



HEWLETT-PACKARD CALCULATOR

**9830A ACCOUNTING SYSTEMS
ACCOUNTS RECEIVABLE-BILLING PAC**

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HEWLETT  PACKARD



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Introduction

This system was developed to provide the user with a very easy to operate, sensible approach to Accounts Receivable/Billing. Throughout the manual, it is assumed that the reader is knowledgeable about Accounts Receivable/Billing, but has no expertise in computers or programmable calculators.

You can start using the system immediately beginning with the Start-Up Procedure in Appendix A and followed with the Operation Section, however, we recommend investing enough time to read the Special Considerations Section. The Special Considerations Section outlines a number of useful hints to increase the efficiency of the operation and expand the flexibility of the system.

The system is for a non-technical, non-programming user, but we feel there are a number of users who would like to know some of the details of the system and have the tools to modify some of the programs. Appendices B through E are provided for this user. Complete listings of all data entry programs and report programs are provided to assist the user in making modifications. There are no listings of the programs that manipulate the data because a seemingly simple change in one of these programs could affect the operation of the system.

We would appreciate any comments or suggestions you have regarding this Pac. Full responsibility for the good features of this system belongs to the programmers, Kay Piersol, Bob Jewett and Jeff Osborne.

Ron Vernon
Bert Desmond

Accounting Applications
HEWLETT-PACKARD
Loveland, Colorado

System Configuration

MODEL 30 CALCULATOR

- 1760 Words RWM, Basic Calculator
- 3808 Words RWM, Option 275
- 7904 Words RWM, Option 276

ROMS

String Variables	

PERIPHERALS

SELECT CODE

- | | |
|-----------------------------------------------------------------------------------|----|
| <input type="checkbox"/> 98 A Card Reader..... | |
| * <input checked="" type="checkbox"/> 9861A Typewriter..... | 15 |
| <input type="checkbox"/> 9862A Plotter..... | |
| <input type="checkbox"/> 9863A Paper Tape Reader..... | |
| <input type="checkbox"/> 9864A Digitizer..... | |
| <input type="checkbox"/> 9865A Cassette Memory..... | |
| * <input checked="" type="checkbox"/> 9866A Thermal Page Printer..... | 15 |
| <input type="checkbox"/> 9867 Mass Memory Drive (Unit No.)..... | |
| <input checked="" type="checkbox"/> 9880B Mass Memory System (Unit Nos. 0,1)..... | |
| <input type="checkbox"/> | |
| <input type="checkbox"/> | |
| <input type="checkbox"/> | |
| <input type="checkbox"/> | |

* The system's reports are designed so they can be printed using the 9866A Thermal Page Printer. However, if typewritten reports are desired such as for customer statements and past due letters, the 9861A Typewriter is necessary.

Special Considerations

INTRODUCTION

The purpose of this section is to provide a collection of operating suggestions for helping the user increase the value of the system.

A question, answer format is used to make it easy for the reader to decide if a question is of interest before continuing.

What if I make a mistake in one of my entries?

Don't worry, the system is very forgiving.

If the error has already been entered, an appropriate edit program can be used.

If you see the mistake in the display before it is entered there are two alternatives. The CLEAR key in the upper right hand corner of the typewriter keyboard will erase the display and a question mark will appear indicating it is waiting for the entry.

The second alternative is using the edit keys above the typewriter keyboard and to the right of the template keys. The BACK, FORWARD, INSERT and RECALL keys are simple to use yet very powerful and will make corrections of mistakes easy to make and faster than the CLEAR key. Refer to the Program Editing section of the 9830 Operating and Programming Manual for information on these keys.

I know the data entries have acceptable ranges, what happens when I exceed these ranges?

Like the rest of the system, these problems are handled easily. There are two types of mistakes in this case; the first is exceeding the range of numeric entries, and the second is entering alphanumeric entries that have too many characters.

If the numeric range is exceeded, the entry will not be accepted and the appropriate question is asked again through the display. Another situation is entering an alphanumeric for a numeric. If the first character entered is a non-numeric, the entry is ignored and a question mark appears in the display. If an alphanumeric character appears after some numerics, the numbers up to the non-numeric character are accepted as the entry. If this is a mistake, correct it with the appropriate edit program.

When an alphanumeric entry is longer than the acceptable length, the calculator will "beep" and a message will appear in the display, "ERROR 74 IN LINE < NO > ?". The question mark indicates that the information should be re-entered shortened to the correct length.

(SPECIAL CONSIDERATIONS - Continued)

Although, we already have a scheme for keeping track of items, (parts, customers, vendors, etc.), do you have any suggestions for this system ?

It is not necessary to change item numbers to use the system, however, experience has shown that the following recommendations are very helpful.

- A. Layout the items in the order you want them kept, (alphabetic for customers and vendors).
- B. Start numbering with a large enough number so each item will have the same length, (item 10000 is a good starting point).
- C. Assign numbers by tens so a reasonable sequence can be maintained when new items are added. For example, if the first number is 10000, the second number should be 10010.

It's obvious how easy it is to start an operation, all I have to do is touch the appropriate key. What do I need to do to get out of an operation ?

Reports and updating are very simple, when the operation is complete, you may select another operation when "SELECT KEY" is in the display. On data entry and editing, a zero entry for a main item is used as the signal to the system to indicate the operation is complete.

The entry message in the display for a main entry will be followed with, "(0 TO END)", to indicate it is a main entry.

I'm scared, with my luck I know I'm going to wipe-out one of the important files. What can I do ?

Simple, the system has been designed with the dual platter 9880B Mass Memory especially for the purpose of providing backup. You'll notice in the initial setup of the system we recommend that the system be established on two platters.

This lets one platter be used for day to day operation while the other platter is stored safely away in reserve. To copy important files from one platter to the other, the BACKUP key is available. At the touch of a button, the important files are copied.

By the way, the system is written with the removable platter designated as Unit 0 and the fixed platter as Unit 1. When the system is delivered, it should be set up this way.

I'm really clumsy, the keys for operating the system are close enough that I'm sure I'll hit the wrong one. What will happen ?

All the keys are setup so the display shows, for a few seconds, what is going to happen. If you hit a wrong key you'll see it in the display. Just touch the STOP key to correct the mistake and press the correct button.

(SPECIAL CONSIDERATIONS - Continued)

What happens when the system tries to print a number in a report that is too large to fit into the space provided?

Enough room has been set aside in the reports to fit the majority of numbers however, it could happen that a number is larger than the reserved space. In this case, the calculator prints dollar signs (\$) instead of the number.

If this occurs, it most likely means there has been a mistake in one of the data entries. Use the appropriate edit program to correct this.

If the number is realistic, and too large to be printed, the reporting program can easily be corrected by someone familiar with BASIC.

How can I get reports on another printing device?

All of the reports generated by the system are printed on the primary printing device which has a select code of 15. There may be occasions when certain reports should be printed on another printing device which has a select code other than 15. This situation can be handled very easily.

All the data entry and reporting programs are listed in Appendix D. In the beginning of the report programs, the select code is determined in a statement that says S = 15. To correct this, GET the appropriate program, change the select code statement, "KILL" the program name and "SAVE" the required program with the correct name. Refer to the Mass Memory Operating Manual for information on the GET, SAVE and KILL commands.

The thermal printer is very nice, it's quiet, fast and good looking. The only problem is I want all my reports to be eleven inches long and I don't want to use scissors to cut each report to the correct length. What should I do?

On each report that is more than one page (66 lines) long, the printer spaces to the end of a page and pauses for three seconds while the display shows, "TEAR PAPER NOW". This gives you the opportunity to tear the paper on the run. In addition, a small dash, " - ", is printed every eleven inches as a guide for cutting the report.

What is a quick way to determine the status of any record stored on the system without generating a lengthy report?

The appropriate edit key is very useful for rapid inquiry to the status of an invoice. The edit program will show the information on the particular record and all you have to do is respond negatively to the correct record question.

(SPECIAL CONSIDERATIONS - Continued)

How can I make changes to the programs?

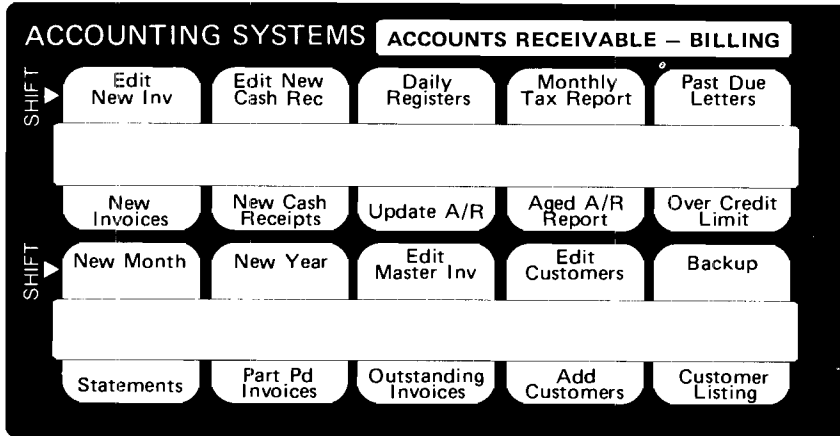
To simplify making modifications to the system, Appendices B, C, D, and E list complete information about the system for a programmer's convenience. All data entry programs and report programs are listed for this purpose.

The data manipulation programs are not available for the user to modify because they are very inter-related and a seemingly minor change in one program could easily effect the whole system and make it inoperative.

How many customers and invoices can the system hold?

The system has been designed so that one platter holds up to 800 customers in the customer file, 800 invoices in the master invoice file, 100 new invoices in the new invoices file, and 100 new cash receipts in the cash receipts file.

Daily Start-Up Procedure



DESCRIPTION:

This procedure outlines how to start Accounts Receivable/Billing on a daily basis. See Appendix A for the instructions on initially setting up the Accounts Receivable/Billing System.

The Daily Startup Procedure performs two functions, it establishes the date to be printed on all reports and the procedure activates the Special Function Keys to perform Accounts Receivable/Billing.

In most situations, the Mass Memory platter that is used is Unit 0. However, if it is not zero, the correct unit number, either 1, 2 or 3 must be established. For more detail on unit numbers refer to the Mass Memory Operating Manual.

Acceptable Data:

Today's Date

72 Characters Maximum ¹

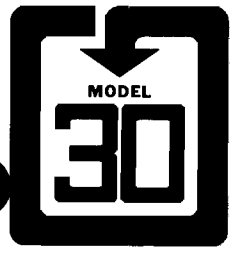
¹If the maximum length is exceeded, the calculator will "beep" and "ERROR 74" will appear in the display followed by a question mark. Re-enter the data shortened to the correct length.

DAILY STARTUP PROCEDURE

USER INSTRUCTIONS:

1. Enter: SCRATCHA
Press: EXECUTE
2. Enter: UNIT
Enter: The correct unit number
Press: EXECUTE
3. Enter: GET "BILL"
Press: EXECUTE
4. Press: RUN
Press: EXECUTE
5. When "TODAYS DATE?" is displayed:
 - a. Enter: The date as you wish it to appear on your reports.
 - b. Press: EXECUTE
6. The display should now contain "SELECT KEY". Any appropriate key may now be pressed as described on the following pages.

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NEW INVOICES

ACCOUNTING SYSTEMS		ACCOUNTS RECEIVABLE – BILLING				
SHIFT	▶	Edit New Inv	Edit New Cash Rec	Daily Registers	Monthly Tax Report	Past Due Letters
		New Invoices	New Cash Receipts	Update A/R	Aged A/R Report	Over Credit Limit
SHIFT	▶	New Month	New Year	Edit Master Inv	Edit Customers	Backup
		Statements	Part Pd Invoices	Outstanding Invoices	Add Customers	Customer Listing

DESCRIPTION:

This program allows the user to add new invoices to the new invoice file. Each customer number entered is checked against the customer file to insure that the customer number corresponds to a valid customer. The discount taken is calculated for each invoice. This discount taken is calculated using the bill amount plus the service charge multiplied by the discount percent; it is then printed into the file. A maximum of 100 invoices can be entered in the new invoice file before running an update.

Enter new invoices before entering new cash receipts, since the new cash receipts uses the new invoice file to verify customer number - invoice number combinations.

After all the invoices are entered, the file is sorted by customer number - invoice number. It is recommended that this program be run in "print all" mode in order to have a printed copy of the actual entries.

It may take up to 10 minutes with 100 invoices.

(NEW INVOICES - Continued)

Acceptable Data:	Invoice Number	Maximum of 8 digits. ¹
	Customer Number	Maximum of 8 digits. ¹
	Date (M/ D/Y, Ø for today)	Maximum of 10 characters Month/ Day/ Year or Ø. ²
	Freight	Greater than or equal to zero. ¹
	Service	Greater than or equal to zero. ¹
	Discount %	Greater than or equal to zero. ¹
	Purchase Order Number	Maximum of 14 characters or digits. ²
	Finance %	Greater than or equal to zero. ¹

¹ If the above capabilities are exceeded, "ERROR, RE-ENTER(User Name)" will be displayed followed by a question mark. Also, if the user enters an alphanumeric item to a question requesting a numeric response, a question mark is displayed. Re-enter the numeric item in either case.

² If the entry exceeds the number of characters allowed, "ERROR 74" will be displayed, followed by a question mark. Re-enter the item in shortened form. If a non-reasonable date is entered then "ERROR RE-ENTER (User Name)" is displayed. Enter the date correctly. Non-reasonable is a month that is not 1 to 12, or a day that is not 1 to 31, or a year that is not 70 to 99.

NEW INVOICES

USER INSTRUCTIONS:

1. Press: The accounting systems key labeled "NEW INVOICES" (f₀).
2. When "ENTER TODAYS DATE (M/D/Y)?" is displayed:
 - a. Enter: The date that will appear as the date billed on the majority of the new invoices. M = Month, D = Day, Y = Year. For example: January 31, 1974 is entered as 1/31/74.
 - b. Press: EXECUTE.
3. When "ENTER INVOICE NUMBER (Ø TO END)?" is displayed:
 - a. Enter: The invoice number.
 - b. Press: EXECUTE.

Note: To end entries to the new invoice file:

 - a. Enter: Ø.
 - b. Press: EXECUTE.
 - c. Go to step 11.
4. When "ENTER CUSTOMER NUMBER?" is displayed:
 - a. Enter: The customer number.
 - b. Press: EXECUTE.

The customer number entered is checked against the customer file to insure that it corresponds with a valid customer. If it is not a valid customer:

 - a. "(Customer Number) INVALID CUSTOMER" is printed.
 - b. Go to step 4.
5. When "ENTER DATE (M/D/Y, Ø FOR TODAY)?" is displayed:
 - a. Enter: The date billed; M = Month, D = Day, Y = Year. For example: January 31, 1974 is entered as 1/31/74.
 - b. Press: EXECUTE.

Note: If the date billed is the date entered in step 2:

 - a. Enter: Ø.
 - b. Press: EXECUTE.
 - c. Todays Date will be entered as the date billed.
6. When "ENTER FREIGHT?" is displayed:
 - a. Enter: The freight charge for shipment of the goods.
 - b. Press: EXECUTE.
7. When "ENTER SERVICE?" is displayed:
 - a. Enter: The service charge.
 - b. Press: EXECUTE.

(NEW INVOICES - Continued)

8. When "ENTER DISCOUNT %?" is displayed:
 - a. Enter: The percent discount, on the bill amount plus service, allowed if paid within 10 days. For example: If 2% is allowed, enter 2.
 - b. Press: EXECUTE.

9. When "ENTER PURCHASE ORDER NO?" is displayed:
 - a. Enter: The customer's purchase order number.
 - b. Press: EXECUTE.

10. When "ENTER FINANCE %?" is displayed:
 - a. Enter: The percent finance charge per month on all past due accounts. For example: If 1.5% will be charged for each 30 days past due, enter 1.5.
 - b. Press: EXECUTE.
 - c. Go to step 3.

11. After all the invoices are entered (Ø is entered as the invoice number or 100 new invoices are in the new invoices file):
 - a. The total of the bill amount, freight, and service will be printed for the user's verification.
 - b. Go to step 12.

If the control totals are incorrect:

 - a. When "SELECT KEY" is displayed (step 13):
 1. The user may press: "DAILY REGISTERS" to obtain a report of the daily registers.
 2. Press: EDIT NEW INV to edit the invoice with the incorrect values.

12. The new invoice file is sorted by customer number - invoice number.

13. "SELECT KEY" is displayed when the program is finished.

EXAMPLE

PRESS THE ACCOUNTING SYSTEMS KEY LABELED "NEW INVOICES" (P0)

GET "BILLS", 1, 1

NEW INVOICES

ENTER TODAY'S DATE (M/D/Y)?11/16/73

ENTER INVOICE NUMBER (0 TO END)?5000

ENTER CUSTOMER NUMBER?1000

ENTER DATE (M/D/Y, 0 FOR TODAY)?0

ENTER BILL AMOUNT?265.32

ENTER FREIGHT?12

ENTER SERVICE?6.52

ENTER DISCOUNT %?1

ENTER PURCHASE ORDER NO?4569

ENTER FINANCE %?1.2

ENTER INVOICE NUMBER (0 TO END)?5001

ENTER CUSTOMER NUMBER?1310

ENTER DATE (M/D/Y, 0 FOR TODAY)?0

ENTER BILL AMOUNT?45.12

ENTER FREIGHT?5.65

ENTER SERVICE?0

ENTER DISCOUNT %?0

ENTER PURCHASE ORDER NO?1236

ENTER FINANCE %?1

ENTER INVOICE NUMBER (0 TO END)?5002

ENTER CUSTOMER NUMBER?1200

ENTER DATE (M/D/Y, 0 FOR TODAY)?11/15/73

ENTER BILL AMOUNT?235.65

ENTER FREIGHT?12.5

ENTER SERVICE?23

ENTER DISCOUNT %?1

ENTER PURCHASE ORDER NO?7458

ENTER FINANCE %?1.2

ENTER INVOICE NUMBER (0 TO END)?0

CONTROL TOTALS - INVOICES

TOTAL BILL AMOUNT = 546.09

TOTAL FREIGHT = 30.15

TOTAL SERVICE = 29.52

SELECT KEY



NEW CASH RECEIPTS

	ACCOUNTING SYSTEMS		ACCOUNTS RECEIVABLE - BILLING		
SHIFT	Edit New Inv	Edit New Cash Rec	Daily Registers	Monthly Tax Report	Past Due Letters
	New Invoices	New Cash Receipts	Update A/R	Aged A/R Report	Over Credit Limit
SHIFT	New Month	New Year	Edit Master Inv	Edit Customers	Backup
	Statements	Part Pd Invoices	Outstanding Invoices	Add Customers	Customer Listing

DESCRIPTION:

This program allows the user to add new cash receipts to the new cash receipts file. Each customer number - invoice number combination is checked against the master invoice file and the daily invoice file to insure that the combination is valid. Because of this check, new invoices should be entered before new cash receipts.

