Costing Sanitation

User Manual

Contents

Further Help

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Notes

0.0 Introduction

0.1 Who is the software aimed at?
Although initially developed for the African Fishing industry, this software could be used by anyone who has an interest in investigating economic impact of using different cleaning procedures.

0.2 What can the software do?

This program is designed to perform several functions.

1. Document standard cleaning methods and required resources.
2. Predict cost of cleaning based on standard cleaning methods.
3. Document actual cost of cleaning to validate predictions.
4. Document changes in cleaning methods or practices.

All cleaning methods can be documented at three different levels;
Factory, Area or Key Item.

Factory: Used for global predictions based on factory area.

Area: More specific prediction based on factory area.

Key Item: Specific prediction based on factory itinerary and size of key items.

The program can also be used as a predictor, allowing the costs of different methods to be assessed and compared. This allows a change in cleaning procedures to be investigated before they are actually implemented in the factory.

Also included in the software is a facility for logging the amount of daily production that takes place. This information can be used to compare the amount of cleaning required when production is at different rates.

0.0 Introduction

0.3 How is the software used?
The rest of this manual explains how to use the software.

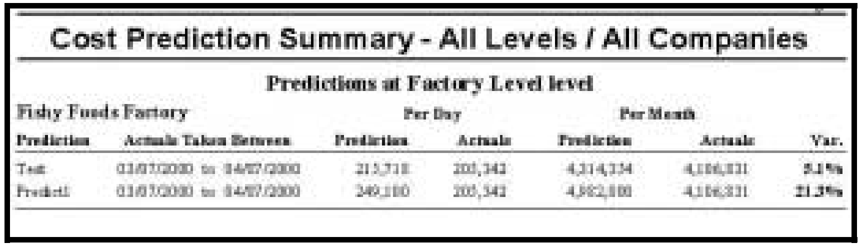
0.4 Example Benefits
When a company can log and track all resources used for sanitation, it gives control over the money spent.

If methods used for cleaning are validated, this means that comparisons and predictions can be made to identify the most cost effective methods for a particular factory.

Notes

8.0 Additional Reports

From the Main Menu click on the Report: All Cost Predictions button.



Cost Prediction Summary - All Levels / All Companies

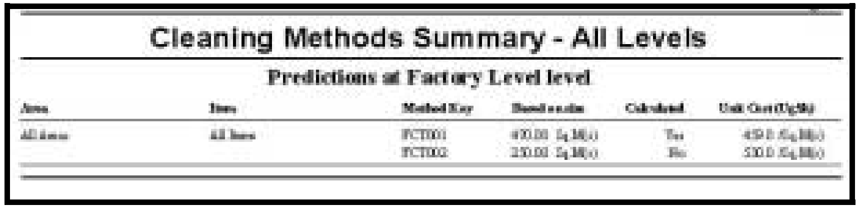
Predictions at Factory Level level

Fishy Foods Factory

Prediction	Actuals Taken Between	Per Day Prediction	Per Day Actuals	Per Month Prediction	Per Month Actuals	Var.
Test	03/07/2000 to 04/07/2000	213,718	203,342	4,214,334	4,106,831	5.1%
Predict1	03/07/2000 to 04/07/2000	249,100	203,342	4,982,000	4,106,831	21.3%

This gives you a summary of all of the cost predictions that have been made.

From the Main Menu click on the Cleaning Methods Unit Costs button.



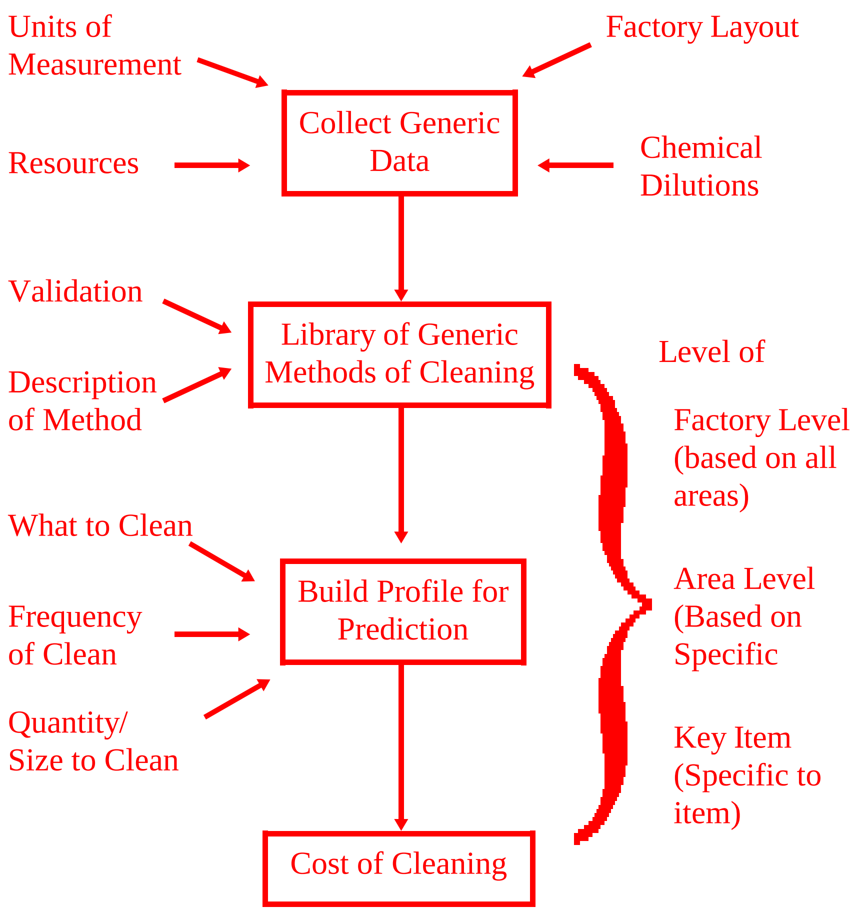
Cleaning Methods Summary - All Levels

Predictions at Factory Level level

Area	Item	Method Key	Based on dim	Calculated	Unit Cost [illegible]
All Areas	All Items	FCT001	400.00 Sq.M(s)	Yes	450.0 /Sq.M(s)
		FCT002	250.00 Sq.M(s)	No	530.0 /Sq.M(s)

This gives you a reports showing the unit costs of all of the cleaning methods you have entered.

