GLOBAL 2000

Sales Analysis Manual

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TIS
SOFTWARE

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HOW TO USE THIS MANUAL

This Global Sales Analysis manual is arranged in the following sections:-

The **INTRODUCTION** gives a brief overview of Sales Analysis and its features.

The **REFERENCE** section describes each Sales Analysis facility and gives detailed operating instructions. The text is arranged for easy reference in the same sequence as the menu entries in the software.

The **SAMPLE REPORTS** section consists of examples of typical Sales Analysis reports.

There are **APPENDICES** to cover the Global print options and viewing facilities, Global Sales Analysis file structure definitions and Global Sales Analysis database size estimations.

There is a table of contents over the page and an **INDEX** at the back of the manual. The **READERS' COMMENTS** form is provided for you to inform us of any errors or omissions in the manual, or to suggest any improvements we can make to it.

TRAINING

Regular training courses in the use of software from the Global 2000 range are held at local training centres around the UK.

C O N T E N T S

UK Data Protection Act

Nearly all UK businesses that hold any form of personal data on a computer are required to register under this Act. The exemptions are very narrow and unlikely to cover you - in practice, it is easier to register. The Short Registration Form, DPR4, which covers most small businesses, is available from your TIS Software Reseller or from main Post Offices.

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INTRODUCTION

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Global Sales Analysis integrates with Global Sales Order Processing or Global Invoicing to provide detailed enquiry and reporting facilities from within these two modules. It is installed at the same time as either of these two modules, as part of the same installation process. Refer to the manual of either of these two modules for installation.

Enquiries
There are three enquiry functions: product enquiries, customer enquiries and invoice enquiries. All three enable you to enquire right down to individual invoice-line detail. It is possible to enquire across up to five years of monthly details. You can restrict your enquiry to certain precise selection criteria if you wish.

The first enables enquiries about sales of a particular product. You can view a display of monthly sales figures, and a list of customers to whom the product has been sold in the year to date. From this you can select a display of sales to an individual customer, which lists all the relevant invoices with invoice line details. You can then view a representation of any of these invoices, showing all the invoice lines rather than just those relevant to your specified product and selection criteria. Selection criteria enable you to restrict the enquiry to a specific customer, salesperson, territory, customer classification, warehouse and/or delivery address if you wish.

The second enables enquiries about sales to a particular customer. You can view a display of monthly sales figures, and a list of products sold to the customer in the year to date. From this you can select a display of sales of a particular product, which lists all the relevant invoices with invoice line details. You can then view a representation of any of these invoices, showing all the invoice lines rather than just those relevant to your specified customer and selection criteria. Selection criteria enable you to restrict the enquiry to a specific product, product group, warehouse and/or delivery address if you wish.

The third enables you to go straight to the display representing the full invoice offered by the last option in customer and product enquiries.

Graphic representations of appropriate displays are offered throughout these enquiries if Global Sales Analysis is integrated with Global Graphics.

Reporting
Global Sales Analysis can generate reports examining sales across a choice of fields and to selected depths. On requesting a report you can select up to four subject levels, define up to six different ranges, and choose from eight sets of column layouts and from three reporting sequences.

In addition, you can set up an interface with Global Reporter in order to tailor reports to your own requirements.

Budgets
You can record sales targets for any field (salesperson, territory, product, product group, customer, customer type, warehouse) or combination of fields and for each accounting period in the current year. You can define up to two sets of budgets, usually one for customer budgets and the other for product budgets.

You could choose to keep budgets to the same level of detail as your sales data, but usually they will be less detailed. For example, you may keep products by salesperson details, but only budget for product group by salesperson.

The databases
Sales Analysis information is held on up to three separate databases. One is used to hold detailed information at the level of individual invoice lines, two to hold summarised information.

The first holds invoice line details. In order to conserve space, this information is limited to units sold, turnover, discount, cost, invoice/credit number, invoice/credit indicator, invoice date, invoice line number, customer account number, salesperson, territory, classification, delivery address number, product code, product group, warehouse code.

The database does not hold currency information, VAT, non-standard product descriptions, transaction numbers, discount type, 2-unit information, weight, order type or non-standard invoice addresses, delivery and special instructions.

This means that any invoice displayed in the enquiry functions is a fairly good representation of the original but not a perfect reproduction.

The summary databases keep sales information in a more compact form, by not retaining invoice-level detail. This allows faster enquiry where invoice level detail is not needed. It also allows more information to be held, and over a longer period.

All three databases are optional, and the level of detail held in each is fully parameterised. So you can choose how much and which types of information to retain, dependent upon your available disk space and your analysis requirements. Retention of Sales Analysis figures is limited to twelve annual sets, to be divided between the four types of figures (turnover, cost, discount, units). You can choose to have three years of each of the four types, for instance, or perhaps four years of both units and turnover and two years of both cost and discount. You cannot hold more than nine years of any one of these four types.

Posting
Data is collected and posted to the Sales Analysis database during the close session process within Sales Order Processing or Invoicing.

You can, however, choose to accumulate the data on an intermediate file, for posting at some later date. The immediate posting is more convenient, but deferred posting does allow the independent backup of the Sales Analysis database, which would otherwise have to be backed up frequently with the rest of the Sales Order Processing or Invoicing data.

Current or historical values
If the customer number is retained, you can choose whether to use current or historical values for the territory, salesperson or classification when reporting on the data. Similarly, if the product code is retained, either current or historical product group can be used. This has the advantage that any errors in classifying the customer or product can be corrected retrospectively without changing the sales analysis data.

Journal transactions
You can use the Journal Transactions function to correct details on the sales analysis database which have been entered incorrectly, without the need to enter a credit note and a corrected invoice.

There are two types of journal transaction. You can use a 'reclassification journal', which selects an invoice and amends the salesperson, territory, classification, delivery address for the whole invoice or the product group and warehouse for an individual line. Or you can make a direct entry of the equivalent of an invoice line. This second is known as a 'single-sided journal', and should be followed by the entry of an equal but oppositely-signed journal to cancel out the discrepancy it would otherwise produce between the sales analysis total and the control report.

A record is printed for every journal transaction, and should be kept as a reference to clarify any discrepancy which might occur. As long as invoice line details are retained, the invoice will show the effect of a reclassification journal, and a journal line entry will be held for each.

Year-end processing
The database must be consolidated at the end of each financial year, to purge old data and throw away budget records ready for the next year's data and budget sets. Data take on will default to deferred posting if this year-end processing is delayed, so no data will be lost automatically. It would be simpler and more efficient, however, if it did take place at the appropriate time.

Adaptability
Field sizes are generally larger than currently used in Sales Order Processing. The product code is twenty characters, for example, and amounts up to ninety-nine billion units, and units up to nine billion, may be held. Also, three product groups are held on the database although Sales Order Processing can supply only one of them. This allows for future enhancements, and for integration with other sales order processing systems.

Whilst Sales Analysis is included as part of Sales Order Processing or Invoicing, the fact that the bulk of the Sales Analysis system is independent of them also allows it to be integrated into third party software with only a small number of changes.

REFERENCE

The material in this section is arranged in the same sequence as the entries in the Sales Analysis main menu. These entries are as follows:-

1. PRODUCT ENQUIRIES
2. CUSTOMER ENQUIRIES
3. INVOICE ENQUIRIES
4. BUDGET MAINTENANCE
5. JOURNAL TRANSACTIONS
6. SALES ANALYSIS REPORTING
7. SYSTEM MAINTENANCE

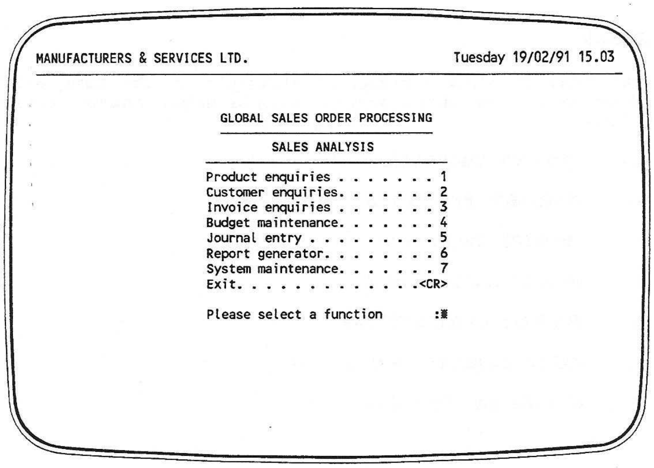

Figure 1 - Sales Analysis menu

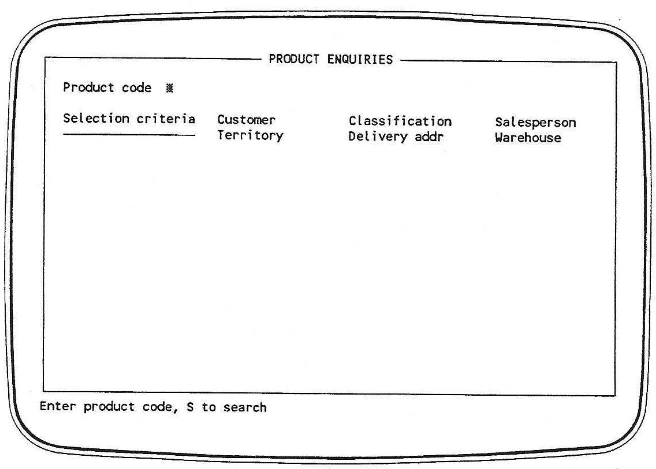

Figure 2 - Product enquiries (initial screen)

1. PRODUCT ENQUIRIES

You can use Product Enquiries to examine the sales of a particular product in a number of different ways. You can restrict this enquiry to a specific customer, salesperson, territory, classification, warehouse, delivery address or combination of these if you wish. The initial enquiry will give you year to date sales figures, listing either the customers to which the product has been sold or the month by month totals. Further enquiries enable you to examine individual sales by displaying invoice-line details, and you can also view a representation of the full invoice.

You can, for instance, use this function to see how much of a particular product has been sold in the last year, month by month and customer by customer, or perhaps for a specific customer or type of customers, or by a particular salesperson, or within a certain territory. You can isolate any one particular transaction from any enquiry, and view its invoice-line details.

The possible depth and time span depends upon the age and detail of invoice information retained, as determined in system parameters.

Select function 1 from the Global Sales Analysis menu to make product enquiries. The initial screen (see figure 2) has the baseline prompt:-

    Enter product code, S to search;

Key the code of the product you wish to examine. The product description then appears on the screen beside the product code.

If you don't know the product code, key S for a product search. This baseline prompt is displayed:-

    Key Code, Description, Look-up code, <ESC>;

Key C and then key a product code for a list of products in numerical order starting with the code keyed. Key D and then key the first few characters of a description for a list of products starting with any with descriptions matching the fragment keyed. Key L and then key the first few characters of a look-up code for a list starting with any products with look-up codes matching the fragment keyed. You can also, immediately after keying C, D or L, press RETURN for a full list of all products or key G to return to the above baseline prompt.

When you have identified in the list the product which is to be the subject of your enquiry, use the cursor up/down keys to position the cursor over it, then press RETURN and its code is entered on the Product Enquiries screen against the first prompt. Press RETURN and the product description appears on the top of the screen beside the product code.

You are prompted:-

    Key Customer list, Reselect, Select, <CR> for monthly, <ESC>

Press ESCAPE if you want to return to the Sales Analysis menu, key R to reselect if you want to enquire about a different product and you will then be able to enter a different product code, key S for selection criteria, key C for customer list, press RETURN for monthly.

PRODUCT ENQUIRIES

Product code 1000 EXECUTIVE DESK - MAHOGANY

Selection criteria	Customer	Classification	1 Salesperson
	Territory	Delivery addr	Warehouse

Period ending	Turnover	Units	Cost	Disc%	Profit%
31/05/89	0.00	0.000	0.00	0.00	0.00
30/06/89	0.00	0.000	0.00	0.00	0.00
31/07/89	0.00	0.000	0.00	0.00	0.00
31/08/89	1196.15	2.000	885.18	0.00	35.13
30/09/89	0.00	0.000	0.00	0.00	0.00
Year to date	1196.15	2.000	885.18	0.00	35.13

Key Back, Customer list, Graph, <CR> to reselect, <ESC>

Figure 3 - Monthly Sales Figures

PRODUCT ENQUIRIES

Product code 1000 EXECUTIVE DESK - MAHOGANY

Selection criteria	Customer	Classification	1 Salesperson
	Territory	Delivery addr	Warehouse

Customer	Total sales 01/05/89 - 30/09/89
1 0000102 - M.P.FURNISHING LTD	0.00
2 0002004 - Coleson & Pollock	1196.15

Key line to expand, Monthly, <CR> to reselect, <ESC>

Figure 4 - Customer List

Selection criteria Key S and you will be able to specify a particular customer, classification, salesperson, territory, delivery address, warehouse to which you want to limit the enquiry. You can enter the relevant codes in any one or more of these fields, and thus restrict your enquiry to sales of the specified product to a particular territory, for example.

When you key S you are prompted for a customer account code. If you want to restrict the product enquiry to one particular customer, key the account code here. If you know the customer name but not the account code, you can key S here and search through a customer list in the same way as the product search described above. If you don't want to restrict the enquiry to this criteria, press RETURN.

You are then prompted for Classification. You should enter the classification code for the type of customer to which you wish to restrict the enquiry. If you don't require this, then press RETURN and the cursor moves on to Salesperson without any Classification code being entered. Similarly, key the relevant code or press RETURN for this field and then for Territory, Delivery address, and Warehouse.

The selection criteria you enter will be displayed at the top of the screen throughout the subsequent enquiry, to remind you that any other information displayed is subject to these limits.

Monthly If you press RETURN, you are shown monthly sales figures for the product you are examining (see figure 3), with one line for each month of the year to date, including turnover, units, cost, discount percentage, and profit percentage. Year to date totals are given for each of these columns. If you have specified any of the selection criteria, then obviously you will only be given the information relevant to the limits you have set. The base-line prompt is:-

    Key Back, Customer list, Graph, <CR> to reselect, <ESC>;

Press RETURN and enter a different product code to select a new product enquiry, press ESCAPE to return to the Sales Analysis menu, key B to go back through the list to monthly figures prior to those shown, key N for NEXT to go forwards through the list, key G for a graphic representation of the monthly figures (if the graphics option has been installed) or key C for a list of the customers who have bought the product.