A maximum of 100 cash receipts may be entered in the new cash receipts file before running the update. After all the new cash receipts are entered, the new cash receipts file is sorted by customer number - invoice number.

Adjustments are handled in the following ways, if the adjustment is positive, it is added to the invoice. In the same manner, a negative adjustment is subtracted from the invoice.

It is recommended that the program be run in the "print all" mode in order to have a printed copy of the actual entries. It may take up to 10 minutes with 100 cash receipts.

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(NEW CASH RECEIPTS - Continued)

Acceptable Data:	Invoice Number	Maximum of 8 digits. ¹
	Customer Number	Maximum of 8 digits. ¹
	Adjustment	Positive, negative or zero. ¹
	Date (M/D/Y, Ø for today)	Maximum of 10 characters Month/Day/Year or Ø. ²
	Cash Received	Greater than or equal to zero. ¹

¹ If the above capabilities are exceeded, "ERROR, RE-ENTER (User Name)" will be displayed. Also, if the user enters an alphanumeric item to a question requesting a numeric response, a question mark is displayed. Re-enter the numeric item in either case.

² If the above capabilities are exceeded, "ERROR 74" will be displayed, followed by a question mark. Re-enter the item shortened to the correct length. If a non-reasonable date is entered, then "ERROR, RE-ENTER (User Name)" is displayed. Enter the date correctly. Non-reasonable is a month that is not 1 to 12 or a day that is not 1 to 31 or a year that is not 70 to 99.

NEW CASH RECEIPTS

USER INSTRUCTIONS:

1. Press: The accounting systems key labeled "NEW CASH RECEIPTS" (f₁).
2. When "ENTER TODAYS DATE (M/D/Y)?" is displayed.
 - a. Enter: The date that will appear as the date paid on the majority of the new cash receipts.
M = Month, D = Day, Y = Year. For example, for January 31, 1974, enter 1/31/74.
 - b. Press: EXECUTE.
3. When "ENTER INVOICE NUMBER (Ø TO END)?" is displayed:
 - a. Enter: The invoice number.
 - b. Press: EXECUTE.

Note: To end entries to the new cash receipts file:

 - a. Enter: Ø.
 - b. Press: EXECUTE.
 - c. Go to step 8.
4. When "ENTER CUSTOMER NUMBER?" is displayed:
 - a. Enter: The customer number.
 - b. Press: EXECUTE.

The customer number - invoice number combination is checked against the master invoice file and the new invoice file to insure that it corresponds to a valid invoice. If it is not valid:

 - a. "(Customer Number - Invoice Number) INVALID CUSTOMER - INVOICE COMBINATION is printed.
 - b. Go to step 3.
5. When "ENTER ADJUSTMENTS?" is displayed:
 - a. Enter: The adjustment
Ø if no adjustment.
Positive + if the adjustment is to be added to the remaining balance.
Negative - if the adjustment is to be deducted from the remaining balance.
 - b. Press: EXECUTE.
6. When "ENTER DATE (M/D/Y, Ø FOR TODAY)?" is displayed:
 - a. Enter: The date paid.
 - b. Press: EXECUTE

Note: If the date paid is the date entered in step 2.

 - a. Enter: Ø.
 - b. Press: EXECUTE.
 - c. Todays date will be entered as the date paid.

(NEW CASH RECEIPTS - Continued)

7. When "ENTER CASH RECEIVED?" is displayed:
 - a. Enter: The amount of cash received.
 - b. Press: EXECUTE.
 - c. Go to step 3.

8. After all the new cash receipts are entered (\emptyset is entered as the invoice number or 100 cash receipts are in the new cash receipts file):
 - a. The total of the adjustment and cash received will be printed for the user's verification.
 - b. Go to step 9.

Note: If the control totals are incorrect:

 - a. When "SELECT KEY" is displayed (step 10):
 1. The user may press: "DAILY REGISTERS" to obtain a report of the daily registers.
 2. Press: EDIT NEW CASH REC, to edit the invoice with the incorrect values.

9. The new cash receipts file is sorted by customer number - invoice number.

10. "SELECT KEY" is displayed when the program is finished.

EXAMPLE

PRESS THE ACCOUNTING SYSTEMS KEY LABELED "NEW CASH RECEIPTS" (F1)

GET "BILL5",1,1

NEW CASH RECEIPTS

ENTER TODAY'S DATE (M/D/Y)?11/16/73

ENTER INVOICE NUMBER (0 TO END)?3698

ENTER CUSTOMER NUMBER?1020

ENTER ADJUSTMENTS?0

ENTER DATE (M/D/Y,0 FOR TODAY)?0

ENTER CASH RECEIVED?1686.25

ENTER INVOICE NUMBER (0 TO END)?4002

ENTER CUSTOMER NUMBER?1090

ENTER ADJUSTMENTS?-.24

ENTER DATE (M/D/Y,0 FOR TODAY)?0

ENTER CASH RECEIVED?60.00

ENTER INVOICE NUMBER (0 TO END)?2564

ENTER CUSTOMER NUMBER?1000

ENTER ADJUSTMENTS?0

ENTER DATE (M/D/Y,0 FOR TODAY)?11/15/73

ENTER CASH RECEIVED?625

ENTER INVOICE NUMBER (0 TO END)?0

CONTROL TOTALS - CASH RECEIPTS

TOTAL CASH RECEIPTS = 2371.25

TOTAL ADJUSTMENTS = -0.24

SELECT KEY





UPDATE A/R

ACCOUNTING SYSTEMS			ACCOUNTS RECEIVABLE - BILLING		
SHIFT	Edit New Inv	Edit New Cash Rec	Daily Registers	Monthly Tax Report	Past Due Letters
	New Invoices	New Cash Receipts	Update A/R	Aged A/R Report	Over Credit Limit
SHIFT	New Month	New Year	Edit Master Inv	Edit Customers	Backup
	Statements	Part Pd Invoices	Outstanding Invoices	Add Customers	Customer Listing

DESCRIPTION:

This key updates the outstanding accounts receivable with the new invoices and the new cash receipts. The system automatically prints the new invoices and the new cash receipts to provide an audit trail.

After establishing a reference date for calculating Aged Accounts Receivable, the system performs seven functions and with 800 customers, may take two hours to complete. The functions performed are listed below.

- a. It copies the customer information from the customer file to the new invoice file. It also calculates city tax, state tax and total amount billed.
- b. It then merges the invoices of the new invoice file with the master invoice file.
- c. The date paid, total amount paid, adjustments, remaining balance and discount taken (if applicable) are now calculated and this information is printed into the master invoice file.
- d. All records with a remaining balance equal to zero are deleted from the master invoice file, and the aged A/R (current, 30, 60, 90, total out) are calculated and printed into the master invoice file.
- f. The system is reset for the next operation or run.
- g. The daily registers (new invoices and new cash receipts) are printed.

Acceptable Data :

Today's Date

Month/Day/Year

Maximum Length 10 Characters¹

¹ If the maximum length is exceeded, the calculator will "beep" and "ERROR 74" will appear in the display followed by a question mark. Re-enter the data shortened to the correct length.

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UPDATE A/R

USER INSTRUCTIONS:

1. Press: The accounting systems key labeled "UPDATE A/R" (f₂).
2. When "ENTER TODAYS DATE (M/D/Y)?" is displayed:
 - a. Enter: Todays date M = month; D = day; Y = year.
For example January 31, 1974 should be entered as 1/31/74.
 - b. Press: EXECUTE.
3. The program is complete when "SELECT KEY" is displayed.

EXAMPLE

PRESS THE ACCOUNTING SYSTEMS KEY LABELED "UPDATE A/R" (F2)

GET "BILL7", 1, 1

UPDATE A/R

TODAYS DATE (M/D/Y)? 11/16/73

DAILY INVOICE REGISTER
NOVEMBER 16, 1973

CUSTOMER NUMBER =====	INVOICE NUMBER =====	AMOUNT BILLED =====	DATE BILLED =====	DISC PERC =====
1000	5000	297.11	11/16/73	1.00
1200	5002	285.29	11/15/73	1.00
1310	5001	55.67	11/16/73	1.00
	TOTAL	638.07		

CASH RECEIPTS REGISTER
NOVEMBER 16, 1973

CUSTOMER NUMBER =====	INVOICE NUMBER =====	ADJUST- MENTS =====	DATE PAID =====	CASH RECEIVED =====
1020	3698	0.00	11/16/73	1686.25
1080	2564	-0.77	11/15/73	625.00
1090	4002	-0.24	11/16/73	60.00
	TOTAL	-1.01		2371.25



AGED A/R REPORT

ACCOUNTING SYSTEMS		ACCOUNTS RECEIVABLE - BILLING				
SHIFT	▶	Edit New Inv	Edit New Cash Rec	Daily Registers	Monthly Tax Report	Past Due Letters
SHIFT	▶	New Invoices	New Cash Receipts	Update A/R	Aged A/R Report	Over Credit Limit
	▶	New Month	New Year	Edit Master Inv	Edit Customers	Backup
		Statements	Part Pd Invoices	Outstanding Invoices	Add Customers	Customer Listing

DESCRIPTION:

This program prints the aged accounts receivable information. Totals are calculated and printed for total outstanding, < 30 days, 30 - 59 days, 60 - 89 days, and > = 90 days. Percent of total outstanding is calculated and printed for < 30 days, 30 - 59 days, 60 - 89 days, and > = 90 days.

NOTE: Aged A/R Reports should be run before Past Due Letters are obtained, in order for the correct information to be printed in the report. If the Past Due Letters program is run before Aged A/R, the finance charge is added to the remaining balance and reprinted into the master invoice file. Because of this, the new remaining balance appears in the TOTAL OUT column, but will not appear in the aging column.

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AGED A/R REPORT
USER INSTRUCTIONS:

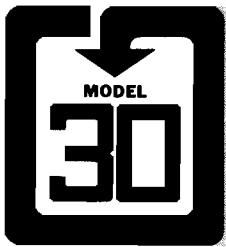
1. Press: The accounting systems key labeled "AGED A/R REPORT" (f₃)
2. The program is complete when "SELECT KEY" is displayed.

EXAMPLE

PRESS THE ACCOUNTING SYSTEMS KEY LABELED "AGED A/R REPORT" (F3)

AGED ACCOUNTS RECEIVABLE REPORT
NOVEMBER 16, 1973

CUSTOMER NAME =====	INVOICE NUMBER =====	TOTAL OUT =====	<30 DAYS =====	30-59 DAYS =====	60-89 DAYS =====	>=90 DAYS =====
ANDERSONS DAIRY	5000	297.11	297.11	0.00	0.00	0.00
ASMUS BOOK NOOK	3000	26.50	0.00	26.50	0.00	0.00
BALOG'S BAR	1526	732.61	0.00	0.00	0.00	732.61
	2589	637.94	0.00	637.94	0.00	0.00
CUSTOMER TOTAL		1370.55	0.00	637.94	0.00	732.61
BARNEY'S BOUTIQUE	2500	598.86	0.00	598.86	0.00	0.00
BODE'S BORDING HOUSE	2564	290.51	0.00	290.51	0.00	0.00
BRADEN'S ART SHOP	4002	100.00	100.00	0.00	0.00	0.00
CHURCHILL FORMS	1750	265.00	0.00	0.00	0.00	265.00
CONNELL PIZZA PALACE	1250	517.57	0.00	0.00	517.57	0.00
	1260	661.00	0.00	661.00	0.00	0.00
	2589	591.00	0.00	0.00	591.00	0.00
CUSTOMER TOTAL		1769.57	0.00	661.00	1108.57	0.00
BLASS GLASS FACTORY	1500	126.80	0.00	0.00	0.00	126.80
EAGLE'S BIRD STORE	5002	285.29	285.29	0.00	0.00	0.00
GUERRERO TAX DODGE	4003	185.14	185.14	0.00	0.00	0.00
HELLER SPORT SHOP	5001	55.67	55.67	0.00	0.00	0.00
TOTAL		5371.00	923.21	2214.81	1108.57	1124.41
PERCENT		100	17.19	41.24	20.64	20.93



OVER CREDIT LIMIT

ACCOUNTING SYSTEMS		ACCOUNTS RECEIVABLE - BILLING				
SHIFT	▶	Edit New Inv	Edit New Cash Rec	Daily Registers	Monthly Tax Report	Past Due Letters
		New Invoices	New Cash Receipts	Update A/R	Aged A/R Report	Over Credit Limit
SHIFT	▶	New Month	New Year	Edit Master Inv	Edit Customers	Backup
		Statements	Part Pd Invoices	Outstanding Invoices	Add Customers	Customer Listing

DESCRIPTION:

This program allows the user to obtain a report of all customers where the total outstanding exceeds their credit limit. The printing speed may appear erratic because each customer's outstanding invoices are totaled and checked against the customer's credit limit, but only those exceeding the credit limit are printed.

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OVER CREDIT LIMIT

USER INSTRUCTIONS:

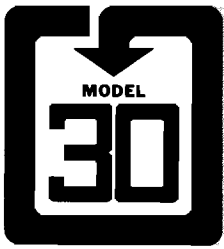
1. Press: The accounting systems key labeled "OVER CREDIT LIMIT" (f₄).
2. "SELECT KEY" is displayed when the program is finished.

EXAMPLE

PRESS THE ACCOUNTING SYSTEMS KEY LABELED "OVER CREDIT LIMIT" (F4)

OVER CREDIT LIMIT REPORT
NOVEMBER 16, 1973

CUSTOMER NUMBER	CUSTOMER NAME	CREDIT LIMIT	DATE LAST PAY	TOTAL OUT	AMOUNT OVER
=====	=====	=====	=====	=====	=====
1030	BALOG'S BAR	300.00	11/12/73	1370.55	1070.55
1040	BARNEY'S BOUTIQUE	400.00	11/01/73	598.86	198.86
1140	CONNELL PIZZA PALACE	200.00	11/12/73	1769.57	1569.57
1290	GUERRERO TAX DODGE	100.00		185.14	85.14
	TOTAL	1000.00		3924.12	2924.12



STATEMENTS

ACCOUNTING SYSTEMS			ACCOUNTS RECEIVABLE - BILLING		
SHIFT	Edit New Inv	Edit New Cash Rec	Daily Registers	Monthly Tax Report	Past Due Letters
	New Invoices	New Cash Receipts	Update A/R	Aged A/R Report	Over Credit Limit
SHIFT	New Month	New Year	Edit Master Inv	Edit Customers	Backup
	Statements	Part Pd Invoices	Outstanding Invoices	Add Customers	Customer Listing

DESCRIPTION:

This program prints a statement of the amount billed, freight, service, taxes, terms of the statement and finance charge percent for each invoice in the new invoice file. If the finance charge percent is zero it is not printed.

The statement will be printed with capital and lower case letters on printers that have this capability.

<u>Acceptable Data:</u>	Your Company Name	Maximum of 30 characters. ¹
	Senders Name	Maximum of 30 characters. ¹
	Senders Title	Maximum of 30 characters. ¹

¹ If the entry exceeds the number of characters allowed "ERROR 74" will be displayed, followed by a question mark. Re-enter the data shortened to the correct length.

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STATEMENTS

USER INSTRUCTIONS:

1. Press: The accounting systems key labeled "STATEMENTS" (f₅).

2. When "ENTER YOUR COMPANY NAME?" is displayed:
 - a. Enter: The name of the company sending the statement.
 - b. Press: EXECUTE.

3. When "ENTER SENDERS NAME?" is displayed:
 - a. Enter: The name of the person sending the statement.
 - b. Press: EXECUTE.

4. When "ENTER SENDERS TITLE?" is displayed:
 - a. Enter: The senders title.
 - b. Press: EXECUTE.

5. Statements are now printed.

6. "SELECT KEY" is displayed when the program is finished.

EXAMPLE

PRESS THE ACCOUNTING SYSTEMS KEY LABELED "STATEMENTS" (F5)

PIERSOL ENTERPRISES

NOVEMBER 16, 1973

SOLD TO:
ANDERSONS DAIRY
232 ST JAMES STREET
LUPTON, CO 82547

SHIP TO:
ANDERSONS DAIRY
232 ST JAMES STREET
LUPTON, CO 82547

DEAR SIR:

PER THE ATTACHED DOCUMENTS, PLEASE REMIT THE FOLLOWING:

YOUR PURCHASE ORDER NUMBER: 4569
INVOICE NUMBER: 5000

PRICE OF GOODS	\$	265.32
FREIGHT		12.00
SERVICE		6.52
		=====
CITY TAX		5.31
STATE TAX		7.96
		=====
TOTAL	\$	297.11
LESS 1.00% DISCOUNT		
IF PAID IN 10 DAYS		2.72
TOTAL	\$	294.39

TERMS: 1.00% 10 DAYS, NET 30 DAYS FROM DATE OF STATEMENT.

FINANCE CHARGE: 1.20% PER MONTH(14.40% ANNUAL) WILL BE ADDED TO
ALL PAST DUE ACCOUNTS.

VERY TRULY YOURS,

K.P. PIERSOL
CONTROLLER

PART PD INVOICES

USER INSTRUCTIONS:

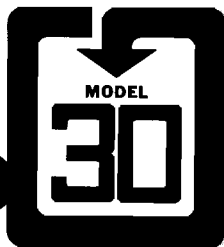
1. Press: The accounting systems key labeled "PART PD INVOICES" (f₆)
2. The program is finished when "SELECT KEY" is displayed.

