REPORTS MENU

OVERVIEW

The following areas will be needed to help you customise your reports:

TURBO FILTERS AND FILTERS: Filters allow you to view specific call information, e.g. calls over a certain length or to a specified destination, or within certain time frames. Some commonly used filters will have been protected at **focom limited** staff level as part of the set up on your system, these can be used as examples. You will note that there are two categories of Filter; one is specially designed for turbo reports. This is because turbo filtering has to be set up in advance of data collection. All other reports use the standard filters that interrogate the data as part of the report set-up. See Turbo Filters below and Filters on page 80 of this section.

GROUPS: In order to run reports on different units or departments, you need to gather extensions or trunks into named collections. These are referred to as Groups, see page 82 of this section.

REPORT SETUP In most cases you will need to set-up filters and groups before you run any reports under Report Setup, page 83 of this section.

FIELDS: The design of the report headings and column format can be manipulated under Fields from Page 89 of this section.

SCHEDULER: You will not always want to run reports immediately, they can be scheduled to run overnight or regularly at pre-set intervals. This, and other housekeeping activities, is set up in the Scheduler, Page 93 of this section.

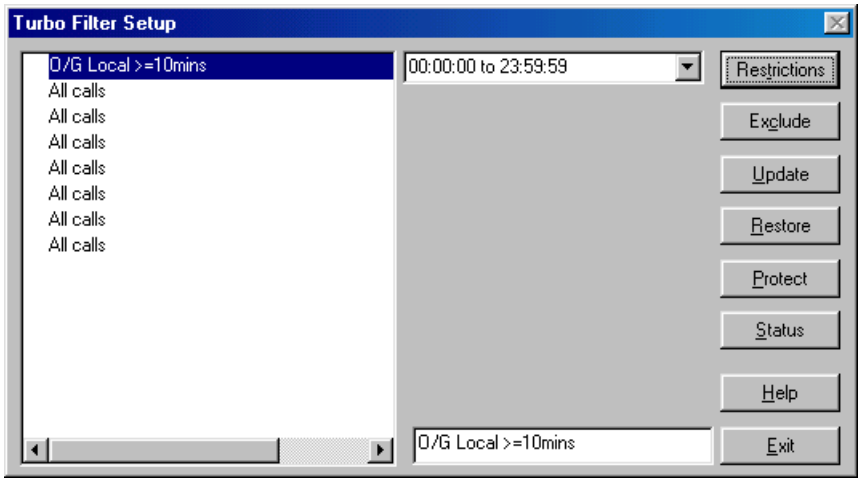
REPORTS SAVED: Once a report has been produced, it is saved for further viewing or printing. They are listed under Reports Saved. See page 100 of this section.

PRINTER SETUP: Finally, this section allows you to manipulate the appearance of the report on screen and in print. See page 102 of this section.

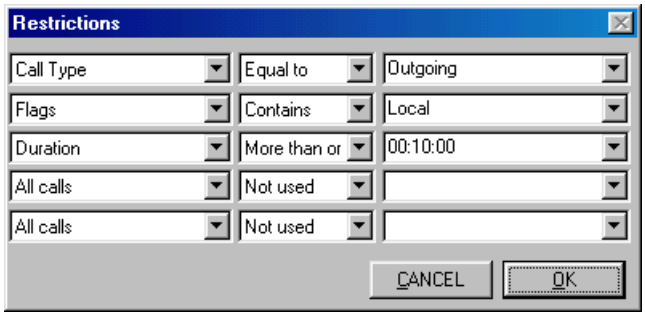
A detailed reference guide to each of the above stages is set out on the following pages.

TURBO FILTER

As the name would suggest, these filters are used with Turbo Reports. Once a filter is set up, LUMBERJACK will begin accruing data against the parameters set. They cannot be used retrospectively.



To set Filter One highlight it with the cursor and click on [Restrictions]. The following screen appears:



It is possible to set up five parameters within each filter. These are AND filters, which means that the data will only accrue if it meets all the criteria. (See page 80 of this section to explain the difference between AND and OR filters).

- From the first column, select the type of filter.
- From the second column choose the comparison type.
- In the last column specify the comparison.

In the above example the filter is searching for all outgoing calls made to local numbers that have a duration of 10 or more seconds.

Once the parameters are set, click on [OK] and you will return to the previous window.

In the top box in the centre of the window, the time frame for this filter may be set. Select from the drop down list or insert your own.

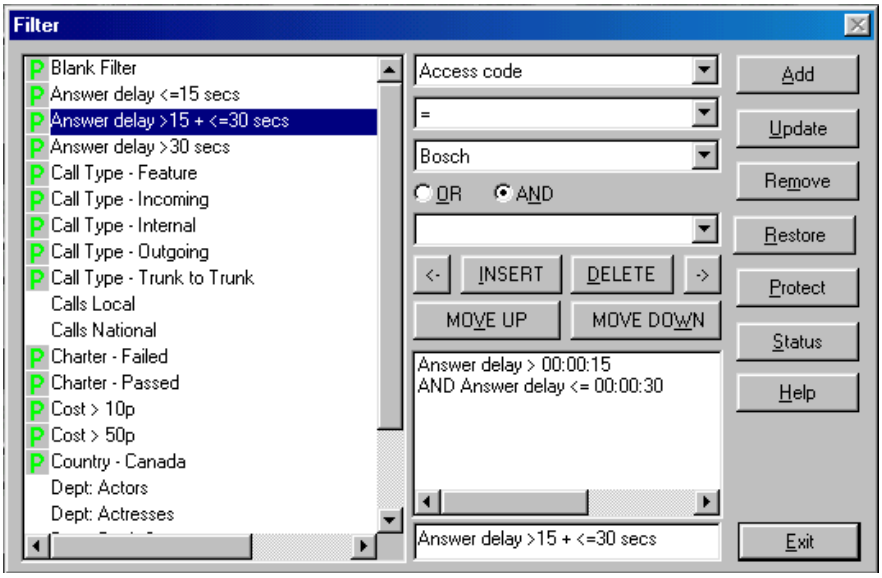
Insert a description for the filter in up to 31 characters.

Click on [Update] to save the settings. To make them effective, run a Recache. (See Scheduler on page 93 of this section.)

NOTE:	Remember to click on [Update] if you make any changes to the filter parameters otherwise the changes will not be saved. [Update] applies to both changes on this screen and the Restrictions box.

FILTER

Filters act as a net to catch all the call records that meet your criteria. E.g. when you are only interested in the report showing specific calls.



FILTER LISTING: A list of all filters that have been created. The highlighted filter will display its details in the Elements Selected and Description boxes

ELEMENT TYPE: Select from the menu the element you require to filter.

OPERAND: Select an operand from the list of types available. These are some of the choices: less than (<); less than or equal to (<=);.equal to (=); greater than or equal to (>=) ;greater than (>); and not equal to. These will change depending on the Element Type you select.

PBX/TARIFF: This option is only used for PBX and Tariff selections.

○ OR & ⊙ AND To use when more than one element is selected in a filter. AND means that the call record must meet both criteria listed. OR means that the call record must meet one or other of the criteria. (Further explanation is provided in the Tutorial).

CHOICE OF SELECTION: Type in the requirement, or select choice from the menu as appropriate.

[<-] & [->] For more detailed AND/OR filters, the arrows will incorporate brackets. These work much like equations. Highlight the relevant section of the filter that needs to be bracketed and select [->]. To remove the bracket, select area and press [<-].

[MOVE UP] & [MOVE DOWN] When selecting multiple filters that require bracketing, the [Move Up] and [Move Down] buttons will raise or lower the highlighted filter so that it is incorporated in the correct place.

[INSERT] & [DELETE] [Insert] adds the information above to the listing. [Delete] removes any item highlighted in the listing. It can be undeleted using the [Restore] button if used prior to Adding, Updating or clicking on [EXIT].

ELEMENTS SELECTED: Once items are Inserted they will appear in this listing box.

DESCRIPTION: Type in a description of the filter in up to 31 characters.

NOTES ON FILTER FORMATS

Cost

The options for cost are less than (<) or greater than (>). These can be inferred to mean equal to or greater than, and equal to or less than. The equals sign is not given as an option here since the mathematics of calculating cost runs to many digits. To set a filter to find calls of £0.50 or more, set the filter to read *>0.49*.

Matches/Equals

A wild card (***** = any text string, or nothing; **?** = a single character) may be used when creating number filters.

For example: When creating a dialled number filter to pick out all calls to Inner London, the filter should read *Dialled number matches 0207*.*

If you were to select *Dialled number = 0207** LUMBERJACK would take that as a literal request to find any calls where the dialled digits were equal to 0207*. Invariably, this would produce a null report! = would be used when a whole telephone number is inserted.

Sounds Like

Where a filter is being set up for a name, e.g. Location or Extension Description, there will also be the option to select *sounds like* under the operand box. This is a Sybase SQL function that we have made available. This option will expect to see the full name of the entry, e.g. if you are looking for someone whose name is *Marie Seleste* but you don't know how to spell her name, use *sounds like Mary Seleste*. You could try various alternatives remembering to use OR if you are listing several options. This option is most effective when you remember that the search has to *sound like* the word you are looking for, it is not a *something like*, i.e. you would not be able to look for *Mary Lest*, neither can you use wild cards.

Updates/Deletions

If you create a filter of filters, or a group of filters, and then update a component filter, the update will be effective at the grouped level and all reports will be modified accordingly.

If, however, you delete a component filter, the deletion will only be effective for reports created afterwards. It will not be effective for reports that used the grouped filter prior to the deletion.

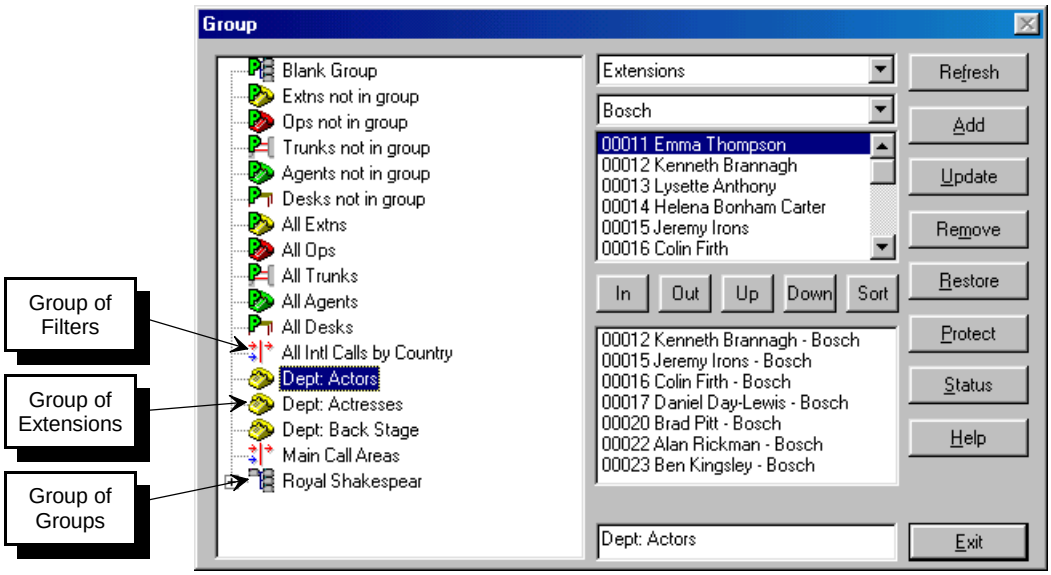
Therefore, any reports that need to take account of the deletion must be recreated. Do this by highlighting the Report, from Report Set-up, and clicking on [Add]. The updated filter will then be acknowledged. Delete the old Report set-up.