Customer list When you key C for Customer list, you are shown a list (see figure 4) of the customers to which the product has been sold in the year to date, with one line for each customer (in numerical order by customer number) showing the customer name and number and the total sales (year to date) of the product to that customer. The baseline prompt is:-

    Key line to expand, Monthly, <CR> to reselect, <ESC>;

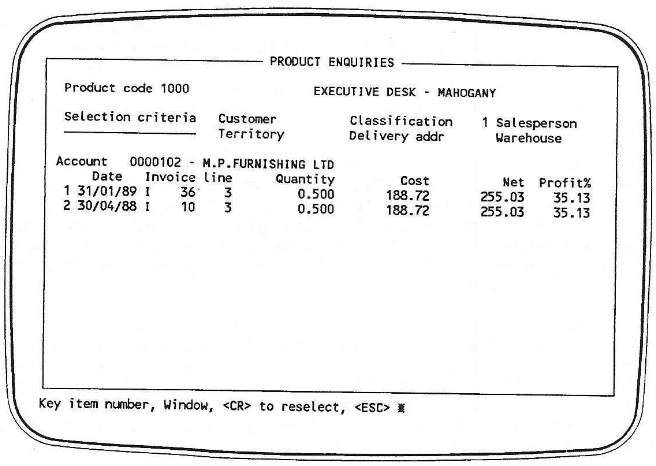

Figure 5 - Product by individual customer (1st window)

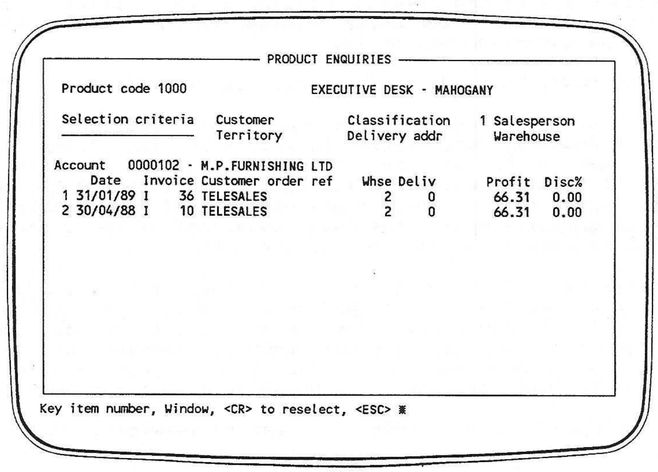

Figure 6 - Product by individual customer (2nd window)

You can key N for Next to go forwards through the display of customers if the list is too long to be displayed on one screen, key B to go back through the list of customers, press RETURN and enter a different product code to start a new product enquiry, key M for the display of monthly figures (see above), or key the appropriate line number if you wish to examine more closely the sales of the product to one particular customer.

Product by individual customer Key a line number in response to "Key line to expand", and this baseline prompt appears:-

Key start date, <CR> for most recent invoice first;

The subsequent display will show you a list of all the invoices which contain sales of the product in question to the customer selected from the last display; you can key a start date if you are interested in sales made during a particular period, or you can press RETURN to list the invoices in reverse chronological order starting with the most recent.

The display (see figure 5) breaks down the total sales of the product to the individual customer into the constituent invoices. Each line of this display shows you details of the invoice (invoice number and date) and details from the individual invoice-line which covers the actual sale of the product. These invoice-line details include the invoice-line number, the quantity, cost, net, profit %, customer order reference, warehouse code, delivery address code, profit, and discount %. The extent of the information offered means that only half of it can be shown on one screen; by keying W for window, you can view the rest of the information on the next screen shown (see figure 6).

The baseline prompt to this display is:-

Key item number, Window, <CR> to reselect, <ESC>;

Press RETURN to go back to the previous display (Customer list) if you want to make an equally detailed examination of sales to a different customer. You can key N for Next to examine the rest of the list if it is too long to be shown all on one screen, and key B to go back through the list. Key W to view the other columns of information, as explained above - this window facility effectively extends the screen sideways. If you want to examine the whole of one of the invoices listed in the display, rather than just that part of it concerned with the product in question, you can key the item number (from the column on the extreme left of the screen).

Invoice display Key the item number and you will be shown a display representing the whole of that invoice (see figure 7). The first line shows the invoice number, invoice date, customer number and customer name. The next line shows the customer order reference, and then the customer classification code and description is shown, with the delivery address code, the name and code of the salesperson, and the territory name and code.

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──────────────────────── PRODUCT ENQUIRIES ────────────────────────
Product code 1000                EXECUTIVE DESK - MAHOGANY

Selection criteria   Customer          Classification    1 Salesperson
──────────────────   Territory         Delivery addr       Warehouse


Invoice      36 31/01/89  0000102 - M.P.FURNISHING LTD
Customer order reference TELESALES
Class     1 RETAILER                  Delivery address    0
Sales     4 A.S.BOLAM                 Territory     4 LONDON (SOUTH)

Line Product code          Product description            PG    Quantity
   1 1009                  TELEPHONE TABLE                 1       1.000
   2 1022                  36-SHELF UNIT                   2       1.000
   3 1000                  EXECUTIVE DESK - MAHOGANY       1       0.500
   4 9011                  DELIVERY CHARGE                99       1.000

Key Print, Window, <CR> to reselect, <ESC> ▓
```

Figure 7 - Invoice display (1st window)

```
──────────────────────── PRODUCT ENQUIRIES ────────────────────────
Product code 1000                EXECUTIVE DESK - MAHOGANY

Selection criteria   Customer          Classification    1 Salesperson
──────────────────   Territory         Delivery addr       Warehouse


Invoice      36 31/01/89  0000102 - M.P.FURNISHING LTD
Customer order reference TELESALES
Class     1 RETAILER                  Delivery address    0
Sales     4 A.S.BOLAM                 Territory     4 LONDON (SOUTH)

Line  Wh       Cost     Discount          Net       Profit  Disc%  Prof%
   1   2      40.80         0.00        70.39        29.59   0.00  72.52
   2   2     204.02         0.00       253.70        49.68   0.00  24.35
   3   2     188.72         0.00       255.03        66.31   0.00  35.13
   4   1      10.20         0.00        15.30         5.10   0.00  50.00

Key Print, Window, <CR> to reselect, <ESC> ▓
```

Figure 8 - Invoice display (2nd window)

The display shows each line of the invoice, with columns for the line number, product code, product description, product group, quantity, warehouse code, cost, discount, net, profit, discount %, and profit %.

If the display consists of more lines than can be shown on one screen, you can key N for Next to go forwards through the invoice lines, key B to go back through the invoice lines, or key F to go back to the first invoice line.

Key P if you want to print the invoice display. Key W to view those columns not displayed on the current screen (see figure 8). Press RETURN to return to the previous display - product by individual customer - enabling you to select another invoice to examine. Press ESCAPE to exit to the Sales Analysis menu.

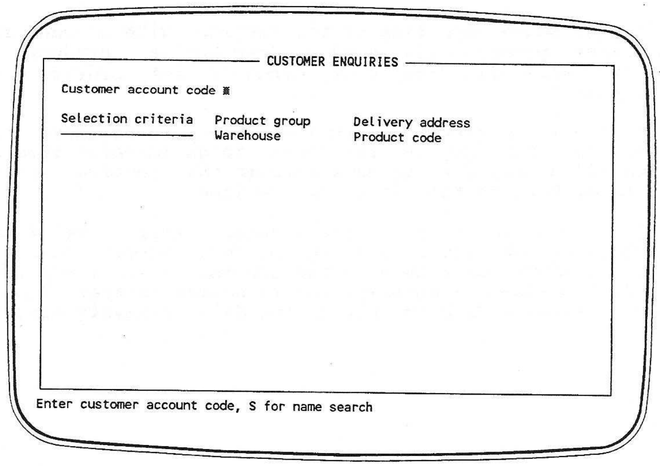


Figure 9 - Customer enquiries (initial screen)

2. CUSTOMER ENQUIRIES

You can use Customer Enquiries to examine sales made to a particular customer. The enquiry can be restricted to a particular product, group of products, warehouse or delivery address, or to any combination of these criteria. The initial enquiries will give you year to date sales figures, listing either the products sold to the customer or the month by month totals. Further enquiries allow you to examine individual sales by displaying invoice-line details, and you can also view a representation of the full invoice.

You could, for instance, use this function to see how much has been sold to a particular customer in the last year, month by month and product by product, perhaps of a specific product or group of products. You could isolate any one transaction from any enquiry and view its invoice-line details.

Select the second function from the Sales Analysis menu to make a customer enquiry. The initial screen (see figure 9) shows this baseline prompt:-

Enter customer account code, S for name search;

Key the account code of the customer you want to examine, and it appears with the customer name at the top of the screen by the customer account code prompt.

If you don't know the account code of the customer you want to examine, key S for a name search and this baseline prompt appears:-

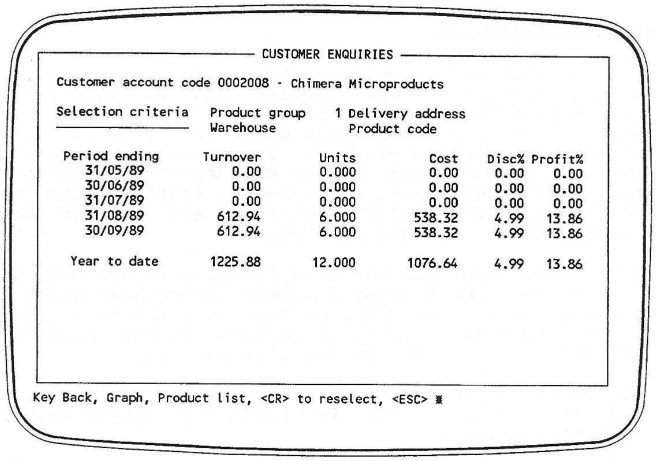
Key part of account name, <CR> for all, <ESC>;

If you key part of the customer's name, you are shown a customer or alphabetical list of customers whose names begin with that fragment. If you press RETURN, an alphabetical list of all customers is shown. Each line of the list consists of a customer name and account code, and is numbered. When you have identified the customer which is to be the subject of your enquiry, key its line number, and its account code then appears at the top of the Customer Enquiries screen by the customer account code prompt.

This baseline prompt appears:-

Key Product list, Reselect, Select, <CR> for monthly, <ESC>;

Press ESCAPE to return to the Sales Analysis menu, key R to select a different customer to examine and you will be prompted for a different account code. Key S if you want to limit your enquiry to specific selection criteria, key M for monthly display, key C for customer list.



CUSTOMER ENQUIRIES

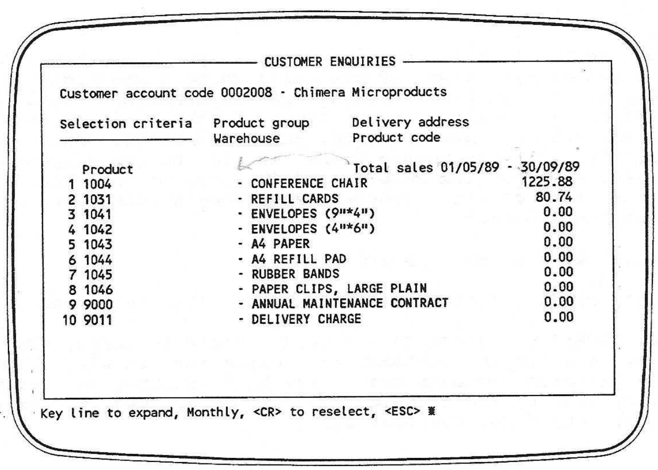
Customer account code 0002008 - Chimera Microproducts

Selection criteria	Product group	1 Delivery address
	Warehouse	Product code

Period ending	Turnover	Units	Cost	Disc%	Profit%
31/05/89	0.00	0.000	0.00	0.00	0.00
30/06/89	0.00	0.000	0.00	0.00	0.00
31/07/89	0.00	0.000	0.00	0.00	0.00
31/08/89	612.94	6.000	538.32	4.99	13.86
30/09/89	612.94	6.000	538.32	4.99	13.86
Year to date	1225.88	12.000	1076.64	4.99	13.86

Key Back, Graph, Product list, <CR> to reselect, <ESC>

Figure 10 - Customer enquiries (monthly)



CUSTOMER ENQUIRIES

Customer account code 0002008 - Chimera Microproducts

Selection criteria	Product group	Delivery address
	Warehouse	Product code

Product		Total sales 01/05/89 - 30/09/89
1 1004	- CONFERENCE CHAIR	1225.88
2 1031	- REFILL CARDS	80.74
3 1041	- ENVELOPES (9"*4")	0.00
4 1042	- ENVELOPES (4"*6")	0.00
5 1043	- A4 PAPER	0.00
6 1044	- A4 REFILL PAD	0.00
7 1045	- RUBBER BANDS	0.00
8 1046	- PAPER CLIPS, LARGE PLAIN	0.00
9 9000	- ANNUAL MAINTENANCE CONTRACT	0.00
10 9011	- DELIVERY CHARGE	0.00

Key line to expand, Monthly, <CR> to reselect, <ESC>

Figure 11 - Customer enquiries (product list)

Selection Criteria Keying S enables you to specify particular fields to which you may wish to restrict your enquiry. You can choose to examine details of sales to a customer where those sales are concerned with a particular product or type of product or with goods delivered from a particular warehouse or to a particular delivery address. By defining more than one of these four selection criteria, you can examine sales to the customer of a particular type of product delivered to a particular delivery address, for instance, or of one product from a single warehouse.

When you key S you are prompted for a product group. Key the relevant code, or press RETURN if you do not wish to limit your enquiry to one type of product. You are then prompted for a delivery address. Key the relevant code, or press RETURN if you do not wish to restrict your enquiry in this way. You will then be prompted for a warehouse, and again you should key the relevant code or press RETURN. You will then be prompted for the last of the four selection criteria, product code. Key a product code if you want to restrict the enquiry to a single product (key S for a product search if you don't know the product code) or press RETURN.

Any selection criteria defined will be displayed in the top half of the screen throughout the subsequent enquiry, to remind you that any details shown are limited to these areas.

Monthly If you press RETURN, you will be shown a year to date display (see figure 10), with one line for each month, of turnover, units, cost, discount percent and profit percent of all sales made to this customer. The last line gives totals for each column. If you have specified any selection criteria, then obviously all information will be limited to those chosen fields.

The baseline prompt is;

    Key Back, Graph, Product list, <CR> to reselect, <ESC>;

If you want to enquire about a different customer, you can press RETURN and enter another customer code. If you want to return to the Sales Analysis menu, press ESCAPE. If you want to see figures for periods prior to those displayed, key B. Key G for a graphic representation of the monthly figures if the graphics option has been installed. If you want to see a list of products sold to this customer in this year to date, you can key P for product list.

Product list When you key P, a display (see figure 11) lists the products sold to the customer in the year to date, with one line for each product (in numerical order by product code) showing the product number and description and total sales.

The baseline prompt is:- for all history

    Key line to expand, Monthly, <CR> to reselect, <ESC>;

```
                    CUSTOMER ENQUIRIES
Customer account code 0002008 - Chimera Microproducts

Selection criteria   Product group      Delivery address
                     Warehouse          Product code

Product    1031              - REFILL CARDS
     Date    Invoice line       Quantity        Cost          Net  Profit%
 1 30/09/89 I    62    1          50.000       29.90        40.37    35.01
 2 31/08/89 I    54    1          50.000       29.90        40.37    35.01

Key item number, Window, <CR> to reselect, <ESC> *
```

Figure 12 - Customer by individual product (1st window)

```
                    CUSTOMER ENQUIRIES
Customer account code 0002008 - Chimera Microproducts

Selection criteria   Product group      Delivery address
                     Warehouse          Product code

Product    1031              - REFILL CARDS
     Date    Invoice Customer order ref   Whse Deliv       Profit  Disc%
 1 30/09/89 I    62 SAMPLE                  21     1        10.47   0.00
 2 31/08/89 I    54 SAMPLE                  21     1        10.47   0.00

