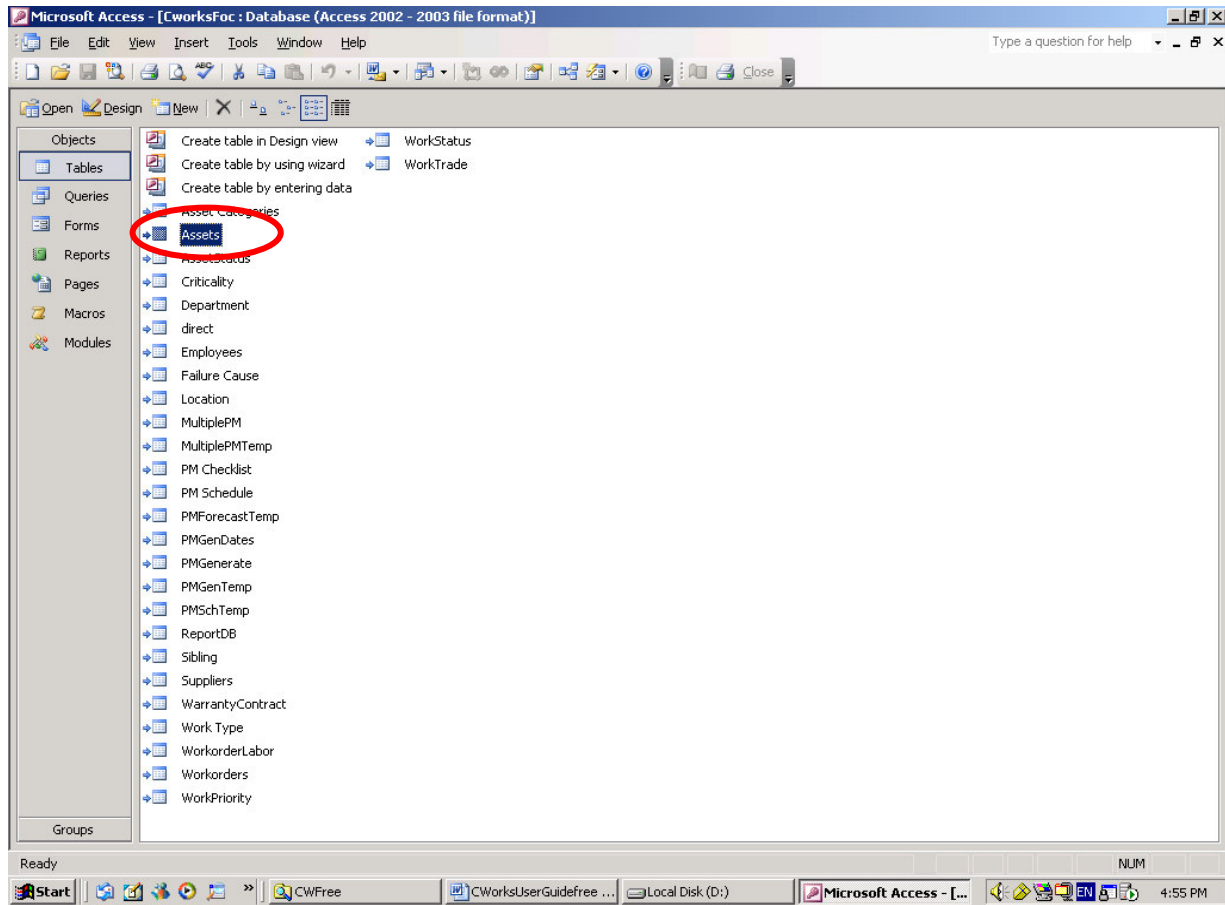


Figure 74: Opening Database

- 7) For example you want to Export Asset data. Click on "assets"
- 8) Click on File-> Export