Filter Definitions

The Filter definitions are based on the information available in the database. Some of these filters are switch specific. For a full list of Fields, Flags and Features available from your switch see the Site Specifics section towards the end of this manual.

GROUP

These are used to combine Extensions, Trunks, etc. into manageable groups on which to run reports. You can also make a group of filters or groups such as shown below.



GROUP LISTING: A list of all the groups that have been created. The highlighted group will display its details in the Elements Selected and Description boxes. Where Groups of Groups have been created, these will be marked by a '+' symbol.

TYPE OF GROUP: Select from the menu the type of group you want to make.

PBX SELECTION: If more than one PBX has been installed, select which is required. If you are selecting a Group of Groups, or Filters, or PBXs, the box will state: Not used with this type.

ELEMENTS ALLOWED: Lists all the elements available for the Group type. Select from the list using the standard Windows conventions of Shift and Control keys to highlight the individual or multiple selection required.

[IN] / [OUT]: [IN] will add the highlighted item into the Selected Elements list. [OUT] removes a highlighted item from the Selected Elements list.

[UP] / [DOWN]: Items appear in the report in accordance to their position on this list. Since they appear in the list in the order they were selected, an item can be moved [Up] or [Down] the listing if a different order is required.

[SORT] This allows you to sort the list of selected elements into ascending alphabetical order.

SELECTED ELEMENTS: Once you select an item in the Elements Allowed list and click [IN] it appears below in the List of Selected Elements.

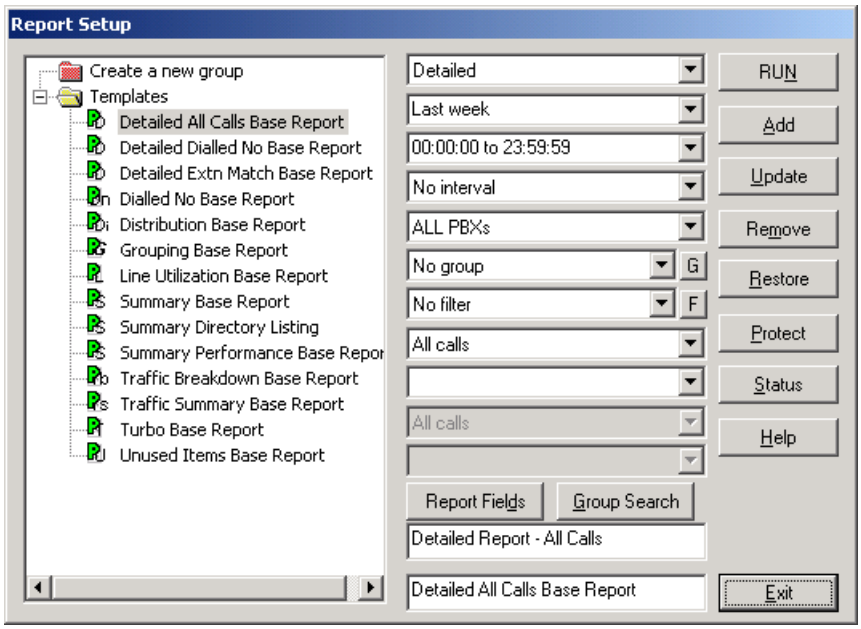
If an item, in the Selected Element list, is marked with an asterisk, it means that this item has been deleted, (it will also be marked with the date and time of deletion). While the deleted item remains in the group you will be able to run reports on the group and any call records for the deleted item will be included, up to the date and time of deletion. However, if you decided that you no longer need the deleted item in the group you can highlight it and click [Out] – after doing this you will not be able to retrieve any call records for that item.

DESCRIPTION: Type in the Group name in no more than 31 characters.

CLICK ON [ADD] For some Groups, such as Extension or Trunk, you will be asked if you want to create a Filter. As a rule it is best to accept this option since there are many uses for a Filter of a Group and this will save having to make one later.

Report Set-up

This is where all reports are set-up, either to run now or to be scheduled to run later.



List:

Shows all the reports that have been set-up on the system. The highlighted report will display its details in the selection boxes. Reports can be put into folders to make them easier to track. For example, you may keep reports for each site under a different folder, or you may choose to keep Traffic Reports in one folder and Operator Reports in another. To set up a folder, simply drag the report format up to *Create a New Group* and drop it, then type in the folder name in the box that will appear. To add more reports, drag and drop them to the folder. A folder will disappear if there a no reports in it.

Type:

Select the type of Report. A fuller description of setting up a report is given in the Sample Reports section of this manual (the following page references refer to the Sample Reports section):

Detailed: Gives details of individual call records. (pages 40 and 42)

Dialled Number: Statistical information regarding the numbers dialled. Use it to find the most frequently dialled, costliest, longest duration to a single destination, etc. (pages 44 and 46)

Distribution: This type of report is designed to give you the percentage of calls meeting certain criteria. (page 48)

Grouping: Grouping reports are similar to Summary reports in that they give you total figures, but instead of being run on one of your groups they can be grouped by different elements, such as country, tariff, etc. (page 50)

Line Utilisation: This is designed to be run on trunks and network links. It will show the activity on the individual lines in the group, and produce a histogram. It also calculates the probability of blocking (g.o.s.). (page 52)

Matrix Element: Allows you to see the number of intra departmental calls, e.g. how often extensions within one group call each other. (page 54)

Matrix Group: As above using Groups instead of elements.

Summary: Gives totals of calls, cost, duration, etc. (pages 56, 58, 60, and 62)

Traffic Breakdown: A daily breakdown of traffic showing Erlangs by selected time interval. (page 64)

Traffic Summary: A report to show peaks and troughs of traffic and estimates the number of lines required, based on the Erlang B Table, and your selected grade of service (g.o.s.). (page 66)

TURBO:	As the name suggests, these are designed for fast collation of data. They will be the main reports that you use. The information is similar to Summary Reports, except that the filtering is limited. (page 68 and 70)
UNUSED:	Run this report regularly to see a list of Trunks or Extensions that have not been used over the given period. This is useful for spotting faults or finding extensions that can be recovered. If the data were entered by the self learning method, this report will only be able to show lines or extensions that have been used at least once since LUMBERJACK was installed. Another way to spot unused lines would be to look in the Trunk and Extension lists under PBX to see the number gaps. (page 72)

Time Frame:

LAST HOUR:	This will look at calls that occurred during the 60 minutes immediately prior to running the report.
TODAY:	This will look at calls that have happened from midnight to the time the report is run.
YESTERDAY:	All calls that occurred the day before the report is run.
YESTERDAY AND TODAY:	All calls included in Today and Yesterday.
THIS WEEK:	From Monday of the week the report is run to the minute before the report is run.
LAST WEEK:	Monday through to Sunday of the week before the report is run.
LAST WORKING WEEK:	Monday through to Friday of the week before the report is run.
LAST SEVEN DAYS:	The seven days immediately prior to the day the report is run.
LAST TWO WEEKS:	Two weeks up to and including the Sunday before the report is run.
LAST 28 DAYS:	The 28 days prior to the report being run.
LAST CALENDAR MONTH:	The calendar month prior to the month in which the report is being run.
BILLING MONTH:	This will give you one month prior to the day run the report. If you run the report on the 15th May, the report period will be 15th April to 14th May.
LAST QUARTER:	This will give you 1st Jan to 30th Mar; 1st Apr to 30th Jun; 1st Jul to 30th Sep; or 1st Oct to 31st Dec depending when you run the report. If you run the report in August the report period will be 1st April to 30th June.
LAST 3 CALENDAR MONTHS:	This will give you the 3 months prior to when the report is run.
LAST 3 BILLING MONTHS:	This will give you three months prior to the day run the report. If you run the report on the 15th May, the report period will be 15th February to 14th May.
LAST YEAR:	The last calendar year.
10/07/2003 TO 10/07/2003:	If a single day is required, say 30th June 2003, you can simply enter 30/6/03.
07/07/2003 TO 13/07/2003:	This date option allows you to select any date range you want. This can be entered 30/6/03 to 5/7/03 etc.

Time Restriction:

Either enter the time restriction you want using the *hh:mm:ss to 23:59:59* format or by selecting from the pre-set options which can be adjusted after selecting.

Interval:

If you want sub-totals at the end of a time period, select the interval here. This is more commonly used with Summary reporting.

There are various options for intervals, especially those run over a period longer than one day. Taking the hourly intervals as an example, there are three types to choose from: *Hourly* will give you a total after every hour throughout the period of the report; *Hourly and Day* will give you totals after every hour with an additional total at the end of each day; *Hourly, ignore Day* will accrue the hourly totals throughout the period of the report.

PBX

If you have more than one PBX, you can select the one you want here.

Group:

Once you have set up your groups under Reports>Group, they will appear in this box. Select the one required or set to No Group. If the Group you want is not in the list you can make a new Group directly by clicking on the [G] button. This will take you into the Group Set-up screen.