Key item number, Window, <CR> to reselect, <ESC> *
```

Figure 13 - Customer by individual product (2nd window)

Press ESCAPE to return to the Sales Analysis menu. Press RETURN and enter a different customer code to start a new customer enquiry. Key M for a display of monthly figures (see above). Key the appropriate line number if you wish to examine more closely the sales to this customer of one particular product.

Customer by individual product When you key a line number in response to the "Key line to expand" prompt at the bottom of the Product List screen, this baseline prompt appears:-

Key start date, <CR> for most recent invoice first;

The subsequent display (see figure 12) will show you a list of each of the invoices which contain sales to this customer of the product selected from the previous display; you can key a start date if you are interested in sales made during a particular period, or you can press RETURN to list the invoices in reverse chronological order starting with the most recent.

The display breaks down the total sales of the selected product to the customer into the constituent invoice items. Each line of this display shows you details of each invoice (invoice number and date) and the details from the individual invoice-line which covers the actual sale of the product. These invoice-line details include the invoice-line number, the quantity, cost, net, profit %, customer order reference, warehouse code, delivery address code, profit, and discount %. The extent of the information offered means that only half of it can be shown on one screen; by keying W for window, you can view the rest of the information on the next screen shown (see figure 13).

The baseline prompt to this display is:-

Key item number, Window, <CR> to reselect, <ESC>;

Press RETURN to return to the previous display (Product list), and you can then choose to make an equally detailed examination of sales of a different product. Press ESCAPE to exit to the Sales Analysis menu. Key W to view the other columns of information, as explained above - this window facility effectively extends the screen sideways. If you want to examine the whole of one of the invoices listed in the display, rather than just that part of it concerned with the product in question, you can key the item number (from the column on the extreme left of the screen).

Invoice display If you key the item number, a representation of the whole of that invoice is displayed. The first line shows the invoice number, invoice date, customer account code and customer name. The next line shows the customer order reference, and then the customer classification code and description is shown, with the delivery address code, the name and code of the salesperson, and the territory name and code.

The display shows each line of the invoice, with columns for the line number, product code, product description, product group, quantity, warehouse code, cost, discount, net, profit, discount %, and profit %.

If the display consists of more invoice lines than can be shown on one screen, you can key N for Next to go forwards through them, key B to go back through them, or key F to go back to the first invoice line.

Key P if you want to print the invoice display. Key W to view those columns not displayed on the current screen. Press RETURN to return to the previous display - customer by individual product - enabling you to select another invoice to examine. Press ESCAPE to return to the Sales Analysis menu.

3. INVOICE ENQUIRIES

You can use the Invoice Enquiries function to go straight to the deepest level allowed in customer and product enquiries. You can view a representation of any invoice by using its number if you want to examine a known invoice, or by defining selection criteria if you want to identify an invoice of a certain type.

Select the third function from the Sales Analysis menu to enter Invoice Enquiries. The first prompt asks you to enter I if the enquiry concerns an invoice, C for a credit note, or J for a journal. You are then prompted for the Transaction number. Enter the number of the invoice you want to examine here and it will be displayed immediately, or press RETURN and define the invoice you want to examine by keying in the selection criteria which interest you.

Note that, as explained at the beginning of the section, the 'invoice' displayed is not a full copy of the original invoice as it will not contain VAT or any non-standard descriptions or addresses.

Selection criteria You are prompted for a customer (key S for a search if you don't know the account code), a product (key S for a search if you don't know the product code), a salesperson, a customer classification, a territory, a product group, a delivery address and a warehouse. Enter the appropriate codes for those criteria to which you want to limit your invoice enquiry, and press RETURN for those criteria you wish to ignore.

By defining one or more of the selection criteria, you could for instance view all invoices sent to a particular customer, or class of customers, perhaps containing sales of a specific product or group of products, by a certain salesperson.

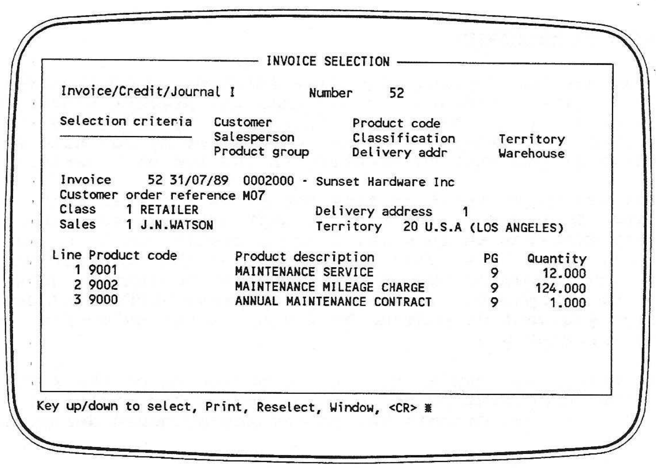
A representation of the most recent invoice conforming to these limits is then displayed.

Invoice Display The display (see figure 14) is headed by identifying details including the invoice number and date, the customer account code and name, the customer order reference, the classification of the customer, the delivery address code, the name and number of the salesperson, and the name and number of the territory.

The display itself consists of invoice details. There is one line for each transaction, and there are columns for line number, product code, product description, product group, quantity, warehouse code, cost, discount, net, profit, discount percent and profit percent. The baseline prompt is:-

Key up/down to select, Print, Reselect, Window, <CR>;

Press RETURN to exit to the Sales Analysis menu. Key W for window to view the columns of information not displayed on the first screen (see figure 15). Key P if you want to print the display. Key R if you want to select another invoice to examine. If there are too many lines in the invoice for all of it to be displayed on the screen, key N for Next to scroll forwards or key B for Back to scroll back.



```
                         INVOICE SELECTION
 Invoice/Credit/Journal I            Number     52

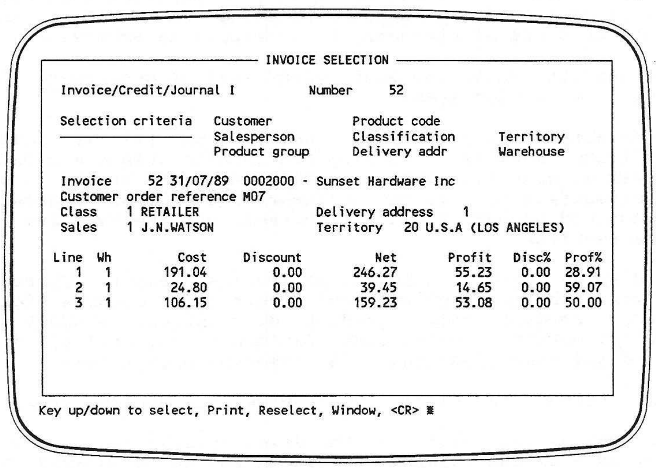
 Selection criteria   Customer            Product code
 ------------------   Salesperson         Classification      Territory
                      Product group       Delivery addr       Warehouse

 Invoice      52 31/07/89  0002000 - Sunset Hardware Inc
 Customer order reference M07
 Class      1 RETAILER                 Delivery address    1
 Sales      1 J.N.WATSON               Territory   20 U.S.A (LOS ANGELES)

Line Product code             Product description            PG    Quantity
   1 9001                     MAINTENANCE SERVICE             9      12.000
   2 9002                     MAINTENANCE MILEAGE CHARGE      9     124.000
   3 9000                     ANNUAL MAINTENANCE CONTRACT     9       1.000

Key up/down to select, Print, Reselect, Window, <CR>
```

Figure 14 - Invoice enquiry (1st window)



```
                         INVOICE SELECTION
 Invoice/Credit/Journal I            Number     52

 Selection criteria   Customer            Product code
 ------------------   Salesperson         Classification      Territory
                      Product group       Delivery addr       Warehouse

 Invoice      52 31/07/89  0002000 - Sunset Hardware Inc
 Customer order reference M07
 Class      1 RETAILER                 Delivery address    1
 Sales      1 J.N.WATSON               Territory   20 U.S.A (LOS ANGELES)

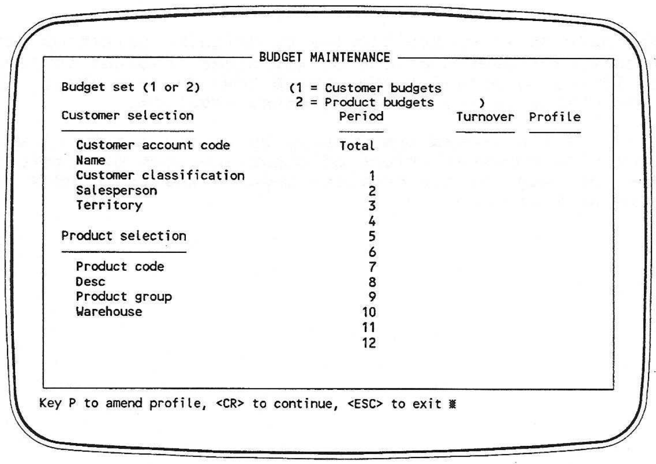
Line  Wh        Cost    Discount         Net      Profit   Disc%  Prof%
   1   1      191.04        0.00      246.27       55.23    0.00  28.91
   2   1       24.80        0.00       39.45       14.65    0.00  59.07
   3   1      106.15        0.00      159.23       53.08    0.00  50.00

Key up/down to select, Print, Reselect, Window, <CR>
```

Figure 15 - Invoice enquiry (2nd window)

If you have selected the display by defining selection criteria, you can view representations of any other invoices conforming to those limits by pressing the CURSOR DOWN key for older invoices and the CURSOR UP key for more recent invoices.

If you have selected the display by keying the invoice number, you can view representations of other invoices by pressing the CURSOR UP key for the previous invoice and the CURSOR DOWN key for the next invoice.

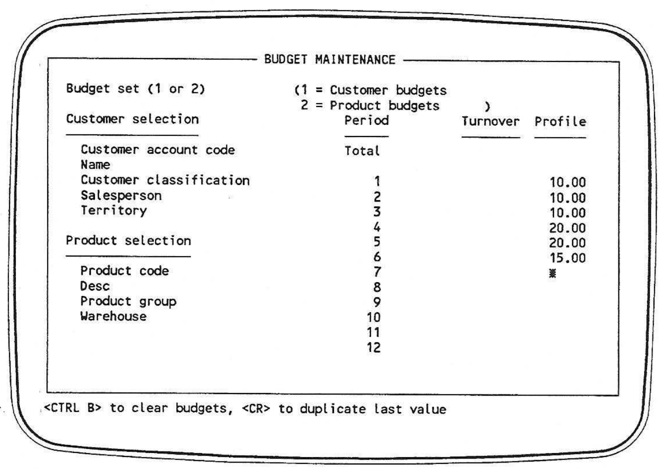


```
                         BUDGET MAINTENANCE
Budget set (1 or 2)              (1 = Customer budgets
                                  2 = Product budgets      )
Customer selection                 Period          Turnover   Profile

  Customer account code            Total
  Name
  Customer classification             1
  Salesperson                         2
  Territory                           3
                                      4
Product selection                     5
                                      6
  Product code                        7
  Desc                                8
  Product group                       9
  Warehouse                          10
                                     11
                                     12

Key P to amend profile, <CR> to continue, <ESC> to exit
```

Figure 16 - Budget maintenance (initial screen)



```
                         BUDGET MAINTENANCE
Budget set (1 or 2)              (1 = Customer budgets
                                  2 = Product budgets      )
Customer selection                 Period          Turnover   Profile

  Customer account code            Total
  Name
  Customer classification             1                        10.00
  Salesperson                         2                        10.00
  Territory                           3                        10.00
                                      4                        20.00
Product selection                     5                        20.00
                                      6                        15.00
  Product code                        7
  Desc                                8
  Product group                       9
  Warehouse                          10
                                     11
                                     12

<CTRL B> to clear budgets, <CR> to duplicate last value
```

Figure 17 - Entering a budget profile

4. BUDGET MAINTENANCE

You can use Budget Maintenance to record sales targets for any field (salesperson, territory, product, product group, customer, customer type, warehouse) or combination of fields and for each accounting period in the current year.

Select this function by choosing the fourth option on the Sales Analysis menu. This baseline prompt appears on the initial screen (figure 16):-

Key P to amend profile, <CR> to continue, <ESC> to exit.

A profile (right hand column on the screen) proportionally splits a total turnover budget across the accounting periods of the current year. If a profile exists, any turnover total entered will automatically be broken down into figures per period, the figure for each period being the same fraction of the total as the profile figure for that period is of the profile total.

Key P if you want to enter a profile or amend an existing one. Then key the desired proportional figure for each period (figure 17). If you are entering a new profile, you can duplicate the last value simply by pressing RETURN. If you are amending an existing profile, you can key in new values over old ones, using cursor up and cursor down keys to go up and down the column, or you can press CONTROL B to clear the existing profile values and then continue as if entering a new profile.

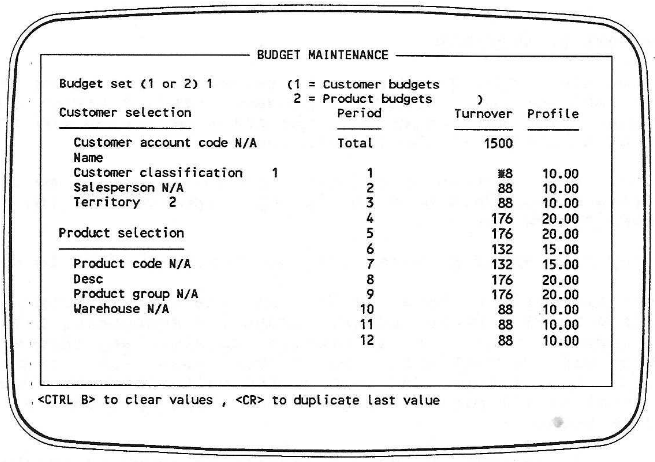
If you don't want to amend or enter a profile, press RETURN. This sends the cursor to the first prompt, in the top left of the screen, asking you to choose the required budget set. This is the same position the cursor moves to after the last profile value is entered, if you have chosen to enter a profile.

There are up to two budget sets from which to choose. One is usually (though not necessarily) for customer budgets and the other for product budgets. Key 1 or 2, depending on which set you want to define or amend.

You can select via system parameters (see page 47) which of the following keys (listed down the left side of the Budget Maintenance screen) are to be used for each budget set:-

Account number
Product code
Salesperson
Territory
Classification
Product group
Warehouse

If, for instance, you wanted to record targets for sales to each class of customer in each territory, you will have selected the keys Classification and Territory for budget set 1, Customer Budgets. If you wanted to record the targets for sales of each product by each salesperson, you will have selected the keys Product code and Salesperson for budget set 2, Product Budgets.



```
BUDGET MAINTENANCE

Budget set (1 or 2) 1          (1 = Customer budgets
                                2 = Product budgets       )
Customer selection               Period          Turnover  Profile

  Customer account code N/A      Total               1500
  Name
  Customer classification   1      1                   88    10.00
  Salesperson N/A                  2                   88    10.00
  Territory    2                   3                   88    10.00
                                   4                  176    20.00
Product selection                  5                  176    20.00
                                   6                  132    15.00
  Product code N/A                 7                  132    15.00
  Desc                             8                  176    20.00
  Product group N/A                9                  176    20.00
  Warehouse N/A                   10                   88    10.00
                                  11                   88    10.00
                                  12                   88    10.00

<CTRL B> to clear values , <CR> to duplicate last value
```

Figure 18 - Entering a budget record

Although this selection is made via system parameters, you can see on the Budget Maintenance screen which keys have been selected (those which haven't are marked N/A, i.e. not applicable) and it is on the Budget Maintenance screen that you specify the key values (i.e. the actual customers, territories, salespersons, etc.) within the budget set and define the budgets for them.

You are prompted to enter the key values for each of these pre-selected keys after you have keyed 1 for budget set 1 or 2 for budget set 2. When you have entered the key values, you can then begin to enter the budgeted turnover figures (figure 18).

If a profile exists, you are prompted for the turnover total. Type in the budget total and it will appear at the top of the Turnover column; then press RETURN and the figures for each period will be filled in automatically, as fractions of the total corresponding to the profile proportions. If you want to amend these figures you can go up and down the column using the up/down cursor key and key in the new figures over the old ones, and the total at the top will be adjusted automatically.

If a profile does not exist, you are prompted for the turnover total. Key it, and it is then split evenly across the accounting periods and you can amend these figures as above. You don't have to key the total when prompted for it; if you press RETURN instead and begin to key in the figures for each period, the total will then appear, increasing itself with each figure. You can press RETURN to duplicate a value from one line to the next.

If a budget already exists for the fields you have just defined, then the current turnover values are displayed. You can amend them one by one (using the cursor up/down keys to move up and down the column over figures you wish to leave unchanged), or key <CTRL B> to clear them all and start again.

When you have keyed the turnover figure for the last period, this baseline prompt appears:-

```
Key Amend, Back, Cancel, Delete, Profile,
                              <CR> for next budget, <ESC>
```

Key A if you want to amend the figures in the Turnover column. Key B to go back to the previous budget set. Key C for cancel to clear all details and start again from the first prompt. Key D to delete the whole budget. Key P to set up a new profile. Press RETURN to enter the next budget of this set. Press ESCAPE to return to the Sales Analysis menu.