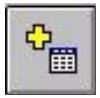
0.5 Program Overview



1.1 Navigation

Whilst using the software, these are some of the buttons and features you will come across.

Back to the previous screen



Add a new record

Delete the selected record

Go to the Maintenance Menu

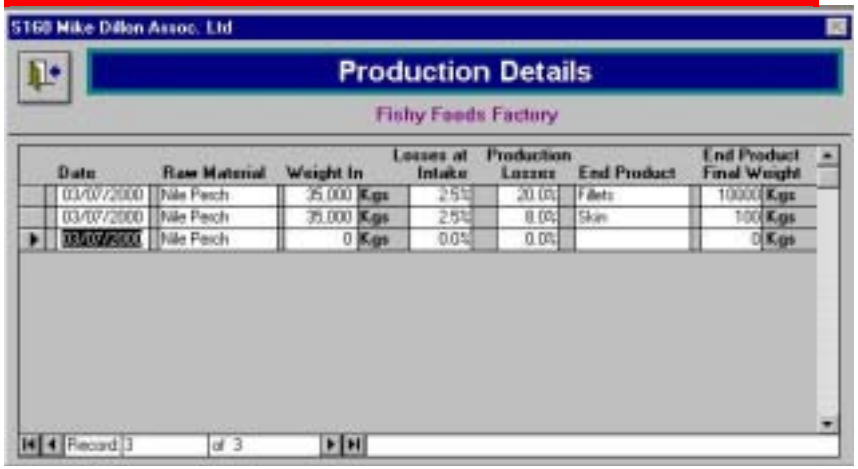
View and print options

7.2 Production Details

From the Main Menu click on the Production Data per Co. button.

The program then requires you to select the company who's production details you wish to view

The production details for that company are then displayed.

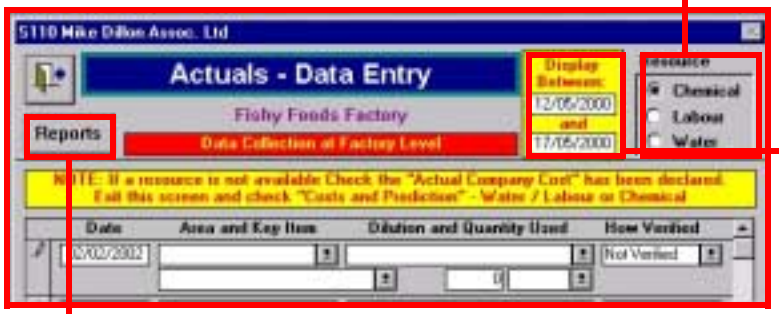


New entries can be added to the bottom of the list and the empty field boxes filled in. Today's date is automatically entered, but this can be changed to any date required. To get to the end of a along list, press the last record arrow.

7.1 Actual Resources Used

Before you can enter data here, the costs of the resources must be declared on the Costs and Predictions screen S502 (page 20)

Begin by choosing the class of resource you want to enter details for.

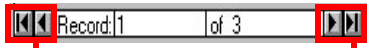


The company reports can be accessed here (page 29)

By changing the date range here, you can view all of the actual data that has previously been entered.

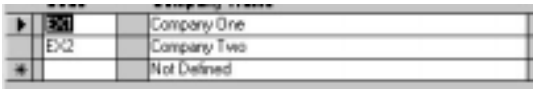
1.1 Navigation

Scroll up or down text



Go to first or previous

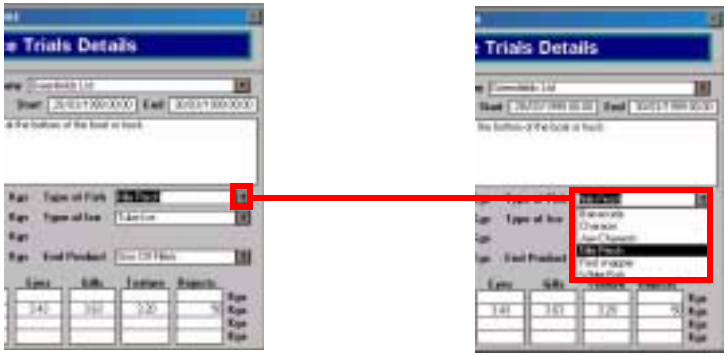
Go to next or last



Selected record (arrow head)
New Record (star)

To delete a row, click on the arrow head and press delete on the keyboard.

Drop-down menu selection

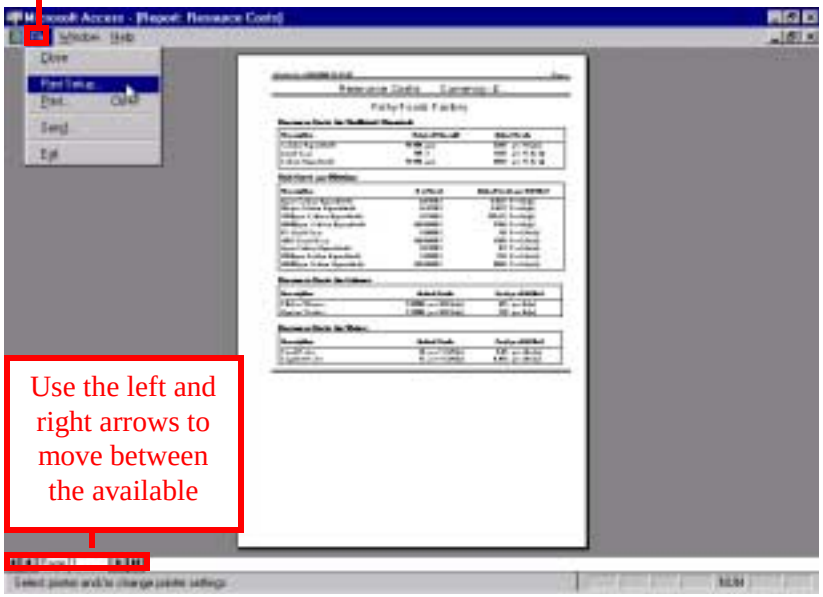


An alternative to ‘point and click’ with the mouse is to use the keyboard ‘tab’ key to move between fields.