Filter:

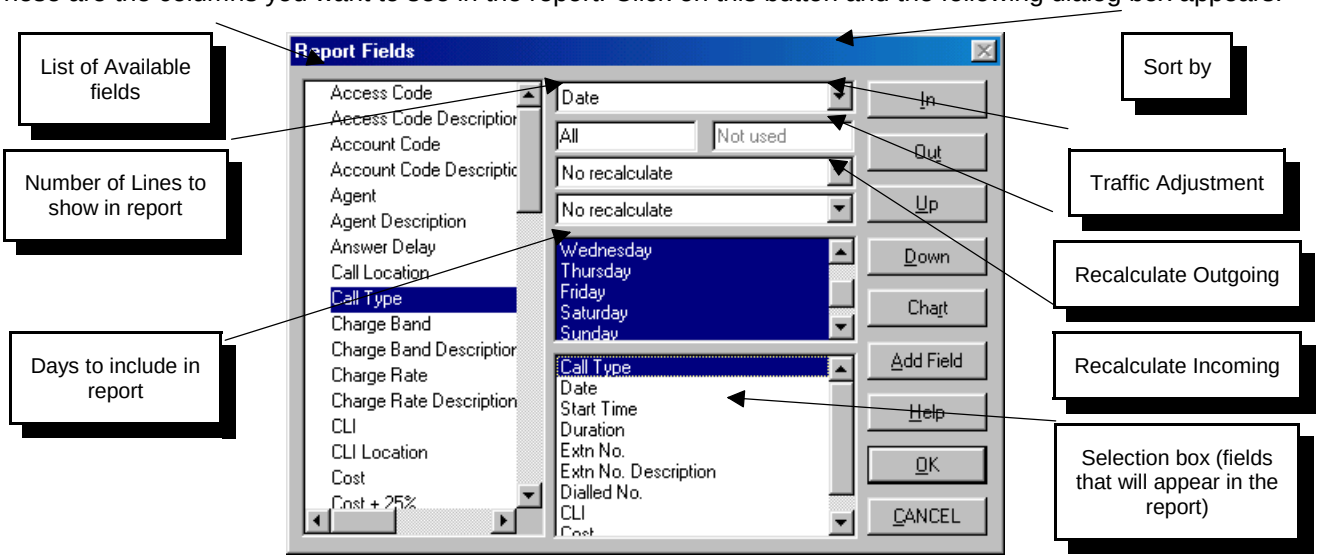
Once you have set up your filters under Reports>Filters, they will appear in this box. Select the one required or set to No filter. If the filter you need has not been set up, click on the [F] button which will take you into the Filters screen where you can create the filter you need. Click on [EXIT] to return to the report set-up.

Sub Filters:

These quick filter boxes speed up the operation of producing one off reports or help you to define existing ones further. Select the filter type and set the parameters in the box below. It is useful for selecting a specific destination, or a specific extension number. The second filter option becomes active once the first is in use.

[Report Fields]:

These are the columns you want to see in the report. Click on this button and the following dialog box appears:



The fields available within [Report Fields] will be different depending on the type of report you are running. They are set up under Reports>Detailed Fields, Reports>Summary Fields or Reports>Turbo Fields, or by using the [Add Field] button within [Report Fields]. These are described in the following pages.

Select a field from the list by double clicking on it or by highlighting it and clicking on [In], the field will appear in the Selection box. [Out] will delete a highlighted option from the Selection box. You can then move these headings around using the [UP] and [Down] buttons.

Options:

You can **SORT** Detailed Reports into any sequence by selecting the element you want to sort by in the top centre box. The default is Date and Time, however, if another sort is chosen here, the date and time sort will be secondary. In the above example, the sort is on Cost, this will place the highest cost call that passes the filtering at the top of the report.

NUMBER OF LINES will normally be set to All. However, if you are running a Dialled Number report, you will probably only wish to see the top 10 or top 50 calls, insert here the number of calls (lines) you want to see.

The **TRAFFIC ADJUSTMENT** is used with Traffic Reports when estimating the number of lines that will be needed if traffic were to increase by this given percentage. E.g. if you anticipate an increase in traffic of 15% over the next period, insert *15* here, or if you anticipate a decrease of 15% insert *-15*, and LUMBERJACK will calculate the number of lines you need for this increased traffic.

RECALCULATE OUTGOING. When the Recost Field has been selected, enter here the Tariff for the recosting. This box allows recalculation on outgoing calls. This will require a detailed *Recost* field to be created - see page 89 of this section and page 22 of the Tutorial.

Recalculate Incoming. As above except this box allows recalculation on Incoming calls.

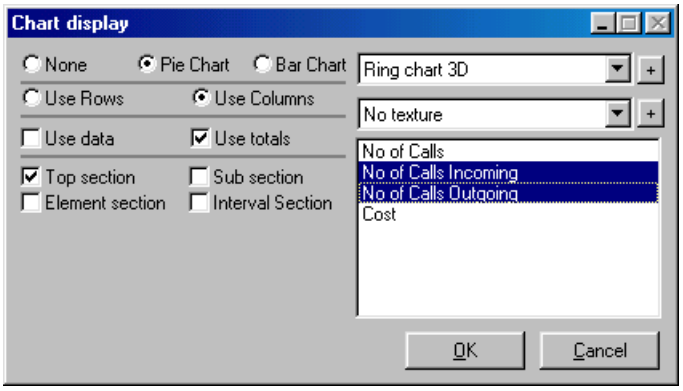
Days to Include: Those highlighted are the ones selected for the report. If weekdays only are required, deselect Saturday and Sunday.

[Add Field]:

If the Field you require has not been created, click on the Add Field button and you will be taken into the relevant Field screen with the report you are generating. Create or update fields as described under Detailed Fields on page 89 of this section. Once finished, click on [Exit] and you will return to this screen.

[Chart]:

Click on this button if you want to add a Chart to the report.



In the above instance a Turbo report is being set-up with a Pie Chart at the end of the report to show the totals broken down by call types.

Use the Radio buttons to select the kind of Chart you wish to create.

Select the type of Chart from the selection box to the right. If the chart you require has not been set-up, click on the [+] button to go into the Chart menu. Once completed you will return to the Fields screen. For information on setting up Charts, see Pie Charts page 105 and Bar Charts page 107.

Decide which texture you want to use. If no texture is selected, the report will use the plain colours as a default. The No Texture setting also makes it possible to change the colours after running the report by using different printer set-ups that look at different textures, e.g. Wood Effect.

Use Rows/Columns:

Pie Charts are generally used to compare columns of data, so click on this Radio button. If using Rows, select this with the Use data option to see a break down by type and element.

Use Data/Totals:

Use Data: To create a pie chart for each extension, trunk, etc. in the group, i.e. if the report is being run on a group of extensions, 'Use data' will produce a pie chart for each extension.

Use Totals: To create one pie chart based on the totals at the end of the report.

Sections:

Top section is the highest level, in other words, if creating a chart for a group of groups, the top section would be the final page that contains the summary of all the sub-sections.

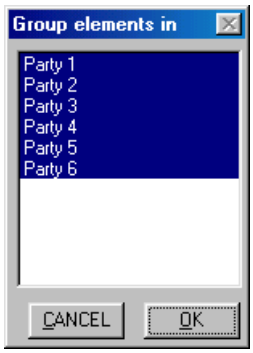
Sub Section: If running the report against a group of groups, this option creates a chart under each group.

Element Section is used with Detailed Reports.

Click on [OK] once the headings and charts have been set up.

[Group Search]

With Detailed reports. If you run a report on an extension asking for all calls, it will also show the calls where the extension is the third party. If you have not selected Party 3 as a column for the report, this can be a little confusing. If you do not want to see these calls, click on [Group Search] and highlight Party 1 and Party 2 only. In this way you will only see calls that have been made directly from or to the Extension.



You can also use [Group Search] to indicate the call direction, e.g. when looking for Trunk to Trunk calls that pass from A through B to C. Set up a Group of the Both-way Trunk lines, select the Group for the report, then, under [Group Search], select Party 1. This will show all calls where the Both-way Trunks were the initiator. Likewise, selecting Party 2 will show all calls where they are the recipient.

With Summary Reports. For an explanation of [Group Search], see Costing below.

Costing:

The [Group Search] selection will affect the costing of transferred calls within the company structure. E.g. where an outgoing call made by one extension (Party 1) is transferred to another (Party 3). The trunk selected will be Party 2. When running a report where Party 1 is selected, the full cost of the call will be allocated to Party 1. Where Parties 1 and 3 are selected the full cost of the call will be allocated to both Parties 1 and 3. Since this causes duplication of the cost, remember to deselect Party 3. In practice it is best to run Turbo Reports if accruing costs, these split the cost between the extensions involved (See Turbo Fields, Costing in the **NOTE** on page92 of this section)

Description:

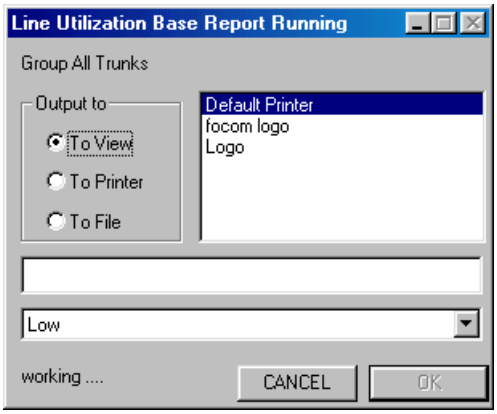
This will be the name of the Report that will appear in the List of Current Report Formats.

[Add]:

Click on [Add]. The Report will appear in the list on the left hand side. The report can either be stored here and set to run later using the Scheduler or it can be Run now.

[RUN]:

Highlight the report you want to produce and click on Run. The processor will start to gather the information and after a few moments the Report Running menu will appear.



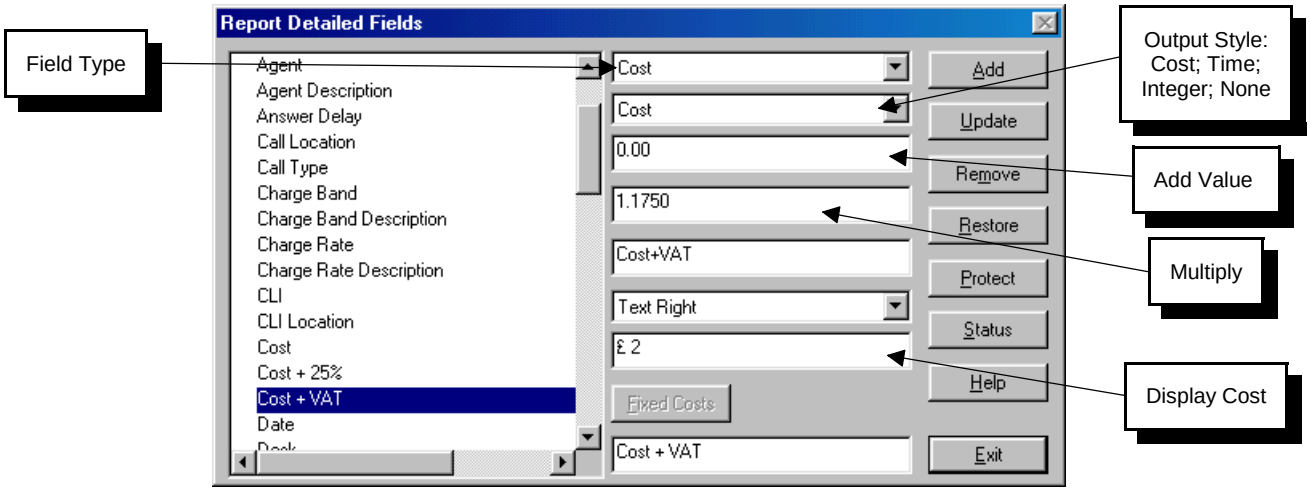
Report Running:

The Report Running window will show the name of the report that is running at the top. The radio button default is View, and the view style will be set according to Printer selected when your login ID was created, (this can be changed under System>User Add/Modify). You can change the option and send the report directly to a printer or a file. If you select file, enter the path and name in the box below.