```
------------------------- JOURNAL TRANSACTIONS -------------------------

  Two types of journal are available:

     A reclassification journal allows you to select an invoice which
     you believe to be in error.  You may then select a single line
     in order to change the product group and/or warehouse, or choose
     to amend the salesperson, territory, customer classification,
     and/or delivery address number on the entire invoice.


     A single-sided journal is the direct entry of an invoice detail
     line.  You are expected to enter an equivalent, oppositely signed,
     journal to cancel this out.  You must keep all the reports printed
     when these journals are entered, otherwise it may not be possible
     to reconcile any discrepancies which may occur at your site.

Key S for a single-sided journal, <CR> to reclassify invoice, <ESC> ▮
```

Figure 19 - Journal transactions (initial screen)

```
----------------------- SINGLE-SIDED JOURNAL ENTRY -----------------------
 Period end date to which journal applies ▮0/09/89

 Number of previous single-sided journals to this period
 Total of journal transactions for this period
     Cost                 0.00
     Discount             0.00
     Net                  0.00
     Units               0.000
 Account                                  Classification
 Salesperson                              Territory
 Delivery address

 Product code                             Warehouse
 Product groups

 Reference                                Journal number      2


 Cost                                     Discount
 Net                                      Units
```

Figure 20 - Single sided journal

5 JOURNAL TRANSACTIONS

You can use the Journal Transactions function to correct details on the Sales Analysis database which have been entered incorrectly.

You can choose between two types of journal transaction. You can use a **reclassification journal**, which selects an invoice and amends the salesperson, territory, classification, delivery address for the whole invoice or the product group and warehouse for an individual line. You can use a **single-sided journal** to make a direct entry of the equivalent of an invoice line; this should be followed by the entry of an equal but oppositely-signed journal to cancel out the discrepancy it would otherwise produce between the Sales Analysis total and the control report.

A record is printed for every journal transaction, and should be kept as a reference to clarify any discrepancy which might occur. As long as invoice line details are retained, the invoice will show the effect of a reclassification journal, and a journal line entry will be held for each.

Select the Journal entry function by choosing the fifth option on the Sales Analysis menu. The initial journal screen (figure 19) explains the difference between a reclassification journal and a single-sided journal. The baseline prompt allows you to choose between the two:-

Key S for a single-sided journal, <CR> to reclassify invoice <ESC>;

Single sided journal
If you key S for a single-sided journal, you will be shown the Single-Sided Journal Entry screen (figure 20). You should enter the end-date of the period to which this journal applies. You can then enter any details you require. Press RETURN or the cursor down key to move over those prompts to which you don't wish to respond. The journal number is automatically allocated, and the line type will always be "J". When you have entered the last detail, this baseline prompt appears:-

Key Amend, Cancel, <CR> to continue;

Key A if you want to amend any of the journal details. Key C if you want to cancel the journal. Press RETURN to continue; you can then enter another journal or exit to the Sales Analysis menu.

Reclassification journal
Press RETURN in response to the baseline prompt on the initial journal screen. You are then shown the invoice selection screen, identical to the one in Invoice Enqiries. You should key I to reclassify an invoice. You are then prompted for the transaction number. Enter the invoice number here, or press RETURN and identify the invoice you want to amend by entering the relevant selection criteria.

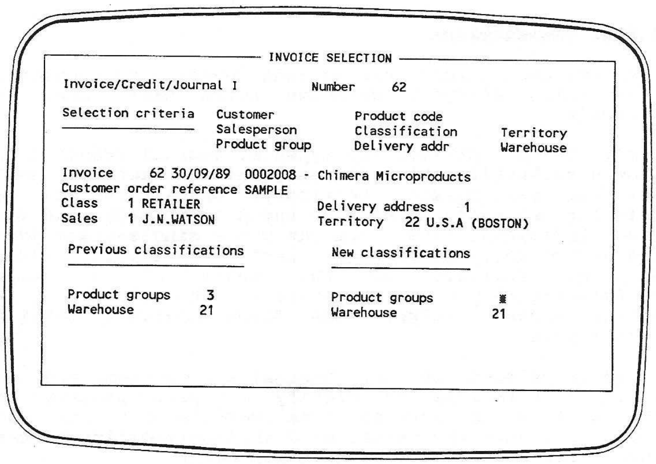


Figure 21 - Reclassifying invoice (single line)

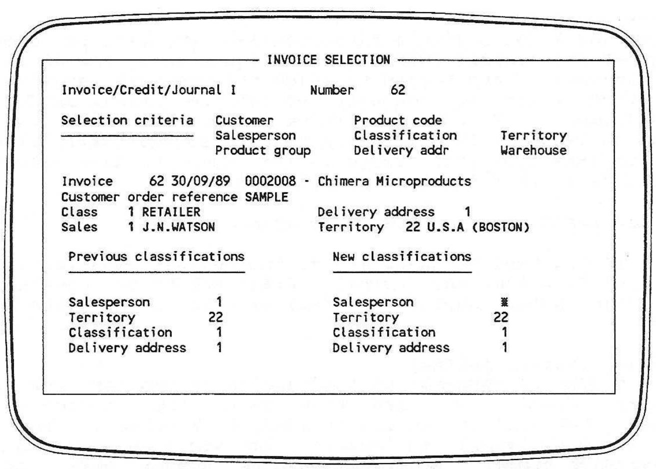


Figure 22 - Reclassifying invoice (invoice details)

The invoice will then be displayed and you should press RETURN. This baseline prompt will appear:-

Key line number for product fields, <CR> to amend customer groups;

If you want to change the product group or warehouse specified in one of the invoice-lines, you should key that line number. Two new columns will appear in the bottom half of the screen, one headed "Previous Classifications" and the other "New Classifications" (figure 21). You will be prompted for the new classification codes for product group and warehouse, and you should enter this information accordingly. When you have done so, this baseline prompt will appear:-

Key Amend, Cancel, <CR> to continue;

If you want to amend details for the whole invoice, and not just for a single line, you should press RETURN in response to the baseline prompt of the invoice selection screen, rather than key a line number. Again, two new columns will appear at the bottom of the screen (figure 22). One lists the previous classifications for salesperson, territory, customer classification, delivery address, and the other prompts you for the new classifications for these details. Key the new codes. This baseline prompt appears:-

Key Amend, Cancel, <CR> to continue;

Key A if you want to amend any of the details you have just entered, or key C to cancel the journal. Press RETURN to enter the journal, and the baseline prompt will offer you the choice between the two types of journals once again:-

Key S for single-sided journal, <CR> to reclassify invoice, <ESC>;

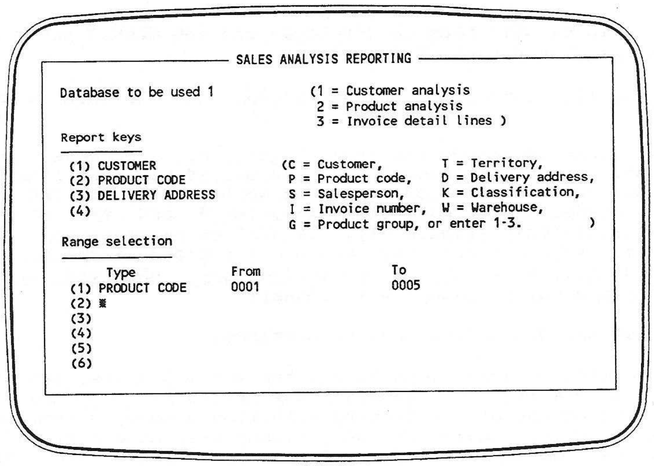


Figure 23 - Report key and range selection

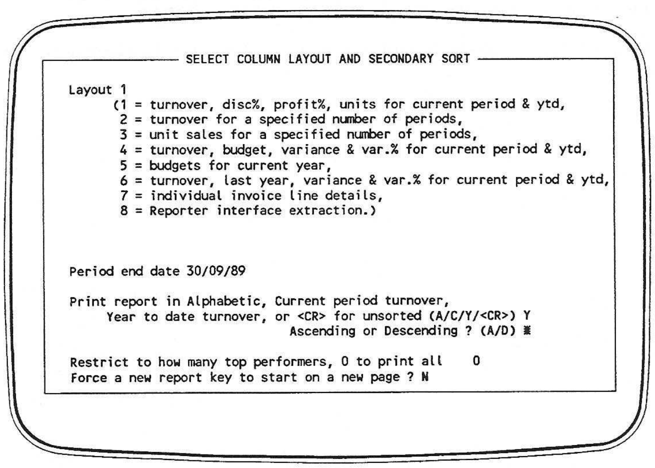


Figure 24 - Column layout & secondary sort

6 SALES ANALYSIS REPORTING

Sales Analysis can generate reports examining sales across a choice of fields and to selected depths. You can choose up to four subject levels, restricting the range if you wish, and from eight column layouts determining the type of information displayed.

You could produce, for instance, a report listing salespersons, the classes of products they have sold, the customers to which they have sold them, and the customers' delivery addresses to which they were delivered. You could also restrict this report by defining a range of any of these or other fields (e.g. territories, warehouses) from within which the information should be selected.

The Report generator function is line six on the Sales Analysis menu. Select this option and you will be shown the Sales Analysis Reporting screen. The first prompt is for the database to be used. A list of the databases and their names is shown to the right of the prompt to help you make your choice.

Report keys
You next choose up to four report keys. These are the subjects of your report. If, for instance, you wanted a report listing product groups within customer delivery addresses within customers within salespersons, you would type S for salesperson as the first report key, C for customer as the second report key, D for delivery address as the third report key, G for product group as the fourth, and then press RETURN. The subsequent report would be divided into salespersons, subdivided into each salesperson's customers, further subdivided into each of those customers' delivery addresses, and finally into the product groups sold to each of those delivery addresses.

The full list of report keys is shown to the right of the prompts, and is as follows:-

C customer
P product
S salesperson
T territory
K classification
D delivery address
G or 1 product group
2 product group 2
3 product group 3
W warehouse
I invoice/credit

I for invoice can be selected only if you have chosen the detail line database at the first prompt of this screen.

Range selection The range within any of these fields can be restricted by using the range selection keys. You will be prompted for these on the Sales Analysis Reporting screen immediately after defining the report keys themselves. To specify the type of field you want to restrict, you enter a single character selected from the same set available for report key selection (C for customer, P for product, S for salesperson, etc.) As you specify each field, you are asked to define the range to which you want to restrict it.

If you wanted to restrict the report to data concerning your first ten customers, for instance, you would key C for customer to the "Type" prompt in Range Selection, then key the first customer's account code into the "From" column and the tenth customer's account code into the "To" column. If you wanted to limit the report to data concerning a single salesperson, you would enter S for salesperson in the "Type" column, followed by his/her code in both the "From" column and the "To" column.

You can define up to six restrictions in Range Selection. The Types do not have to be the same as the chosen report keys. You may define more than one range for a single Type to select multiple values or ranges.

Press RETURN when prompted for a range selection if you don't want to define one. After you have responded to the last range selection prompt, this baseline prompt will appear:-

    Key Amend keys, Ranges, <CR> to continue, <ESC> to exit;

Press ESCAPE and exit if you want to cancel the report. Key A if you want to amend the report keys, or R if you want to amend the range selections. Press RETURN to continue with the report, and the Select Column Layout And Secondary Sort screen will be displayed (figure 24).

Select Column Layout
The column layout chosen determines the type of information the report will display. You are prompted for a layout and should key a figure between 1 and 8, according to which of the column layouts you require. These are listed in the top half of the screen, and are as follows:-

1 turnover, discount %, profit %, units - current period and year to date;

2 turnover - last *n* periods and total;

3 unit sales - last *n* periods and total;

4 turnover, budget, variance, variance % - current period and year to date;

5 budgets - each period of current year and total for year;

6 turnover, last year, variance, variance % - current period and year to date;

7 individual invoice line details;

8 Reporter interface extraction.

You will then be prompted for the period end date. You can key the current period end date or, if the data is still available and if you haven't selected layout 5 (Budgets), that of an earlier period. If you have selected Layout 2, 3, 7 or 8 you are then prompted to specify the number of periods.

If you choose Layout 5, and have recorded two budget sets in Budget maintenance (see pages 21 and 47), you are prompted to specify which budget set you want the report to cover.

You can select Layout 7 only if you specified the invoice line detail database when prompted for Database to be used at the top of the Sales Analysis Reporting screen. If you select this layout you will be prompted: Internal or External invoice representation? Key E for external demonstration if you don't want sensitive details such as cost, profit and profit percent to appear on the report. Key I for internal representation and the information will appear in full.

If you select layout 8 (Reporter interface) you will be prompted for the Reporter program name and for the extract file name.

Secondary sort

The secondary sort allows you to determine the order of the report. The order, at first sort key level, can be alphabetic, current period turnover, or year to date turnover.

You are prompted for the sequence, and can key A for alphabetic, C for current period turnover, Y for year to date turnover, or press RETURN for unsorted.

If you have chosen a sort by turnover, you can key A for ascending or D for descending. A further prompt enables you to restrict the report to a limited number of top performers.

The last prompt on the Select Column Layout and Secondary Sort screen asks if you want the report to start printing on a new page each time the first report key changes. Key Y for yes, N for no.

This base line prompt then appears:-

Key Amend, View 1st screen, <CR> to print, <ESC> to exit;

Key A if you want to amend any of the column layout or secondary sort details which you have just entered. Press RETURN if you wish to go ahead and print the report without viewing it on screen. Press ESCAPE if you want to cancel the report and return to the Sales Analysis menu. Key V to enter the report viewing facilities which are documented in the appendix at the back of this manual.