EXAMPLE

PRESS THE ACCOUNTING SYSTEMS KEY LABELED "PART PD INVOICES" (F5)

PARTIALLY PAID INVOICES
NOVEMBER 16, 1973

CUSTOMER NUMBER	INVOICE NUMBER	AMOUNT BILLED	AMOUNT PAID	DATE PAID	ADJUST- MENTS	FINANCE CHARGE	BALANCE DUE
=====	=====	=====	=====	=====	=====	=====	=====
1040	2500	706.25	125.00	11/01/73	0.00	17.51	598.66
1080	2564	905.77	625.00	11/15/73	-0.77	10.51	290.51
1090	4002	160.24	60.00	11/16/73	-0.24	0.00	100.00
1140	1250	581.02	81.02	11/12/73	0.00	17.57	517.57
1170	1500	683.50	600.00	11/12/73	-0.50	43.80	126.30
TOTAL	3035.78	1491.02		-1.51	89.49	1633.74	



OUTSTANDING INVOICES

ACCOUNTING SYSTEMS			ACCOUNTS RECEIVABLE - BILLING		
SHIFT	Edit New Inv	Edit New Cash Rec	Daily Registers	Monthly Tax Report	Past Due Letters
	New Invoices	New Cash Receipts	Update A/R	Aged A/R Report	Over Credit Limit
SHIFT	New Month	New Year	Edit Master Inv	Edit Customers	Backup
	Statements	Part Pd Invoices	Outstanding Invoices	Add Customers	Customer Listing

DESCRIPTION:

This program prints the outstanding invoices from the master invoice file.

OUTSTANDING INVOICES

USER INSTRUCTIONS:

1. Press: The accounting systems key labeled "OUTSTANDING INVOICES" (f 7).
2. "SELECT KEY" is displayed when the program is finished.

EXAMPLE

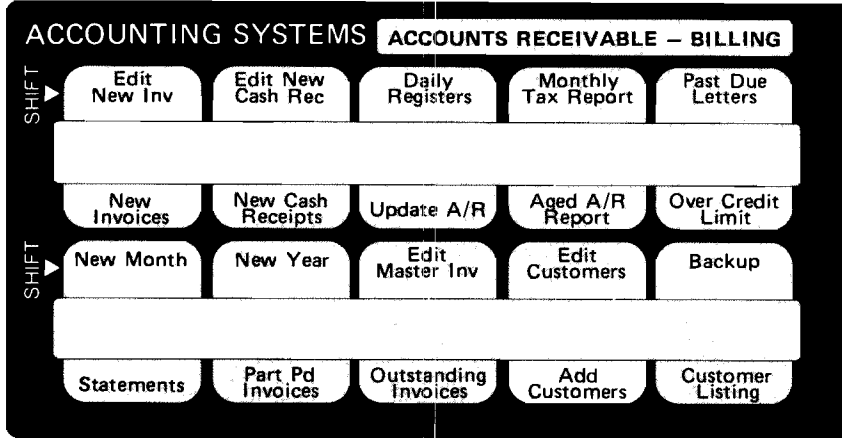
PRESS THE ACCOUNTING SYSTEMS KEY LABELED "OUTSTANDING INVOICES" (F7)

OUTSTANDING INVOICES
NOVEMBER 16, 1973

CUSTOMER NUMBER	INVOICE NUMBER	DATE BILLED	TOTL AMT BILLED	PARTIAL AMT PD	ADJUST- MENTS	FINANCE CHARGE	BALANCE DUE
=====	=====	=====	=====	=====	=====	=====	=====
1000	5000	11/16/73	297.11	0.00	0.00	0.00	297.11
1020	3000	10/01/73	26.50	0.00	0.00	0.00	26.50
1030	1526	08/15/73	695.77	0.00	-5.77	42.51	732.51
1030	2589	10/02/73	601.05	0.00	0.00	36.33	637.38
1040	2500	10/13/73	706.25	125.00	0.00	17.61	558.86
1080	2564	10/13/73	905.77	625.00	-0.77	10.51	290.51
1090	4002	11/12/73	150.24	50.00	-0.24	0.00	100.00
1120	1750	06/30/73	265.00	0.00	0.00	0.00	265.00
1140	1250	08/25/73	581.02	81.02	0.00	17.57	517.57
1140	1260	10/15/73	651.00	0.00	0.00	0.00	651.00
1140	2589	09/12/73	591.00	0.00	0.00	0.00	591.00
1170	1500	08/13/73	683.50	500.00	-0.10	43.96	126.36
1200	5002	11/15/73	285.29	0.00	0.00	0.00	285.29
1290	4003	11/12/73	185.14	0.00	0.00	0.00	185.14
1310	5001	11/16/73	55.67	0.00	0.00	0.00	55.67
	TOTAL		6700.31	1491.02	-7.33	168.99	5371.95



ADD CUSTOMERS



DESCRIPTION:

This program allows the user to add customers to the customer file. Each new customer number is compared to the existing customer file to insure that no duplicate customer numbers are entered. After all new customers are entered, the file is sorted by customer number.

A maximum of 800 customers can be stored on the customer file. It is recommended that this program be run in "print all" mode in order to have a printed copy of the actual entries. This may take up to one hour with 800 customers.

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(ADD CUSTOMERS - Continued)

Acceptable Data:	Customer Number	Maximum of 8 digits. ¹
	Customer Name	Maximum of 28 characters. ²
	Customer Street	Maximum of 28 characters. ²
	Customer City	Maximum of 28 characters. ²
	Customer State	Maximum of 2 characters. ² <i>4</i>
	Customer Zip Code	Maximum of 5 characters. ² <i>6</i>
	Ship To Name	Maximum of 28 characters. ²
	Ship To Street	Maximum of 28 characters. ²
	Ship To City	Maximum of 28 characters. ²
	Ship To State .	Maximum of 2 characters. ² <i>4</i>
	Ship To Zip Code	Maximum of 5 characters. ² <i>6</i>
	Credit Limit	Greater than or equal to 0. ¹
	Tax Status <i>Person</i>	Either 0 or 1. ¹
	City Tax Rate	Greater than or equal to 0. ¹ <i>4</i>
	State Tax Rate <i>Person</i>	Greater than or equal to 0. ¹ <i>4</i>

¹If any of the above capabilities are exceeded, "ERROR, RE-ENTER (User Name)?" will be displayed. If the user enters an alphanumeric item to a question asking for a numeric item, a question mark will appear in the display. Re-enter the item as a numeric.

²For alphanumeric entries, if the entry exceeds the number of characters allowed, "ERROR 74" will be displayed, followed by a question mark. Re-enter the data shortened to the correct length.

ADD CUSTOMERS

USER INSTRUCTIONS:

1. Press: The accounting systems key labeled "ADD CUSTOMERS" (f 8).
2. When "ENTER CUSTOMER NUMBER (Ø TO END)?" is displayed:
 - a. Enter: The customer number.
 - b. Press: EXECUTE.

Note: To end data entry to the customer file:

 - a. Enter: Ø.
 - b. Press: EXECUTE.
 - c. Go to step 18.

The customer number entered is checked against the customer file to insure that duplicate customer numbers are not entered. If the customer number is a duplicate:

 - a. "(Customer Number) ALREADY ON THE CUSTOMER FILE" is printed.
 - b. Go to step 2.
3. When "ENTER CUSTOMER NAME?" is displayed:
 - a. Enter: The customer's name.
 - b. Press: EXECUTE.
4. When "ENTER CUSTOMER STREET?" is displayed:
 - a. Enter: The street number and the street name.
 - b. Press: EXECUTE.
5. When "ENTER CUSTOMER CITY?" is displayed:
 - a. Enter: The customer's city.
 - b. Press: EXECUTE.
6. When "ENTER CUSTOMER STATE?" is displayed:
 - a. Enter: The two character abbreviation for the customer's state.
 - b. Press: EXECUTE.
7. When "ENTER CUSTOMER ZIP CODE?" is displayed:
 - a. Enter: The zip code.
 - b. Press: EXECUTE.
8. When "ENTER SHIP TO NAME?" is displayed:
 - a. Enter: The name of the person to receive the goods.
 - b. Press: EXECUTE.
 - c. Go to step 9.

Note: If the name and address of this person is the same as the customer name and address entered in steps 3 through 7:

 - a. Enter: SAME

(ADD CUSTOMERS - Continued)

- b. Press: EXECUTE
 - c. Go to step 13.
9. When "ENTER SHIP TO STREET?" is displayed:
- a. Enter: The street number and the street name of the person receiving the goods.
 - b. Press: EXECUTE.
10. When "ENTER SHIP TO CITY?" is displayed:
- a. Enter: The city of the person receiving the goods.
 - b. Press: EXECUTE.
11. When "ENTER SHIP TO STATE?" is displayed:
- a. Enter: The state the goods are to be shipped to.
 - b. Press: EXECUTE.
12. When "ENTER SHIP TO ZIP CODE?" is displayed:
- a. Enter: The zip code.
 - b. Press: EXECUTE.
13. When "ENTER CREDIT LIMIT?" is displayed:
- a. Enter: The customer's credit limit.
 - b. Press: EXECUTE.
14. When "ENTER TAX STATUS?" is displayed:
- a. Enter: \emptyset if the customer is exempt from paying taxes.
or: If the customer must pay taxes, enter 1.
 - b. Press: EXECUTE.
15. When "ENTER CITY TAX RATE?" is displayed:
- a. Enter: The tax rate for the customer's city.
For example: If the rate is 3%, enter 3.
 - b. Press: EXECUTE.
16. When "ENTER STATE TAX RATE?" is displayed:
- a. Enter: The tax rate for the customer's state.
For example: If the rate is 3%, enter 3.
 - b. Press: EXECUTE.
17. Go to step 2.
18. After all the customers are entered (\emptyset is entered as customer number) or 800 customers are in the customer file, the customer file is sorted by customer number.
19. "SELECT KEY" is displayed when the program is finished.

EXAMPLE

PRESS THE ACCOUNTING SYSTEMS KEY LABELED "ADD CUSTOMERS" (F8)

GET "BILL1":1,1

ADD CUSTOMERS

ENTER CUSTOMER NUMBER(0 TO END)?1000
ENTER CUSTOMER NAME?ANDERSONS DAIRY
ENTER CUSTOMER STREET?232 ST JAMES STREET
ENTER CUSTOMER CITY?LUFTON
ENTER CUSTOMER STATE?CO
ENTER CUSTOMER ZIP CODE?82547
ENTER SHIP TO NAME?SAME
ENTER CREDIT LIMIT?500
ENTER TAX STATUS?1
ENTER CITY TAX RATE?2
ENTER STATE TAX RATE?3

ENTER CUSTOMER NUMBER(0 TO END)?1010
ENTER CUSTOMER NAME?HARRYS GYM SUPPLIES
ENTER CUSTOMER STREET?3 BUTTERFIELD AVENUE
ENTER CUSTOMER CITY?LOVELAND
ENTER CUSTOMER STATE?CO
ENTER CUSTOMER ZIP CODE?80537
ENTER SHIP TO NAME?ARMSTRONGS GYM
ENTER SHIP TO STREET?36 VAULT DRIVE
ENTER SHIP TO CITY?LOVELAND
ENTER SHIP TO STATE?CO
ENTER SHIP TO ZIP CODE?80537
ENTER CREDIT LIMIT?450
ENTER TAX STATUS?1
ENTER CITY TAX RATE?2
ENTER STATE TAX RATE?3

ENTER CUSTOMER NUMBER(0 TO END)?0

SELECT KEY

CUSTOMER LISTING

USER INSTRUCTIONS:

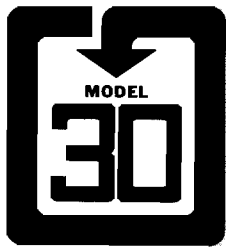
1. Press: The accounting systems key labeled "CUSTOMER LISTING" (f 9).
2. "SELECT KEY" is displayed when the program is finished.

EXAMPLE

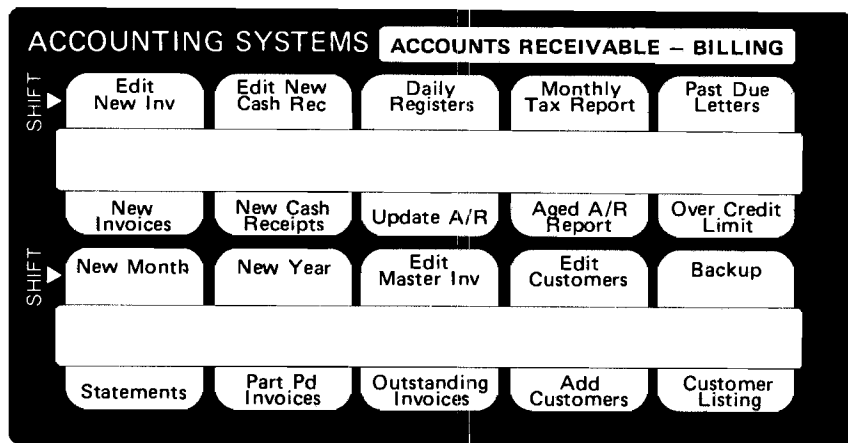
PRESS THE ACCOUNTING SYSTEMS KEY LABELED "CUSTOMER LISTING" (F9)

CUSTOMER FILE LISTING
NOVEMBER 16, 1973

CUSTOMER NUMBER =====	CUSTOMER NAME =====	CREDIT LIMIT =====	YTD SALES =====
1000	ANDERSONS DAIRY 232 ST JAMES STREET LUPTON CO, 82547	500.00	297.11
1010	HARRYS GYM SUPPLIES 3 BUTTERFIELD AVENUE LOVELAND CO, 80537	450.00	0.00
1020	ASMUS BOOK NOOK 1408 SKULINE DRIVE FORT COLLINS CO, 80521	300.00	302.50
1030	BAKERS BEVERAGES 2010 DEL NORTE LOVELAND CO, 80537	300.00	501.17
1040	BARNEY'S BOUTIQUE 3313 BANYON AVENUE LOVELAND CO, 80537	400.00	653.27
1050	BASHFORD BROOMS 135 SW WASHINGTON LOVELAND CO, 80537	250.00	636.94
1060	BEEHIVE CANDLE SHOP 2219 SUFFOLK FORT COLLINS CO, 80521	350.00	756.07
1070	BLASS GLASS FACTORY 2243 FLEMING DRIVE LOVELAND CO, 80537	300.00	628.05
1080	BODE'S BORDING HOUSE 36 ANGLEWOOD DRIVE LOVELAND CO, 80537	500.00	415.68



EDIT NEW INV



DESCRIPTION:

This program allows the user to edit the new invoice file. If any customer numbers or invoice numbers are changed, the file is sorted by customer number - invoice number after the edit is finished. Also, when a customer number is changed, the customer file is checked to insure that the customer number entered is valid. The sorting may take up to 10 minutes for 100 new invoices.

(EDIT NEW INV - Continued)

Acceptable Data:	Invoice Number	Maximum of 8 digits. ¹
	Customer Number	Maximum of 8 digits. ¹
	Date (M/D/Y, Ø for today)	Maximum of 10 characters Month/ Day/Year or Ø. ²
	Freight	Greater than or equal to zero. ¹
	Service	Greater than or equal to zero. ¹
	Discount %	Greater than or equal to zero. ¹
	Purchase Order Number	Maximum of 14 characters or digits. ²
	Finance %	Greater than or equal to zero. ¹

¹ If the above capabilities are exceeded, "ERROR, RE-ENTER (User Name)" will be displayed followed by a question mark. Also, if the user enters an alphanumeric item to a question requesting a numeric response, a question mark is displayed. Re-enter the numeric item in either case.

² If the entry exceeds the number of characters allowed, "ERROR 74" will be displayed, followed by a question mark. Re-enter the item in shortened form. If a non-reasonable date is entered then "ERROR RE-ENTER (User Name)" is displayed. Enter the date correctly. Non-reasonable is a month that is not 1 to 12, or a day that is not 1 to 31, or a year that is not 70 to 99.

EDIT NEW INV

USER INSTRUCTIONS:

1. Press: The accounting systems key labeled "EDIT NEW INV" (Shift f 0).
2. When "CUSTOMER NUMBER (Ø TO END)?" is displayed:
 - a. Enter: The customer number of the invoice to be edited.
 - b. Press: EXECUTE.NOTE: To end the edit program:
 - a. Enter: Ø
 - b. Press: EXECUTE
 - c. Go to step 8.
3. When "INVOICE NUMBER ?" is displayed:
 - a. Enter: The invoice number of the invoice to be edited.
 - b. Press: EXECUTE.If the customer number - invoice number combination is not on the file:
 - a. "(Customer Number - Invoice Number) NOT ON THE FILE" is printed.
 - b. Go to step 2.
4. The information related to the specified customer number - invoice number combination (ITEM: and VALUE:) is printed.
5. When "PROPER INVOICE? YES/NO/DELETE?" is displayed:

either:

 - a. Enter: Y for yes, if this is the invoice to be edited.
 - b. Press: EXECUTE.
 - c. Go to step 6.

or:

 - a. Enter: N for no , if this is not the invoice to be edited.
 - b. Press: EXECUTE.
 - c. Go to step 2.

or:

 - a. Enter: D for delete, if this is the invoice to be deleted.
 - b. Press: EXECUTE.
 - c. Go to step 2.
6. When "ITEM TO EDIT (Ø TO END)?" is displayed:
 - a. Enter: The name of the item (from the item column) you wish to edit.
 - b. Press: EXECUTE.

(EDIT NEW INV - Continued)

NOTE: To end the editing of the current invoice:

- a. Enter: Ø
- b. Press: EXECUTE.
- c. Go to step 2.

If you misspell the item name or if the item name is not on the item list:

- a. "(Item Name) NOT ON THE FILE, RE-ENTER THE ITEM NAME" is printed.
- b. Go to step 6.

7. When "ENTER (Item Name)?" is displayed:

- a. Enter: The new value for the item.
- b. Press: EXECUTE.
- c. Go to step 6.

If the customer number is changed, the new customer number is checked with the customer file to verify that the customer number is valid. If the customer number is invalid:

- a. "(Customer Number) INVALID CUSTOMER" is printed.
- b. Go to step 7.

8. If any invoices were deleted:

- a. The new invoice file is modified to remove the invoice to be deleted.
- b. Go to step 9.

9. If any customer numbers or invoice numbers were changed:

- a. The new invoice file is sorted by customer number - invoice number.