NOTE:	The Reports are viewed through the Report Viewer. For a further explanation see page 156 of the System Management section of this manual. Report Viewer may be loaded on to any PC allowing LUMBERJACK reports to be viewed on screen and printed locally.

Detailed Fields:

These Fields are the columns that are used when setting up a Detailed Report. You can create those you require and [Add] them to the list. The list on the left hand side shows the Fields already set up.



Field Type:

This is a listing of all fields in the database since a report can be run on any of this information.

Output Style:

If the output of a fieldis to be manipulated in any way then the correct Output Style needs to be selected. Where *None* the two following are ignored when the report is run. The variables are as follows:

Cost: For example: To add 2p per call insert 0.02 in the Add Value box: to add VAT at 17.5% to the cost of calls, insert 1.175 in the Multiply box. If there is an amount in both boxes, the Add Value box will be incorporated prior to Multiplying.

Time: For example: To add 2 seconds to a call duration, insert *2* in the Add Value box: to add 5% on to the duration of calls, insert 1.05 in the Multiply box.

Integer: If you are exporting formatted numbers such as dates or times as a .csv file, the package into which you are importing may not be able to understand the format command. In this case, select integer, and the dates and times will be exported as whole numbers instead of formatted numbers.

Heading:

This is where you define the title of the column as it will appear on the reports.

Justification:

Set the justification you require for the data in this column on the reports. For example, a list of costs should be right justified to align the decimal points, a list of dialled numbers should be left justified to align the Area codes.

Display Cost:

£ 2 is the default (Sterling symbol shown before the amount, which is given to two decimal places). If you wish the display to be Euro this box should read 2 € (the Euro symbol shown after the amount, which is given to two decimal places). If you don't want decimal places put 0 instead of 2. All call costs are calculated at the time of logging and stored in the database in their originating currency (this is dependent on the Cost Style). Unless otherwise specified under Std Currency in System>Defaults on page 126 of this section, (the default for producing reports is £ Sterling).

Description:

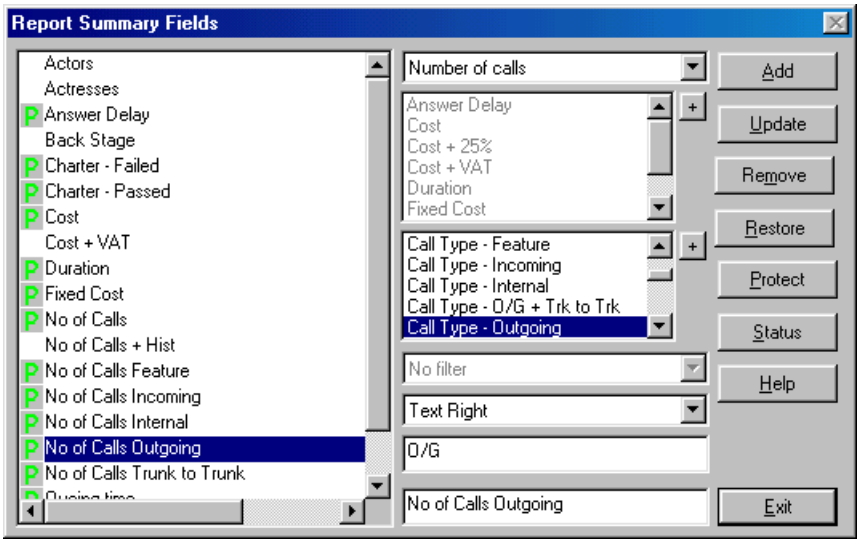
Type in the Field name up to 31 characters.

Note: When you [Add] a field that is also appropriate to a Summary field, you will be asked if you wish to make the Summary Field as well. Click on [yes] and the heading will appear in the Summary Field listing. If [No] is selected it can be added in the Summary listing later using this method.

SUMMARY FIELDS:

These Fields are the headings that are used when setting up a Summary Report. You can create those you require and [Add] them to the list.

The list on the left hand side will show the fields already set up. To add a new category to this list, you will first need to set it up as a field under Detailed Fields. See **NOTE** above.



Type:

Define the type of Summary you require from the following: Total, Average, or Maximum. These three relate to the box below where the Field Base is selected. For example, to create a column for *Average Duration*, select *Average* from the Field Type and *Duration* from the Field Base selection.

NUMBER OF CALLS: When this is selected the Field Base options are greyed out and only the filters are available for selection.

Base Summary Field:

A list of all information that can be summarised into Total, Average or Maximum. These base fields are set up under Detailed Fields. If the Detailed Field you need has not been created, you can click in the [+] button beside this list to go into the Detailed Fields screen. Set-up the field and when you [Exit] the Detailed Fields screen you will return to this screen.

Filter:

Shows a list of all created filters. Select any filtering requirements for this Field. For example, if you want to know the Average duration of all calls to France, you would select the Filter for France (Area Code is country France). If the filter you require has not be created, click on the [+] button and you will be taken into Filters menu. Create or modify a Filter in the usual way, [Exit] the screen, you will return to the Summary Fields window with the new filter already selected.

Justification:

Choose the text justification or histogram type from the drop down menu.

Heading:

Define the title of the field; this is the column heading, as it will appear on the reports. Justification of these fields will be the same as that selected under Detailed Fields.

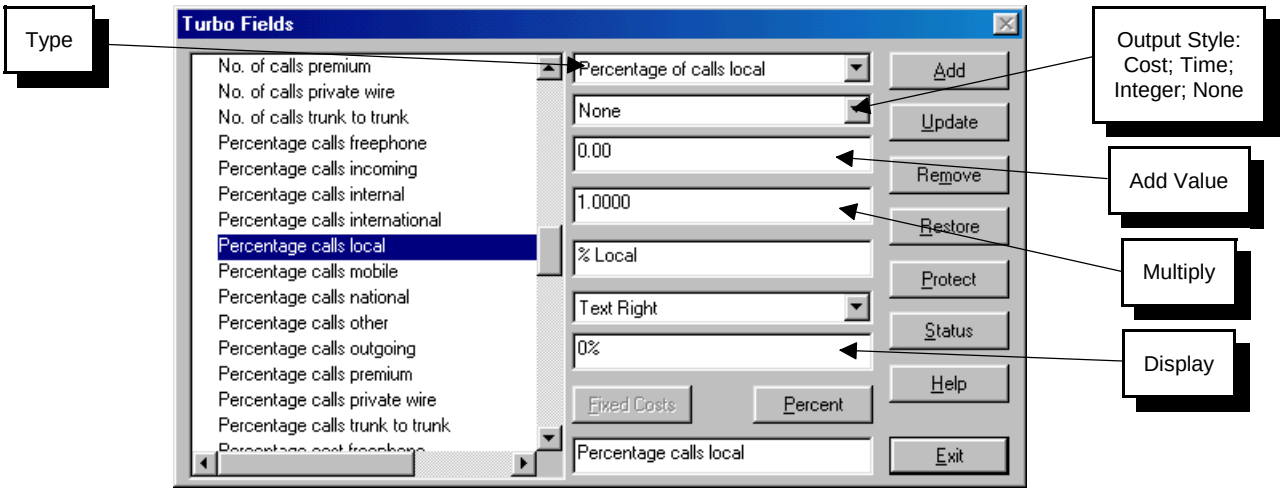
Description:

Type in the Field name in up to 31 characters.

TURBO FIELDS:

These Fields are the headings that are used when setting up a Turbo Report. Most of them will come already set up in your system. However, you can create any further headings you require and [Add] them to the list, or [Update] those that are already there.

The list on the left hand side will show the fields already set up.



Type:

This lists the base fields that are available for Turbo Reports.

Output Style:

If the output of a fieldis to be manipulated in any way then the correct Output Style needs to be selected. Where *None* the two following are ignored when the report is run. The variables are as follows:

COST: For example: To add 2p per call insert 0.02 in the Add Value box: to add VAT at 17.5% to the cost of calls, insert 1.175 in the Multiply box. If there is an amount in both boxes, the Add Value box will be incorporated prior to Multiplying.

TIME: For example: To add 2 seconds to the duration of each call, insert *2* in the Add Value box: to add 5% on to the duration of each call, insert 1.05 in the Multiply box.

INTEGER: If you are exporting formatted numbers such as dates or times as a .csv file, the package into which you are importing may not be able to understand the format command. In this case, select integer, and the dates and times will be exported as whole numbers instead of formatted numbers.

Heading:

This is where you define the title of the field, or column heading, as it will appear on the reports.

Justification:

Set the justification you require for the data in this column on the reports. For example, a list of costs should be right justified to align the decimal points, a list of dialled numbers should be left justified to align the Area codes.

Display:

FOR COST FIELDS: £ 2 is the default (Sterling symbol shown before the amount, which is given to two decimal places).

FOR PERCENTAGE FIELDS: 0% is the default. This means no decimal places and shows the percentage sign after the figures.

Fixed Costs:

This button will be greyed out unless it has been selected as the Type. Click on it to select the relevant Fixed Cost. It is possible to select more than one Fixed Cost in a column, the sum of the costs will be shown in the column.

Percent:

This button will be greyed out unless a percentage heading is selected. If you click on this button you will be able to define what the percentage represents. For example, if you want a percentage of Local Calls against Outgoing calls, you would highlight Outgoing calls under the Percent button.

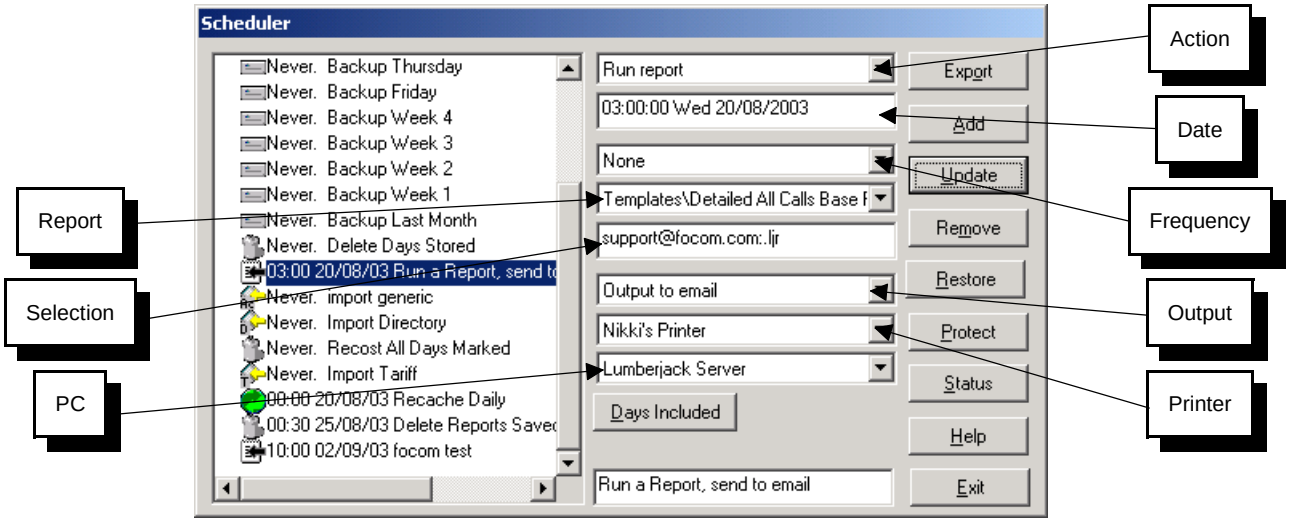
Description:

Type in the Field name in up to 31 characters.