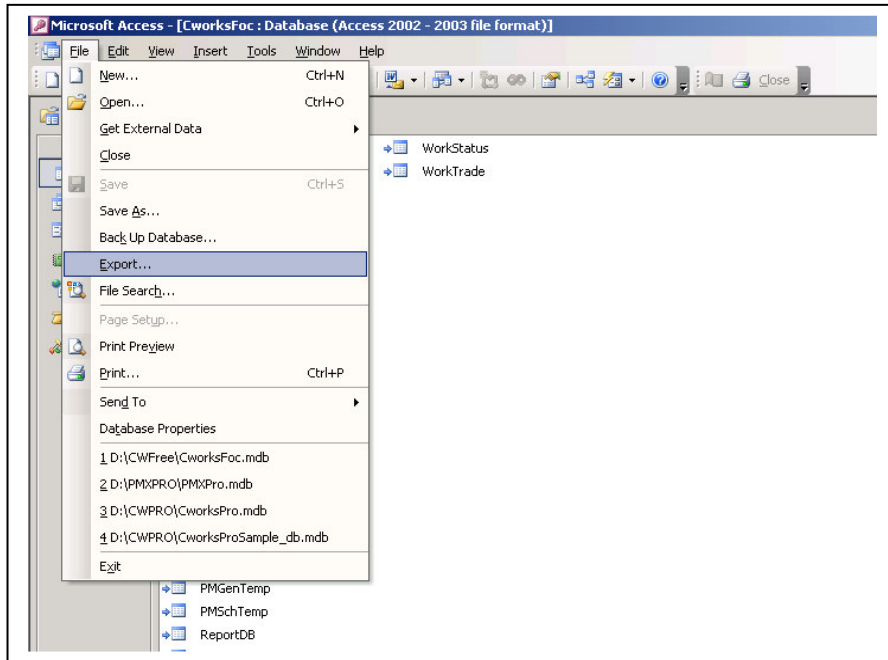


Figure 75: Export Function

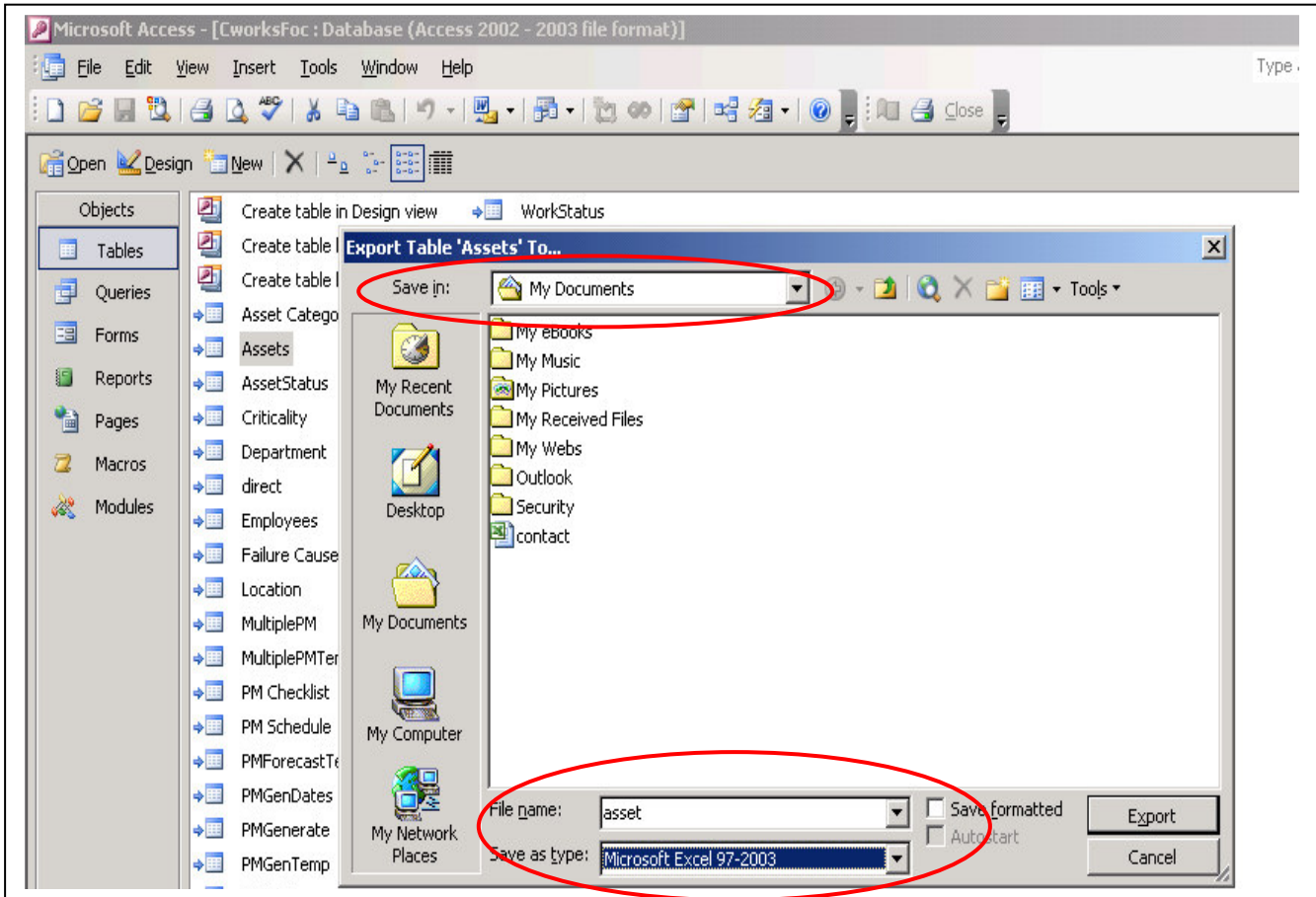


Figure 76: Saving File

- 10) Save in: "Where you want the file to be saved in"
File name: "File name"
Save as type: Microsoft Excel Click on SAVE

9.6 IMPORT Data