```
MANUFACTURERS & SERVICES LTD.                              Tuesday 19/02/91 17.13
__________________________________________________________________________________

                          GLOBAL SALES ORDER PROCESSING
                          _____________________________
                               SYSTEM MAINTENANCE
                        _________________________________
                        Backup database . . . . . . . . 1
                        Deferred posting. . . . . . . . 2
                        Reorganise indexes. . . . . . . 3
                        Full database rebuild . . . . . 4
                        Purge invoice details . . . . . 5
                        Consolidate database. . . . . . 6
                        Sales analysis parameters . . . 7
                        Restore database. . . . . . . . 8
                        Exit. . . . . . . . . . . . . .<CR>

                        Please select a function       :
```

Figure 25 - System maintenance submenu

This is not present

7. SYSTEM MAINTENANCE

System maintenance is the seventh function on the Sales Analysis menu. If you select this option, the submenu shown in figure 25 is displayed. The options available are:-

Backup database

Deferred posting

Reorganise indexes

Full database rebuild

Purge invoice details

Consolidate/End of year

Sales Analysis parameters

Restore database

Backup takes a backup of the database onto diskettes, and Restore will restore it.

The Deferred posting function must be used to post transactions to the database if the deferred posting option has been selected in system parameters so that transactions are not posted automatically by end of session.

Reorganise and Rebuild can sometimes speed up access to the data, but normally it should not be necessary to use them - the reorganisation done at end of year should be sufficient.

Purge invoice details deletes old invoice lines from the database, to free up space for new invoices.

Consolidate rebuilds the database, consolidating data as necessary and also reorganising it at end of year. Consolidate must be run at end of year, and also if you have changed the system parameters to summarize at a different level (e.g. keeping product group only instead of product code). At end of year, Consolidate also clears the budgets ready for entry of next year's budgets.

There is a reallocation facility

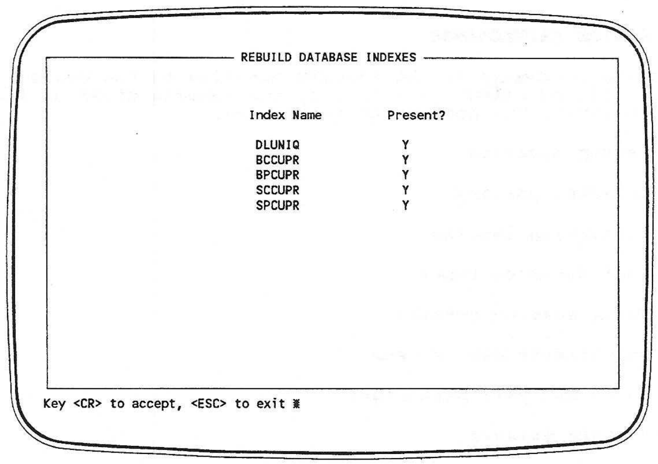


Figure 26 - Reorganise indexes

Make security copy of database
If the Sales Analysis database is held on the same data volume as the rest of the sales suite data, it is backed up as part of the normal cycle and no special action is needed.

If the database is on a separate volume, it should be backed up after each posting from the SAT file to the database. A separate backup history is kept on the database header.

Since it is possible that a security disk itself might become unreadable, you should maintain a set or "cycle" of security disks to be used in rotation. If you need to restore and find the most recent cycle is unreadable, you can then resort to the previous cycle. A cycle of three, labelled A, B and C, is suggested. You should keep a log showing date, time and cycle letter of each security copy.

To make a security copy of the database, select the first option from the system maintenance submenu. The security copy screen is displayed. You are then prompted for the security cycle code. Key this and you will be asked to mount the first backup diskette. Press RETURN when you have done this. Messages are displayed asking you to mount any disks required, and you should press RETURN when you have mounted the correct disk. On successful completion of the backup you will be returned to the system maintenance submenu.

Deferred posting
If you have chosen to post data independently of the SOP/Invoicing close session process (see System parameters screen 1, page 39), this deferred posting option must be used to transfer the data collected by the intermediate file (during the SOP/Invoicing close session process) onto the Sales Analysis database.

Select the second option from the system maintenance submenu. This will immediately start the posting process. A message across the centre of the screen announces "Posting detail lines from period ending...", and this baseline prompt appears:-

    Posting in progress - Key <CTRL G> to interrupt;

If you want to interrupt the process, press CONTROL and then G at the same time. You will be returned to the system maintenance submenu when the batch has been completed.

Reorganise indexes
Select the second option from the system maintenance submenu. See figure 26. This baseline prompt appears:

    Key <CR> to accept, <ESC> to exit;

Press RETURN and the indexes are reorganised on each of the databases. A message appears on the screen telling you which indexes are being reorganised as this happens. You will be returned to the submenu when the index reorganisation has been completed.

The Reorganise indexes function can improve the speed of access to the database, although it should rarely be necessary. It also helps to conserve space; this aim, however, would probably be better achieved with the Consolidate database function (see page 43).

Full database rebuild
Full database rebuild helps to improve performance and save space. It allows a database to re-use space which was once allocated to another database but is now free. Select the fourth option on the system maintenance submenu. See figure 27. This baseline prompt appears:-

    Key <CR> to accept, <ESC> to exit;

Press RETURN and the indexes are rebuilt on each of the databases. A message appears on the screen telling you that the rebuild is in progress as this happens. You will be returned to the submenu when the index rebuild has been completed.

Purge invoice details
This option allows you to remove records from the detail line database prior to a selected period, in order to create space for new data.

Select the fifth option from the system maintenance submenu. The screen will clear and the message "WARNING - ALL INVOICE LINES PRIOR TO (date) WILL BE DELETED" will appear across it and this baseline prompt will be displayed:-

    Key Y to confirm clear required, <ESC> to exit;

Key Y and the purge will proceed, returning you to the submenu when it is complete. Press ESCAPE and you will be returned to the submenu without the purge taking place.

Consolidate database/end of year
This option allows you to conserve space by deleting old details accumulated on the databases. If you amend any of the details on the third or fourth system parameters screen (see page 43) you must use this function before any of those amendments can become effective.

This function must also be used at each end of year, to purge old data and throw away budget records ready for the next year's data and budget sets. Data take on will default to deferred posting if this year-end processing is delayed, so no data will be lost automatically. It would be simpler and more efficient, however, if it did take place at the appropriate time.

Select the sixth option from the system maintenance submenu. The Consolidate Database/End of Year Reorganisation screen will be displayed (figure 28). For each of the two summary databases, "details held since" dates and "delete prior to" dates are given for customer code, salesperson, territory, classification, delivery address, product code, product group, and warehouse. This obviously tells you how far back the data goes for these classes of information, and the date up to which data will be deleted if you continue with this consolidation.

One line at the top of the screen asks the question "Pause at the end of run if database size has increased?" If the answer Y has been keyed to this, and if the subsequent consolidation does increase the size of the database, there will be a pause before it is fully completed, and you will have the option of abandoning the consolidation or completing it.

Another line at the top of the screen displays the date prior to which invoice line details will be deleted.

This baseline prompt is displayed:- Reallocate

Key Amend, C to consolidate database, <ESC> to exit;

Key A if you want to amend any of the "delete prior to" dates or the yes/no reply to the run pausing at the end if the database size has increased.

Key C to consolidate the databases.
Key R 5

Press ESCAPE to exit to the system maintenance submenu without the consolidation taking place.

Sales Analysis parameters
System parameters are used to set up, record and amend the various factors which determine the scope and nature of the analysis you will be allowed to make.

If you select this option from the system maintenance submenu, you will be shown the first of the system parameter screens.

Screen 1 (Databases to be maintained) Up to three databases can be used for Sales Analysis data.

The first and second are summary databases, holding monthly totals only. This permits faster enquiries where invoice line details are not required, and allows the retention of longer periods of data.

The third is reserved for the most detailed level of information, the invoice line details. The mass of information retained means that enquiries can be slow and you may be able to hold only a few months of data, depending on the amount of disk space available.

This screen (see figure 29) will show which databases you are using, a name for each to describe the sort of the data held, and the advantages and disadvantages of the three types of database.

It also tells you whether posting to these databases is immediate or deferred. Data is collected and posted to the Sales Analysis database during the close session process within Sales Order Processing or Invoicing; you can, however, choose to accumulate the data on an intermediate file, for posting at some later date. The immediate posting is more convenient, but deferred posting does allow you to decouple the backup of the Sales Analysis database so that it can be backed up less frequently.

```
──────── SALES ANALYSIS PARAMETERS PART 2 - ENQUIRIES REQUIRED ────────
                                                              Overhead
This screen determines what extra indexes are required.      per record
                                                               (bytes)
Do you wish to use the product enquiry function -
  from information on 1st summary database(Customer analysis   )? Y   31
  from information on 2nd summary database(Product analysis    )? N   31
  from information on the detail database (Invoice detail lines)? Y   34 *

Do you wish to use the customer enquiry function -
  from information on 1st summary database(Customer analysis   )? Y
  from information on 2nd summary database(Product analysis    )? N
  from information on the detail database (Invoice detail lines)? Y

Do you wish to see invoices during product enquiry?             Y   34 *
Do you wish to see invoices during customer enquiry?            Y   34 **

Do you wish to be able to locate an invoice during
    invoice enquiries and reclassification journals
                 by selecting a specific customer?              Y   34 **
                 by selecting a specific product?               Y   34 *

Key Amend, Back, <CR> to continue, <ESC> to exit
```

Figure 30 - Enquiries required

You also record on this screen whether there are twelve or thirteen periods to your accounting year.

This baseline prompt is shown:-

Key Amend, Back, <CR> to continue, <ESC> to exit;

Key A to amend any of the information held on this screen. You will be prompted to key Y or N (yes or no) for each of the three databases, I or D for immediate or deferred posting, and the required figure (twelve or thirteen) for the number of periods this year. You will also be prompted for a name for each database you choose.

Key B to go back to the previous systems parameters screen. From this, the first screen, you will go back to Global Graphics Interface Information, the last screen.

Press RETURN to continue and you will go on to the next systems parameters screen, Enquiries Required.

Press ESCAPE to exit to the system maintenance submenu.

Screen 2 (Enquiries required) On this screen (figure 30) you record the depth of information you require for various Sales Analysis enquiries, and which databases will be used to make them.

The first two sets of questions ask you to define from which databases the information for product enquiries and for customer enquiries will be drawn. If you want enquiries to be able to reach individual invoice-line depth you must key Y to the detailed database prompts here.

The next prompts ask if you want the option of viewing a representation of an invoice during product enquiries and during customer enquiries.

The last set of questions asks if you want to be able to select invoices by specifying individual customers and products as selection criteria.

A column on the right of the screen, 'Overhead per record' tells you what capacity each of these options requires in index space for each record in the database. Questions marked with the same number of asterisks use the same index, and hence will not cause further overhead. Unnecessary indexes will cause perfomance losses during deferred posting and database consolidation.

The screen shows the following baseline prompt:-

Key Amend, Back, <CR> to continue, <ESC> to exit;

Key A to amend any of the details on this screen, keying Y or N (yes or no) to each of the questions. Key B to go back to the previous screen, Databases to be maintained. Press RETURN to continue to the next screen, Information to be retained. Press ESCAPE to exit to the System parameters submenu.

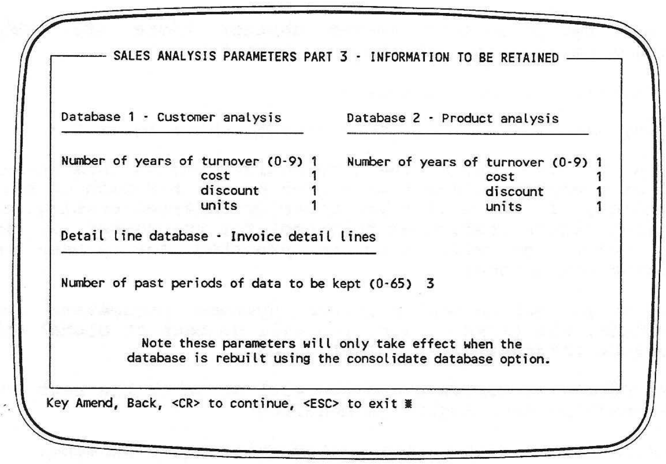


Figure 31 - Information to be retained

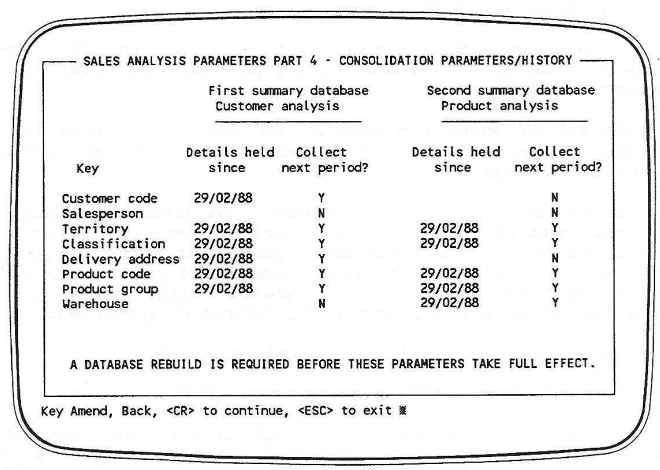


Figure 32 - Consolidation parameters/history

Screen 3 (Information to be retained) This screen (see figure 31) records the breadth of data to be kept on the three databases.

The number of past periods of data to be kept on the detail line database is displayed. This figure must be less than 6~~5~~6.

The details for Database 1 and Database 2 are displayed on the left and right of the screen respectively. You record here how many years' information is held for the four types of Sales Analysis figures (turnover, cost, discount, units). For each database there is an overall limit of twelve sets of annual figures, for example three years for all four types, or six years for turnover and two years for cost, discount and units.

Two lines of text at the bottom of the page remind you that any new details entered on this screen will take effect only after the database has been rebuilt using the Consolidate database function (see page 37).

This baseline prompt can be seen at the bottom of the screen:-

Key Amend, Back, <CR> to continue, <ESC> to exit

Key A to amend any of the details on the screen.

Key B to go back to the previous Sales Analysis Parameters screen (Enquiries required).

Press RETURN to continue, and you will be shown the next screen (Consolidation parameters/history).

Press ESCAPE to return to the System maintenance submenu.

Screen 4 (Consolidation parameters/history) This screen (see figure 32) records for how long each of the two summary databases has been holding details including customer code, salesperson, territory, classification, delivery address, product code, product group, and warehouse. Another column determines whether data for each of these eight classes of information will be collected for the next accounting period.

This baseline prompt can be seen:-

Key Amend, Back, <CR> to continue, <ESC> to exit

Key A if you want to amend this screen, i.e. whether information of a certain type will be collected for the next accounting period. You will be prompted to key Y or N (yes the information is to be collected, or no it isn't) for each type of data on each database. A line at the bottom of the screen reminds you that a database rebuild (using the Consolidate database function; see page 2-37) is required before any amendments to these parameters can take effect.

```
──── SALES ANALYSIS PARAMETERS PART 5 - HISTORICAL OR CURRENT VALUES ────
Read current values before printing
───────────────────────────────────────────
      Field            Retrieve current?

    Salesperson             Y
    Territory               N
    Classification          N
    Product group           N

Extract product groups from product code for reporting
────────────────────────────────────────────────────────
                         Start byte      Length
                           (1-20)         (1-5)

    Product group 1? N
    Product group 2? N
    Product group 3? N
─────────────────────────────────────────────────────────────────────────
Key Amend, Back, <CR> to continue, <ESC> to exit
```

Figure 33 - Historical or current values

Key B to go back to the previous parameters screen, Information to be retained. Press RETURN to continue, and you will be shown the next screen, Historical or current values. Press ESCAPE to exit to the system maintenance submenu.

Screen 5 (Historical or current values) This screen (see figure 33) determines whether the historical or current values of salesperson, territory, classification, product group are selected for reporting. It is possible, for instance, that a customer's salesperson code has changed since data collection began. You could use this option to update the information retrieved with the most recent code before reporting. Note that the historical values are always retained on the database, so these options can be changed at any time.

This screen also enables you to extract product groups from product codes for reporting. If the codes of different products share numbers or letters to signify some sort of common link, you can choose to have the products sorted by those links. For instance, the last two numbers of each product's code might signify the year of the product's release; thus product G1687 was released in 1987, product B0184 in 1984, products Y2589, R4289, W6289 in 1989. If you want reports to split the products into different groups according to year of release, you would key 4 to the first prompt (Start byte) as the extraction of the two relevant numbers should begin with the fourth character of the product code, and you would key 2 for the next prompt (Length) as the extraction is two characters long.

You can specify more than one of these sorts. For instance, the first character of the product codes given as examples in the previous paragraph might refer to the colour of the product (G1687 is green, B0184 black, Y2589 yellow). You could choose to have your products sorted into colour groups as well as year-of-release groups, in which case you would key 1 to the Start byte prompt (as the extraction is to start with the first character of the product code) and 1 to the Length prompt (as the extraction is to be one character long).

The start byte specified must be between 1 and 20, and the Length between 1 and 5.

You can define up to three of these sorts, although you would normally use only two (groups 2 and 3) here. Product group 1 is the standard product group by default, so you would usually not want to redefine it, but key N for no to the prompt 'Product group 1?' and go on to Product groups 2 and 3 if you want to select any extra groupings in the above manner.

This baseline prompt is displayed:-

Key Amend, Back, <CR> to continue, <ESC> to exit

Key A if you wish to amend any details on the screen. You will be prompted for Y or N (yes or no) to the question "Retrieve current?" for each of the four fields. Key B if you wish to go back to the previous screen, Consolidation parameters/history. Press RETURN to continue and you will be shown the next screen, Print Formats. Press ESCAPE to exit and you will return to the system parameters submenu.