NOTES: **OTHER CALLS:** Some explanation is required regarding the heading option Number of Calls Other. If you are running a report showing the breakdown of call areas i.e. Local, National, International, Premium, Mobile and Freephone, you might expect this to equal the Total of all Outgoing calls. This may not be the case in all instances. There will be times when outgoing calls are made that, for some reason, have not been costed. This might be because the number was only partially dialled and therefore not recognisable for cost allocation. It might mean that the number dialled is not in the tariff listing and that the call was not costed. The option Number of Calls Other, therefore, is a summary of all uncosted calls, INCLUDING INCOMING AND INTERNAL calls. Therefore, Outgoing plus Other will be equal to the Total Number of Calls.

COSTING: Turbo reports are unique in that they break down the cost of a call to each party involved. E.g. when an extension makes an outgoing call that, after talking, they then transfer to another party, the Turbo report will allocate a proportional cost to each extension.

SCHEDULER



The Scheduler is used to automate report generation; import and export items in the database; and for housekeeping.

The list on the left hand side shows the items already set up in the scheduler. These events may be scheduled to run regularly, as is generally the case with reports. They may also be set up with no scheduled date (Never) allowing you to choose the time when they are to run. This may be the case with a Tariff import or Extension export.

Listed below are descriptions of the various types of scheduled activity:

Run Report

DATE: Type in the time and date that you want this report to run - use the hh:mm:ss dd/mm/yy format (you do not need to enter the day - Lumberjack will do that automatically). If you do not enter a time is set it will default to the set-up time. If you want the first report to run immediately, type *Now* in the box.

FREQUENCY: Select the frequency for running the report or leave it at *None* for it to run only once.

REPORT: Select the report you want to run. The drop down shows all the report in Report Setup.

SELECTION: If you are creating a .CSV, .LJR or .HTM file, enter the full path and file name. (See Notes below).

If you are sending a report to print, enter a number here if you want multiple copies.

If the output is to email enter the email address followed by the type of file you want to email - for example to send a Lumberjack report enter the email address followed by **:.ljr** (support@focom.com:.ljr). If you are sending to multiple email addresses separate each email address by a semi colon (**;**) and add the file type only once at the end - **support@focom.com;helpdesk@focom.com:.ljr**

OUTPUT: Select one of the following: Output to screen; Output to printer; Output to file; Output to email; or Only in reports saved

PRINTER: If you chose Output to printer, select which Printer Setup from the drop down.

PC: If Output to printer is selected then the PC is the one that the printer driver on - ie the printer selected in the Printer Setup - the PC must be on at the time the report is run, and Remote Notification on that PC must be running.

If Output to screen is selected then the PC is the one that will View the report once it has been generated.

DAYS INCLUDED: If you are running a daily report that you do not want to be generated for Saturday and Sunday, click on this button and deselect Sunday and Monday. (This assumes that reports have been set-up to run Yesterday).

DESCRIPTION: Give the event a Description. Click on [Add].

The report will appear in the listing and will run automatically on the requested dates. If reports have been set for the same date/time, LUMBERJACK will automatically start them in sequence.

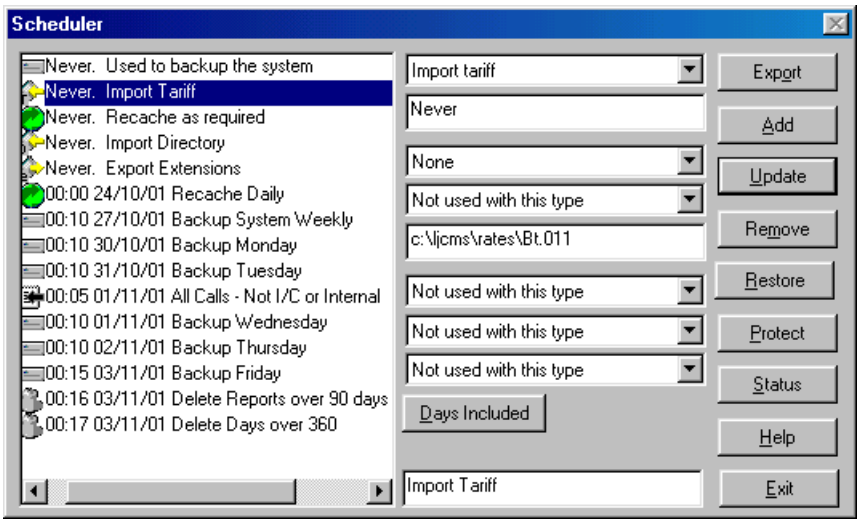
EXPORT The Export button, on the right hand side, allows you to export the list of scheduled events into a file (.CSV format). It may then be imported into a spreadsheet.

NOTES: When sending files to print you have the option to save as a .CSV, .LJR, .HTM or any other suffix of your choosing. A .LJR file will save the complete LUMBERJACK report including all the parameter settings along with the report data. If you want the data without the "junk", save as a .CSV file.

If you are planning to import the data into a spreadsheet package, such as Excel, you will need to change the suffix from .CSV file since these are imported automatically. The spreadsheet will strip off any leading zeros making nonsense of numbers such as dialled digits. Choose another suffix such as .TXT.

If you regularly save files to the same directory, you may find it useful to give them a unique name so that they are not overwritten. You can do this by adding the suffix DAY, MON and YEA or any combination of these to the file name (Upper Case). This will add the day, month and year on which the report was generated. (See above).

Import



This applies to extension, trunk and tariff information.

TYPE: Select the type of import required or highlight one from the list if you are going to change the set-up.

DATE: Type in the date, including time if required, when this is to take place using the hh:mm:ss <space>dd/mm/yy format.

FREQUENCY: Select frequency if required or set to None. This means the operation will not be repeated after this.

SELECTION: Not used with this option.

PATH/DAYS: Type the path and name of the file to be imported or Number of Days if this box is relevant to deletion of reports or data.

The next three boxes are not used.

DESCRIPTION: Type in a description of this action. Click on [Add].

NOTE: [Add]/[Update]: For a new action, click on [Add] and it will be added to the listing. If you are changing a previous action, click on [Update].

Export

This applies to extension, trunk and tariff information.

TYPE: Select the type of export required or highlight one from the list if you are going to change the set-up.

DATE: Type in the date, including time if required, when this is to take place using the hh:mm:ss <space>dd/mm/yy format.

FREQUENCY: Select frequency if required or set to None. This means the operation will not be repeated after this.

SELECTION: Select the relevant PBX or tariff.

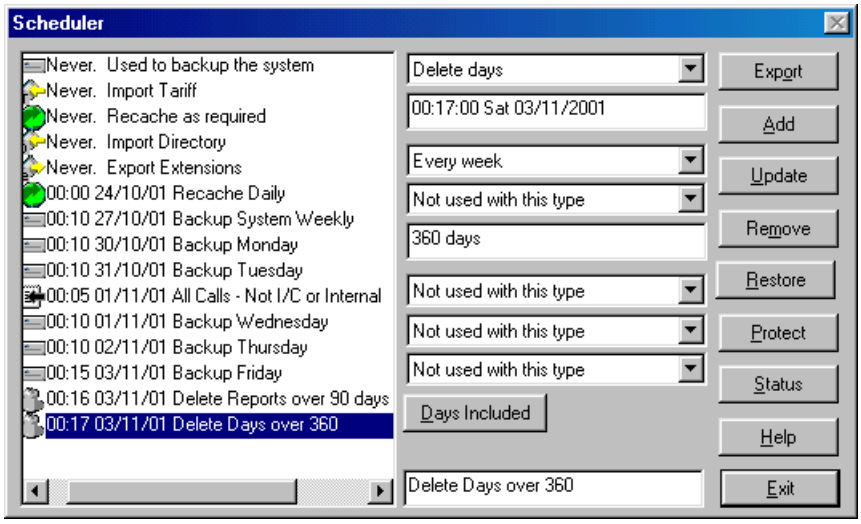
PATH/DAYS: Type in the path and name of the file to which the information is to be exported.

The next three boxes are not used.

DESCRIPTION: Type in a Description for this event. Click on [Add].

> **NOTE**: For a new action, click on [Add] and it will be added to the listing. If you are changing a previous action, click on [Update].

Delete Days



As part of its housekeeping routine, LUMBERJACK will automatically overwrite the oldest days the number of days selected.

TYPE: Select Delete Days from the list.

DATE: Type in the date, including time if required, when this is to take place using the hh:mm:ss <space>dd/mm/yy format. If either the time or date is omitted, LUMBERJACK will assume the current time or date.

FREQUENCY: Select frequency of this operation. E.g. if this is set to daily, the system will delete the oldest daily file each night; if set to weekly, the system will delete the previous week, once a week, and so on.

If a manual deletion is to be practised, set this to None. However, you must keep an eye on hard disk space. (See Free Space: Remote Notification in the system tray, page 99)

SELECTION: Not used with the type.

PATH/DAYS: Enter the number of days to be stored on the system.

The next three boxes are not used.

DESCRIPTION: Insert a Description of this event. Click on [Add] and it will appear in the listing.

Recache System

When there has been a change to the database that affects the costing procedure, you will need to recache before the alterations can take effect. A protected Recache will be set up on your system to run each night.

Recaching is required under the following circumstances:

- after anything has been imported.
- when there are any changes to the tariff.
- when there have been any changes to the costing style.
- when trunk lines, extensions or operators are reassigned or inserted.
- when any trunk is reassigned to a new tariff.
- when there are any changes to the fixed cost allocation.
- when there are any changes to access codes e.g. changing carrier.
- when there are any changes to account codes.
- when there are any changes to the Turbo filters

A Recache re-indexes the database and can take a few minutes to perform depending in the size of your system. Whilst a Recache is in progress all call data is stored in a buffer and processed upon completion. Neither is it possible to access the system, so if you want to carry out more work it is best to schedule the Recache for later.