10. "SELECT KEY" is displayed when the program is finished.

EXAMPLE

PRESS THE ACCOUNTING SYSTEMS KEY LABELED "EDIT NEW INVOICES" (SHIFT F0)

GET "BILL33" : 1, 1

EDIT NEW INVOICES

CUSTOMER NUMBER (0 TO END) ? 1310

INVOICE NUMBER ? 5001

ITEM:	VALUE:
PURCHASE ORDER NO	1236
INVOICE NUMBER	5001
CUSTOMER NUMBER	1310
DATE BILLED	11/16/73
BILL AMOUNT	45.12
FREIGHT	5.65
SERVICE	0
DISCOUNT %	0
FINANCE %	1

PROPER INVOICE? YES/NO/DELETE? Y

ITEM TO EDIT (0 TO END) ? SERVICE

ENTER SERVICE ? 2.65

ITEM TO EDIT (0 TO END) ? DISCOUNT %

ENTER DISCOUNT % ? 1

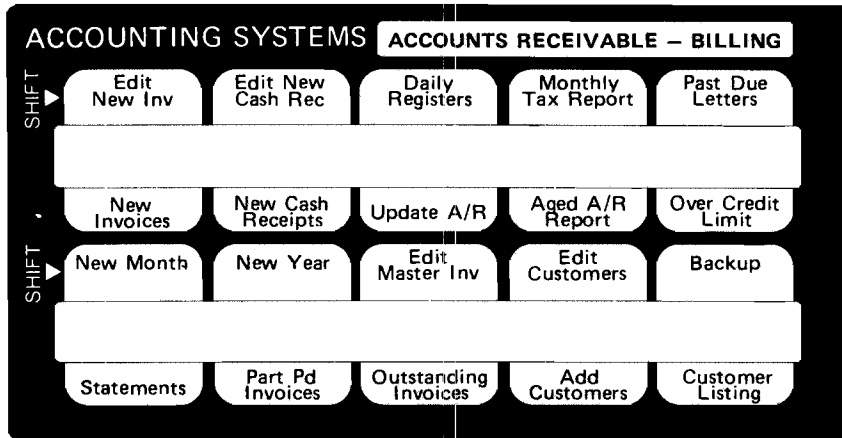
ITEM TO EDIT (0 TO END) ? 0

CUSTOMER NUMBER (0 TO END) ? 0

SELECT KEY



EDIT NEW CASH REC



DESCRIPTION:

This program allows the user to edit the new cash receipts file. If any customer number or invoice numbers are changed, the file is sorted by customer number, invoice number after the edit is finished. Also, if either a customer number or invoice number is changed, the file is compared with the master invoice file to insure that the new customer number - invoice number combination is valid. The sorting may take up to 10 minutes for 100 new cash receipts.

(EDIT NEW CASH REC - Continued)

Acceptable Data:	Invoice Number	Maximum of 8 digits. ¹
	Customer Number	Maximum of 8 digits. ¹
	Adjustment	Positive, negative or zero. ¹
	Date (M/D/Y, Ø for today)	Maximum of 10 characters Month/Day/Year or Ø. ²
	Cash Received	Greater than or equal to zero. ¹

¹ If the above capabilities are exceeded, "ERROR, RE-ENTER (User Name)" will be displayed. Also, if the user enters an alphanumeric item to a question requesting a numeric response, a question mark is displayed. Re-enter the numeric item in either case.

² If the above capabilities are exceeded, "ERROR 74" will be displayed, followed by a question mark. Re-enter the item shortened to the correct length. If a non-reasonable date is entered, then "ERROR, RE-ENTER (User Name)" is displayed. Enter the date correctly. Non-reasonable is a month that is not 1 to 12 or a day that is not 1 to 31 or a year that is not 70 to 99.

EDIT NEW CASH REC

USER INSTRUCTIONS:

1. Press: The accounting systems key labeled "EDIT NEW CASH REC" (Shift f₁).

2. When "CUSTOMER NUMBER (Ø TO END)?" is displayed:
- Enter: The customer number of the invoice to be edited.
 - Press: EXECUTE.

NOTE: To end the edit program:

- Enter: Ø
- Press: EXECUTE.
- Go to step 8.

3. When "INVOICE NUMBER?" is displayed:

- Enter: The invoice number of the invoice to be edited.
- Press: EXECUTE.

If the customer number - invoice number combination is not on the file:

- "(Customer Number - Invoice Number) NOT ON THE FILE" is printed.
- Go to step 2.

4. The information related to the specified customer number - invoice number combination (ITEM: and VALUE:) is printed.

5. When "PROPER INVOICE ? YES/NO/DELETE?" is displayed.

either:

- Enter: Y for yes, if this is the invoice to be edited.
- Press: EXECUTE.
- Go to step 6.

or:

- Enter: N for no, if this is not the invoice to be edited.
- Press: EXECUTE.
- Go to step 2.

or:

- Enter: D for delete, if this is the invoice to be deleted.
- Press: EXECUTE.
- Go to step 2.

6. When "ITEM TO EDIT (Ø TO END)?" is displayed:

- Enter: The name of the item (from the item column) you wish to edit.
- Press: EXECUTE.

NOTE: To end the editing of the current invoice:

- Enter: Ø
- Press: EXECUTE.
- Go to step 2.

(EDIT NEW CASH REC - Continued)

If you misspell the item name or if the item name is not on the item list:

- a. "(Item Name) NOT ON THE FILE, RE-ENTER THE ITEM NAME" is printed.
- b. Go to step 6.

7. When "ENTER (Item Name)?" is displayed:

- a. Enter: The new value for the item.
- b. Press: EXECUTE.
- c. Go to step 6.

If either an invoice number or a customer number is changed, the new combination of invoice number and customer number is checked with the master invoice file to verify that the combination is valid.

If the invoice number - customer number is invalid:

- a. "(Invoice Number) INVALID INVOICE" or "(Customer Number) INVALID CUSTOMER" is printed.
- b. Go to step 7.

8. If any invoices were deleted:

- a. The new cash receipts file is modified to remove the invoice to be deleted.
- b. Go to step 9.

9. If any customer number or invoice number were changed:

- a. The new cash receipts file is sorted by customer number - invoice number.

10. "SELECT KEY" is displayed when the program is finished.

EXAMPLE

PRESS THE ACCOUNTING SYSTEMS KEY LABELED "EDIT NEW CASH REC" (SHIFT F1)

GET "BILL35", 1, 1

EDIT NEW CASH RECEIPTS

CUSTOMER NUMBER (0 TO END)? 1000

INVOICE NUMBER? 2564

ITEM:	VALUE:
INVOICE NUMBER	2564
CUSTOMER NUMBER	1000
ADJUSTMENTS	0
DATE PAID	11/16/73
CASH RECEIVED	625

PROPER INVOICE? YES/NO/DELETE? Y

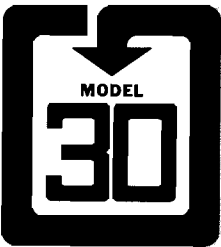
ITEM TO EDIT (0 TO END)? ADJUSTMENTS

ENTER ADJUSTMENTS? -.77

ITEM TO EDIT (0 TO END)? 0

CUSTOMER NUMBER (0 TO END)? 0

SELECT KEY



DAILY REGISTERS

ACCOUNTING SYSTEMS		ACCOUNTS RECEIVABLE – BILLING				
SHIFT	▶	Edit New Inv	Edit New Cash Rec	Daily Registers	Monthly Tax Report	Past Due Letters
SHIFT	▶	New Invoices	New Cash Receipts	Update A/R	Aged A/R Report	Over Credit Limit
	▶	New Month	New Year	Edit Master Inv	Edit Customers	Backup
		Statements	Part Pd Invoices	Outstanding Invoices	Add Customers	Customer Listing

DESCRIPTION:

This program prints the contents of the new invoice file and the new cash receipts file. The new invoice transaction register excludes taxes.

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DAILY REGISTERS

USER INSTRUCTIONS:

1. Press: The accounting systems key labeled "DAILY REGISTERS" (Shift f₂).
2. "SELECT KEY" is displayed when the program is finished.

EXAMPLE

PRESS THE ACCOUNTING SYSTEMS KEY LABELED "DAILY REGISTERS" (SHIFT F2)

DAILY INVOICE TRANSACTION REGISTER
(EXCLUDES SALES TAX)
NOVEMBER 16, 1973

CUSTOMER NUMBER =====	INVOICE NUMBER =====	BILL AMOUNT =====	FREIGHT =====	SERVICE =====	DATE BILLED =====	DISC PERC =====
1000	5000	265.32	12.00	6.52	11/16/73	1.00
1200	5002	235.65	12.50	23.00	11/15/73	1.00
1310	5001	45.12	5.65	2.65	11/16/73	1.00
	TOTAL	546.09	30.15	32.17		



CASH RECEIPTS TRANSACTION REGISTER
NOVEMBER 16, 1973

CUSTOMER NUMBER =====	INVOICE NUMBER =====	ADJUST- MENTS =====	DATE PAID =====	CASH RECEIVED =====
1020	3698	0.00	11/16/73	1636.25
1000	2564	-0.77	11/15/73	625.00
1090	4002	-0.24	11/16/73	60.00
	TOTAL	-1.01		2371.25

MONTHLY TAX REPORT

USER INSTRUCTIONS:

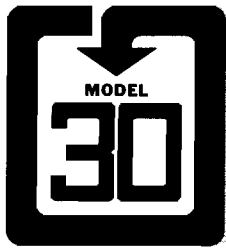
1. Press: The accounting systems key labeled "MONTHLY TAX REPORT" (Shift f₃).
2. The program is complete when "SELECT KEY" is displayed.

EXAMPLE

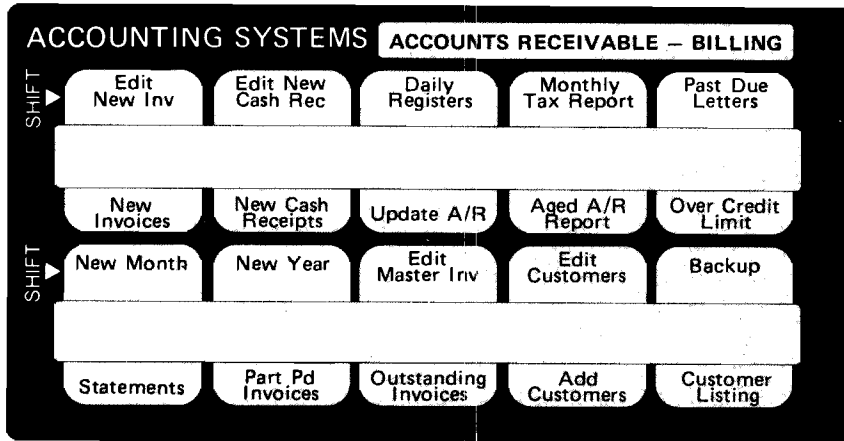
PRESS THE ACCOUNTING SYSTEMS KEY LABELED "MONTHLY TAX REPORT" (SHIFT F3)

MONTHLY TAX REPORT
NOVEMBER 16, 1973

CUSTOMER NAME =====	SALES =====	FREIGHT =====	SERVICE =====	TAXES	
				CITY =====	STATE =====
GARLOW'S GARAGE	296.00	9.00	2.00	15.42	23.13
ARAPAHOE HEIGHTS	296.00	9.00	2.00	15.42	23.13
CONNELL PIZZA PALACE	264.00	8.00	8.00	15.08	22.62
FORBES FUN SHOP	118.00	18.00	1.00	14.40	21.60
BROOMFIELD	382.00	26.00	9.00	29.48	44.32
EAGLE'S BIRD STORE	521.65	14.50	25.00	19.53	25.76
DENVER	521.65	14.50	25.00	19.53	25.76
BEEHIVE CANDLE SHOP	135.00	6.00	8.00	8.60	12.90
CHURCHILL FORMS	135.00	7.00	3.00	9.94	14.91
ASMUS BOOK NOOK	53.00	7.00	10.00	1.58	2.37
FORT COLLINS	327.00	20.00	21.00	20.12	30.16
HARRYS GYM SUPPLIES	0.00	0.00	0.00	0.00	0.00
BASHFORD BROOMS	127.00	4.00	10.00	1.04	1.76
BARNEY'S BOUTIQUE	137.00	0.00	2.00	6.48	9.72
BLASS GLASS FACTORY	108.00	18.00	5.00	1.02	1.53
BODE'S BORDING HOUSE	73.00	17.00	4.00	2.20	3.30
BRADEN'S ART SHOP	92.00	13.00	11.00	12.64	19.56
FRANKLIN STOVES	137.00	15.00	3.00	12.58	19.97
GUERRERO TAX DODGE	145.00	6.00	13.00	5.02	7.53
HELLER SPORT SHOP	155.12	12.65	13.65	2.12	3.18
BAKERS BEVERAGES	92.00	12.00	0.00	1.22	1.83
LOVELAND	1066.12	97.65	61.65	44.32	66.48
ANDERSONS DAIRY	265.32	12.00	6.52	5.31	7.96
LUPTON	265.32	12.00	6.52	5.31	7.96
CO	2858.09	179.15	125.17	134.18	197.70
TOTAL	2858.09	179.15	125.17	134.18	197.70



PAST DUE LETTERS



DESCRIPTION:

This program determines which invoices are past due based on the past due date entered by the user. It calculates a finance charge and prints a past due letter for each customer with one or more past due invoices.

The user needs to establish a particular date each month to generate the past due letters. Each time the program is run, it calculates a finance charge on all past due invoices. It is therefore, important that the program is run only once a month to avoid charging more than one finance charge per month. If, for some reason, past due letters were not generated for a particular month, the system provides the user the ability to calculate the finance charge for the missed month providing that the invoice is still on the master invoice file. The procedure involves entering "Todays Date" and the "Past Due Date" that would have normally been entered for the month missed.

The procedure for generating past due letters and the finance charge requires three dates; the date billed, already stored within the system, the "Past Due Date" and "Todays Date" both entered by the user. The user is asked to enter the "Past Due Date", that is, the date in which most of the invoices should be paid and "Todays Date", the date in which the past due letters are to be processed.

The system first checks to determine which invoices were billed before the past due date. The date billed for all of these invoices is then compared with todays date and a past due letter is generated for those invoices that are 30 or more days delinquent. If a finance charge was specified upon origination of the invoice it is calculated as follows:

$$\text{Monthly Finance Charge \%} \times \text{Outstanding Balance} = \text{Finance Charge}$$

$$1.5\% \times 500.00 = 7.50$$

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(PAST DUE LETTERS - Continued)

The new outstanding balance for this invoice becomes the old outstanding balance plus the monthly finance charge. This finance charge is added to the master invoice file automatically. However, although the finance charge is added to the invoice on the master invoice file, it will not be reflected in the aging portion of the "Aged Accounts Receivable Report" until an update is run. It is therefore recommended that the past due letters be generated as the last operation on a particular day.

(PAST DUE LETTERS - Continued)

Acceptable Data:	Your Company Name	Maximum of 30 characters. ¹
	Senders Name	Maximum of 30 characters. ¹
	Senders Title	Maximum of 30 characters. ¹
	Past Due Date	Maximum of 10 characters. ¹
	Today's Date	Maximum of 10 characters. ¹
	Phone Number	Maximum of 20 characters. ¹

¹ If the entry exceeds the number of characters allowed, "ERROR 74" will be displayed, followed by a question mark. Re-enter the data shortened to the correct length.

PAST DUE LETTERS

USER INSTRUCTIONS:

1. Press: The accounting systems key labeled "PAST DUE LETTERS" (Shift f 4).

2. When "ENTER YOUR COMPANY NAME?" is displayed:
 - a. Enter: The name of the company sending the letter.
 - b. Press: EXECUTE.

3. When "ENTER SENDERS NAME?" is displayed:
 - a. Enter: The senders name.
 - b. Press: EXECUTE.

4. When "ENTER SENDERS TITLE?" is displayed:
 - a. Enter: The senders title.
 - b. Press: EXECUTE.

5. When "ENTER PAST DUE DATE (M/D/Y)?" is displayed:
 - a. Enter: The past due date; M = Month; D = Day; Y = Year.
 - b. Press: EXECUTE.

6. When "ENTER TODAYS DATE (M/D/Y)?" is displayed:
 - a. Enter: The date; M = Month; D = Day; Y = Year.
 - b. Press: EXECUTE.

7. When "ENTER PHONE NUMBER (CODE & NO)?" is displayed:
 - a. Enter: The phone number of the person sending the letter (area code) - number.
 - b. Press: EXECUTE.

8. Past due letters are now printed.

9. "SELECT KEY" is displayed when the program is finished.

EXAMPLE

PRESS THE ACCOUNTING SYSTEMS KEY LABELED "PAST DUE LETTERS" (SHIFT F4)

PIERSOL ENTERPRISES

NOVEMBER 16, 1973

BALOG'S BAR
2010 DEL NORTE
LOVELAND, CO 80537

DEAR SIR:

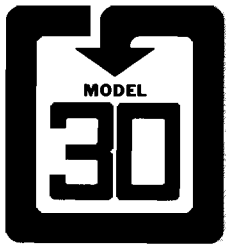
OUR RECORDS INDICATE THE FOLLOWING INVOICES ARE PAST DUE.
YOUR ATTENTION TO THESE WOULD BE APPRECIATED.

INVOICE NUMBER =====	P.O. NUMBER =====	DATE BILLED =====	UNPAID BALANCE =====	FINANCE CHARGE =====	BALANCE DUE =====
1526	4569	08/15/73	732.61	10.90	743.60
2589	12569	10/02/73	637.94	9.57	647.51
			TOTAL		1391.11

IF THERE ARE ANY QUESTIONS PLEASE CONTACT ME AT (303) 666-6666.

VERY TRULY YOURS,

K.P. PIERSOL
CONTROLLER



NEW MONTH

ACCOUNTING SYSTEMS		ACCOUNTS RECEIVABLE – BILLING				
SHIFT	▶	Edit New Inv	Edit New Cash Rec	Daily Registers	Monthly Tax Report	Past Due Letters
SHIFT	▶	New Invoices	New Cash Receipts	Update A/R	Aged A/R Report	Over Credit Limit
SHIFT	▶	New Month	New Year	Edit Master Inv	Edit Customers	Backup
		Statements	Part Pd Invoices	Outstanding Invoices	Add Customers	Customer Listing

DESCRIPTION:

This program sets the month-to-date billed totals for each customer on the customer file to zero. This may take about 20 minutes for 800 customers.