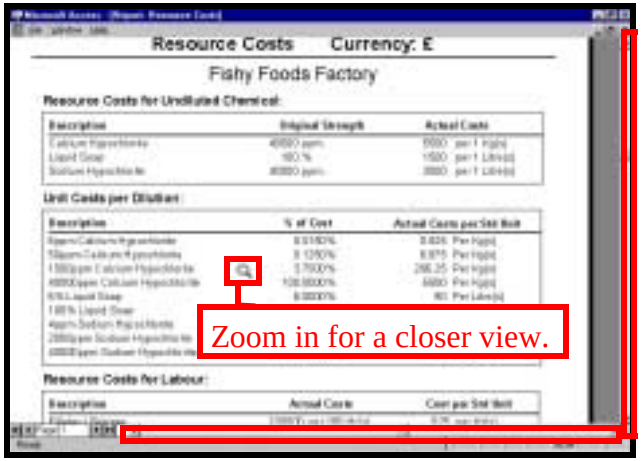
1.2 Viewing and Printing

Whenever the 'print preview' button is available on a menu you can view and print report(s) .

Drop-down menu: Click file then close to return to the previous menu. Click file then print to print the report you are viewing.



Use the left and right arrows to move between the available



Use the side and bottom 'scroll bars' to view all of the page.

7.1 Actual Resources Used

From the Main Menu click on the button Actual Resources Used per Co.

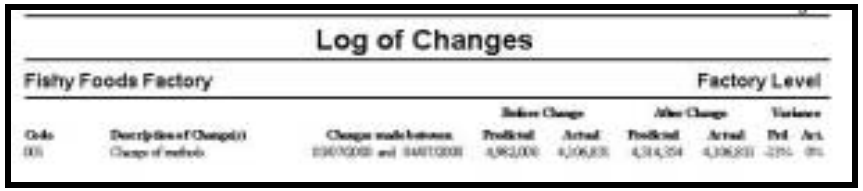
The program then requires you to select the company whose resources you wish to view

When you have clicked on the name of the company you wish to view, the program then asks you to indicate the level of data you wish to work at.

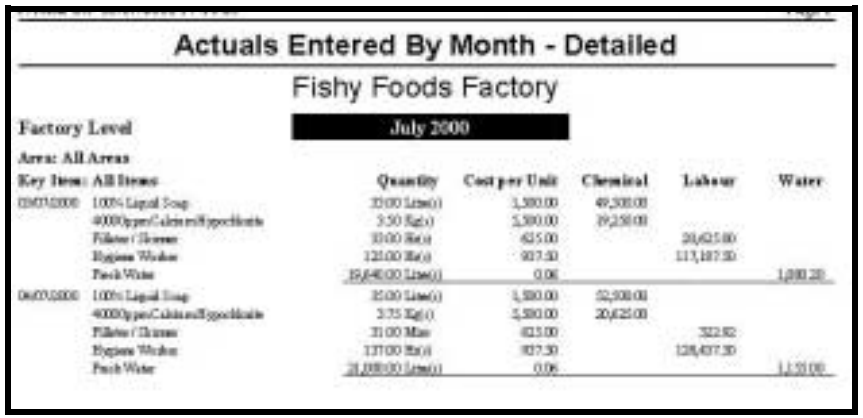
Having selected the level of data you wish to work with (in this example the whole factory), the program then displays the Actuals Data Entry screen. The options for entering/viewing cost details for chemical, labour and water can be accessed.

6.1 Company Reports

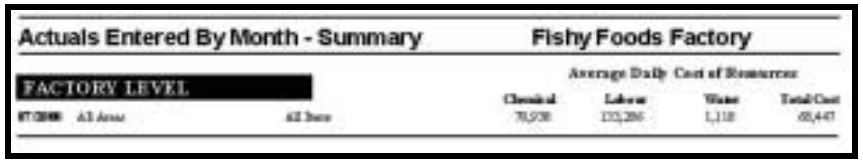
3



4

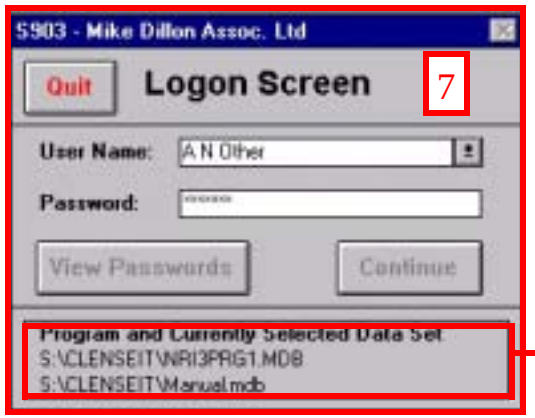


5



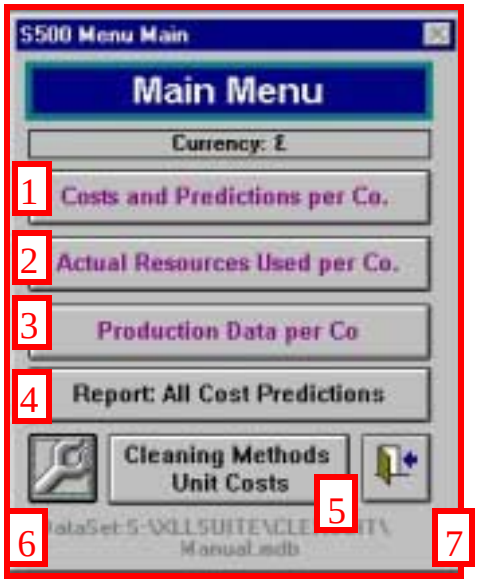
1.3 Logging On and Main Menu

To start : Double click system icon on desk top, wait for logon screen
Enter name ‘A N Other’ and password ‘letmein’, press enter on the keyboard and then click continue button.



This shows which data set is currently loaded and where it is saved. This can be changed at manager level.

The program will then display the Main Menu options;
1) Costs and predictions per company (page 19)
2) Actual resources used per company (page 32)
3) Production data per company (page 34)
4) Cost Prediction report (page 35)
5) Cleaning methods unit cost report (page 35)
6) Maintenance Menu (Global Settings page 10)
7) return to logon screen.