- 1) For example you want to Import asset data. (Note : Before importing any data into CWORKS, ensure that the excel format fields are the same as the CWORKS table fields)
- 2) Right click on the WHITE space and choose IMPORT

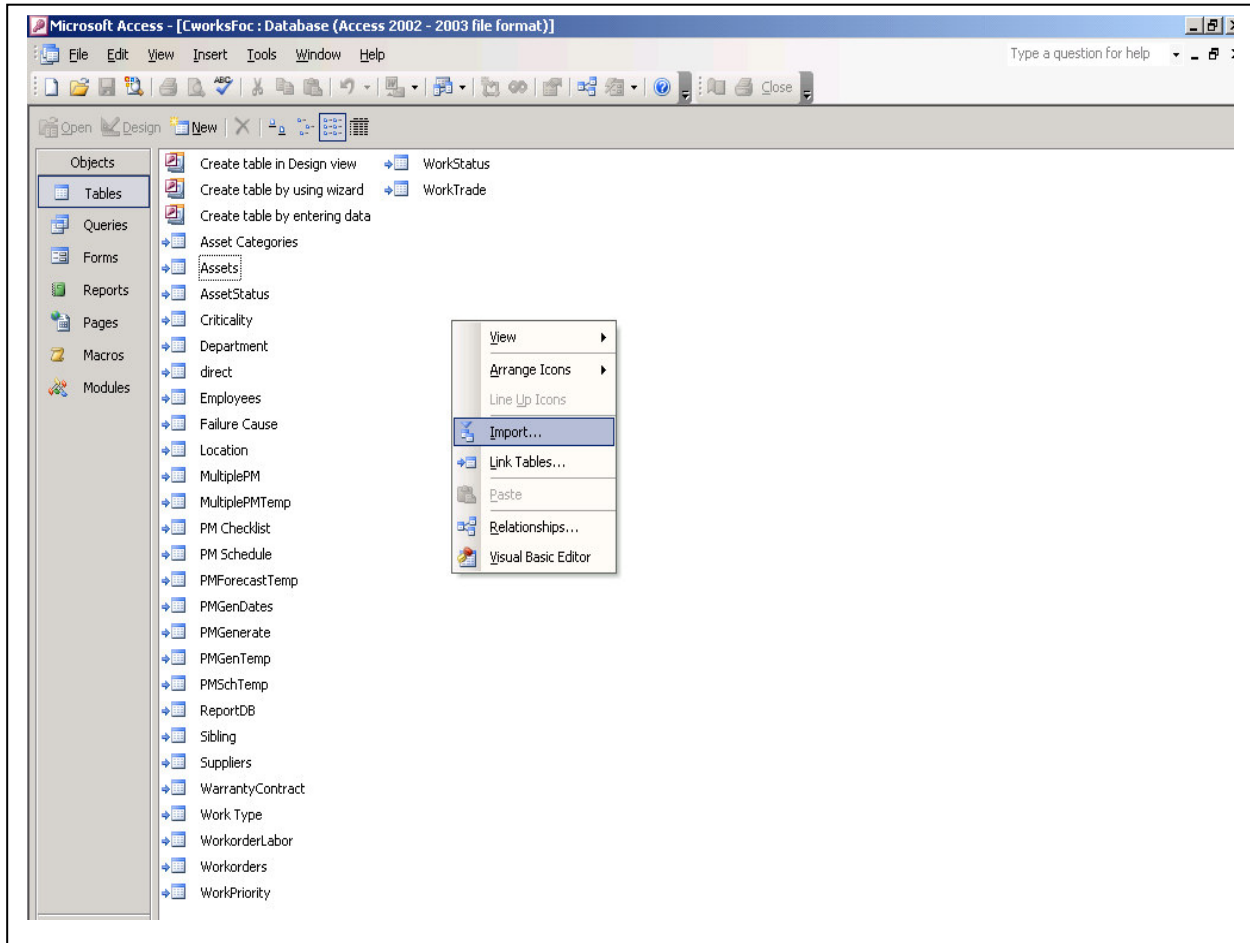


Figure 77: Import Link

3) Choose

Look in: "Where is the Excel format SAVED"