To avoid accidental execution of this program, the user is asked to respond affirmatively twice before the program begins execution.

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NEW MONTH

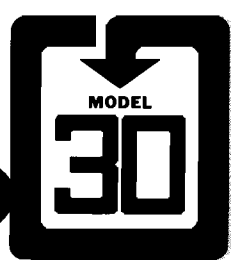
USER INSTRUCTIONS:

1. Press: The accounting systems key labeled "NEW MONTH" (Shift f₅).
2. When "NEW MONTH (YES/NO)?" is displayed:
either:
 - a. Enter: Y for yes - to set the month-to-date totals to zero.
 - b. Press: EXECUTE
 - c. Go to step 3
or:
 - a. Enter: N for no
 - b. Press: EXECUTE
 - c. Go to step 4
3. When "ARE YOU SURE (YES/NO)?" is displayed:
 - a. Enter: Y for yes or N for no
 - b. Press: EXECUTE
4. "SELECT KEY" is displayed when the program is finished.

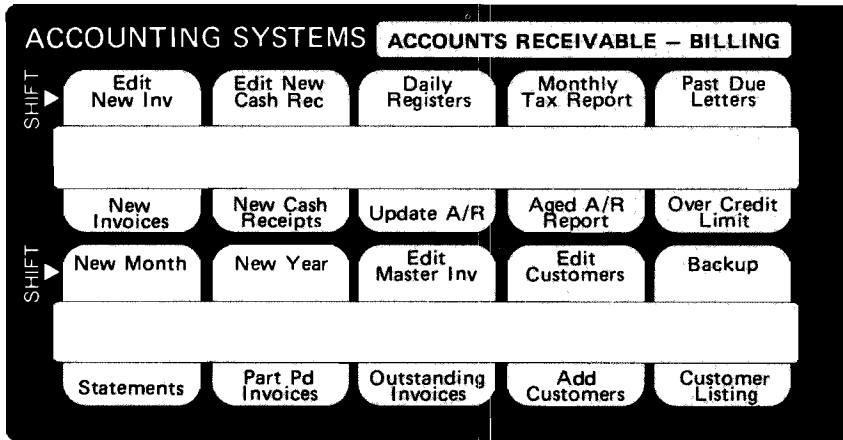
EXAMPLE

PRESS THE ACCOUNTING SYSTEMS KEY LABELED NEW MONTH (SHIFT F5)

NEW MONTH (YES/NO)?YES
ARE YOU SURE (YES/NO)?YES
SELECT KEY



NEW YEAR



DESCRIPTION:

This program sets the month-to-date and year-to-date billed totals for each customer on the customer file to zero. This may take about 20 minutes for 800 customers.

To avoid accidental execution of this program, the user is asked to respond affirmatively twice before the program begins execution.

NEW YEAR

USER INSTRUCTIONS:

1. Press: The accounting systems key labeled "NEW YEAR" (Shift f₆).

2. When "NEW YEAR (YES/NO)?" is displayed:
either:
 - a. Enter: Y for yes - to set the month-to-date and year-to-date billed totals to zero.
 - b. Press: EXECUTE
 - c. Go to step 3or:
 - a. Enter: N for no
 - b. Press: EXECUTE
 - c. Go to step 4

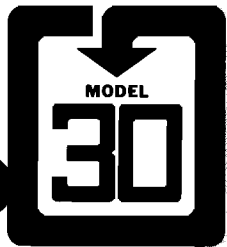
3. When "ARE YOU SURE (YES/NO)?" is displayed:
 - a. Enter: Y for yes or N for no.
 - b. Press: EXECUTE

4. "SELECT KEY" is displayed when the program is finished.

EXAMPLE

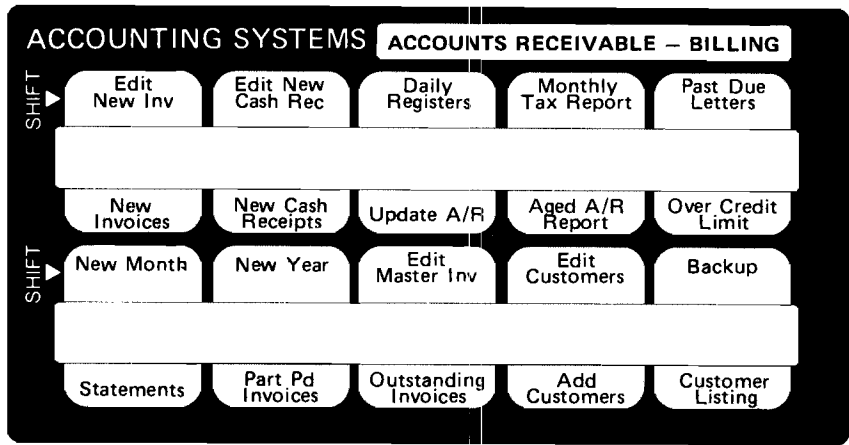
PRESS THE ACCOUNTING SYSTEMS KEY LABELED NEW YEAR (SHIFT F6)

NEW YEAR (YES/NO)?YES
ARE YOU SURE (YES/NO)?YES
SELECT KEY



EDIT MASTER INV

HEWLETT-PACKARD
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HEWLETT-PACKARD



DESCRIPTION:

This program allows the user to edit the master invoice file. If any customer numbers or invoice numbers are changed, the file is sorted automatically after the edit is finished. This sorting may take up to one hour with 800 invoices. When a customer number is changed, the new customer number is checked against the customer file to verify the validity of the customer number.

Acceptable Data:	Customer Number	Maximum of 8 digits. ¹
	Invoice Number	Maximum of 8 digits. ¹
	Date Billed	Maximum of 10 characters. ²
	Date Paid	Maximum of 10 characters. ²

¹ If any of the above capabilities are exceeded, "ERROR, RE-ENTER (User Name)?" will be displayed. If the user enters an alphanumeric item to a question asking for a numeric item, a question mark will appear in the display. Re-enter the item as a numeric.

² If the above capabilities are exceeded, "ERROR 74" will be displayed followed by a question mark. Re-enter the data shortened to the correct length.

EDIT MASTER INV

USER INSTRUCTIONS:

1. Press: The accounting systems key labeled "EDIT MASTER INV" (Shift f 7).
2. When "CUSTOMER NUMBER (Ø TO END)?" is displayed:
 - a. Enter: The customer number of the invoice to be edited.
 - b. Press: EXECUTE.NOTE: To end the edit program:
 - a. Enter: Ø
 - b. Press: EXECUTE.
 - c. Go to step 8.
3. When "INVOICE NUMBER?" is displayed:
 - a. Enter: The invoice number of the invoice to be edited.
 - b. Press: EXECUTE.If the customer number - invoice number combination is not on the file.
 - a. "(Customer Number - Invoice Number) NOT ON THE FILE" is printed.
 - b. Go to step 2.
4. The information related to the specified customer number - invoice number combination (ITEM: and VALUE:) is printed.
5. When "PROPER INVOICE ? YES/NO/DELETE?" is displayed:

either:

 - a. Enter: Y for yes, if this is the invoice to be edited.
 - b. Press: EXECUTE.
 - c. Go to step 6.

or:

 - a. Enter: N for no, if this is not the invoice to be edited.
 - b. Press: EXECUTE.
 - c. Go to step 2.

or:

 - a. Enter: D for delete, if this is the invoice to be deleted.
 - b. Press: EXECUTE
 - c. Go to step 2.
6. When "ITEM TO EDIT (Ø TO END)?" is displayed:
 - a. Enter: The name of the item (from the item column) you wish to edit.
 - b. Press: EXECUTE.NOTE: To end the editing of the current invoice:
 - a. Enter: Ø
 - b. Press: EXECUTE.
 - c. Go to step 2.

(EDIT MASTER INV Continued)

If you misspell the item name or if the item name is not on the item list:

- a. "(Item Name) NOT ON THE FILE, RE-ENTER THE ITEM NAME" is printed.
- b. Go to step 6.

7. When "ENTER (Item Name)?" is displayed:

- a. Enter: The new value for the item.
- b. Press: EXECUTE.
- c. Go to step 6.

If the customer number is changed, the new customer number is checked with the customer file to verify that the customer number is valid. If the customer number is invalid:

- a. "(Customer Number) INVALID CUSTOMER" is printed.
- b. Go to step 7.

8. If any invoices were deleted:

- a. The master invoice file is modified to remove the invoices to be deleted.
- b. Go to step 9.

9. If any customer numbers or invoice numbers were changed:

- a. The master invoice file is sorted by customer number, invoice number.

10. "SELECT KEY" is displayed when the program is finished.

EXAMPLE

PRESS THE ACCOUNTING SYSTEMS KEY LABELED 'EDIT MASTER INV' (SHIFT F7)

GET"BILL29",1,1

EDIT MASTER INVOICES

CUSTOMER NUMBER (0 TO END)?1170

INVOICE NUMBER?1500

ITEM:	VALUE:
CUSTOMER NAME	BLASS GLASS FACTORY
PURCHASE ORDER NO	5478
CUSTOMER STREET	2243 FLEMING DRIVE
CUSTOMER CITY	LOVELAND
CUSTOMER STATE	CO
CUSTOMER ZIP CODE	80537
SHIP TO NAME	BLASS GLASS FACTORY
SHIP TO STREET	2243 FLEMING DRIVE
SHIP TO CITY	LOVELAND
SHIP TO STATE	CO
SHIP TO ZIP CODE	80537
INVOICE NUMBER	1500
CUSTOMER NUMBER	1170
DATE BILLED	07/13/73
BILL AMOUNT	600
FREIGHT	28.5
SERVICE	25
CITY TAX	12
STATE TAX	18
TOTAL AMOUNT BILLED	683.5
DISCOUNT %	6
ADJUSTMENTS	-0.5
DATE PAID	11/12/73
CASH RECEIVED	0
TOTAL AMOUNT PAID	600
DISCOUNT TAKEN	0
BALANCE DUE	126.8
FINANCE %	1.25
FINANCE CHARGE	43.8
<30 DAYS	0
30-59 DAYS	0
60-89 DAYS	0
>=90 DAYS	126.8
CREDIT LIMIT	300

PROPER INVOICE? YES/NO/DELETE?Y

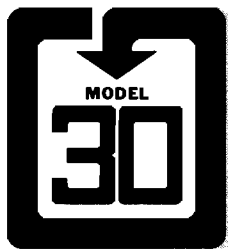
ITEM TO EDIT (0 TO END)?DATE BILLED

ENTER DATE BILLED (M/D/Y)?8/13/73

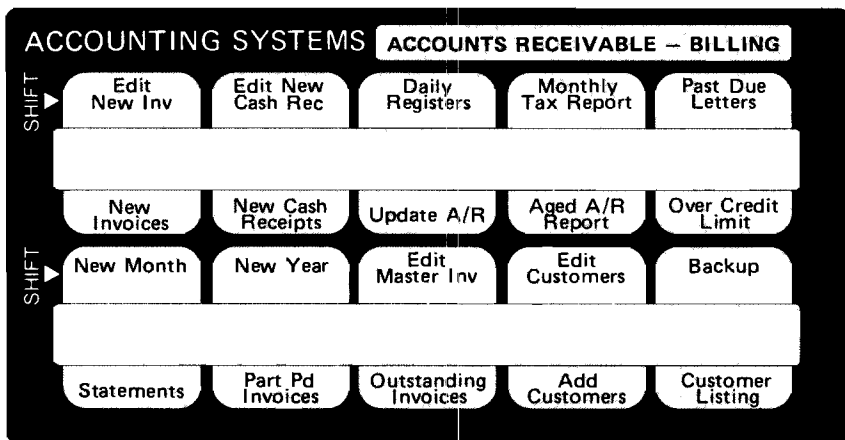
ITEM TO EDIT (0 TO END)?0

CUSTOMER NUMBER (0 TO END)?0

SELECT KEY



EDIT CUSTOMERS



DESCRIPTION:

This program allows the user to edit the customer file. If any customer numbers are changed, the file is sorted automatically after the edit is finished. This may take up to one hour with 800 customers. Whenever a customer number is changed, the customer file is checked to insure that no duplicate customer numbers are entered.

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(EDIT CUSTOMER - Continued)

Acceptable Data:	Customer Number	Maximum of 8 digits. ¹
	Customer Name	Maximum of 28 characters. ²
	Customer Street	Maximum of 28 characters. ²
	Customer City	Maximum of 28 characters. ²
	Customer State	Maximum of 2 characters. ²
	Customer Zip Code	Maximum of 5 characters. ²
	Ship To Name	Maximum of 28 characters. ²
	Ship To Street	Maximum of 28 characters. ²
	Ship To City	Maximum of 28 characters. ²
	Ship To State	Maximum of 2 characters. ²
	Ship To Zip Code	Maximum of 5 characters. ²
	Credit Limit	Greater than or equal to 0. ¹
	Tax Status	Either 0 or 1. ¹
	City Tax Rate	Greater than or equal to 0. ¹
	State Tax Rate	Greater than or equal to 0. ¹

¹ If any of the above capabilities are exceeded, "ERROR, RE-ENTER (User Name)?" will be displayed. If the user enters an alphanumeric item to a question asking for a numeric item, a question mark will appear in the display. Re-enter the item as a numeric.

² For alphanumeric entries, if the entry exceeds the number of characters allowed, "ERROR 74" will be displayed, followed by a question mark. Re-enter the data shortened to the correct length.

EDIT CUSTOMER

USER INSTRUCTIONS:

1. Press: The accounting systems key labeled "EDIT CUSTOMERS" (Shift f 8).
2. When "CUSTOMER NUMBER (Ø TO END)?" is displayed:
 - a. Enter: The customer number of the customer to be edited.
 - b. Press: EXECUTE.NOTE: To end the edit program:
 - a. Enter: Ø
 - b. Press: EXECUTE.
 - c. Go to step 7.If the customer number entered is not on the file;
 - a. "(Customer Number) NOT ON THE FILE" is printed.
 - b. Go to step 2.
3. The information related to the specified customer number (ITEM: and VALUE:) is now printed.
4. When "PROPER CUSTOMER? YES/NO/DELETE?" is displayed:

either:

 - a. Enter: Y for yes, if this is the customer to be edited.
 - b. Press: EXECUTE.
 - c. Go to step 5.

or:

 - a. Enter: N for no, if this is not the customer to be edited.
 - b. Press: EXECUTE.
 - c. Go to step 2.

or:

 - a. Enter: D for delete, if this is the customer to be deleted.
 - b. Press: EXECUTE.
 - c. Go to step 2.
5. When "ITEM TO EDIT (Ø TO END)?" is displayed:
 - a. Enter: The name of the item (from the item column) you wish to edit.
 - b. Press: EXECUTE.NOTE: To end the editing of the present customer:
 - a. Enter: Ø
 - b. Press: EXECUTE.
 - c. Go to step 2.

If you misspell the item name, or if the item name is not on the item list:

- a. "(Item Name) NOT ON THE FILE, RE-ENTER THE ITEM NAME" is printed.
- b. Go to step 5.

(EDIT CUSTOMER - Continued)

6. When "ENTER (Item Name)?" is displayed:
 - a. Enter: The new value for the item.
 - b. Press: EXECUTE.
 - c. Go to step 5.

If the customer number is changed, it is compared to the customer file to insure that a duplicate customer number does not exist. If the customer number is a duplicate:

- a. "(Customer Number) ALREADY ON THE CUSTOMER FILE" is printed.
 - b. Go to step 6.
7. If any customers were deleted:
 - a. The customer file is modified to remove the customers to be deleted.
 - b. Go to step 8.
 8. If any customer numbers were changed:
 - a. The customer file is sorted by customer number.
 9. "SELECT KEY" is displayed when the program is finished.

EXAMPLE

PRESS THE ACCOUNTING SYSTEMS KEY LABELED "EDIT CUSTOMERS" (SHIFT F6)

GET "BILL27",1,1

EDIT CUSTOMERS

CUSTOMER NUMBER (0 TO END)?1110

ITEM:	VALUE:
CUSTOMER NAME	CARLSON'S CAR SHOP
CUSTOMER STREET	6609 W. 32ND (RT #3)
CUSTOMER CITY	LOVELAND
CUSTOMER STATE	CO
CUSTOMER ZIP CODE	80537
SHIP TO NAME	CARLSON'S CAR SHOP
SHIP TO STREET	6609 W. 32ND (RT #3)
SHIP TO CITY	LOVELAND
SHIP TO STATE	CO
SHIP TO ZIP CODE	80537
TAX STATUS	1
CUSTOMER NUMBER	1110
CREDIT LIMIT	450
CITY TAX RATE	2
STATE TAX RATE	3
MTD SALES	139
MTD FREIGHT	7
MTD SERVICE	10
MTD CITY TAX	11.8
MTD STATE TAX	17.7
YTD SALES	663.41
YTD FREIGHT	34.18
YTD SERVICE	41.12
YTD CITY TAX	58.56
YTD STATE TAX	70.8

PROPER CUSTOMER? YES/NO/DELETE?Y
ITEM TO EDIT (0 TO END)?CITY TAX RATE
ENTER CITY TAX RATE?3
ITEM TO EDIT (0 TO END)?CREDIT LIMIT
ENTER CREDIT LIMIT?500
ITEM TO EDIT (0 TO END)?0

CUSTOMER NUMBER (0 TO END)?0
SELECT KEY



BACKUP

ACCOUNTING SYSTEMS		ACCOUNTS RECEIVABLE - BILLING				
SHIFT	▶	Edit New Inv	Edit New Cash Rec	Daily Registers	Monthly Tax Report	Past Due Letters
		New Invoices	New Cash Receipts	Update A/R	Aged A/R Report	Over Credit Limit
SHIFT	▶	New Month	New Year	Edit Master Inv	Edit Customers	Backup
		Statements	Part Pd Invoices	Outstanding Invoices	Add Customers	Customer Listing

DESCRIPTION:

This program gives the user the capability to copy the master invoice file and customer file onto a backup platter. A dual platter system is mandatory as the files are first copied to the fixed platter and then, after the backup platter is ready, they are copied back up to the backup platter. It is recommended that the backup platter contain the entire Accounts Receivable/Billing System (see Appendix A). This will allow the user to easily list the backup files as all report programs will be on the platter.