TYPE: Select Recache from the list.

DATE: Type in the date. (See Note below)

FREQUENCY: Select None.

SELECTION The next box is ignored with this option.

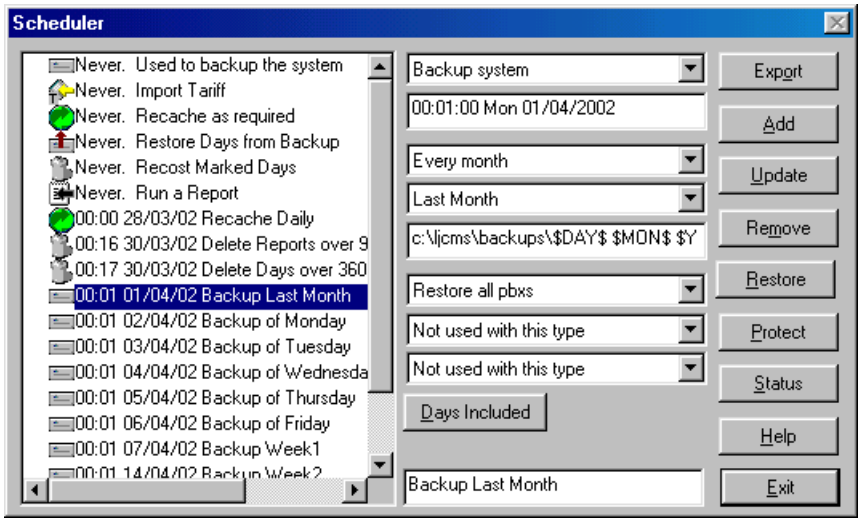
PATH/DAYS: The next box is ignored with this option.

The next three boxes are not used.

DESCRIPTION: Insert a description of this action. Click on [Add] and it will appear in the listing.

NOTE:	Where Recache is already set up in the listing and you want to run it immediately, type 'Now' against the date and click on Update. A box will appear showing the progress of the Recache. It is not possible to use the system whilst a Recache is in progress since it is accessing the database. In practice, however, it will only take a matter of minutes depending on the size of the system.

Backup System



This will make a backup of the database information. That is: all processed data; all tariff details; all report set-ups; all system defaults; all Groups, Filters, Extensions names, etc. What it does not store is the Reports Saved; Raw

Data; History Log; Error Logs. Reports Saved are generally stored under a directory called \ljcms\Reps\. To make a backup of these reports, copy them across in Windows Explorer at any time.

Backups must be performed regularly using the LUMBERJACK procedure. If LUMBERJACK has been installed on to your network, which is backed up regularly, this will not be sufficient, many of the LUMBERJACK files are held open for logging. The LUMBERJACK backup pauses logging, collecting the call records in a buffer. Once the backup is completed, the buffered data is then logged.

A network backup will save the raw log collection file. However, if an attempt is made to write to this file during a network backup, any call record that needs to be written to the file at that time will be lost. The record will be logged, but will not appear in the raw log file.

Decide on the frequency appropriate to your site then set up the regular backup in your Scheduler:

TYPE: Select Backup from the list.

DATE: Type in the date. It is best to select a quiet time for this operation. Usually a Sunday. Whilst a backup is in progress, the raw data will be stored in a buffer for logging on completion and the system will be locked. No reports can be run at this time.

FREQUENCY: If you make a lot of changes to the database information during the day, you may wish to perform a daily back up.

SELECTION: Selected here whether you are making a backup of the entire system or select from Yesterday, last 7 days, last 14, 31 93 days or Last Month. If one of these periods is selected, a full back up will be made but the logged data will be limited to the number of days requested.

PATH: Type in the path and file name for the backup. Choose a separate drive from the one on which LUMBERJACK is stored. If you have a stand alone machine use a zip or tape drive for back-ups. If you are attached to the network, create a sub-directory on a separate machine.

The next three boxes are not used.

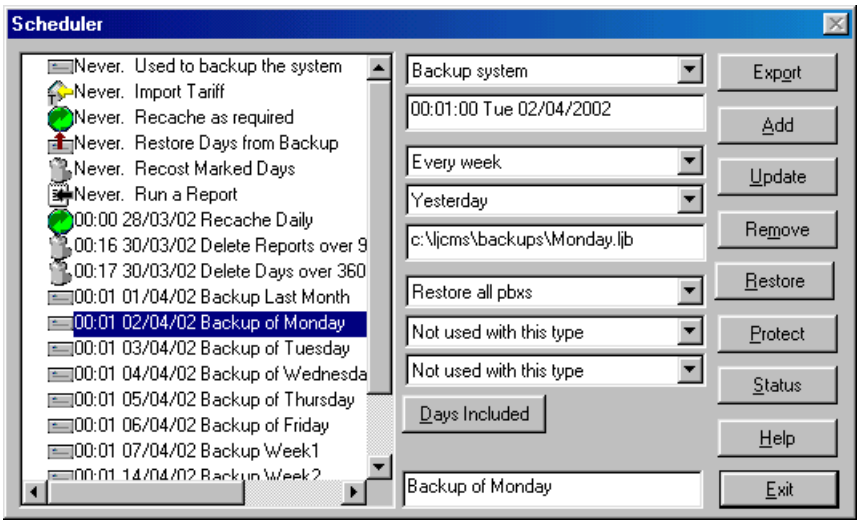
DESCRIPTION: Insert a description of this action and click on [Add]. It will appear in the listing.

Suggested Backup Routine:

A backup of the entire system is done at installation. The suggested backup routine for after this is as follows:

1. Daily backup of Yesterday
2. Weekly backup of Last Seven Days
3. Monthly backup of Last Month

To save space you can set the “Daily” backup to run on a weekly basis. For example, every Tuesday the backup can be set to run for Yesterday (Monday), providing you add the name of the file (eg *Monday.ljb*) to the path of where the backup is to be stored each week the system will overwrite the file with the new backup, thus giving you a maximum number of daily backup files. (You may wish to only run these backups on Tuesday through to Saturday - thus giving you backups of Monday to Friday.)



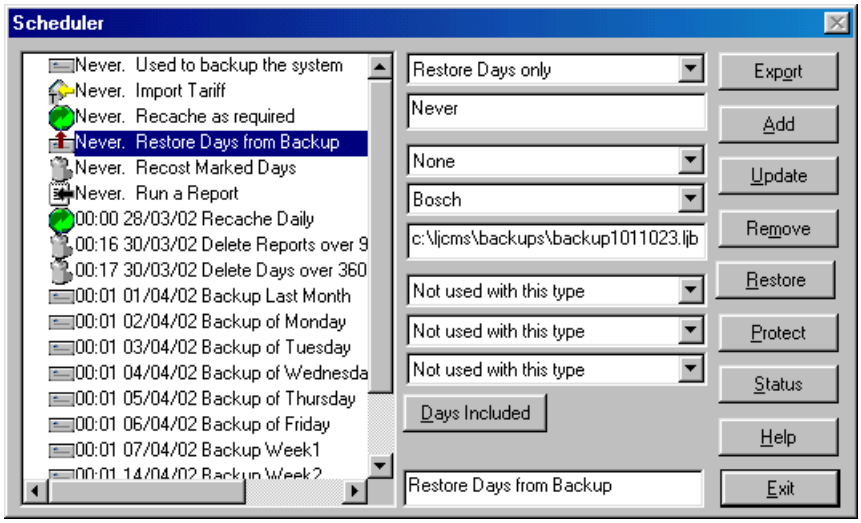
NOTE:	Where backups are scheduled regularly, users will want to set up a separate sub-directory on the network in which to store them. Type in the path as shown in the example above with the final backslash. This will ensure that LUMBERJACK will automatically add the date to the file name to avoid the file being overwritten by the next scheduled backup.

Restoring the System from a Backup

If the system were to crash and the backup needed to be restored, contact the Help Desk immediately. To effect a full Restore, it is necessary to create a blank database within SQL Anywhere, copy the back-up version to it, then use the Restore command within LUMBERJACK. This task should only be carried out by competent engineers or data may be lost.

In most cases, if there has been an unscheduled power down (that's a polite way of saying that your network has crashed), LUMBERJACK will reboot quite happily. However - there is always that one occasion when things do not go according to plan and the database cannot recover. In these instances, get in touch with the Help Desk immediately, and we will rebuild the database and restore the back-ups. Do not attempt this yourselves unless you are extremely familiar with Sybase SQL Anywhere and we are all marooned on a desert island.

However, you might need to access a back-up if some of the processed data has been accidentally deleted (under System>Days Stored). Under these circumstances you would use the Restore Days option in the Scheduler.

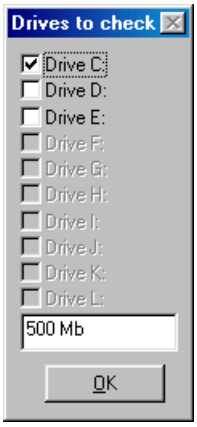


This option allows you to restore the processed data for all the days covered by this backup. Once you have selected the back-up for the relevant period, go into System>Days Stored and delete all the processed days covered by this back-up.

Go into Reports>Scheduler and select Restore Days. Type in the back-up file path and name as shown above. Set the time and date you want this to start or, to do it immediately type *NOW* in this box. [Add] this option to the list or, if one is already set up click on [Update].

LUMBERJACK will collect all the processed data from the back-up file and restore it to your database.

Free Space Check



When you make a back-up, the file is collected on the main server before storing on the designated drive. It is a good idea to use the Free Space Check to warn if the system is running out of space.

Click the right mouse button on the Remote Notification Program. That's the "blue" tree in the System Tray (the bit next to the clock).

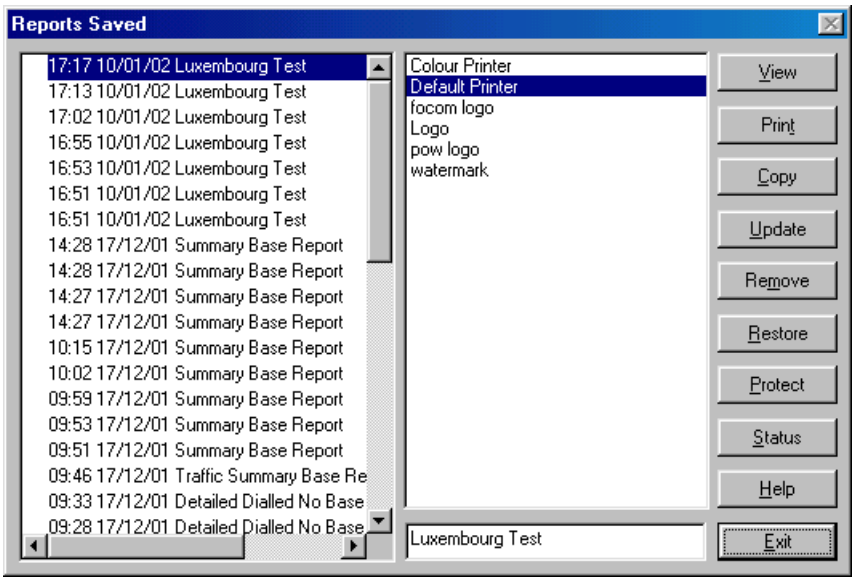
Select the Drive that stores LUMBERJACK and set the free space to maximum size of a monthly backup (If you have bags of space, set the limit higher). This will ensure that you are notified if disk space is low.