2.0 Global Setting

The Global Settings Menu can be accessed by clicking on this button on the Main Menu.

These sub menus must be set up before any cost predictions or reports can be made. If some information is left out, this may result in calculations being inaccurate.

The Global Settings Menu gives access to twelve sub-menus which hold all of the data which underlies the predictions, and the drop-down box lists.

It should be noted that the assumed costs entered in the Global Settings – Resources Menus will be used in cost predictions where 'actual costs' are not available (see page 18).

6.1 Company Reports

2

Cost Predictions - Currency: UgSh

Prediction Details Fishy Foods Factory at Factory Level

Cost Prediction Code: Test — Description of cleaning methods used in this prediction and reason.

Calculations Based on: 20 Days Per Month, 240 Days Per Year

Cleaning Schedule

Description	Cleaning Method / Size	Frequency of Clean	Chemicals	Labour	Equipment
Whole Factory cleaning	FCT001	470 Sqft(s)	1 per Day	Simple	Unlearned	Manual Only

Predicted Cost

	Avg. Daily Usage	Daily Cost	Monthly Cost	Annual Cost
Chemical				
100% Liquid Soap	*20.4 Kg(s)*	*153,000*	*3,060,000*	*36,719,999*
40%Hypo Calcium Hypochlorite	*1.8 Kg(s)*	*18*	*354*	*4,248*
	Total for Chemical	153,018	3,060,354	36,724,247
Labour				
Filleter / Skinner	*4.0 Hr(s)*	*2,000*	*40,000*	*480,000*
Hygiene Worker	*120.0 Hr(s)*	*60,000*	*1,200,000*	*14,400,000*
	Total for Labour	62,000	1,240,000	14,880,000
Water				
Fresh Water	*20,000.0 Litre(s)*	*700*	*14,000*	*168,000*
	Total for Water	700	14,000	168,000

Actual Cost

All Costs between: 03/07/2000 to 04/07/2000 Inclusive of Dates

	Sample Size	Minimum	Maximum	Std.Dev.	Avg. Cost
Chemicals	2	68,750	73,125	3,094	70,938
Labour	2	128,760	137,813	6,401	133,286
Water	2	1,080	1,155	53	1,118
			Average Daily Actuals - All Resources		205,342

Summary of Cost

	Average Daily Cost	Cost Per Month	Cost Per Year	Variance
Actuals	205,342	4,106,831	49,281,974	5%
Predicted	215,718	4,314,354	51,772,247	

6.1 Company Reports

1

Resource Costs Currency: UgSh

Fishy Foods Factory

Resource Costs for Undiluted Chemical:

Description	Original Strength	Actual Costs
Calcium Hypochlorite	40000 ppm	5500 per 1 Kg(s)
Liquid Soap	100 %	1500 per 1 Litre(s)
Sodium Hypochlorite	40000 ppm	3000 per 1 Litre(s)

Unit Costs per Dilution:

Description	% of Cost	Actual Costs per Std Unit
6ppm Calcium Hypochlorite	0.0150%	0.825 Per Kg(s)
50ppm Calcium Hypochlorite	0.1250%	6.875 Per Kg(s)
1500ppm Calcium Hypochlorite	3.7500%	206.25 Per Kg(s)
40000ppm Calcium Hypochlorite	100.0000%	5500 Per Kg(s)
6% Liquid Soap	6.0000%	90 Per Litre(s)
100% Liquid Soap	100.0000%	1500 Per Litre(s)
4ppm Sodium Hypochlorite	0.0100%	0.3 Per Litre(s)
2000ppm Sodium Hypochlorite	5.0000%	150 Per Litre(s)
40000ppm Sodium Hypochlorite	100.0000%	3000 Per Litre(s)

Resource Costs for Labour:

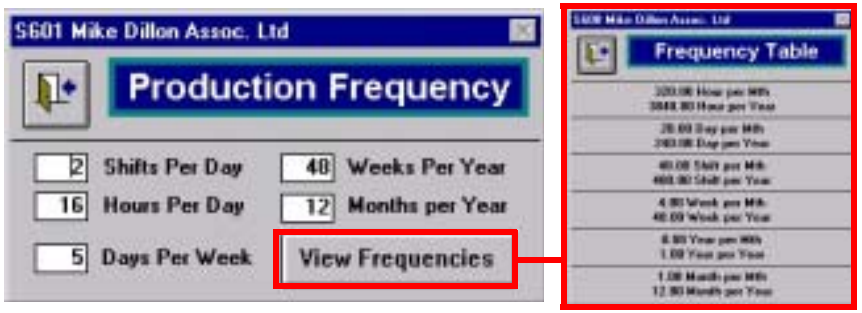
Description	Actual Costs	Cost per Std Unit
Filleter / Skinner	100000 per 160 Hr(s)	625 per Hr(s)
Hygiene Worker	150000 per 160 Hr(s)	937.5 per Hr(s)

Resource Costs for Water:

Description	Actual Costs	Cost per Std Unit
Fresh Water	55 per 1 CbM(s)	0.055 per Litre(s)

2.1 Units of Measurement

These twelve sub menus allow you to set up background information / data. After data entry press back button to return to the Global Settings menu S501.



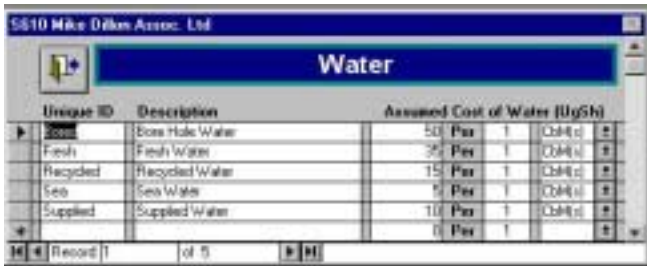
Production Frequency
All values should be entered into the relevant boxes.
Pressing the View Frequencies button gives access to the Frequency Table.

Standard Units
Declare preferred standard units used for sanitation here.

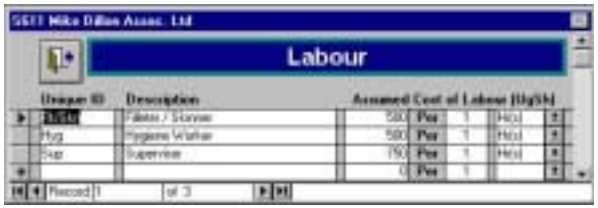
Conversion Factors
All other units used are recorded here and converted into the previously defined standard units.