If, for some reason, it becomes necessary to recover the backup file, simply load the backup platter as the main platter, press the BACKUP key and use what was the main platter as the backup. This will copy the backup file onto the main platter.

BACKUP

USER INSTRUCTIONS:

1. Press: The accounting systems key labeled "BACKUP" (Shift f₉).
2. When "CORRECT PLATTER? (YES/NO)?" is displayed:
either:
 - a. Enter: Y for yes if you want to perform the backup.
 - b. Press: EXECUTE.
 - c. Go to step 3.or:
 - a. Enter: N for no if you do not want to perform the backup.
 - b. Press: EXECUTE.
 - c. Go to step 7.
3. When "INSERT BACKUP PLATTER" is displayed:
 - a. Remove the main platter.
 - b. Insert the backup platter.
 - c. Wait for the "drive ready" light to come on.
4. When "BACKUP PLATTER READY? (YES/NO)?" is displayed:
 - a. Enter: Y if the backup platter has been inserted and the "drive ready" light is on.
 - b. Press: EXECUTE.
5. When "INSERT MAIN PLATTER" is displayed:
 - a. Remove the backup platter.
 - b. Insert the main (original) platter.
 - c. Wait for the "drive ready" light to come on.
6. When "MAIN PLATTER READY ? (YES/NO)?" is displayed:
 - a. Enter: Y if the main platter has been inserted and the "drive ready" light is on.
 - b. Press: EXECUTE.
7. When the program is complete, "SELECT KEY" is displayed.

EXAMPLE

PRESS THE ACCOUNTING SYSTEMS KEY LABELED BACKUP (SHIFT F9)

CORRECT PLATTER? (YES/NO)?YES
INSERT BACKUP PLATTER
BACKUP PLATTER READY (YES/NO)?YES
INSERT MAIN PLATTER
MAIN PLATTER READY (YES/NO)?YES
SELECT KEY

Appendix A

STARTUP PROCEDURE FOR A NEW PLATTER

DESCRIPTION:

This outlines the procedure for loading the Accounts Receivable/Billing system from the tape cassettes delivered with the system to a Mass Memory platter. It is assumed that the platter has been completely initialized but contains no programs. Refer to the Mass Memory Operating Manual for the initialization procedure.

It is recommended that two platters be loaded with the Accounts Receivable/Billing system so one can be used as a backup while the other is used for day to day operation.



STARTUP PROCEDURE FOR A NEW PLATTER

USER INSTRUCTIONS:

1. Start with an empty platter. That is, a platter which has been initialized but contains no programs or data files. Refer to the Mass Memory Operating Manual for this procedure.
2. For platters that contain programs or data:
 - a. Enter: CAT
 - b. Press: EXECUTE - this lists the names of the files
 - c. For each name on the catalog:
 1. Enter: Kill "(File Name)".
 2. Press: EXECUTE.
 3. Go to step C.
 - d. Enter: CAT.
 - e. Press: EXECUTE.
 - f. Make sure the catalog is empty.
 - g. Enter: DAVTP.
 - h. Press: EXECUTE.
3. Place the Accounts Receivable/Billing Tape 1 cassette into the 9830 tape transport.
 - a. Press: LOAD.
 - b. Press: EXECUTE.
4. When the end-of-line mark (|—) is displayed:
 - a. Press: RUN.
 - b. Press: EXECUTE.
5. When "INSERT SECOND TAPE CASSETTE" is displayed:
 - a. Wait for the first tape cassette to rewind.
 - b. Place the Accounts Receivable/Billing Tape 2 cassette into the 9830 tape transport.
 - c. When "IS SECOND TAPE READY? Y/N?" is displayed:
 1. Enter: Y when the second tape is in the transport.
 2. Press: EXECUTE.
6. When "A/R-BILLING LOADED" is displayed, the Accounts Receivable/Billing system has been loaded on your platter and is ready to use.
7. The recommended order of execution is:
 - a. Daily Startup Procedure.
 - b. Add Customers.

Appendix B

PROGRAM DESCRIPTION

<u>PROGRAM NAME</u>	<u>DESCRIPTION</u>
BILL	Asks for the date as it will appear in all reports. Loads the keys.
BKEYS	Accounting systems key definitions for Accounts Receivable/Billing.
BILL1	Adds customers to the customer file. Gets "Bill2" once all customers have been added.
BILL2	Sorts the customer file by customer number.
<u>BILL3</u>	Adds new invoices into the daily invoice file. Prints the control totals for the user's verification. Gets "Bill4" after all invoices have been added.
BILL4	Sorts the daily invoice file by customer number primarily, and invoice number secondarily.
BILL5	Adds new cash receipts into the daily cash receipts file. Control totals are printed for the user's verification. Gets "Bill6" after all cash receipts have been added.
BILL6	Sorts the daily cash receipts file by customer number primarily and by invoice number secondarily.
BILL7	The daily invoice file is updated to print customer information, ship to information, credit limit into the daily invoice file. City tax, state tax, remaining balance, and total amount billed are also calculated and printed into the file. Gets "Bill8" after execution.
BILL8	Merges the daily invoice file with the master invoice file. Gets "Bill9" after execution.
BILL9	Updates the master invoice file with the daily cash receipts file to update total amount paid, adjustments, and remaining balance. This program also determines whether a customer took the discount, paid the invoice in part, or paid the invoice in full. Gets "Bill10" automatically.
BILL10	Modifies the master invoice file to calculate the latest accounts receivable information (< 30 days, 30 - 59 days, 60 - 89 days, > = 90 days, and total out). Deletes invoices with remaining balance = 0. Gets "Bill11" automatically.

PROGRAM NAME

DESCRIPTION

BILL11	Updates the customer file with the daily invoice file to update the month-to-date and the year-to-date billed totals. Gets "Bill12" automatically.
BILL12	Resets the system for the next run. Zeros out the daily invoice file (DINV1) and the daily cash receipts file (DCREC1). Copies "CUST2" to "CUST1" and copies "MINV2" to "MINV1" so that both files contain the current data. Gets "Bill16" to list the daily registers.
BILL13	Aged Accounts Receivable Report. Lists the current information in < 30 days, 30 - 59 days, 60 - 89 days, > = 90 days and total out.
BILL14	Lists information about the customers who have exceeded their credit limit.
BILL15	Lists the daily cash receipts file.
BILL16	Lists the daily invoice registers. Gets "Bill15" automatically.
BILL17	Lists the outstanding invoices.
BILL18	Lists information on the customers who have made partial payment to an invoice.
BILL19	Prints a statement of the amount billed, freight, service, taxes, terms of the invoice, and finance charge for each invoice in the daily invoice file.
BILL20	Determines which invoices are past due. Calculates a finance charge and a new remaining balance for those invoices and prints a past due letter for each customer who has one or more past due invoices.
BILL21	Sorts the customer file by customer state primarily, and customer city secondarily. Gets "Bill22" automatically.
BILL22	Prints the month-to-date totals for each customer. The report is sub-totaled by customer state and customer city.
BILL23	Lists the customers in the customer file, along with their customer number, address and credit limit.
BILL24	Lists the daily invoice transaction register - excluding sales tax. Gets "Bill15" automatically.
BILL25	Sets the month-to-date billed totals for each customer on the customer file to zero.
BILL26	Sets the month-to-date and year-to-date billed totals for each customer on the customer file to zero.
BILL27	Edits the customer file. Gets "Bill28" if customers are deleted. Gets Bill27 if any customer numbers are changed.

<u>PROGRAM NAME</u>	<u>DESCRIPTION</u>
BILL28	Modifies the customer file to remove all customers to be deleted from the file.
BILL29 And BILL30	Two programs to edit the master invoice file. Gets "Bill31" if invoices are deleted. Gets "Bill32" if any customer numbers or invoice numbers are changed.
BILL31	Modifies the master invoice file to remove all invoices to be deleted from the file (through edit).
BILL32	Sorts the master invoice file (MINV1) by customer number and invoice number.
BILL33	Edits the daily invoice file (DINV1). Gets "Bill34" if invoices are deleted. Gets "Bill4" if any customer numbers are changed.
BILL34	Modifies the daily invoice file to remove all invoices that were to be deleted from the file.
BILL35	Edits the daily cash receipts file (DCREC1). Gets "Bill36" if invoices are deleted. Gets "Bill6" if any customer numbers or invoice numbers are changed.
BILL36	Modifies the daily cash receipts file to remove all invoices that are deleted from the file.
BILL37	Backup program. Copies the data from the master invoice file and the customer file onto the fixed platter and back to another removable platter.
UPDSR	Update program, used by "Bill7".
UPSRT	Update program, used by "Bill9, Bill11".
SRTR	Sorting program, gets (SRTR1). Used by "Bill2, Bill4, Bill6, Bill32".
SRTR1	Sorting program.
MRGR	Merging program, gets (MRGR1). Used by "Bill8".
MRGR1	Merging program, gets (MRGR2).
MRGR2	Merging program.

Appendix C

DATA FILE DESCRIPTION

<u>FILE NAME</u>	<u>DESCRIPTION</u>
CUSTOM	Formatter file for the customer file and the customer file copy.
CUST1	Customer file.
CUST2	Customer file copy.
INVCR	Formatter file for the master invoice files, the daily invoice files, the daily cash receipts file and the error file.
MINV1	Master invoice file.
MINV2	Master invoice file copy.
DINV1	New invoice file.
DINV2	New invoice file copy.
DCREC1	New cash receipts file.
DCREC2	New cash receipts file copy.
ERR1	Error file.
DATE	Stores today's date for reports and flag in edits.
T1, T2, T3, T4	Temporary files for sorts.

1. The two customer files have the following file format:

N(1)	Customer Number
A\$(29)	Customer Name
B\$(29)	Customer Street
C\$(29)	Customer City
D\$(3)	Customer State
E\$(6)	Customer Zip Code
F\$(29)	Ship To Name
G\$(29)	Ship To Street
H\$(29)	Ship To City
I \$(3)	Ship To State
J\$(6)	Ship To Zip Code
N(2)	Credit Limit
K\$(2)	Tax Status
N(3)	City Tax Rate
N(4)	State Tax Rate
N(5)	MTD SALES
N(6)	MTD Freight
N(7)	MTD Service
N(8)	MTD City Tax
N(9)	MTD State Tax
N(10)	YTD Sales
N(11)	YTD Freight
N(12)	YTD Service
N(13)	YTD City Tax
N(14)	YTD State Tax

2. The two master invoice files (MINV1 and MINV2), the two new invoice files (DINV1 and DINV2), the two new cash receipts files (DCREC1 and DCREC2), the error file (ERR1) have the following file format:

N(1)	Invoice Number
N(2)	Customer Number
N(3)	Date Billed
N(4)	Bill Amount
N(5)	Freight
N(6)	Service
N(7)	City Tax
N(8)	State Tax
N(9)	Total Amount Billed
N(10)	Discount Percent
N(11)	Adjustments
N(12)	Date Paid
N(13)	Cash Received
N(14)	Total Amount Paid
N(15)	Discount Taken
N(16)	Remaining Balance
N(17)	Finance Percent
N(18)	Finance Charge
A\$(29)	Customer Name
B\$(15)	Customer Purchase Order Number
C\$(29)	Customer Street
D\$(29)	Customer City
E\$(3)	Customer State
F\$(6)	Customer Zip Code
G\$(29)	Ship To Name
H\$(29)	Ship To Street
I\$(29)	Ship To City
J\$(3)	Ship To State
K\$(6)	Ship To Zip Code
N(19)	Current (< 30 Days)
N(20)	30 - 59 Days
N(21)	60 - 89 Days
N(22)	> = 90 Days
N(23)	Credit Limit

Appendix D

PROGRAM LISTINGS

PROGRAM LISTING:

A. Data Entry Programs:

The data entry programs (Bill1, Bill3 and Bill5) may be divided into six distinct sections. These sections are described below and annotated on the listings.

1. Program Initialization:

This section of each program dimensions variables, assigns the proper file for input, defines the subroutine to print each record, and, in the daily invoice program and the daily cash receipts program, allows input of today's date.

2. Customer Number and/or Invoice Number Verification:

This section allows for input of a customer number and/or an invoice number and subsequently checks the input for either duplication (Add Customers) or existence (New Invoices and New Cash Receipts).

3. Data Input:

This section allows for the input of the items associated with the verified customer or invoice. Any validation checks are done in this section.

4. Item Initialization:

This section defines all items that are not defined by the user from the keyboard.

5. Program Termination:

This section is entered after the final customer number or invoice number has been entered. The files are closed and a sort program is accessed.

6. Date Conversion:

In new invoices and new cash receipts, the date is entered as a string and printed on the file as a numeric. This section converts the input string (M/D/Y) to a numeric (YY.MMDD) for storage.

B. Report Programs:

The report programs may be divided into eleven distinct sections. These sections are described below and annotated on the listings.

1. Program Initialization:

This section of each program dimensions variables, assigns the proper file for the report and initializes variables.

2. Read A New Record:

This section reads the next record from the file and in the case of totaling or subtotaling checks to see if such action is necessary.

(PROGRAM LISTINGS - Continued)

3. Report Title:

This section prints the report title and the date entered in daily system startup on the first page of the report.

4. Main Calling Sequence:

This section calls the various subroutines for the report and ejects the final page of the report.

5. Page Number And Heading:

This section prints headings on each new page and page numbers starting with the second page.

6. Totals:

This section prints any totals at the end of the report.

7. New Page:

This section ejects a page and prints a dash to mark the end of the page.

8. Subtotals:

This section prints any subtotals when the subtotaling criterion has been met.

9. Print A Record:

This section prints the record read in step 2. Strings are padded with blanks so columns will be aligned and any totals or subtotals are updated.

10. Program Termination:

This section is branched to when the report is complete.

11. Date Conversion:

In reports that have dates, this section converts the stored numeric date (YY.MMDD) to a string MM/DD/YY for printing.

LISTING

NEW INVOICES (BILLS)

1. PROGRAM INITIALIZATION

```
1 DIM U#[100],V#[100],Y#[25],Z#[25]
20 DIM A#[29],B#[15],C#[29],D#[29],E#[3],F#[6]
30 DIM G#[29],H#[29],I#[29],J#[3],K#[6],NE[23]
40 FILES *,*,*
50 ASSIGN "DINV1",1,I
60 IF I<3 THEN 100
70 PRINT "FILE NOT OPENED OR ILLEGAL PROTECTION KEY"
80 PRINT
90 STOP
100 ASSIGN "CUST1",2,I
110 IF I>2 THEN 70
120 ASSIGN "MINV1",3,I
130 IF I>2 THEN 70
140 READ #1,7;F1,U$
150 READ #2,7;E1
160 READ #3,7;G1
170 T1=G1-7
180 DISP "NEW INVOICES"
190 WAIT 1500
200 IF E1=7 THEN 1580
210 GOTO 270
220 PRINT #1;F1;NE[1],NE[2],NE[3],NE[4],NE[5],NE[6],NE[7],NE[8],NE[9]
230 PRINT #1;NE[10],NE[11],NE[12],NE[13],NE[14],NE[15],NE[16],NE[17],NE[18]
240 PRINT #1;A#,B#,C#,D#,E#,F#,G#,H#,I#,J#
250 PRINT #1;K#,NE[19],NE[20],NE[21],NE[22],NE[23]
260 RETURN
270 F1=F1+1
280 IF F1 >= 108 OR F1+T1 >= 808 THEN 1550
290 DISP "ENTER TODAYS DATE (M/D/Y)";
300 INPUT Z#
310 Z2=FNN(0)
320 IF Z2=0 THEN 290
330 A=B=C=0
340 M=0
350 U=1
360 GOTO 1000
```

LISTING

NEW INVOICES (CONTINUED)

3. DATA INPUT

```
370 DISP "ENTER INVOICE NUMBER (0 TO END)";
380 INPUT NC1]
390 IF NC1]=0 THEN 1420
400 U$=""
410 IF NC1]<100000000 THEN 990
420 GOTO 1000
```

2. CUSTOMER NUMBER VERIFICATION

```
430 DISP "ENTER CUSTOMER NUMBER";
440 INPUT NC2]
450 IF E1=7 THEN 1580
460 E2=8
470 E4=E1
480 E3=INT(E2+ABS(E4-E2)/2)
490 READ #2,E3;AC1]
500 IF NC2]=AC1] THEN 600
510 IF E2 >= E4 THEN 570
520 IF AC1]<NC2] THEN 550
530 E4=E3-1
540 GOTO 480
550 E2=E3+1
560 GOTO 480
570 PRINT NC2]" INVALID CUSTOMER"
580 PRINT
590 GOTO 430
600 U$=""
610 IF NC2]<100000000 THEN 990
620 GOTO 1000
```

3. DATA INPUT (CONTINUED)

```
630 DISP "ENTER DATE (M/D/Y,0 FOR TODAY)";
640 INPUT Z$
650 NC3]=FNN(0)
660 U$=""
670 IF NC3]=0 THEN 1000
680 GOTO 990
```

LISTING

NEW INVOICES (CONTINUED)

3. DATA INPUT (CONTINUED)

```
690 DISP "ENTER BILL AMOUNT";
700 INPUT N[4]
710 U$=""
720 GOTO 990
730 DISP "ENTER FREIGHT";
740 INPUT N[5]
750 U$=""
760 GOTO 990
770 DISP "ENTER SERVICE";
780 INPUT N[6]
790 U$=""
800 GOTO 990
810 DISP "ENTER DISCOUNT %";
820 INPUT N[10]
830 U$=""
840 GOTO 990
850 DISP "ENTER PURCHASE ORDER NO";
860 INPUT B$
870 U$=B$
880 IF U$=" " THEN 1000
890 IF U$[LEN(U$)]#" " THEN 920
900 U$=U$[1,LEN(U$)-1]
910 GOTO 880
920 V$=U$
930 IF LEN(V$)>14 THEN 1000
940 GOTO 990
950 DISP "ENTER FINANCE %";
960 INPUT N[17]
970 U$=""
980 GOTO 990
990 U=U+1
1000 IF U=W THEN 1030
1010 W=U
1020 GOTO (U) OF 370,430,630,690,730,770,810,850,950,1090
1030 IF LEN(U$)=0 THEN 1070
1040 PRINT U$
1050 PRINT V$
1060 PRINT
1070 DISP "ERROR, RE-";
1080 GOTO 1020
```