```
—————— SALES ANALYSIS PARAMETERS PART 6 - PRINT FORMATS ——————

 Standard Printer width (132-250)           132

 Prompt for special width when exceeded? Y    (N forces line truncation)

 Maximum digits before decimal point?    7    (larger numbers shown in K)
  (ie estimate maximum monthly turnover)

 Print decimal places/pence?             Y

 Print comma separators?                 N

 Maximum number of columns on a report?

 Print units in Large, Small, Default
  selling, or stocK/cost?  (L/S/D/K)?    S

 Close journal report file after every        (Allows multi-user journal
  single-sided journal is entered?       N     entry when printing direct
                                               to a printer)
Key Amend, Back, <CR> to continue, <ESC> to exit *
```

Figure 34 - Print formats

```
—————— SALES ANALYSIS PARAMETERS PART 7 - BUDGET PARAMETERS ——————

Budget set 1 Customer budgets         Budget set 2 Product budgets

Keys used                             Keys used

   Account number?           N           Account number?           N
   Product code?             N           Product code?             N
   Salesperson?              N           Salesperson?              Y
   Territory?                Y           Territory?                N
   Classification?           Y           Classification?           N
   Product group?            N           Product group?            Y
   Warehouse?                N           Warehouse?                Y

Budget maintenance options            Budget maintenance options

   Spread yearly value?      Y           Spread yearly value?      Y

Key Amend, Back, <CR> to continue, <ESC> to exit *
```

Figure 35 - Budget parameters

Screen 6 (Print formats) This screen (see figure 34) offers a selection of print parameters to enable the maximum amount of information to be placed on each line of the report, in a choice of formats.

Standard printer width can be specified, with a prompt for special width when the standard width is exceeded. You are asked to specify the maximum number of digits to appear before a decimal point, whether decimal places (i.e. pence) and comma separators should be printed, and the maximum number of columns on a report. You can choose to always print in small units, in large units, in the default selling units or in the stock units. You can also choose to close the journal report file after every single-sided journal is entered.

This baseline prompt is displayed:-

    Key Amend, Back, <CR> to continue, <ESC> to exit

Key A to amend any details on this screen.

Key B to go back to the previous screen, Historical or current values.

Press RETURN to continue, and you will be shown the next screen, Budget parameters.

Press ESCAPE to exit, and you will be returned to the system maintenance submenu.

Screen 7 (Budget parameters) This screen (see figure 35) determines the fields for which budgets can be set.

Two budget sets are allowed. One is usually for customer budgets and the other for product budgets. A column for each lists seven fields - account number, product code, salesperson, territory, classification, product group, warehouse. You should key Y or N (yes or no) to each one, according to whether you may want to set a budget on them.

If, for instance, you wanted to record targets for sales to each class of customer in each territory, you would select the keys Classification and Territory for one budget set, Customer Budgets. Or if you wanted to record the targets for sales of products by each salesperson, you would select the keys Product code and Salesperson for the other budget set, Product Budgets.

You could choose to keep budgets to the same level of detail as your sales data, but usually they will be less detailed. For example, you may keep products by salesperson details, but only budget for product group by salesperson.

The last option on this screen asks if you want to be able to spread a yearly budget value across the constituent accounting periods. Key Y for yes if you only wish to enter a yearly total, or N for no if you wish to enter each period manually.

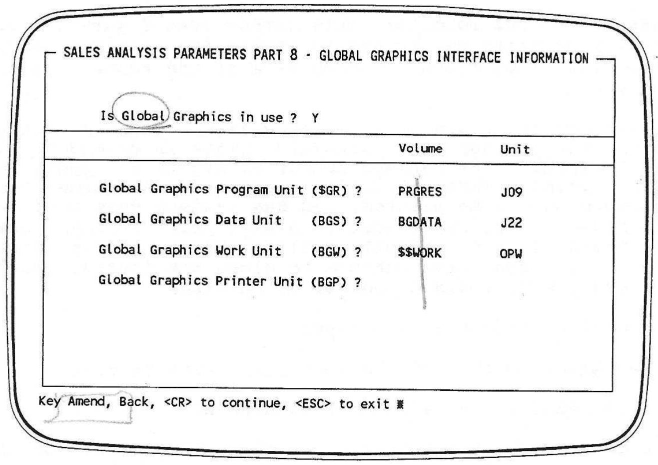


Figure 36 - Global Graphics interface information

This baseline prompt is displayed:-

Key Amend, Back, <CR> to continue, <ESC> to exit;

Key A amend any details on the screen.

Key B to go back to the previous screen, Print formats.

Press RETURN to continue, and you will be shown the next screen, Global Graphics interface information.

Press ESCAPE to exit, and you will be returned to the system maintenance submenu.

Screen 8 (Global Graphics interface information) This screen (figure 36) determines the graphics programs in use, the data unit assignments and volume-ids.

The baseline prompt is:-

Key Amend, Back, <CR> to continue, <ESC> to exit;

Key A to amend any details on this screen. Key B to go back to the previous screen, Budget parameters. Press RETURN to continue, and you will be returned to the system maintenance submenu. Press ESCAPE to exit, and you will be returned to the system maintenance submenu.

Restore database from backup
This function is used to restore the Sales Analysis data from a security copy. Select this option from the system maintenance submenu and the Restore Data screen is displayed.

You are asked for the cycle code from which you wish to restore; you should normally reply with the most recent cycle code, referring to your log if necessary. As the restore process proceeds you will be asked to mount the appropriate disks as they are required.

You may choose to restore the disk from a security copy if you make some serious error from which it is difficult to recover. You may also wish to restore from an old security copy in order to reproduce some previous reports. In this case you should first take a fresh security copy, so that you can restore from this afterwards.

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SAMPLE REPORTS

These sample reports illustrate each of the column layouts available and some of the possible combinations of report keys and ranges.

See page 2-29 of this manual for full details of report selection.

GLOBAL SALES ANALYSIS — Manufacturers & Services Ltd. — OPERATOR NT PAGE 1

TURNOVER FOR CURRENT PERIOD AND YEAR TO DATE — MONDAY 04/03/91 16.46

	Current period (30/04/87)				Year to date (01/09/86-30/04/87)			
	Turnover	Disc%	Prof%	Units	Turnover	Disc%	Prof%	Units
Customer 508 - BUSINESS INTERIORS LTD.								
Delivery address 1 - Business Interiors Ltd.								
Product 1000 - EXECUTIVE DESK - MAHOGANY	1628.00	0.00	10.00	4	3256.00	0.00	10.00	8
Product 1032 - OVERHEAD PROJECTOR	106.87	5.00	22.14	5	213.74	5.00	22.14	10
Total for Customer 508 - BUSINESS INTERIORS LTD.	1734.87	0.32	10.68	9	3469.74	0.32	10.68	18
Customer 514 - STONE OFFICE EQUIPMENT								
Delivery address 0 - Description Unavailable								
Product 1010 - EXECUTIVE CHAIR	0.00	0.00	0.00	0	883.50	5.00	17.80	5
Product 9010 - DELIVERY CHARGE - CITY	0.00	0.00	0.00	0	5.00	0.00	66.67	1
Total for Customer 514 - STONE OFFICE EQUIPMENT	0.00	0.00	0.00	0	888.50	4.97	18.00	6
Customer 515 - UNIT FURNISHERS LTD.								
Delivery address 0 - Description Unavailable								
Product 1004 - CONFERENCE CHAIR	427.02	5.00	13.87	5	854.04	5.00	13.87	10
Total for Customer 515 - UNIT FURNISHERS LTD.	427.02	5.00	13.87	5	854.04	5.00	13.87	10
Grand total	2161.89	1.28	11.29	14	5212.28	1.93	12.38	34

END OF REPORT

Turnover for current period and year to date

GLOBAL SALES ANALYSIS — Manufacturers & Services Ltd. — OPERATOR NT PAGE 1

TURNOVER 28/02/87 TO 30/04/87 — MONDAY 04/03/91 16.51

Period ending	28/02/87	31/03/87	30/04/87	Total
Territory 4 - LONDON (SOUTH)				
Customer 515 - UNIT FURNISHERS LTD.				
Product 1004 - CONFERENCE CHAIR	0.00	427.02	427.02	854.04
Total for Territory 4 - LONDON (SOUTH)	0.00	427.02	427.02	854.04
Territory 5 - LONDON (WEST)				
Customer 514 - STONE OFFICE EQUIPMENT				
Product 1010 - EXECUTIVE CHAIR	0.00	883.50	0.00	883.50
Product 9010 - DELIVERY CHARGE - CITY	0.00	5.00	0.00	5.00
Total for Territory 5 - LONDON (WEST)	0.00	888.50	0.00	888.50
Territory 6 - HOME COUNTIES				
Customer 108 - WHARFSIDE FURNITURE LTD.				
Product 1005 - DOUBLE-PEDESTAL DESK - TEAK	0.00	3429.00	0.00	3429.00
Product 1025 - 4-DRAWER FILING CABINET(GRAY)	0.00	1510.16	0.00	1510.16
Total for Territory 6 - HOME COUNTIES	0.00	4939.16	0.00	4939.16
Grand total	0.00	6254.68	427.02	6681.70

END OF REPORT

Turnover for specified number of periods

```
GLOBAL SALES ANALYSIS              Manufacturers & Services Ltd.                 OPERATOR NT     PAGE   1
                                   UNIT SALES 28/02/87 TO 30/04/87               MONDAY 04/03/91 17.05
-------------------------------------------------------------------------------------------------------
                                          Period ending   28/02/87   31/03/87   30/04/87      Total
Salesperson    1 - J.N.WATSON
  Product 1000 - EXECUTIVE DESK - MAHOGANY                       0          2          0          2
  Product 1004 - CONFERENCE CHAIR                                0          6          6         12
  Product 1020 - FILING TROLLEY                                  0          6          4         10
  Product 1031 - REFILL CARDS                                    0        100         50        150
  Product 1036 - STAPLER                                         0         12          0         12
  Product 9000 - ANNUAL MAINTENANCE CONTRACT                     0          1          1          2
  Product 9011 - DELIVERY CHARGE                                 0          1          1          2
  Product 9012 - 10% REBATE                                      0          1          1          2
                                                         ---------- ---------- ---------- ----------
Total for Salesperson    1 - J.N.WATSON                          0        129         63        192
                                                         ========== ========== ========== ==========
Salesperson    7 - F.RICKENBACKER
  Product 1005 - DOUBLE-PEDESTAL DESK - TEAK                     0         10          0         10
  Product 1025 - 4-DRAWER FILING CABINET(GRAY)                   0         12          0         12
                                                         ---------- ---------- ---------- ----------
Total for Salesperson    7 - F.RICKENBACKER                      0         22          0         22
                                                         ========== ========== ========== ==========
Salesperson    8 - C.J.MEEKS
  Product 1000 - EXECUTIVE DESK - MAHOGANY                       0          4          4          8
  Product 1032 - OVERHEAD PROJECTOR                              0          5          5         10
                                                         ---------- ---------- ---------- ----------
Total for Salesperson    8 - C.J.MEEKS                           0          9          9         18
                                                         ========== ========== ========== ==========
Salesperson   15 - M.S.KELLY
  Product 1010 - EXECUTIVE CHAIR                                 0          5          0          5
  Product 9010 - DELIVERY CHARGE - CITY                          0          1          0          1
                                                         ---------- ---------- ---------- ----------
Total for Salesperson   15 - M.S.KELLY                           0          6          0          6
                                                         ========== ========== ========== ==========
Salesperson   16 - D.S.SIMMONS
  Product 1004 - CONFERENCE CHAIR                                0          5          5         10
                                                         ---------- ---------- ---------- ----------
Total for Salesperson   16 - D.S.SIMMONS                         0          5          5         10
                                                         ========== ========== ========== ==========
Grand total                                                      0        171         77        248
                                                         ========== ========== ========== ==========

------------------------------------------ END OF REPORT ------------------------------------------
```

Unit sales for specified number of periods

GLOBAL SALES ANALYSIS — Manufacturers & Services Ltd. — OPERATOR NT PAGE 1

TURNOVER AND BUDGET — TUESDAY 12/03/91 18.03

	Current period (30/04/87)				Year to date (01/09/86-30/04/87)			
	Turnover	Budget	Variance	Var.%	Turnover	Budget	Variance	Var.%
Total for Classification 0 - Description Unavailable	=========	=========	========	======	=========	=========	========	======
Classification 1 - RETAILER								
Territory 2 - LONDON (NORTH)	1090.00	549.00	541.00	98.54	1090.00	549.00	541.00	98.54
Territory 20 - U.S.A (LOS ANGELES)	4091.23	2000.00	2091.23	104.56	4091.23	2000.00	2091.23	104.56
Territory 21 - U.S.A (NEW YORK)	-102.46	0.00	-102.46	***.**	-102.46	0.00	-102.46	***.**
Total forrClassification 1T-NRETAILER	5078.77	2549.00	2529.77	99.25	5078.77	2549.00	2529.77	99.25
Classification 2 - MISCELLANEOUS								
Territory 6 - HOME COUNTIES	1562.49	1000.00	562.49	56.25	1562.49	1000.00	562.49	56.25
Total forrClassification 2E-IMISCELLANEOUS	1562.49	1000.00	562.49	56.25	1562.49	1000.00	562.49	56.25
Classification 4 - ACCOUNTANCY								
Territory 5 - LONDON (WEST)	888.50	416.00	472.50	113.58	888.50	416.00	472.50	113.58
Total for Classification 4 - ACCOUNTANCY	888.50	416.00	472.50	113.58	888.50	416.00	472.50	113.58
Grand total	7529.76	3965.00	3564.76	89.91	7529.76	3965.00	3564.76	89.91

END OF REPORT

Turnover and budget, current period & year to date

GLOBAL SALES ANALYSIS | Manufacturers & Services Ltd. | OPERATOR NT PAGE 1

BUDGETS FOR CURRENT YEAR | TUESDAY 12/03/91 17.40

Period	30/09/86	31/10/86	30/11/86	31/12/86	31/01/87	28/02/87	31/03/87	30/04/87	9	10	11	12	13	Total
Total for Classification 0 - Description Unavailable														
Classification 1 - RETAILER														
Territory 2 - LONDON (NORTH)	500	500	500	1000	1000	1000	1500	1500	2000	1500	1000	1000		13000
Territory 20 - U.S.A (LOS ANGELES)	2000	2000	4000	4000	4000	6000	8000	8000	8000	6000	6000	4000		62000
Total for Classification 1 - RETAILER	2500	2500	4500	5000	5000	7000	9500	9500	10000	7500	7000	5000		75000
Classification 2 - MISCELLANEOUS														
Territory 6 - HOME COUNTIES	1000	2000	2000	2000	3000	3000	3000	3000	4000	4000	3000	2000		32000
Total for Classification 2 - MISCELLANEOUS	1000	2000	2000	2000	3000	3000	3000	3000	4000	4000	3000	2000		32000
Classification 4 - ACCOUNTANCY														
Territory 5 - LONDON (WEST)	400	800	800	800	1200	1200	1200	1200	1600	1600	1200	800		12800
Total for Classification 4 - ACCOUNTANCY	400	800	800	800	1200	1200	1200	1200	1600	1600	1200	800		12800
	3900	5300	7300	7800	9200	11200	13700	13700	15600	13100	11200	7800		119800

END OF REPORT

Budgets for current year

GLOBAL SALES ANALYSIS — Manufacturers & Services Ltd. — OPERATOR PETE PAGE 1

TURNOVER AND LAST YEAR — WEDNESDAY 20/03/91 15.21

	Current period (30/04/87)				Year to date (01/12/87-30/04/87)			
	Turnover	Last yr	Variance	Var.%	Turnover	Last yr	Variance	Var.%
Salesperson 1 - J.N.WATSON								
Territory 20 - U.S.A (LOS ANGELES)	312.14	257.25	54.89	21.34	1857.20	1733.48	123.72	7.14
Territory 21 - U.S.A (NEW YORK)	0.00	226.53	-226.53	-100.00	102.46	315.53	-213.07	-67.53
Territory 22 - U.S.A (BOSTON)	628.10	583.33	44.77	7.68	1256.20	1245.33	10.87	0.87
Total for Salesperson 1 - J.N.WATSON	940.24	1067.11	-126.87	-11.89	3215.86	3294.34	-78.48	-2.38
Salesperson 7 - F.RICKENBACKER								
Territory 6 - HOME COUNTIES	0.00	0.00	0.00	0.00	4939.16	4573.84	365.32	7.99
Total for Salesperson 7 - F.RICKENBACKER	0.00	0.00	0.00	0.00	4939.16	4573.84	365.32	7.99
Salesperson 8 - C.J.MEEKS								
Territory 7 - NORTHERN REGION	2696.75	2434.20	262.55	10.79	5393.50	4863.12	530.38	10.91
Total for Salesperson 8 - C.J.MEEKS	2696.75	2434.20	262.55	10.79	5393.50	4863.12	530.38	10.91
Salesperson 15 - M.S.KELLY								
Territory 5 - LONDON (WEST)	0.00	0.00	0.00	0.00	888.50	803.00	85.50	10.65
Total for Salesperson 15 - M.S.KELLY	0.00	0.00	0.00	0.00	888.50	803.00	85.50	10.65
Salesperson 16 - D.S.SIMMONS								
Territory 4 - LONDON (SOUTH)	427.02	427.22	-0.20	-0.05	854.04	834.86	19.18	2.30
Total for Salesperson 16 - D.S.SIMMONS	427.02	427.22	-0.20	-0.05	854.04	834.86	19.18	2.30
Grand total	4064.01	3928.53	135.48	3.45	15291.06	14369.16	921.90	6.42

END OF REPORT

Turnover: last year, current period & year to date variance