2.2 Resources

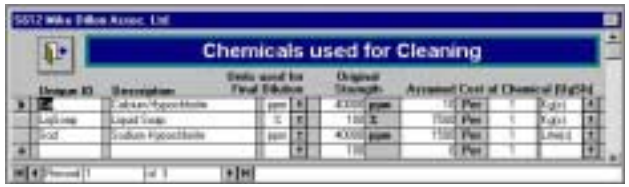
After data entry press back button to return to the Global Settings menu S501.



Water Standard types and costs of water are listed here.



Labour Types and costs of labour are listed here, with a unique ID.



Chemicals Details of all chemicals used should be listed here and given a unique reference code.

6.1 Company Reports

From the Costs and Predictions screen S502 the Company Reports menu can be accessed.

The following reports are available from this screen

1) This gives list of all resource costs under the headings Chemical, Labour and Water

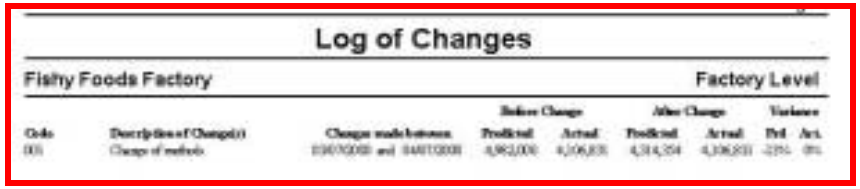
2) All of the predictions that have been made are shown in this report

3) This gives a summary of the log of changes

4) A detailed report of resources used by a company is available, split into a month at a time

5) Also a summary of costs by date

5.1 Log of Change

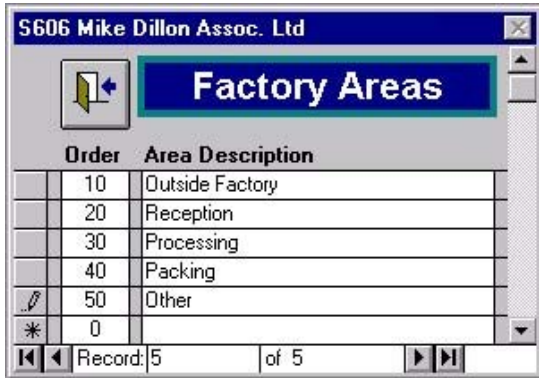


When adding a new record 3) the code box first needs to be changed from "?". The other boxes can then be filled in. If predictions have been made (page 22) these can also be included.

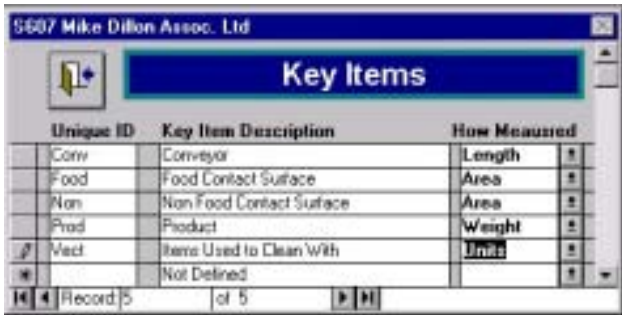
2.3 Factory Related

After data entry press back button to return to the Global Settings menu S501.

Companies Codes and full names of all companies should be listed here.



Factory Areas
All areas of the factory should be listed and given an order of cleaning (sequence) reference.

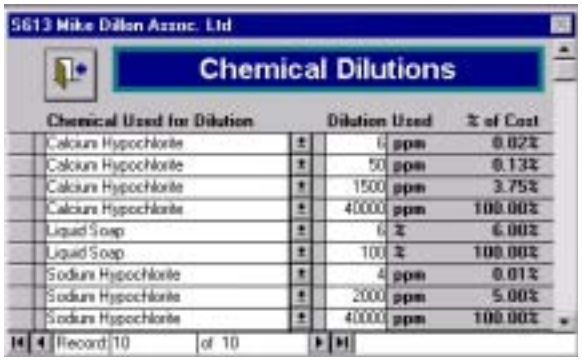


Key Items
All key items to be cleaned should be recorded here with a unique ID.

2.4 Sanitation Details

After data entry press back button to return to the Global Settings menu S501.

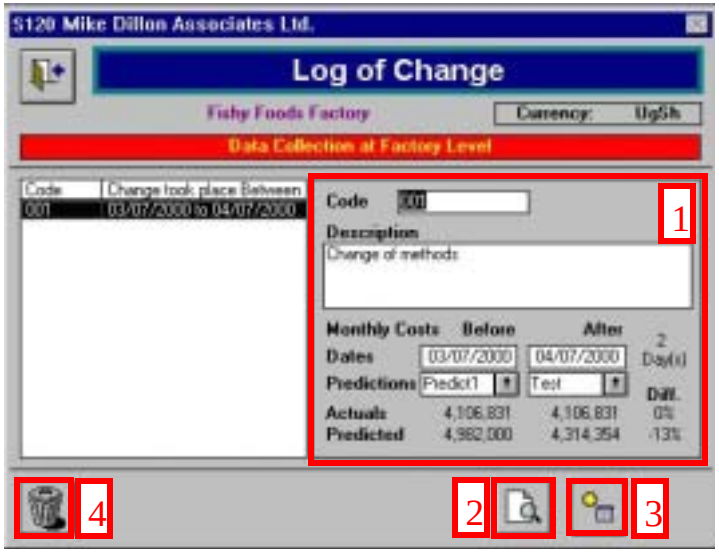
Cleaning Equipment
All equipment used to clean with should be listed here.



Chemical Dilutions
All dilutions used during cleaning should be listed here.