LISTING

NEW INVOICES (CONTINUED)

4. ITEM INITIALIZATION

```
1090 NC 7]=0
1100 NC 8]=0
1110 NC 9]=0
1120 NC 11]=0
1130 NC 12]=0
1140 NC 13]=0
1150 NC 14]=0
1160 NC 15]=FNR(((NC 4]+NC 6]*NC 10])/100)
1170 NC 16]=0
1180 NC 18]=0
1190 NC 19]=0
1200 NC 20]=0
1210 NC 21]=0
1220 NC 22]=0
1230 NC 23]=0
1240 C#=" "
1250 D#=" "
1260 E#=" "
1270 F#=" "
1280 G#=" "
1290 H#=" "
1300 I#=" "
1310 J#=" "
1320 K#=" "
1330 A=A+NC 4]
1340 B=B+NC 5]
1350 C=C+NC 6]
1360 GOSUB 220
1370 F1=F1+1
1380 IF F1 >= 100 OR F1+T1 >= 800 THEN 1400
1390 GOTO 340
1400 PRINT " DAILY INVOICE FILE OR MASTER INVOICE FILE FULL"
1410 PRINT
```

5. PROGRAM TERMINATION

```
1420 PRINT #1,F1;END
1430 F1=F1-1
1440 READ #1,7;Z1,U#
1450 PRINT #1,7;F1,U#
1460 FIXED 2
1470 PRINT
```

LISTING

NEW INVOICES (CONTINUED)

5. PROGRAM TERMINATION (CONTINUED)

```
1480 PRINT "CONTROL TOTALS - INVOICES"  
1490 PRINT "    TOTAL BILL AMOUNT = "%A  
1500 PRINT "    TOTAL FREIGHT = "%B  
1510 PRINT "    TOTAL SERVICE = "%C  
1520 PRINT  
1530 PRINT  
1540 GET "BILL4",1,1  
1550 PRINT "DAILY INVOICE FILE OR MASTER INVOICE FILE FULL"  
1560 PRINT  
1570 GOTO 1600  
1580 PRINT "CUSTOMER FILE EMPTY"  
1590 PRINT  
1600 DISP "SELECT KEY"  
1610 END  
1620 DEF FNR(Z)  
1630 RETURN INT((Z+0.005)*100)/100
```

6. DATE CONVERSION

```
1640 DEF FNN(Z)  
1650 IF Z##"0" THEN 1670  
1660 RETURN Z  
1670 Y#="1234567890."  
1680 IF LEN(Z#)=0 THEN 1810  
1690 M=INTVAL(Z#)  
1700 GOSUB 1820  
1710 IF LEN(Z#)=0 THEN 1810  
1720 D=INTVAL(Z#)  
1730 GOSUB 1820  
1740 IF LEN(Z#)=0 THEN 1810  
1750 Y=INTVAL(Z#)  
1760 Y=Y-INT(Y/100)*100  
1770 IF Y>99 OR Y<70 THEN 1810  
1780 IF M>12 OR M<1 THEN 1810  
1790 IF D>31 OR D<1 THEN 1810  
1800 RETURN Y+M/100+D/10000  
1810 RETURN 0  
1820 FOR I=1 TO LEN(Z#)-1  
1830 IF POS(Y#,Z#[I,I])=0 THEN 1850  
1840 NEXT I  
1850 Z#=Z#[I+1]  
1860 RETURN
```

LISTING

NEW CASH RECEIPTS (BILL5)

1. PROGRAM INITIALIZATION

```
1 DIM U#[100],V#[100],Y#[25],Z#[25]
20 DIM A#[29],B#[15],C#[29],D#[29],E#[3],F#[6]
30 DIM G#[29],H#[29],I#[29],J#[3],K#[6],NC[23]
40 FILES *,*,*
50 ASSIGN "DCREC1",1,I
60 IF I<3 THEN 100
70 PRINT "FILE NOT OPENED OR ILLEGAL PROTECTION KEY"
80 PRINT
90 STOP
100 ASSIGN "MINV1",2,I
110 IF I>2 THEN 70
120 ASSIGN "DINV1",3,I
130 IF I>2 THEN 70
140 DISP "NEW CASH RECEIPTS"
150 WAIT 1500
160 READ #1,7;F1,U#
170 READ #2,7;E1
180 READ #3,7;G1
190 IF E1=7 AND G1=7 THEN 1500
200 GOTO 260
210 PRINT #1,F1;NC[1],NC[2],NC[3],NC[4],NC[5],NC[6],NC[7],NC[8],NC[9]
220 PRINT #1;NC[10],NC[11],NC[12],NC[13],NC[14],NC[15],NC[16],NC[17],NC[18]
230 PRINT #1;A#,B#,C#,D#,E#,F#,G#,H#,I#,J#
240 PRINT #1;K#,NC[19],NC[20],NC[21],NC[22],NC[23]
250 RETURN
260 F1=F1+1
270 IF F1 >= 108 THEN 1530
280 DISP "ENTER TODAY'S DATE (M/D/Y)";
290 INPUT Z#
300 Z2=FNN(0)
310 IF Z2=0 THEN 280
320 A=B=0
330 W=0
340 U=1
350 GOTO 930
```

LISTING

NEW CASH RECEIPTS (CONTINUED)

2. CUSTOMER NUMBER - INVOICE NUMBER VERIFICATION

```
360 DISP "ENTER INVOICE NUMBER (0 TO END)":
370 INPUT NC1]
380 IF NC1]=0 THEN 1380
390 U$=""
400 IF NC1]<1000000000 THEN 920
410 GOTO 930
420 DISP "ENTER CUSTOMER NUMBER":
430 INPUT NC2]
440 IF E1=7 THEN 680
450 R=2
460 T=E4=E1
470 E2=8
480 E3=INT(E2+ABS(E4-E2)/2)
490 READ #R,E3;AC1],AC2]
500 IF NC2]=AC2] THEN 570
510 IF E2 >= E4 THEN 670
520 IF AC2]<NC2] THEN 550
530 E4=E3-1
540 GOTO 480
550 E2=E3+1
560 GOTO 480
570 FOR I=E3 TO 8 STEP -1
580 READ #R,I;AC1],AC2]
590 IF AC2]#NC2] THEN 620
600 IF AC1]=NC1] THEN 750
610 NEXT I
620 FOR I=E3+1 TO T
630 READ #R,I;AC1],AC2]
640 IF AC2]#NC2] THEN 670
650 IF AC1]=NC1] THEN 750
660 NEXT I
670 IF R=3 THEN 720
680 IF G1=7 THEN 720
690 R=3
700 T=E4=G1
710 GOTO 470
720 PRINT NC2];NC1]" INVALID CUSTOMER - INVOICE COMBINATION"
730 PRINT
740 GOTO 330
750 U$=""
760 IF NC2]<1000000000 THEN 920
770 GOTO 930
```


LISTING

NEW CASH RECEIPTS (CONTINUED)

3. DATA INPUT

```
780 DISP "ENTER ADJUSTMENTS";
790 INPUT NI[11];
800 U$=""
810 GOTO 920
820 DISP "ENTER DATE (M/D/Y;0 FOR TODAY)";
830 INPUT Z$
840 NI[12]=FNN(0)
850 U$=""
860 IF NI[12]=0 THEN 930
870 GOTO 920
880 DISP "ENTER CASH RECEIVED";
890 INPUT NI[13];
900 U$=""
910 GOTO 920
920 U=U+1
930 IF U=W THEN 960
940 W=U
950 GOTO (U) OF 360,420,780,820,880,1020
960 IF LEN(U$)=0 THEN 1000
970 PRINT U$
980 PRINT V$
990 PRINT
1000 DISP "ERROR, RE-";
1010 GOTO 950
```

4. ITEM INITIALIZATION

```
1020 NI[3]=0
1030 NI[4]=0
1040 NI[5]=0
1050 NI[6]=0
1060 NI[7]=0
1070 NI[8]=0
1080 NI[9]=0
1090 NI[10]=0
1100 NI[14]=0
1110 NI[15]=0
1120 NI[16]=0
1130 NI[17]=0
```

LISTING

NEW CASH RECEIPTS (CONTINUED)

4. ITEM INITIALIZATION (CONTINUED)

```
1140 NC18]=0
1150 NC19]=0
1160 NC20]=0
1170 NC21]=0
1180 NC22]=0
1190 NC23]=0
1200 B$=" "
1210 C$=" "
1220 D$=" "
1230 E$=" "
1240 F$=" "
1250 G$=" "
1260 H$=" "
1270 I$=" "
1280 J$=" "
1290 K$=" "
1300 A=A+NC13]
1310 B=B+NC11]
1320 GOSUB 210
1330 F1=F1+1
1340 IF F1 >= 108 THEN 1360
1350 GOTO 330
1360 PRINT " DAILY CASH RECEIPTS FILE FULL"
1370 PRINT
```

5. PROGRAM TERMINATION

```
1380 PRINT #1,F1;END
1390 F1=F1-1
1400 READ #1,7;Z1,U$
1410 PRINT #1,7;F1,U$
1420 FIXED 2
1430 PRINT
1440 PRINT "CONTROL TOTALS - CASH RECEIPTS"
1450 PRINT " TOTAL CASH RECEIPTS = "A
1460 PRINT " TOTAL ADJUSTMENTS = "B
1470 PRINT
1480 PRINT
```

LISTING

NEW CASH RECEIPTS (CONTINUED)

5. PROGRAM TERMINATION (CONTINUED)

```
1490 SET 'BILL6':1:1
1500 PRINT "ENTER DAILY INVOICES BEFORE CASH RECEIPTS"
1510 PRINT
1520 GOTO 1550
1530 PRINT "CASH RECEIPTS FILE FULL"
1540 PRINT
1550 DISP "SELECT KEY"
1560 END
```

6. DATE CONVERSION

```
1570 DEF FNN(Z)
1580 IF Z##"0" THEN 1600
1590 RETURN 22
1600 Y#="1234567890."
1610 IF LEN(Z#)=0 THEN 1740
1620 M=INTVAL(Z#)
1630 GOSUB 1750
1640 IF LEN(Z#)=0 THEN 1740
1650 D=INTVAL(Z#)
1660 GOSUB 1750
1670 IF LEN(Z#)=0 THEN 1740
1680 Y=INTVAL(Z#)
1690 Y=Y-INT(Y/100)*100
1700 IF Y<09 OR Y<70 THEN 1740
1710 IF M<12 OR M<1 THEN 1740
1720 IF D<31 OR D<1 THEN 1740
1730 RETURN Y+M/100+D/10000
1740 RETURN 0
1750 FOR I=1 TO LEN(Z#)-1
1760 IF MOD(Y#,Z#[I,1])=0 THEN 1780
1770 NEXT I
1780 Z#=Z#[I+1]
1790 RETURN
```

LISTING

ADD CUSTOMERS (BILL1)

1. PROGRAM INITIALIZATION

```
1 DIM U#[100],V#[100]
20 DIM A#[29],B#[29],C#[29],D#[3],E#[6],F#[29]
30 DIM G#[29],H#[29],I#[3],J#[6],K#[2],NC[14]
40 FILES *
50 ASSIGN "CUST1",1,I
60 IF I<3 THEN 100
70 PRINT "FILE NOT OPENED OR ILLEGAL PROTECTION KEY"
80 PRINT
90 STOP
100 READ #1,7;F1,U#
110 E1=F1
120 DISP "ADD CUSTOMERS"
130 WAIT 1500
140 GOTO 190
150 PRINT #1;F1;NC[1],A#,B#,C#,D#,E#,F#,G#,H#
160 PRINT #1;I#,J#,NC[2],K#,NC[3],NC[4],NC[5],NC[6],NC[7]
170 PRINT #1;NC[8],NC[9],NC[10],NC[11],NC[12],NC[13],NC[14]
180 RETURN
190 F1=F1+1
200 IF F1 >= 808 THEN 2130
210 W=0
220 U=1
230 GOTO 1750
```

2. CUSTOMER NUMBER VERIFICATION

```
240 DISP "ENTER CUSTOMER NUMBER(0 TO END)":
250 INPUT NC[1]
260 IF NC[1]=0 THEN 2080
270 IF E1=7 THEN 420
280 E2=8
290 E4=E1
300 E3=INT(E2+ABS(E4-E2)/2)
310 READ #1,E3;AC[1]
320 IF NC[1]=AC[1] THEN 390
330 IF E2 >= E4 THEN 420
340 IF AC[1]<NC[1] THEN 370
350 E4=E3-1
360 GOTO 300
```

LISTING

ADD CUSTOMERS (CONTINUED)

2. CUSTOMER NUMBER VERIFICATION (CONTINUED)

```
370 E2=E0+1
380 GOTO 300
390 PRINT N[1]" ALREADY ON THE CUSTOMER FILE"
400 PRINT
410 GOTO 240
420 U$=""
430 IF N[1]<1000000000 THEN 1740
440 GOTO 1750
```

3. DATA INPUT

```
450 DISP "ENTER CUSTOMER NAME":
460 INPUT A$
470 U$=A$
480 IF U$="" THEN 1750
490 IF U#[LEN(U#)]# THEN 520
500 U#=U#[1,LEN(U#)-1]
510 GOTO 480
520 V$=U$
530 IF LEN(V#) >= 29 THEN 1750
540 GOTO 1740
550 DISP "ENTER CUSTOMER STREET":
560 INPUT B$
570 U$=B$
580 IF U$="" THEN 1750
590 IF U#[LEN(U#)]# THEN 620
600 U#=U#[1,LEN(U#)-1]
610 GOTO 580
620 V$=U$
630 IF LEN(V#) >= 29 THEN 1750
640 GOTO 1740
650 DISP "ENTER CUSTOMER CITY":
660 INPUT C$
670 U$=C$
680 IF U$="" THEN 1750
690 IF U#[LEN(U#)]# THEN 720
700 U#=U#[1,LEN(U#)-1]
710 GOTO 680
720 V$=U$
730 IF LEN(V#) >= 29 THEN 1750
740 GOTO 1740
```

LISTING

ADD CUSTOMERS (CONTINUED)

3. DATA INPUT (CONTINUED)

```
750 DISP "ENTER CUSTOMER STATE";
760 INPUT D$
770 U$=D$
780 IF U$="" THEN 1750
790 IF U#[LEN(U#)]#" " THEN 820
800 U#=U#[1,LEN(U#)-1]
810 GOTO 780
820 V$=U$
830 IF LEN(V#)#2 THEN 1750
840 GOTO 1740
850 DISP "ENTER CUSTOMER ZIP CODE";
860 INPUT E$
870 U$=E$
880 IF U$="" THEN 1750
890 IF U#[LEN(U#)]#" " THEN 920
900 U#=U#[1,LEN(U#)-1]
910 GOTO 880
920 V$=U$
930 IF LEN(V#)#5 THEN 1750
940 GOTO 1740
950 DISP "ENTER SHIP TO NAME";
960 INPUT F$
970 U$=F$
980 IF U##"SAME" THEN 1020
990 GOSUB 2000
1000 U=11
1010 GOTO 1740
1020 IF U$="" THEN 1750
1030 IF U#[LEN(U#)]#" " THEN 1060
1040 U#=U#[1,LEN(U#)-1]
1050 GOTO 1020
1060 V$=U$
1070 IF LEN(V#) >= 29 THEN 1750
1080 GOTO 1740
1090 DISP "ENTER SHIP TO STREET";
1100 INPUT G$
1110 U$=G$
1120 IF U$="" THEN 1750
1130 IF U#[LEN(U#)]#" " THEN 1160
1140 U#=U#[1,LEN(U#)-1]
1150 GOTO 1120
1160 V$=U$
1170 IF LEN(V#) >= 29 THEN 1750
1180 GOTO 1740
```

LISTING

ADD CUSTOMERS (CONTINUED)

3. DATA INPUT (CONTINUED)

```
1190 DISP "ENTER SHIP TO CITY";
1200 INPUT H$
1210 U$=H$
1220 IF U$="" THEN 1750
1230 IF U$[LEN(U$)]#" " THEN 1260
1240 U$=U$[1,LEN(U$)-1]
1250 GOTO 1220
1260 V$=U$
1270 IF LEN(V$) >= 29 THEN 1750
1280 GOTO 1740
1290 DISP "ENTER SHIP TO STATE";
1300 INPUT I$
1310 U$=I$
1320 IF U$="" THEN 1750
1330 IF U$[LEN(U$)]#" " THEN 1360
1340 U$=U$[1,LEN(U$)-1]
1350 GOTO 1320
1360 V$=U$
1370 IF LEN(V$)#2 THEN 1750
1380 GOTO 1740
1390 DISP "ENTER SHIP TO ZIP CODE";
1400 INPUT J$
1410 U$=J$
1420 IF U$="" THEN 1750
1430 IF U$[LEN(U$)]#" " THEN 1460
1440 U$=U$[1,LEN(U$)-1]
1450 GOTO 1420
1460 V$=U$
1470 IF LEN(V$)#5 THEN 1750
1480 GOTO 1740
1490 DISP "ENTER CREDIT LIMIT";
1500 INPUT N[2]
1510 U$=""
1520 IF N[2]>0 THEN 1740
1530 GOTO 1750
1540 DISP "ENTER TAX STATUS";
1550 INPUT K$
1560 U$=K$
1570 IF U$="" THEN 1750
1580 IF U$[LEN(U$)]#" " THEN 1610
1590 U$=U$[1,LEN(U$)-1]
1600 GOTO 1570
1610 V$=U$
1620 IF LEN(V$)#1 THEN 1750
1630 GOTO 1740
```

LISTING

ADD CUSTOMERS (CONTINUED)