```
GLOBAL SALES ANALYSIS              Manufacturers & Services Ltd.             OPERATOR PETE   PAGE   1
                                   INDIVIDUAL INVOICE LINE DETAILS           WEDNESDAY 20/03/91 16.21
------------------------------------------------------------------------------------------------------

Invoice number I    2

Account  Invoice   Date    Salesperson      1 Reference                                              Territory  22
  2008   I    2 31/03/87  Delivery addr    1  SAMPLE                                                    Class      1
 Line Product code         Description                Units      Cost    Profit      Net   Disc%    Prof%    Wh  Pg1
   1 1031                 - REFILL CARDS                 50     25.00     13.81    38.81    0.00    55.24    21    3
   2 1004                 - CONFERENCE CHAIR              6    450.00    139.29   589.29    5.00    30.95    21    1
                                             Totals      56    475.00    153.10   628.10    4.71    32.23

Invoice number I    4

Account  Invoice   Date    Salesperson      1 Reference                                              Territory  20
  2007   I    4 21/03/87  Delivery addr    1  USA-CD10                                                  Class      1
 Line Product code         Description                Units      Cost    Profit      Net   Disc%    Prof%    Wh  Pg1
   1 1020                 - FILING TROLLEY                4    100.00     65.83   165.83    0.00    65.83    20    2
   2 9000                 - ANNUAL MAINTENANCE CONTRACT   1    100.00     72.50   172.50    0.00    72.50     1    9
   3 9011                 - DELIVERY CHARGE               1     10.00      4.37    14.37    0.00    43.70     1   99
   4 9012                 - 10% REBATE                    1      0.00    -40.56   -40.56    0.00   ***.**     1   99
                                             Totals       7    210.00    102.14   312.14    0.00    48.64

Invoice number I    5

Account  Invoice   Date    Salesperson     15 Reference                                              Territory   5
   514   I    5 31/03/87  Delivery addr    0  INV-023                                                   Class      4
 Line Product code         Description                Units      Cost    Profit      Net   Disc%    Prof%    Wh  Pg1
   1 1010                 - EXECUTIVE CHAIR               5    750.00    133.50   883.50    5.00    17.80     1    1
   2 9010                 - DELIVERY CHARGE - CITY        1      3.00      2.00     5.00    0.00    66.67     1   99
                                             Totals       6    753.00    135.50   888.50    4.97    18.00

Invoice number I    6

Account  Invoice   Date    Salesperson      1 Reference                                              Territory  20
  2004   I    6 01/04/87  Delivery addr    1  JKE/23/A                                                  Class      1
 Line Product code         Description                Units      Cost    Profit      Net   Disc%    Prof%    Wh  Pg1
   1 1000                 - EXECUTIVE DESK - MAHOGANY     2    740.00    410.00  1150.00    0.00    55.41    20    1
   2 1020                 - FILING TROLLEY                2     50.00     32.92    82.92    0.00    65.84    20    2
                                             Totals       4    790.00    442.92  1232.92    0.00    56.07

Invoice number I    7

Account  Invoice   Date    Salesperson      7 Reference                                              Territory   6
   108   I    7 31/03/87  Delivery addr    1  DEPT/3/4                                                  Class      2
 Line Product code         Description                Units      Cost    Profit      Net   Disc%    Prof%    Wh  Pg1
   1 1025                 - 4-DRAWER FILING CABINET(GRAY) 12  1320.00    190.16  1510.16   10.00    14.41     2    2
   2 1005                 - DOUBLE-PEDESTAL DESK - TEAK  10   2750.00    679.00  3429.00   10.00    24.69     2    1
                                             Totals      22   4070.00    869.16  4939.16   10.00    21.36
------------------------------------------ END OF REPORT -------------------------------------------
```

Invoice line details

APPENDIX A REPORT OPTIONS AND VIEWING FACILITIES

The report options and viewing facilities provided in Global 2000 modules enable you to view a report on the screen as it is being printed. You will be able to view a report in whole or in part, reformat it on the screen by suppressing columns selectively, or search for particular names or figures. Full functions are only available on versions 6.0 and later of the System Manager, from October 1987; earlier versions do not possess this facility.

You can also alter the *spool options* before actually printing the report: these allow you to change the name of the report, the unit to which it is to be sent and, when printing to a spooler, to specify the priority of the report, the number of copies required and whether or not it is to be 'held'. You can also associate a password with the report, so that only a user who knows the password can print it.

Invoking the report viewing facilities
The report viewing facilities can be invoked at two separate points. First, before starting the print, you can key O or V in reply to the following prompt:-

Key Amend, Options, View 1st screen, <CR> to print, <ESC> to exit:

Keying O leads you to the Options screen, explained below.

Keying V causes the first screenful of the report to be displayed, as in the example in figure A1. The facilities available in this case are explained in detail later in the Appendix.

Alternatively, while the report is actually printing, you can interrupt it by keying <CTRL G> to the baseline prompt:-

Report printing - Key <CTRL G> to interrupt:

This causes the following prompt to appear:-

Key Inspect, Options, <CR> to continue, <ESC> to exit:

Keying I at this point causes the text currently being printed to be displayed on the screen, with further viewing choices which are described under the Inspect option below.

When the report is being viewed, the 'Report printing' baseline prompt always appears to give you the opportunity to interrupt. This prompt also appears when the report is printing without being viewed.

Keying O leads to the Options screen, explained below. Note, however, that once you have started printing the report, the spool options cannot be changed.

```
------------------------- SUPPLIER TURNOVER ------------------------- PAGE   1
ACCOUNT                                       TOTAL FOR         TOTAL FOR
                                              PERIOD ENDING     THIS YEAR TO
                                              28/02/85          28/02/85
   9000 CITY OFFICE SUPPLIES LTD                  412.00          1164.09
  17616 EASTERN TIMBER CO                           0.00             0.00
  17654 CARLTON & PRIOR LTD                         0.00           250.00
  18271 CAMDEN MOTOR LTD                            0.00             0.00
  20747 CITY & GENERAL ADVERTISING                  0.00          1800.00
  21438 AUTO REPAIRS LTD                           46.00           136.00
  21743 C & D EQUPIMENT LTD                         0.00          4550.00
  31731 ACME GATE & SHUTTER CO LTD                  0.00             0.00
  32114 DENNIS REED & CO                            0.00           395.00
  35748 BRITISH TELECOM                           305.72           305.72
  41779 LONDON ELECTRICITY                       1635.08          1635.08
  54228 WARDOS HIRE SERVICE                         0.00             0.00
  54637 INTERNATIONAL COFFEE CO                     0.00            93.40
  57261 NORTH THAMES GAS                            0.00             0.00
  61248 CONRAD PUBLICITY                            0.00           800.00
  63249 SCRIPTS LTD                                67.30           187.30
  67168 LEWIS LEWIS & LEWIS                         0.00           540.00
  81637 CONCORDE CATERING EQUIPMENT                 0.00             0.00
  84619 INTERNATIONAL FREIGHT CO LTD              -35.27            95.00
Key Columns, Inspect, Options, Scroll, <CR> for next, <ESC> to exit
```

Figure A1 - Viewing the First Screen of a Report

```
------------------------------ OPTIONS ------------------------------

  Title SUPPLIER TURNOVER

---------------------------------------------------------------------

  Display

  Pause printing condition (1-5) 3    (1 = at end of report,
                                       2 = find text string,
                                       3 = don't stop at all,
                                       4 = stop at page number,
  Display report while printing? N     5 = stop after each screenful.)

---------------------------------------------------------------------

  Spool      Name Turnover             Unit $PR           Priority

             Copies                    Hold N             Password

---------------------------------------------------------------------
Key Title, Display, Spool, <CR> to continue, <ESC> to exit
```

Figure A2 - The Options Screen

Key V to view the first screenful of the report, if that much has been printed. See the section on viewing the report for further details.

RETURN takes you back to the previous prompt, and ESCAPE allows you to cancel the printing of the report.

The Options screen
Keying O to the first baseline prompt causes the screen illustration in figure A2 to appear. This enables you to change the title of the report, and the screen and spool options from their default settings.

You are prompted on the baseline as follows:-

Key Title, Display, Spool, <CR> to continue, <ESC> to exit:

Key T to change the title of the report to be printed. Up to 67 characters are permitted.

Key D to alter the Display options, and you are prompted for the following items:-

Pause printing conditions (1-5) Refer to the table opposite for the meaning of the various print options.

Display report while printing? You have the option to key Y or N, as required. Note that the default here changes according to your reply to the previous prompt. Also, displaying the report while printing will slow down the printing considerably.

Switch screen into wide mode? This prompt only appears on screen with a wide mode facility, one that can display compressed characters in order to fit a report of 132 characters in width on the screen. Key Y or N as required.

Key S to alter the Spool options, and you are prompted for the following items:-

Name The file name of the report to be printed, as it will appear on the spooler, can be changed at this point. Up to eight characters can be used. Note that selecting the Unit, Priority, Copies, or Hold options causes the last four characters of the report file name to be blanked out, with replacements appearing according to your choice. The Priority, Copies and Hold options only work under V6.0 and later of the System Manager.

Unit The printer unit used can be changed too, if necessary.

Priority Press RETURN to accept the default priority displayed, or select an alternative spooler priority number in the range 1 to 9. If you alter the default, the new priority will be reflected in the 8th character of the report file name. Note that if you change the priority, you will not be able to put the report on Hold as well.

1 At end of report *Display report while printing?* **N** Report is printed but not displayed. If you are printing to a spooler, an options prompt appears at the end allowing you to inspect the report on screen or abandon it if necessary. *Display report while printing?* **Y** Report is displayed on screen while printing. If printing to a spooler, options are now available to inspect report or abandon it at the end.
2 Find text string *Display report while printing?* **N** Enables you to search for a string of up to 15 characters. When the first occurrence of the string is found, the line on which it occurs is highlighted and displayed as the first report entry on screen. You can inspect the report on screen, change the display options, continue or abandon the print. *Display report while printing?* **Y** Report is displayed as it prints, but stops at the screenful containing the first occurrence of the searched-for string, which is highlighted. You can inspect the on-screen report, change screen options, continue printing and displaying the report, or abandon it.
3 Don't stop at all *Display report while printing?* **N** (The default.) Report is printed in the standard fashion, but can be interrupted for inspection or to change display options. *Display report while printing?* **Y** Report is displayed as it prints, and can be interrupted at any point for inspection, altering display options, or for abandoning the print.
4 Stop at page number *Display report while printing?* **N** Report is printed up to but not including the page specified, which is displayed. At this point, a prompt appears, allowing you to inspect the report or change display options. *Display report while printing?* **Y** Report is displayed as it prints up to but not including the page specified. At this point, you can inspect the report, alter display options, continue printing or abandon the print.
5 Stop after each screenful Report is displayed as it prints. As each screenful is printed, you can inspect the report as printed so far, alter display options, continue or abandon the print.

PAUSE PRINTING CONDITIONS

Copies Press RETURN to accept the default number of copies, or select another number of copies in the range 1 to 99. If you alter the default number of copies, the number chosen will appear in the position of the 6th and 7th characters of the report file name.

Hold Press RETURN to accept the default N, in which case the report will be scheduled for printing in the normal way. If you haven't altered the Priority (see above), you can key Y to hold the report on the spooler. If a priority has already been set up on the spooler, it will override this instruction. Note that if you choose Y, an H appears in the position of the 8th character of the report file name.

Password Type a password of up to eight characters which can be used to prevent unauthorised access to the report, or press RETURN to leave the report unprotected. This facility can only be used when printing to disk units.

When you have selected the Title, Display or Spool options you require, press RETURN to continue and print the report in accordance with the parameters selected, or press ESCAPE to abandon the report.

Viewing the report
If you key V to the View prompt, the first screenful of the report is displayed on screen. Users with the System Manager V6.0 or later will be able to use <SYSREQ> L or <SYSREQ> R to access the left or right hand sides of the screen respectively.

In order to fit each 132 column report onto a typical 79 or 80 column screen, certain columns will be truncated or omitted: vertical lines on the screen indicate the break points. Users of screens with a wide mode capability can alter the Display options (see previous page) in order to display the entire width of the report on one screen.

You are prompted on the baseline as follows:-

Key Columns, Inspect, Options, Scroll, <CR> for next,
<ESC> to exit:

This offers you a number of choices:-

Columns Key C to cause a horizontal line of xxxs to appear (initially over the first entry of the report) as well as the following baseline prompt:-

Key a space to suppress column, x otherwise,
<CR> to end. <Excess chars *xx*>:

The xxxs mark the columns to be displayed on screen, and spaces indicate those to be suppressed. Using this facility, you can omit columns you don't want to look at, so that only relevant information appears on screen, or you can cause columns that occur several fields apart to appear side by side for comparison.

The *xx* in Excess chars stands for the number of characters outstanding in the width of the report which will not fit onto your screen. Each time you press the space bar to suppress a column, one will be subtracted from this number.

At this stage, users without wide screen facilities can key HOME, which will cause the screen to fill with the next width of data. Cursor and tab keys can be used to move to the appropriate points along the line, as well as up and down the screen. In addition, certain function keys may be used:-

F1 reinstates the xxxs to the right of the cursor

F2 reinstates all the xxxs on the line

CLEAR will erase the xxxs to the right of the cursor

The column suppression line is not fixed on the top line of the report entries on the screen, but can be positioned wherever you require by using the cursor up and down keys. Note that using the Columns option does not affect the layout of the actual printed report in any way, although you can print out individual screens using the screen print facility <SYSREQ> P.

Like the Inspect facility, Columns is only available to those users who can use the system request function (see page A-3).

Inspect Key I to cause the following prompt to appear:-

Key nnn/-nnn, Columns, Find, Page, Resume:

This contains a number of options for looking at and manipulating data on screen, provided that it has already been written to disk. Inspection facilities are not available when printing directly to a printer, or when using a version of the System Manager without the user system requests.

You can check if the user system request facility is available on your V6.0 System Manager by pressing <SYSREQ> followed by the letter E. If you obtain a prompt 'SYSTEM REQUEST', then this facility is available and you can use the Inspect function.

You can move from screen to screen, go to a particular line or page, search for a particular character string, or use the Columns options explained above. These facilities are described in detail in the section entitled *Features of the Inspect option.*

After causing either the next screenful or next few lines of the report to appear, the prompt changes to include an additional option to press RETURN for the next screenful.

When the end of the report is reached, this option changes to press RETURN to go back a screen.

Options Key O to get the Options screen appearing again (see figure A2); the facilities available there have already been described above.

Note that because you are now viewing the report, you will only be able to change the Display options, not Spool options, as at the outset. If you have reached the end of the report and you choose Options, it will only be possible to view the Options screen, you will not be able to change either set of parameters.

Scroll Key S to look through the whole report, which will automatically appear, screenful by screenful, until the end is reached.

RETURN Press RETURN to continue to obtain the next screen of the report, with the same baseline prompt as on the first screen. Press RETURN repeatedly to reach the end of the report and the prompt:-

Key Abandon, Columns, Inspect, Options, <CR> to print:

By keying I to inspect at this point, you can manipulate the text and go back to the beginning of the report if necessary.

ESCAPE Press ESCAPE to cause the following baseline prompt to appear:-

Key Abandon, Print up to here,
<CR> to continue printing:

Pressing ESCAPE to abandon the report and exit from the report viewing options; the baseline message, 'Report cancelled' will appear.

Keying P causes as much of the report as has appeared on screen so far to be printed.

Pressing RETURN causes the View options baseline prompt to appear again (see figure A1).

Features of the Inspect option
Additional facilities offered by accessing Inspect are as follows:-

nnn/-nnn Key the number of lines you wish to jump over to get to a certain line in the report, which will then be displayed on screen as the first report entry. To go back rather than forward, key in a negative number. Key + or - on their own to go forward or back a screen.

Find Key F to find a string of up to 15 characters. Note that the Find facility is case-sensitive. If the string is found, the line in which it occurs will appear highlighted as the first report entry on the screen. To find the next occurrence of the same string, press RETURN twice.

If the string cannot be found, then the message NOT FOUND will appear at the foot of the screen.

Note that even if the searched-for string is in a suppressed column and does not appear on screen, the line in which it occurs will be highlighted and become the first report entry. To examine it, you can use the Columns option.

Only those parts of the report that have been printed can be searched.

Page Key P to go to a particular page of the report on screen, by keying in the appropriate page number. Like Find, this function operates on parts of the report that have already been printed, and not on those that haven't.

Resume Key R to exit from the Inspect option, to go to the point in the report at which you entered Inspect and get the following baseline prompt:-

Key Columns, Inspect, Options, Scroll, <CR> for next,
<ESC> to exit:

This prompt also appears when you choose the View 1st screen option.

Note that pressing ESCAPE at this point has the same function as Resume.

RETURN If this option appears, press RETURN to view the next screenful of the report, if there is one, and if there isn't, press RETURN to view the previous screen.

Finally, if you want to edit a report or part of a report using Global Writer, then you can do so by assigning $BW and BWA to appropriate units on your system. Having Writer as an option causes the following baseline prompt to appear:-

Key Amend, Options, View, Writer, <CR> to print,
<ESC> to exit:

Note that if you have used the Writer option to print a report the next time you want to print another report using the Writer option, the following prompt appears:-

PRINT FILE ALREADY EXISTS ON *uuu*. Key Delete,
<CR> to retry, <ESC> to exit:

Where *uuu* is the unit assignment for the Writer work unit.

Key D to delete the existing print file and print the latest version of the report instead.

Pressing ESCAPE will cause the following baseline prompt to appear, and the options it contains have already been documented:-