5.1 Log of Change

On selecting an existing record from the available list, the program displays the details of the selected record (1) including predicted and actual costs before and after the change.
It also enables the following options: (2) View/print the records (3) add a new record (4) Delete the selected record

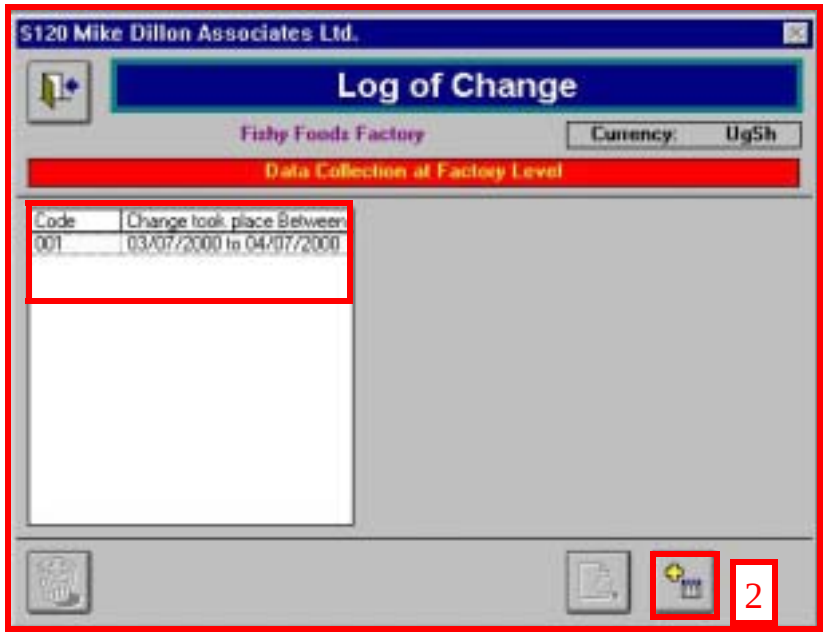


Clicking on the Print Preview button (option 2) displays the log of change report for all of the records. This can then be viewed or printed as required.

5.1 Log of Change

From the Costs and Predictions screen S502 a Log a change can be accessed to allow a comparison of two methods actually used in the factory and predictions.

First select the level to be used for the comparison

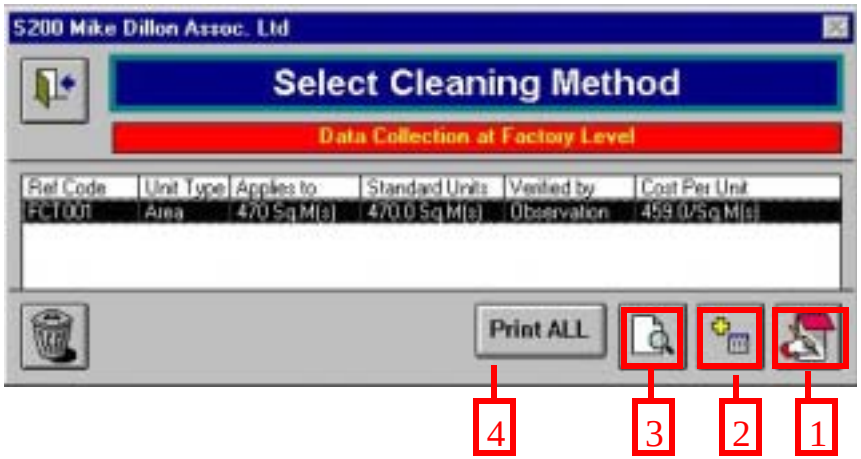


The options available are: (1) select an existing record from the list or (2) create a new record.

3.1 Viewing Cleaning Methods

From the Global Settings Menu press the Cleaning Methods button.

This will bring up the Select Data Level screen. Select which level of cleaning is required and press the OK button. To return to the previous screen press the Cancel button.



From this screen all available cleaning methods for the selected level are displayed. After selecting a method :
1) the notes can be displayed (page 16).
2) A new method can be added (see page 17) and
3) reports printed off (page 16).
4) this button prints a report of all of the methods.

3.2 Adding New Methods

Here is an example of the notes for a particular cleaning method, and the report that goes with it.

Standard Cleaning Manual

Reference Code: FCT001 Data Collection at Factory Level

Validated Procedure: No Unit Cost (£) 0.00/Sq.M(s)

Area applied to: All Areas

Key Item applied to: All Items

Chemicals: Simple Labour: Untrained Equipment: Manual ONLY

Method:

Applies to: Notes:

Verification:

Water Consumption

Description	Quantity Documented	Standardised Units	Std Unit Cost
Fresh Water	20.00 Drum(s)	20,000 Litre(s)	0.000 Litre(s)
	Total Quantity	20,000 Litre(s)	

Labour Requirement

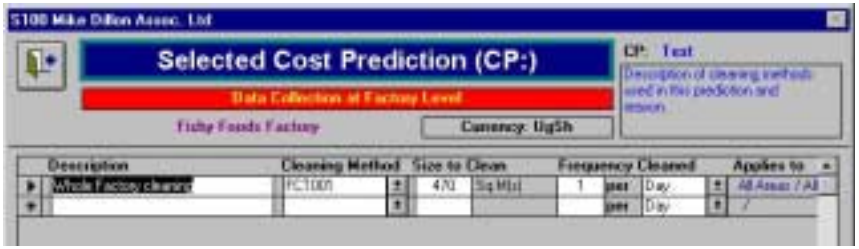
Description	Time Documented	Standardised Units	Std Unit Cost
Hygiene Worker	120.00 Hr(s)	120.00 Hr(s)	000.00 Hr(s)
Fitters Cleaner	240.00 Hrs	4.00 Hr(s)	000.00 Hr(s)
	Total Time	124.00 Hrs	

Chemical Dilutions and Quantities

Description	Quantity Documented	Standardised Units	Std Unit Cost
100% Liquid Soap	20.00 Litre(s)	20.00 Kg(s)	7,000.00 Kg(s)
4000ppm Calcium Hypochlorite	1.77 Kg(s)	1.77 Kg(s)	10.00 Kg(s)
	Total Quantity	21.77 Kgs	