You may also use this program on the Client PC's but it will only be looking at the Client drives - not the LUMBERJACK server

NOTE:	On Windows ME, 95, 98 PCs the maximum free space it can check for is 2,048 Mb

REPORTS SAVED

This is a list of all the reports that have been run and still remain on the system - the most recent being at the top.



[**VIEW**]: Shows the report you have highlighted on screen. Alternatively, double click on the report.

Once in the Report Viewer, a menu bar at the top left of the screen allows you to: zoom in; zoom out; go to previous page; go to next page; select printer; select section to print; and, finally, the print option allows you to select the pages you want to print.

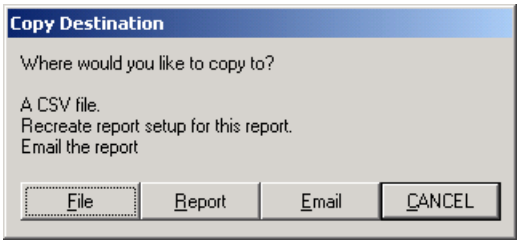
You can view selected pages in advance using the elevator at the far right of the menu bar.

To exit this screen, click on the [X] symbol at top right as per normal Windows '95 convention.

NOTE:	The Report Viewer is a separate module specifically designed for viewing LUMBERJACK reports. It can be provided to users who do not have LUMBERJACK installed, but who may wish to see reports on screen rather than in .CSV or .HTM file format. This program may be E-mailed with the reports. (See Installing Report Viewer, Page 157 of the System Management section.)

[**PRINT**]: Highlight the report, select the required printer set-up from the centre column, and click [Print].

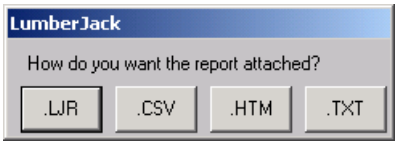
[**COPY**]: Highlight the report to be copied and click on [Copy] and the following box appears:



[FILE]: If you are making a file, a Windows dialogue box appears. Insert the name, file extension and path for the file. Select the extension of .CSV , .HTM or .LJR as required.

[REPORT]: If making a copy of the Set-up, insert a report title and click on [OK]. The new report will be added to the list under Report Set-up. If using sub-directories, it will appear in the same sub-directory as the original report.

[**EMAIL**]: You will be given the following Options:



Select the type of attachment you want to make and insert the email address in the box that appears. You will need to set-up the LUMBERJACK server with a MAPI compliant E-mail address to use this. If you want to use e-mail and the E-Mail Scheduler is not already set up call the Help Desk.

[**UPDATE**]: Click on this if you want to save a change to the description.

[**REMOVE**]: This will mark the highlighted report for deletion and the report will be removed from the list once you click on [Exit]. It is important to keep this list to the minimum number of reports required, since storing reports in this manner eats up space on your hard disk. It also makes it harder to find specific reports. In Scheduler you can use Delete Reports to automatically remove reports after a specified number of days - see page 93 of this section.

[**RESTORE**]: If you have marked a report for removal and wish to reverse this, use Restore before you click on [Exit]. It will also unprotect Protected reports if you have logged on at an appropriate level.

[**PROTECT**]: If you have produced a report that you need to keep, you can protect it by highlighting it and clicking on [Protect]. The report can only be unprotected by you or someone of a higher user level. To find out who protected the report, click on [Status]. A protected report will not be subject to the Report Deletion period set.

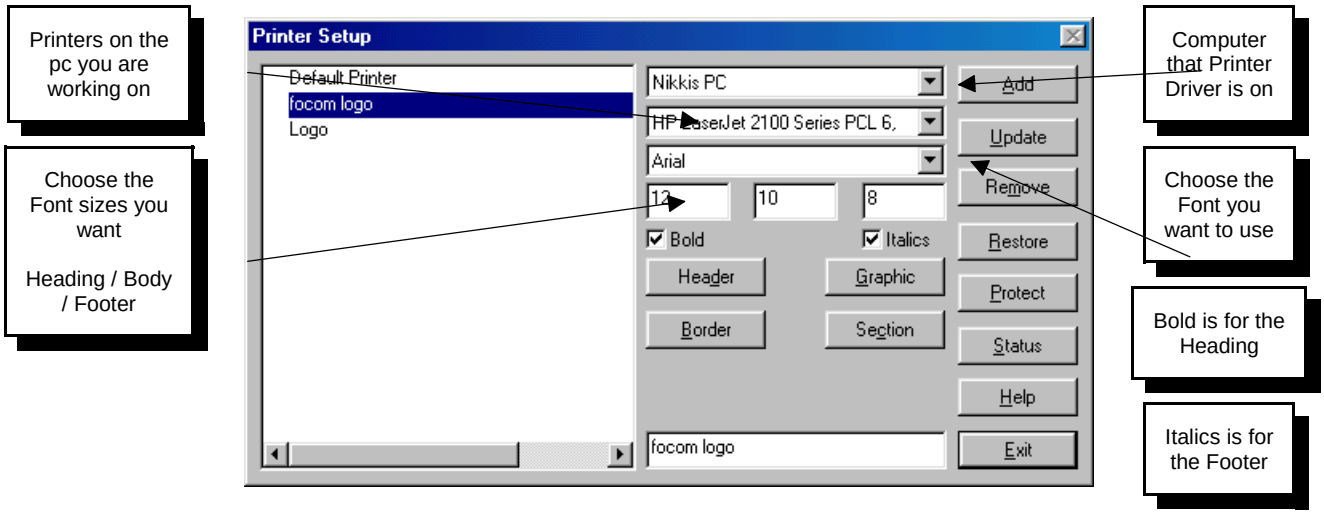
[**STATUS**]: This will show the name of the report, the last time it was updated, by whom and the level of that user.

[**HELP**]: Takes you into the interactive help screen.

[**EXIT**]: When you have finished, click on [EXIT] to leave this area. Any reports marked for removal will be deleted.

PRINTER SET-UP

This section allows you to set up the defaults for the various printers on your network. Once added they can be incorporated into the report set-up.



A list of the saved set-ups appears on the left hand side. The Command Buttons on the right hand side are standard.

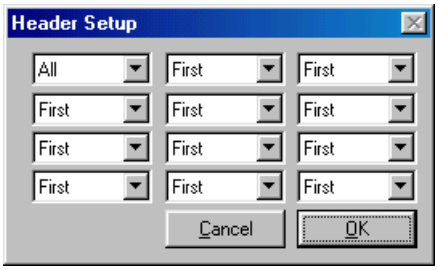
COMPUTER: This is usually the computer you are working on; to see it in the list of computers it must be added to Lumberjack under System>Computers (see page 127 of this section).

PRINTER This will show a list of printer installed on the PC you are currently on then type in a description for this set-up.

FONT: Select the font size for the header, the body of the report, and the footer. Additionally, the header may be displayed in bold and the footer in italics if preferred, set this by checking the boxes. The fonts available will be those compatible with the selected printer.

This window also contains four buttons to menus that will give you further control over the printed report.

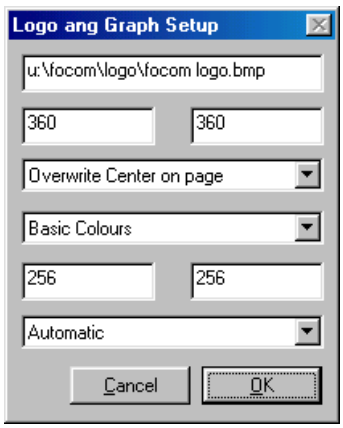
[Header] Setup



The set of twelve boxes refer to the report header information. The options All, First, None, Not First. The prompt line explains the function of each box. In the above example, the header will display all the report set-up information on the first page, but only the report title on the rest of the pages.

It should be noted that the Full Filter box displays a complete description all the filters used in the report, including any flags that may have been selected. The filter and sub-filter will only show an abbreviated entry.

[Graphic] Setup



This window deals with all graphics that may be used with the reports.

BITMAP: The company logo or other bitmap may be incorporated into the header or used as a background to the reports. Insert the path and file name in the top box.

SIZE: The two boxes below refer to the size of the logo. These are in pixels (72 pixels to the inch).

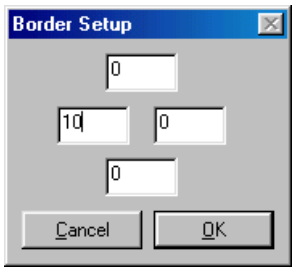
POSITION: Top Right, Centre, Left, whole page, etc. If the bitmap file is manipulated in a paint program it may be saved as a very pale image that may be used as a watermark behind the reports.

COLOURS: These refer to the bar and pie charts. These colours are set up under Textures. See Page 105 of this section. If this option is left as Basic Colours, it is possible to change the texture after the report has been run by selecting a different printer setup that has a predefined texture. If a texture is set when the report is run, it will remain at that setting regardless of the printer setup used.

SIZE: This refers to the size of the pie and bar charts. Also in pixels.

DPI: (dots per inch) This relates to the quality of the pie and bar charts. The greater the dpi the better the quality of the chart. However, some printers require a lower dpi rate in order to print the graph.

[Border] Setup

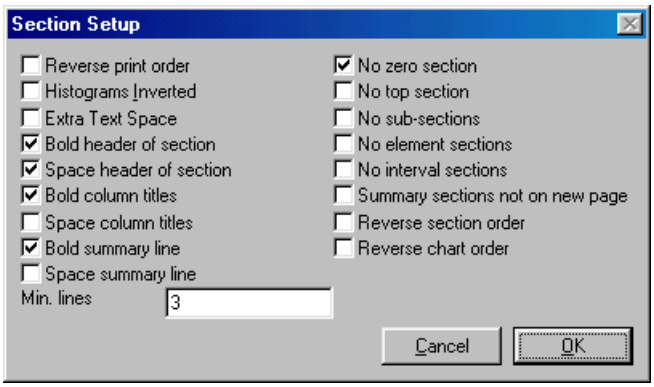


You can customise the report border, setting the measurements in point size. This is useful if reports are being stored in a clip file as it allows you to print a wider margin on the left hand side.