```
Key Options, View 1st screen, Writer, <CR> to print,
                                        <ESC> to exit:
```

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APPENDIX B FILE STRUCTURE DEFINITIONS

This section describes the file structures and relationships for Global Sales Analysis V6.1. It is intended mainly for use by those developing their own tailored reports (the V6.1 S.O.P. or Invoicing file structure definitions may be useful here) or for third party developers wishing to include the Sales Analysis subsystem inside their own package.

Please note that file structures and relationships may alter from one release of the software to the next; the notes below refer only to the product and version number specified above.

File name: **SAPARM**
File description: Sales Analysis parameters and control
Organisation: Relative sequential
Record length: 512

General information:

The SAPARM file holds the additional system parameters introduced for Sales Analysis. It also holds a number of fields deduced from the system parameters which index into individual records in the database and allow the information held there to be interpreted correctly.

File structure:

The file contains 3 records.

File linkages:

None.

Record formats:

The file has three record formats:-

S1 - Record number 1	holds date information and the location, length and age of information currently held in the database.
S2 - Record number 2	holds system parameters which will be applied by end of year/consolidate database.
S3 - Record number 3	holds journal sequencing and control totals.

NB These books confusingly refer to the summary data records SC and SP as S1 and S2 respectively. All fields in the file SAPARM refer to data kept in the SALESAN database, so it should be quite obvious what each field really means. One pitfall to avoid is the assumption that record S1 contains information about the SC record set and S2 about SP - this is not the case.

File name: **SAT**
File description: Sales Analysis Interface file
Organisation: Relative sequential
Record length: 90

General information:

The SAT file contains information from each detail line from every invoice or credit note. This information is extracted by close session. This file is also marked by end of year in sales ledger to indicate that the consolidate database function in Sales Analysis must be run.

File structure:

The SAT file holds one header record (TH), one batch date header record for each close session (TD) followed by one record for each credit note line or invoiced detail line (ST). It is extended by close session and optionally purged (completely) by deferred posting. If the file becomes full during close session it is closed as if no records had been written to it during the extract phase; after reallocation all these records will be re-written without duplication.

The first record is always a TH record, and the second is always a dummy TD record. The TD records are linked together in reverse order; so the TD record 2 points to the last TD record added to the file, which points to the one before it, and so on. Hence this file may contain information collected over several close sessions, which allows the backup cycle of sales analysis to be decoupled from the process of closing session. Note also that record 2 may point to itself to indicate an empty file.

File linkages:

None.

Record formats:

The file has three record formats:-

TH - The header record	this holds a table of period end dates and some batch sequence numbers to ensure it matches with the SAPARM file.
TD - Batch date record	this holds the date and number of the following batch.
ST - Detail record	this contains information from a single detail line.

File name: **SALESAN**
File description: Sales Analysis database
Organisation: DMAM
Record length: n/a

General information:

The SALESAN file holds up to three sets of historical data, keeping an analysis history to three levels of detail. It also holds two budget sets.

File structure:

The file contains five record sets:-
- A detail line database,
- Two summary databases, holding monthly totals
- Two user-defined budgets with monthly totals

File linkages:

Fields on all five databases are used to access the S.O.P. data to retrieve descriptions which are not retained on the database.

Record formats:

The database uses only two copy books to define its contents. The summary and budget databases use book SR, but set the type field to one of SC, SP, BC, or BP. The DR copy book defines the layout of detail records.

The detail line database is only present if S1DLRQ is positive. The detail line database may be indexed on up to 3 indexes:-

DLUNIQ	(ICFG,ICNO,IDTE,ILNO)	* Always present.
		* ICFG is descending.
DLPRCU	(PROD,CUST,IDTE)	* If S1DLPI positive.
DLCUPR	(CUST,PROD,IDTE)	* If S1DLCI positive.

The summary databases are only present if S1S1RQ or S1S2RQ is positive. They may be indexed on up to 2 indexes:-

SCCUPR	(CUST,PROD,IDTE)	* Always present.
SCPRCU	(PROD,CUST,IDTE)	* If S1S1PI positive.

The budget databases are always present, but of course may be empty. They have only one index, always present, being BCCUPR or BPCUPR.

Reporter extract file definition
The reporter extract file is a simple RSAM file containing a header record followed by a detail record for each different set of key values found:-

```
.BOOK EH       * Reporter extract file header record
  02 &&TYPE             PIC X(2)
  02 FILLER             PIC X(2)
  02 &&FFFG             PIC 9 COMP * File full flag
  02 &&PEDT OCCURS 39   PIC 9(6) COMP * Period end dates
.END

.BOOK ER       * Reporter extract file record
  02 &&TYPE             PIC X(2)
  02 FILLER             PIC X(2)
  02 &&KEYA             PIC X(45) * Key area
  02 &&DATA
    03 FILLER OCCURS 39
      04 &&COST         PIC S9(11,2) COMP  * Cost
      04 &&DISC         PIC S9(11,2) COMP  * Discount
      04 &&NET          PIC S9(11,2) COMP  * Net
      04 &&UNITS        PIC S9(10,3) COMP  * Units
.END
```

The period end date table should be terminated by a zero date to indicate that the data table is not full. The key area is a simple concatenation of the requested report keys. You should probably edit the ER copy book to the required key layout before passing the above copy books to reporter. If the flag FFFG is positive, you should print a severe warning on the report to indicate that there was insufficient space in the data file to post all the sales analysis data.

The detail line database has a very simple layout and can be accessed by Global Reporter directly. The budget databases are also relatively simple, using just a SR record with SRVALUE only being used 12 or 13 times (S1NPPY), and the record length shortened accordingly. The summary records, however, require some not insignificant amount of interpretation.

Summary record data areas
The following paragraph will describe in detail how to access data from a summary record from the first summary database. Simply replace S1 by S2 and SC by SP where necessary if you wish to access the second database which is completely identical.

The database should not be opened if S1S1RQ is zero.
It may be opened using index SCPRCU if S1S1PI is positive.
It may always be opened on the index SPCUPR.

Fields which are not maintained on the database (see page 4 of system parameters) are set to the value #7FFFFF... so that they will appear in a predictable place in the report (the end).

The data area is used to hold four blocks of cost, discount, turnover, and then unit information. To allow the user to tailor the number of years to keep each of the above four blocks, the S1 record contains base and maximum values for each set which need to be used to inspect the data.

The base value (eg S1S1CB) is set to *one less than* the first occurence of SRVALUE which is holding a cost figure. A particular monthly figure is only available if the month number is less than or equal to the maximum value (eg S1S1CM). Note that the maximum figure may be zero to indicate this data is not being kept.

Period end dates are held in reverse chronological order, so that the last month's figure of one fiscal year is always next to the first month's figure in the next year. Thus the start of the current year (S1SOYP(1)) will normally be 13, and the current period number (S1CPRD) less than or equal to this.

The current year corresponds to S1CPRD..SASOYP(1), and prior years to SASOYP(Yr-1)+1 .. SASOYP(Yr). For example:-

```
    IF S1CPRD NOT > S1S1TM        * Turnover is held
        ADD S1CPRD TO S1S1TB GIVING J
        ADD SRVALUE(J) TO CURRENT * Total this period
    END  ... check for next record...
```

APPENDIX C DATABASE SIZE ESTIMATION.

The complex structure of the Sales Analysis database makes any size estimation quite difficult, and the following guidelines are based on space requirements for fully reorganised files. It is not really practical to produce an algorithm into which you may feed your own estimations, except to estimate the number of records. By not collecting some of the keys on a summary database (see screen 4 in system parameters), the space required for an index will be reduced. The following figures are based on an operation which processes about 30,000 invoices and credit notes per year, with an average of two lines per transaction. The data set contains about 500 customers and 500 products. In practice, we suggest you make a rough estimate, and check how much has been used after a few months.

The sizes for each of the following must be added together to give the final data size of the SALESAN database. Note that each of the following databases are optional.

The Detail Line Database
For 60,000 detail lines, the following space is required:-

Basic data area	5M
Unique index	1M
Customer/product index	3.5M (Optional)
Product/customer index	3.5M (Optional)

Thus the database must be at least 6M in size, but will require 9.5M if you respond Yes to any one of the following questions on the second screen of system parameters in either of the following two sets:-

a. Do you wish to use the product enquiry function from information on the detail database?

   Do you wish to see invoices during product enquiry?

   Do you wish to be able to locate an invoice during invoice enquiries and reclassification journals by selecting a specific product?

b. Do you wish to use the customer enquiry function from information on the detail database?

   Do you wish to see invoices during customer enquiry?

   Do you wish to be able to locate an invoice during invoice enquiries and reclassification journals by selecting a specific customer?

Of course, if you have one or more replies of Yes in both sets, you will require the full 13M data space. The above calculations assume that you keep details for one year. If you keep them for more or less time, you must adjust the database size in proportion.

The Summary Databases
The size of these is very difficult to estimate accurately, because it depends on the mix of sales made.

You need to estimate the number of different combinations of key values for which orders will have been made. For example, if you are keeping data for Salesperson by Classification by Product Group the maximum possible number of values is:-

(number of salespeople) x (number of customer classes) x (number of product groups)

However, this is probably a gross overestimate. Salespeople may be responsible only for certain customer classes or product groups, and some products may never be sold to certain classes of customer. On the other hand, if you are keeping figures for five years it is the total number of salespeople employed during the five years that is important.

The record size can be calculated as follows (this size includes an allowance for indexes). Let:-

```
N = number of sets of yearly figures kept
  = number of years turnover
    + number of years units
    + number of years costs
    + number of years discounts
P = 60 if product index is kept, 0 otherwise
```

Then the record size is:-

140 + (52 x N) + P

The database size is then:-

(number of records) x (record size)

Obviously, this calculation must be done for both databases if two are to be used.

As an example, suppose you are keeping a summary database of customers by product group, including salesperson information with turnover kept three years and the other figures one year. You have 500 customers, ten product groups and twenty salespeople. During three years, each customer might, on average, order from half the product groups and have two different salespeople. In addition, over three years you expect 200 of your customers to be replaced by new customers. Thus the number of different key values will be:-

```
 customers       av.prod.groups    av.salespeople
(500 + 200)   x    (1/2 x 10)    x       2        =      7000
```

The record length (assuming year to date figures but no product index) is:-

140 + (6 x 52) + 42 = 494

giving a database size of 494 x 7000 = 3.5 Mb

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INDEX

The index is not intended to be exhaustive - only the first or most important occurrences of a term are referenced. For words beginning with a $ sign consult page IX-4.

READERS' COMMENTS

Every care has been taken to make this Global 2000 software manual as clear, accurate and complete as possible. However, if you feel you can help us improve it please make your suggestions on the form provided below and return it to your dealer or to the Technical Editor, TIS Software Limited, 87-89 Saffron Hill, London EC1N 8QU.

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