File name: "File name"

Files of type: Microsoft Excel

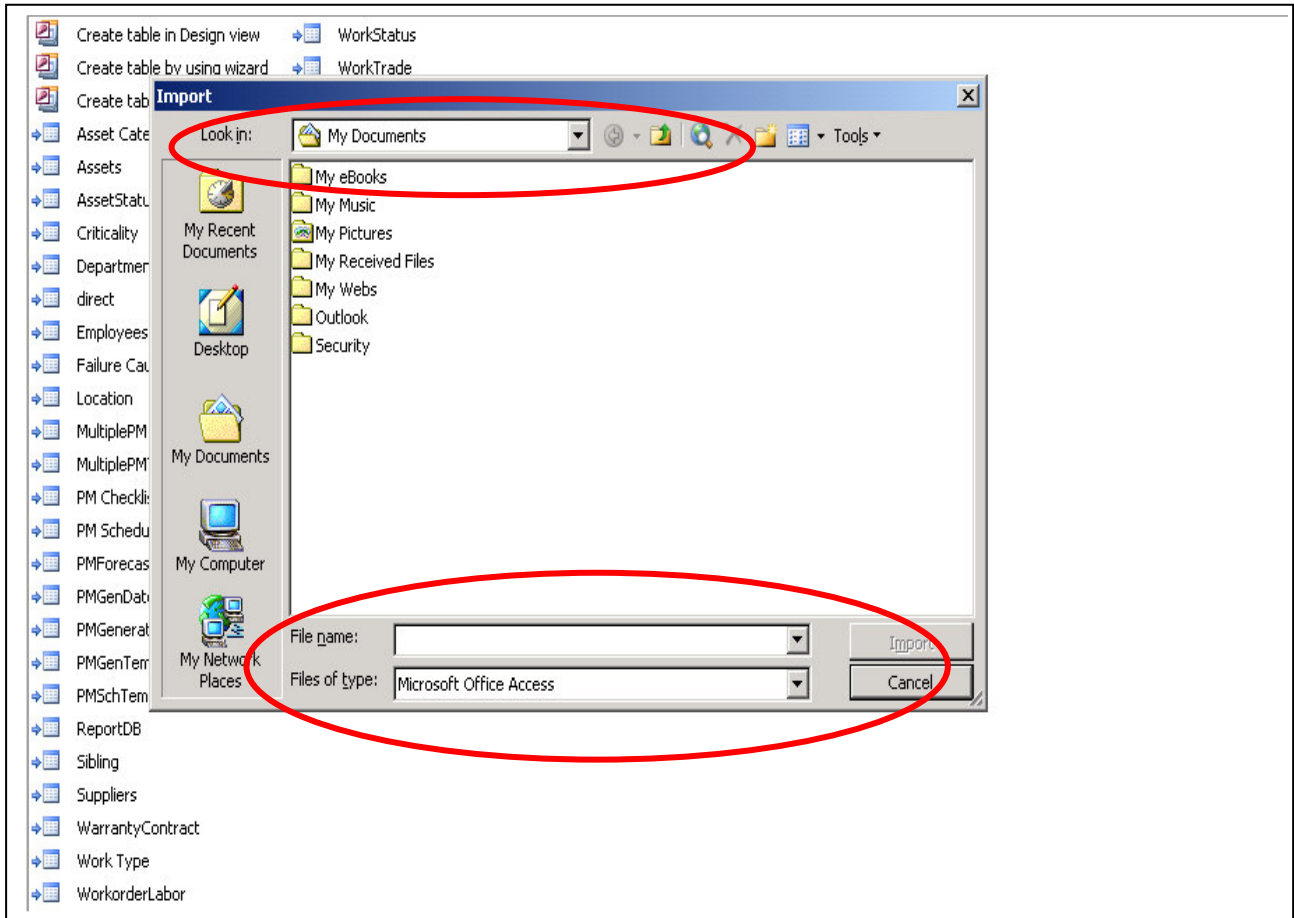


Figure 78: Saving File

4) Click on IMPORT then follow the systems instruction until the end.