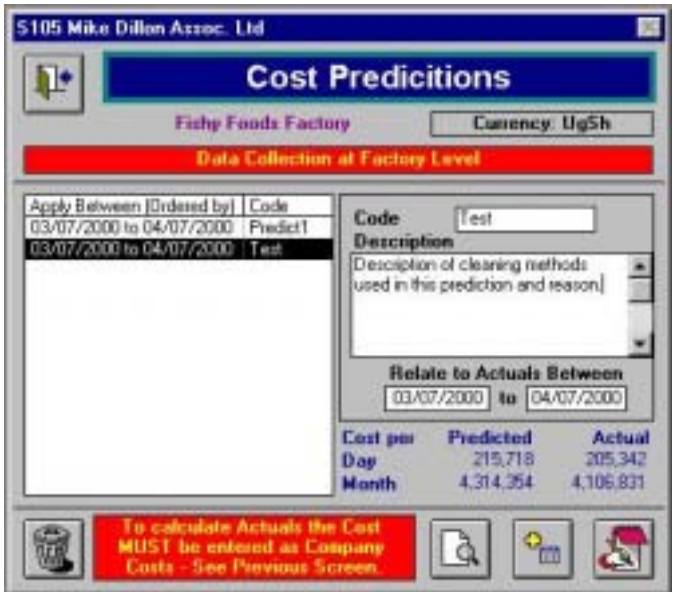
4.3 Adding New Cost Predictions

Next, to enter the information about which methods are to be used on what equipment, press the notes button.



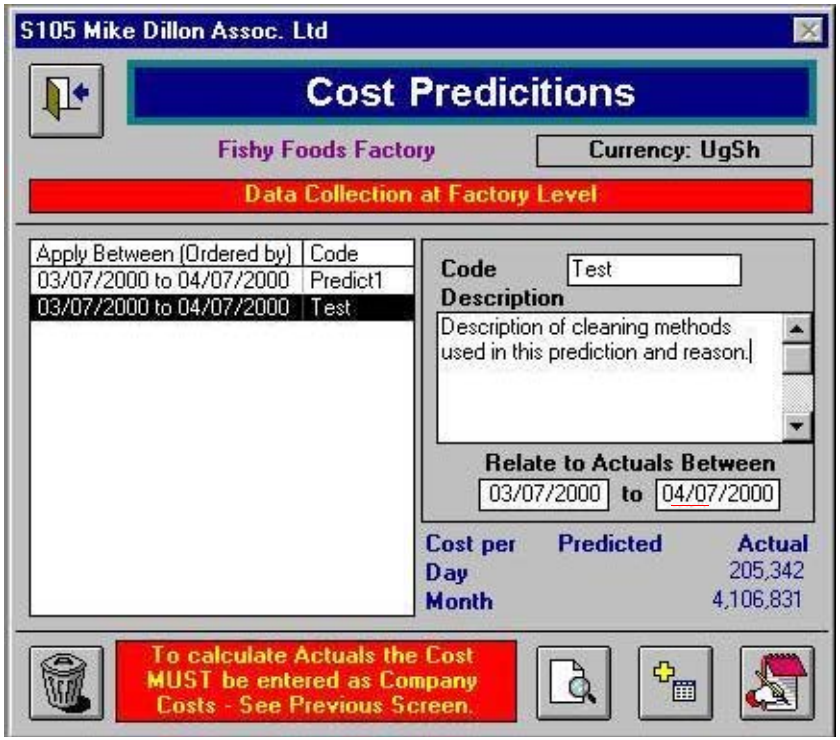
A description of the item(s) to be cleaned by a particular method should be given, and the other drop-down and field boxes completed . The cleaning methods are set-up in the Global Settings menu (page 10)

The predicted costs will then be shown along side the actual costs on the previous screen, S105.



4.3 Adding New Cost Predictions

To add a new prediction click the button on the Cost Predictions screen S105



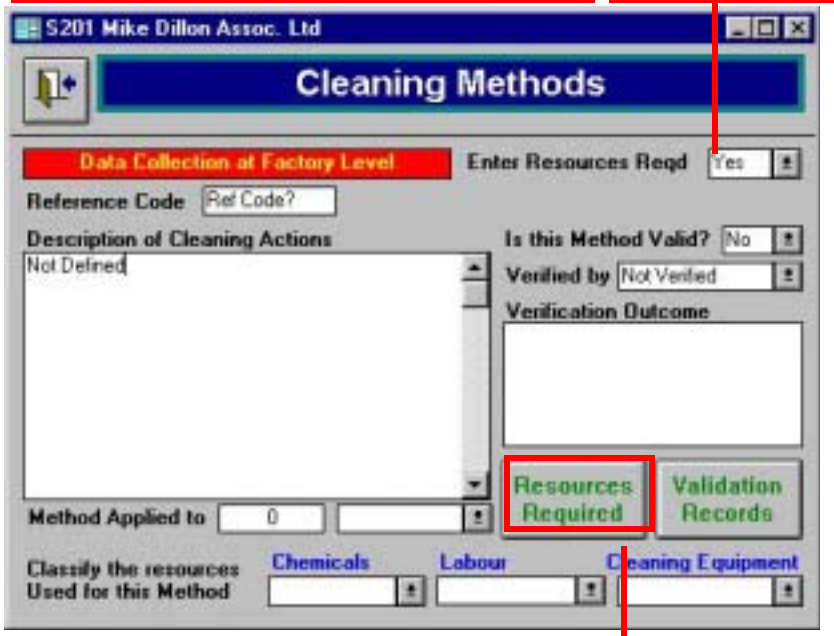
The code field will be highlighted and a unique code should be entered. A description should then be given, and if there are actual methods entered, dates can be given that relate to this data. The actual costs of cleaning based on these methods will be calculated and shown at the bottom.

3.2 Adding New Methods

From the Select Cleaning Methods Screen S200, press the add new method button.

The program will then display a blank Cleaning methods record, in which the reference code box is highlighted with "RefCode?". You should begin by giving the method a unique reference code.

You can choose to specify resources used, or just enter a total cost.