If these are set to zero, LUMBERJACK will use the printer's defaults.

[Section] Setup

This menu offers further options for customising the printer set-ups. Particularly useful for scheduled reports where only limited sections are required for printing.



Reverse Order: Sends the report to printer in reverse page order.

Histograms: Histograms may be printed in black text on grey, or inverted to produce white text on black. Some printers will only see one of these options.

Extra Text Space: Some printers produce reports with the lines very close together, if this is a problem, tick this checkbox.

Bold and Space: The next six boxes deal with emboldening the font or adding additional space around the text in the section headings, the column headings, and the summary lines. The sections of the report refer to those parts with sub-totals, i.e. when you run a Detailed Report on a Group, each extension within that Group will have a sub-total, this is a Section.

In each of the following five cases, the full report is generated, but certain sections are suppressed when sent to print. To view or print the full report, choose a different printer format or select them using Report Viewer:

No Zeros Sections: If you do not want to see null usage, check this box.

No Top Section: The Top Section refers to the top level of the report, i.e. the summary of the various sections in the report. Check this box if you do not want the summary printed.

No Sub-sections: This allows you to print only the summary section. For example, when running a report by Group, the final section will summarise all the section data. If you want to send only this section to print, tick this box.

No Element Sections: Where you have sub-totals at the end of each element, check this box if you want to print the detail without the sub-totals.

No Interval Sections: Check this box if you are only interested in seeing the interval sub-totals. Say that you were running a Detailed Report but opted for an interval of an hour. The report would show all the calls made during the selected period with a sub-total at the end of each hour. If you were to view this using the No Interval Sections option, you would no longer see the individual calls, only the sub-totals.

Summary pages: You have the option to print the final summary contiguously after the sections. The default is to force the summary on to a separate page.

Reverse Section: This will print the Section Summary first instead of at the end of the report.

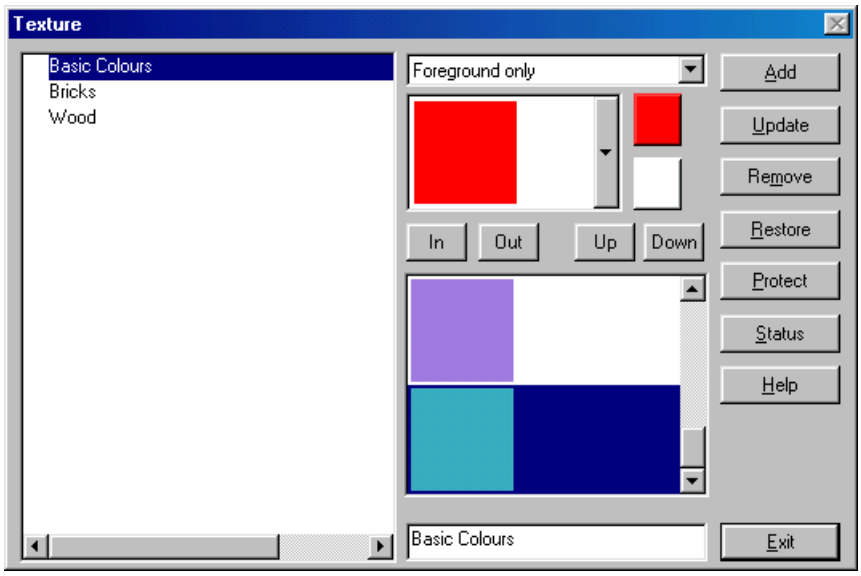
Min. Lines: This deals with page handling. To avoid widows and orphans, set here the minimum number of lines to be displayed on a page. Alternatively, if you want each section of a report to begin on a new page, type New in this box.

Once the defaults have been set, give it a description then click on [Add]. Now you can set up other printer options and defaults.

Note: If you have changed the settings on the physical printer you will need to update the relevant printer set-up from this screen for it to become effective.

TEXTURE

The texture screen allows you to amend or set-up new colour schemes for Pie and Bar Charts. You can create your own bit maps for use in these charts, e.g. incorporate your company logo.



The list on the left hand side shows the colour and texture set-ups already available. To incorporate these into your charts see Reports>Report Setup>[Report Fields]>[Chart], and also Graphic Setup page 103.

To set-up your own schemes use the central section of the window.

Choose the Texture Type:

FOREGROUND ONLY: Solid colour chart segments. To create new colours click on the top colour box to the right of the Texture and select a colour from the colour menu or create a new one using the colour chart grid. Click on Add to Custom Colours and [OK]. The new colour will be displayed in the Foreground and Texture boxes. Click on [In] and the new colour will be added to the bottom Texture List. The colour sequence may be changed by highlighting the colour and using the [Up], [Down] and [Out] buttons.

TEXTURE ONLY: Default bitmaps with brick and wood effects. Foreground and background colours will not work with this option.

GRADIATED TEXTURE: Gradiated is a new word invented by the programming team which has now become the de facto term[1]. What it means is default patterns with two tone colour schemes. Click on the coloured boxes to the right of the Texture box to select the colours.

USER DEFINED TEXTURE: Bitmap patterns or logos designed by the user. To add to this list, create a pattern in a paint package and save the files as bitmaps under the reports textures sub-directory. Under this option the colours will be the same as the design colours. The naming convention should be map0.bmp, map1.bmp, etc. You can create a maximum of 256 patterns. These designs should be saved under a sub-directory called Texture under the ljcms\reports\ sub-directory. If one does not already exist it should be created.

GRADIATED USER DEFINED Bitmap designs created by the user may be used. With this option it is possible to change the colours using the background and foreground buttons. Save the pattern as a bitmap using the naming convention of alt0.bmp, alt1.bmp, etc., to a maximum of alt255.bmp. The files should be stored under ljcms/reports/texture, as above.

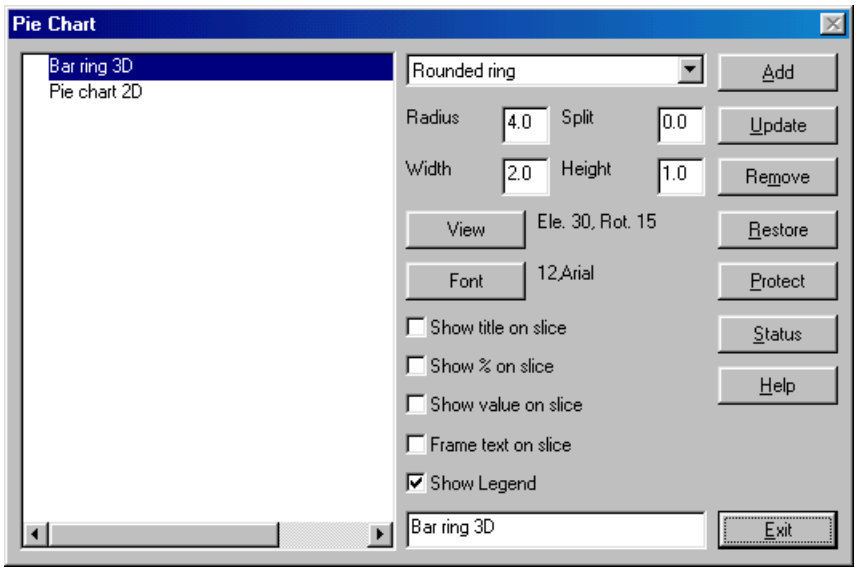
DESCRIPTION Give this new texture set a name.

[ADD] The selection will be added to the list on the left hand side of the window.

PIE CHART

[1] ... Er, within **Focom Limited**, that is, don't quote us, it's embarrassing .....

You can set up various styles of Pie Chart to use in the reports.



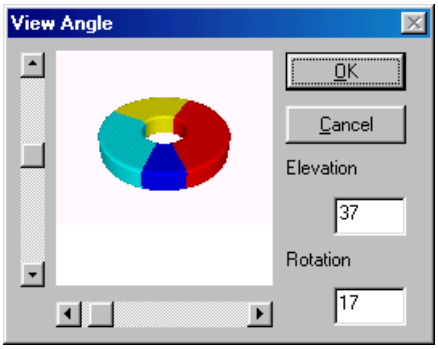
The list on the left hand side shows the charts that have already been set-up.

Types of Pie Chart Select from Donut, Disc, Rounded Pie, etc. for the shape you require.

Size: Choose the Radius, Width and Height. The prompt line will show the size limitation available when you hold the cursor over the items.

If you want to see the Pie Chart segmented, enter a figure in the Split box.

Clicking on the View button will show the shape of the pie you have created.



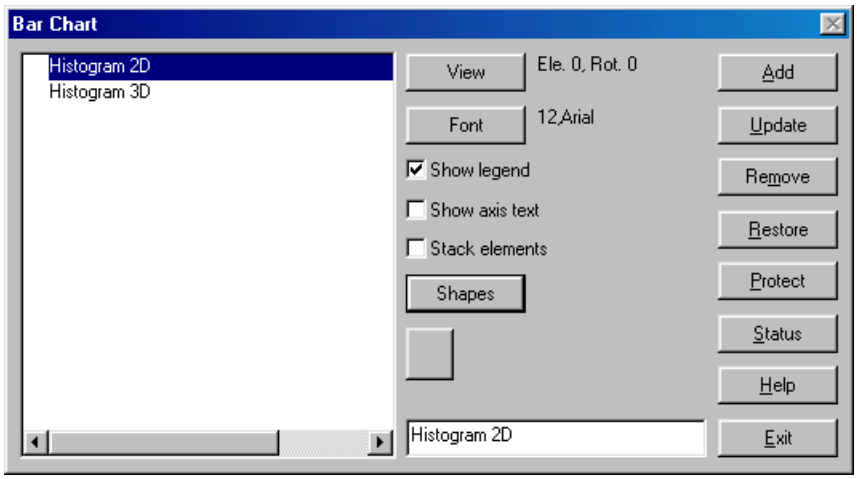
Once you are happy with the shape of the Pie, select a font and check the boxes to show title, percentages, legends, etc.

Give the style a Description, e.g. Doughnut Split. Click on [Add] and the Pie will be added to the list on the left hand side.

Note:	The size and final colours of the charts may be incorporated into the printer set-ups.

Bar Chart

Set-up bar charts for use with reports.



The list on the left hand side shows the charts that have already been set-up.

View Click on this button to see the shape of the bar chart selected.

Font This will take you into a standard Windows font screen. Select any specific fonts you wish to use on the chart. These will be applied to the axis and legend information.

Check the boxes to show legend, axis text or stack elements.

Shapes Select from: bar, rounded bar, area, or strip.

Colour Use this box to change the colour of the background.

Description Give this chart a description a click on [Add] to save it.

Note:	The size and final colours of the charts may be incorporated into the printer set-ups.