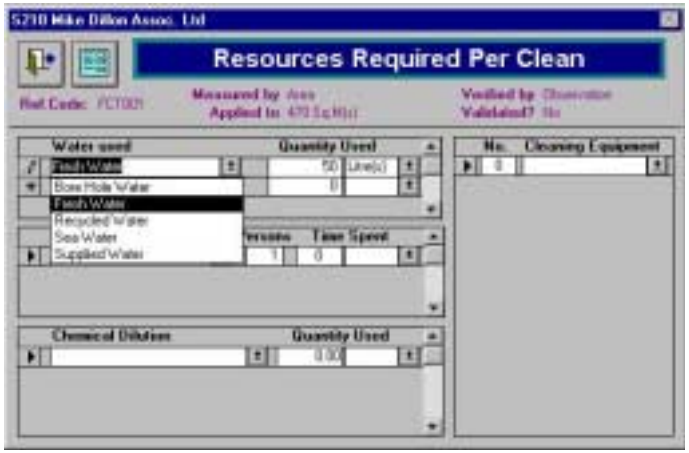


The remainder of the record can be completed by typing into the blank field boxes, or where they are available making selections from the drop-down boxes. When you have finished, if you chose to enter the resources, click the Resources Required button to continue to the Resources Required per Clean screen (page 18).

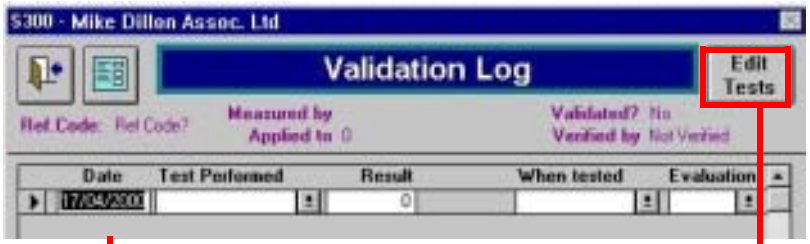
3.2 Adding New Methods

To record resources used in the cleaning method press this button on S201

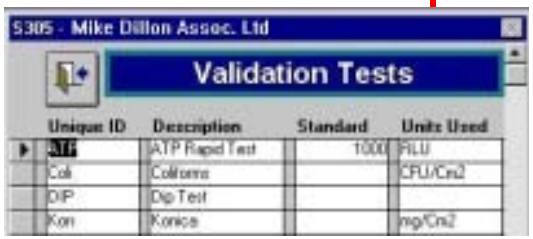
Resources Required



This screen also needs to be completed using drop-down boxes and filling in the blank field boxes.



To record any validation results, press the button on the cleaning methods screen S201 and log all tests performed.



4.2 Viewing Cost Predictions

When selecting a level of detail to make the prediction on, the following should be taken into consideration:

Factory Level:
Very generic, groups all areas and items together.
Useful when documenting total factory costs.
Not very accurate prediction.

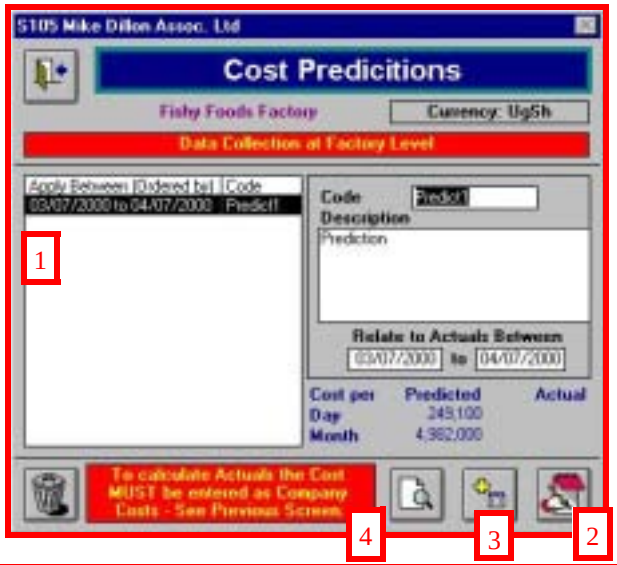
Area Level:
Enables key areas to be monitored.
Allows similar areas to be compared through predictions.
Takes no account of the items contained within an area.
Predictions can be made on a specific area, where the

Key Item Level:
Enables a full itinerary of a factory to be used, or specific items of equipment.
Gives a better basis for cost prediction.

4.2 Viewing Cost Predictions

From the Costs and Predictions screen S502 Cost predictions can be made using cleaning methods that have already been entered into the program, by pressing the Cost Predictions button.

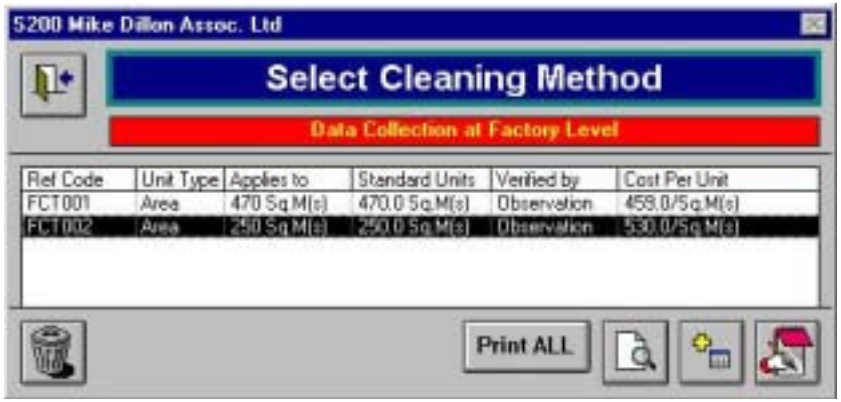
All cleaning methods are based on one level of the factory structure. The level for use in the prediction should first be selected.



The Cost Predictions screen then appears, with a list of predictions, if any have previously been made.
1) Selecting a prediction brings up a description and the option to 2) view the notes.
3) A new prediction can also be added (page 24) and
4) A report printed (page 29)

3.2 Adding New Methods

If you choose not to enter resources information, you can specify the total cost for the cleaning procedure. The cost per unit is shown on the Select Cleaning Method screen. Methods can be entered in a similar way for each level, factory, area and key item.



4.0 Costs and Predictions

From the Main Menu press the Costs and Predictions per Company button.

Then choose a company who's costs and predictions you wish to view/edit from the list.

To view/edit the resource costs press one of these buttons (page 21).

Page 22

Page 28

4.1 Company Resource Costs

From the Costs and Predictions screen S502 Water, Chemical and Labour Costs can be accessed.

The Actual Costs of resources used by a factory can be entered on these screens. The descriptions available in the drop-down lists are set-up using the Global Setting menu (page 10).