3. DATA INPUT (CONTINUED)

```
1640 DISP "ENTER CITY TAX RATE";
1650 INPUT N[3]
1660 U$=""
1670 IF N[3] >= 0 THEN 1740
1680 GOTO 1750
1690 DISP "ENTER STATE TAX RATE";
1700 INPUT N[4]
1710 U$=""
1720 IF N[4] >= 0 THEN 1740
1730 GOTO 1750
1740 U=U+1
1750 IF U=W THEN 1800
1760 W=U
1770 GOTO (U) OF 240,450,550,650,750,850,950,1090,1190,1290,1390
1780 V=U-11
1790 GOTO (V) OF 1490,1540,1640,1690,1860
1800 IF LEN(U$)=0 THEN 1840
1810 PRINT U$
1820 PRINT V$
1830 PRINT
1840 DISP "ERROR, RE-";
1850 GOTO 1770
```

4. ITEM INITIALIZATION

```
1860 N[5]=0
1870 N[6]=0
1880 N[7]=0
1890 N[8]=0
1900 N[9]=0
1910 N[10]=0
1920 N[11]=0
1930 N[12]=0
1940 N[13]=0
1950 N[14]=0
1960 GOSUB 150
```


LISTING

ADD CUSTOMERS (CONTINUED)

4. ITEM INITIALIZATION (CONTINUED)

```
1970 F1=F1-1
1980 IF F1 = 808 THEN 2060
1990 GOTO 210
2000 P#=A#
2010 G#=B#
2020 H#=C#
2030 I#=D#
2040 J#=E#
2050 RETURN
2060 PRINT " CUSTOMER FILE FULL"
2070 PRINT
```

5. PROGRAM TERMINATION

```
2080 PRINT #1,F1;END
2090 F1=F1-1
2100 READ #1,Z1,U#
2110 PRINT #1,Z1,F1,U#
2120 GET "BILL?";I,I
2130 PRINT "CUSTOMER FILE FULL"
2140 PRINT
2150 DISP "SELECT KEY"
2160 END
```

LISTING

AGED A/R REPORT (BILL13)

1. PROGRAM INITIALIZATION

```
1 DIM A#[29],B#[15],C#[29],D#[29],E#[3],F#[6]
20 DIM G#[29],H#[29],I#[29],J#[3],K#[6],N[23]
30 DIM Z#[72],S#[72]
40 DIM U#[80],V#[80],W#[80],X#[30],Y#[80]
50 DISP "AGED A/R REPORT"
60 WAIT 1500
70 FILES *,DATE
80 ASSIGN "MINV1",1,I
90 IF I<3 THEN 130
100 PRINT "MINV1 NOT OPENED OR ILLEGAL PROTECTION KEY"
110 PRINT
120 STOP
130 READ #1;R2,Z#
140 S0=S1=S2=S3=S4=S5=S6=S7=S8=S9=T0=T1=T2=T3=T4=T5=T6=T7=T8=T9=0
150 U0=U1=U2=U3=U4=U5=U6=U7=U8=U9=V0=V1=V2=V3=V4=V5=V6=V7=V8=V9=0
160 W0=W1=W2=W3=W4=W5=W6=W7=W8=W9=X0=X1=X2=X3=X4=X5=X6=X7=X8=X9=0
170 R1=8
180 L=0
190 IF END#1 THEN 1420
200 READ #2;I;Z#
210 T=1
220 S=15
```

2. READ A NEW RECORD

```
230 READ #1;S;N[1],N[2],N[3],N[4],N[5],N[6],N[7],N[8],N[9]
240 READ #1;N[10],N[11],N[12],N[13],N[14],N[15],N[16],N[17],N[18]
250 READ #1;A#,B#,C#,D#,E#,F#,G#,H#,I#
260 READ #1;J#,K#,N[19],N[20],N[21],N[22],N[23]
270 N[1]=N[2]
280 GOTO 460
290 READ #1;R1;N[1],N[2],N[3],N[4],N[5],N[6],N[7],N[8],N[9]
300 READ #1;N[10],N[11],N[12],N[13],N[14],N[15],N[16],N[17],N[18]
310 READ #1;A#,B#,C#,D#,E#,F#,G#,H#,I#
320 READ #1;J#,K#,N[19],N[20],N[21],N[22],N[23]
330 IF R1=R2 THEN 370
340 READ #1;R1+1;B[1],B[2]
350 IF B[2]=N[2] OR L <= 57 THEN 370
360 GOSUB 950
```

LISTING

AGED A/R REPORT (CONTINUED)

2. READ A NEW RECORD (CONTINUED)

```
370 IF HL13=HL23 THEN 400
380 HL13=HL23
390 GOSUB 1030
400 GOSUB 1160
410 T=T+1
420 IF R1=R2 THEN 440
430 RETURN
440 GOSUB 1030
450 GOTO 820
```

3. REPORT TITLE

```
460 J=1
470 WRITE (S,480)
480 FORMAT 2,24X,"AGED ACCOUNTS RECEIVABLE REPORT"
490 WRITE (S,*)TAB(40-(LEN(Z#)/2))IZ#
500 WRITE (S,510)
510 FORMAT 2,
520 L=L+9
530 GOSUB 640
```

4. MAIN CALLING SEQUENCE

```
540 IF P1/R2 THEN 580
550 GOSUB 290
560 R1=R1+1
570 GOTO 540
580 FOR I=1 TO 65
590 WRITE (S,*)
600 NEXT I
610 WRITE (S,620)95
620 FORMAT B,
630 GOTO 1420
```

LISTING

AGED A/R REPORT (CONTINUED)

5. PAGE NUMBER AND HEADING

```
640 IF J=1 THEN 700
650 DISP "TEAR PAPER NOW"
660 WAIT 3000
670 WRITE (S,680)J
680 FORMAT /,"PAGE",F5.0,2/
690 L=L+6
700 WRITE (S,710)0;
710 FORMAT "      CUSTOMER NAME      INVOICE      TOTAL      <30      30-59      ",B
720 WRITE (S,730)
730 FORMAT " 60-89              >=90"
740 WRITE (S,750)
750 FORMAT 24X,"NUMBER",6X,"OUT",7X,"DAYS",6X,"DAYS",6X,"DAYS",6X,"DAYS"
760 WRITE (S,770)0;
770 FORMAT "=====",4X,"=====",5X,"=====",4X,"=====",3X,B
780 WRITE (S,790)
790 FORMAT "=====",4X,"=====",4X,"=====",/
800 L=L+4
810 RETURN
```

6. TOTALS

```
820 WRITE (S,830)X0,X1,X2,X3,X4
830 FORMAT /,5X,"TOTAL",20X,5F10.2
840 P0=100
850 P1=(X1/X0)*100
860 P2=(X2/X0)*100
870 P3=(X3/X0)*100
880 P4=(X4/X0)*100
890 WRITE (S,900)P0,P1,P2,P3,P4
900 FORMAT 5X,"PERCENT",18X,F10.0,4F10.2
910 L=L+3
920 RETURN
```

LISTING

AGED A/R REPORT (CONTINUED)

7. NEW PAGE

```
930 IF L <= 58 THEN 1020
940 IF R1=R2 THEN 1020
950 FOR I=L TO 65
960 WRITE (S,*)
970 NEXT I
980 WRITE (S,620)95
990 L=0
1000 J=J+1
1010 GOSUB 640
1020 RETURN
```

8. SUBTOTALS

```
1030 IF T#2 THEN 1090
1040 IF R1>R2 THEN 1150
1050 WRITE (S,*)
1060 L=L+1
1070 S0=S1=S2=S3=S4=0
1080 GOTO 1130
1090 WRITE (S,1100)S0,S1,S2,S3,S4
1100 FORMAT 3X,"CUSTOMER TOTAL",13X,5F10.2,✓
1110 S0=S1=S2=S3=S4=S5=S6=S7=S8=S9=0
1120 L=L+2
1130 GOSUB 930
1140 T=1
1150 RETURN
```

9. PRINT A RECORD

```
1160 IF R1#R2 OR L <= 52 THEN 1180
1170 GOSUB 950
1180 Z#=""
1190 IF LEN(A#)<20 THEN 1220
1200 A#=A#[1,20]
1210 GOTO 1230
1220 A#[LEN(A#)+1]=Z#[1,20-LEN(A#)]
```

LISTING

AGED A/R REPORT (CONTINUED)

9. PRINT A RECORD (CONTINUED)

```
1230 IF T<2 OR L=10 THEN 1270
1240 WRITE (S,1250)NC1],NC16],NC19],NC20],NC21],NC22]
1250 FORMAT 20X,F9.0,X,5F10.2
1260 GOTO 1290
1270 WRITE (S,1280)A#,NC1],NC16],NC19],NC20],NC21],NC22]
1280 FORMAT F9.0,X,5F10.2
1290 S0=S0+NC16]
1300 S1=S1+NC19]
1310 S2=S2+NC20]
1320 S3=S3+NC21]
1330 S4=S4+NC22]
1340 X0=X0+NC16]
1350 X1=X1+NC19]
1360 X2=X2+NC20]
1370 X3=X3+NC21]
1380 X4=X4+NC22]
1390 L=L+1
1400 GOSUB 930
1410 RETURN
```

10. PROGRAM TERMINATION

```
1420 DISP "SELECT KEY"
1430 END
```

LISTING

OVER CREDIT LIMIT (BILL14)

1. PROGRAM INITIALIZATION

```
1 DIM A#[29],B#[15],C#[29],D#[29],E#[3],F#[6]
20 DIM G#[29],H#[29],I#[29],J#[3],K#[6],NE[23]
30 DIM Z#[72],S#[72]
40 DIM U#[80],V#[80],W#[80],X#[80],Y#[80]
50 DISP "OVER CREDIT LIMIT REPORT"
60 WAIT 1500
70 FILES *,DATE
80 ASSIGN "MINV1",1,I
90 IF I<3 THEN 130
100 PRINT "MINV1 NOT OPENED OR ILLEGAL PROTECTION KEY"
110 PRINT
120 STOP
130 READ #1,7;R2,Z#
140 S0=S1=S2=S3=S4=S5=S6=S7=S8=S9=T0=T1=T2=T3=T4=T5=T6=T7=T8=T9=0
150 U0=U1=U2=U3=U4=U5=U6=U7=U8=U9=V0=V1=V2=V3=V4=V5=V6=V7=V8=V9=0
160 W0=W1=W2=W3=W4=W5=W6=W7=W8=W9=X0=X1=X2=X3=X4=X5=X6=X7=X8=X9=0
170 R1=8
180 L=0
190 IF END#1 THEN 1320
200 READ #2,1;Z#
210 S=15
```

2. READ A NEW RECORD

```
220 READ #1,8;NC[1],NC[2],NC[3],NC[4],NC[5],NC[6],NC[7],NC[8],NC[9]
230 READ #1;NC[10],NC[11],NC[12],NC[13],NC[14],NC[15],NC[16],NC[17],NC[18]
240 READ #1;A#,B#,C#,D#,E#,F#,G#,H#,I#
250 READ #1;J#,K#,NC[19],NC[20],NC[21],NC[22],NC[23]
260 AC[1]=NC[2]
270 AC[3]=NC[12]
280 X#=A#
290 AC[2]=NC[23]
300 N=1
310 GOTO 600
320 READ #1,R1;NC[1],NC[2],NC[3],NC[4],NC[5],NC[6],NC[7],NC[8],NC[9]
330 READ #1;NC[10],NC[11],NC[12],NC[13],NC[14],NC[15],NC[16],NC[17],NC[18]
340 READ #1;A#,B#,C#,D#,E#,F#,G#,H#,I#
350 READ #1;J#,K#,NC[19],NC[20],NC[21],NC[22],NC[23]
```

LISTING

OVER CREDIT LIMIT (CONTINUED)

2. READ A NEW RECORD (CONTINUED)

```
360 IF A[1]=N[2] THEN 390
370 IF S0 <= A[2] THEN 420
380 GOSUB 1040
390 GOSUB 1280
400 IF R1=R2 THEN 480
410 RETURN
420 S0=S1=0
430 A[1]=N[2]
440 A[2]=N[23]
450 X#=A#
460 A[3]=N[12]
470 GOTO 390
480 IF S0 <= A[2] THEN 500
490 GOSUB 1040
500 GOTO 890
```



3. REPORT TITLE

```
510 J=1
520 WRITE (S,530)
530 FORMAT 2/,27X,"OVER CREDIT LIMIT REPORT"
540 WRITE (S,*)TAB(40-(LEN(Z#)/2))Z#
550 WRITE (S,560)
560 FORMAT 2/
570 L=L+9
580 GOSUB 700
590 RETURN
```

4. MAIN CALLING SEQUENCE

```
600 IF R1>R2 THEN 640
610 GOSUB 320
620 R1=R1+1
630 GOTO 600
640 FOR I=L TO 65
650 WRITE (S,*)
660 NEXT I
670 WRITE (S,680)95
680 FORMAT B, /
690 GOTO 1320
```


LISTING

OVER CREDIT LIMIT (CONTINUED)

5. PAGE NUMBER AND HEADING

```
700 IF J=1 THEN 750
710 DISP "TEAR PAPER NOW"
720 WAIT 3000
730 WRITE (S,740)J
740 FORMAT /,"PAGE",F5.0,2/
750 L=L+6
760 WRITE (S,770)0;
770 FORMAT "    CUSTOMER      CUSTOMER NAME      CREDIT    DATE      ",B
780 WRITE (S,790)
790 FORMAT "    TOTAL      AMOUNT"
800 WRITE (S,810)
810 FORMAT "    NUMBER",27X,"LIMIT",X,"LAST PAY",7X,"OUT",6X," OVER"
820 WRITE (S,830)0;
830 FORMAT "=====",X,"=====",5X,"=====",X,"=====",6X,B
840 WRITE (S,850)
850 FORMAT "=====",5X,"=====";/
860 L=L+4
870 N=2
880 RETURN
```

6. TOTALS

```
890 IF N=1 THEN 1320
900 WRITE (S,910)X0,X1,X2
910 FORMAT /,20X,"TOTAL",6X,F10.2,10X,F10.2,X,F10.2,X
920 L=L+2
930 RETURN
```

7. NEW PAGE

```
940 IF L <= 61 THEN 1030
950 IF R1=R2 THEN 1030
960 FOR I=L TO 65
970 WRITE (S,*)
980 NEXT I
```

LISTING

OVER CREDIT LIMIT (CONTINUED)

7. NEW PAGE (CONTINUED)

```
990 WRITE (S,680)95
1000 L=L
1010 J=J+1
1020 GOSUB 700
1030 RETURN
```

9. PRINT A RECORD

```
1040 IF N#1 THEN 1060
1050 GOSUB 510
1060 IF R1#R2 OR L <= 59 THEN 1080
1070 GOSUB 960
1080 Z#=""
1090 IF LEN(X#)<20 THEN 1120
1100 X#=X#[1,20]
1110 GOTO 1130
1120 X#[LEN(X#)+1]=Z#[1,20-LEN(X#)]
1130 S1=S0-AC[2]
1140 Z1=FNS(AC[3])
1150 WRITE (S,1160)AC[1],X#,AC[2],S#,0,S0,S1,0
1160 FORMAT F10.0,X,F10.2,X,B,X,F10.2,X,F10.2,B
1170 X0=X0+AC[2]
1180 X1=X1+S0
1190 X2=X2+S1
1200 AC[1]=NC[2]
1210 AC[2]=NC[3]
1220 X#=A#
1230 AC[3]=NC[12]
1240 S0=S1=S2=S3=S4=S5=S6=S7=S8=S9=0
1250 L=L+1
1260 GOSUB 940
1270 RETURN
1280 S0=S0+NC[16]
1290 IF AC[3] >= NC[12] THEN 1310
1300 AC[3]=NC[12]
1310 RETURN
```

LISTING

OVER CREDIT LIMIT (CONTINUED)

10. PROGRAM TERMINATION

```
1320 DISP "SELECT KEY"  
1330 END
```

11. DATE CONVERSION

```
1340 DEF FNS(Z)  
1350 IF Z#0 THEN 1380  
1360 S#=""  
1370 RETURN 0  
1380 Y=INTZ  
1390 M=INT(100*(Z-INTZ))  
1400 D=INT(100*(100*Z-INT(100*Z)))  
1410 DEXPM,Y#  
1420 S#[3]=Y#[3]  
1430 S#[3]="/"  
1440 DEXPD,Y#  
1450 S#[4]=Y#[3]  
1460 S#[6]="/"  
1470 DEXPY,Y#  
1480 S#[7]=Y#[3]  
1490 RETURN 0
```

LISTING

DAILY REGISTERS (BILL15)

1. PROGRAM INITIALIZATION

```
1 DIM A#[29],B#[15],C#[29],D#[29],E#[3],F#[6]
20 DIM G#[29],H#[29],I#[29],J#[3],K#[6],N#[23]
30 DIM Z#[72],S#[72]
40 DIM U#[80],V#[80],W#[80],X#[80],Y#[80]
50 FILES *,DATE
60 ASSIGN "DCREC2",1,I
70 IF I<3 THEN 110
80 PRINT "DCREC2 NOT OPENED OR ILLEGAL PROTECTION KEY"
90 PRINT
100 STOP
110 READ #1,7;R2,Z#
120 S0=S1=S2=S3=S4=S5=S6=S7=S8=S9=0
130 S=15
140 R1=S
150 L=0
160 IF END#1 THEN 960
170 READ #2,1;Z#
180 READ #2,3;K1
```

2. READ A NEW RECORD

```
190 READ #1,8;N#[1],N#[2],N#[3],N#[4],N#[5],N#[6],N#[7],N#[8],N#[9]
200 READ #1;N#[10],N#[11],N#[12],N#[13],N#[14],N#[15],N#[16],N#[17],N#[18]
210 READ #1;A#,B#,C#,D#,E#,F#,G#,H#,I#
220 READ #1;J#,K#,N#[19],N#[20],N#[21],N#[22],N#[23]
230 GOTO 320
240 READ #1,R1;N#[1],N#[2],N#[3],N#[4],N#[5],N#[6],N#[7],N#[8],N#[9]
250 READ #1;N#[10],N#[11],N#[12],N#[13],N#[14],N#[15],N#[16],N#[17],N#[18]
260 READ #1;A#,B#,C#,D#,E#,F#,G#,H#,I#
270 READ #1;J#,K#,N#[19],N#[20],N#[21],N#[22],N#[23]
280 GOSUB 860
290 IF R1#R2 THEN 310
300 GOTO 720
310 RETURN
```

LISTING

DAILY REGISTERS (CONTINUED)

3. REPORT TITLE

```
320 J=1
330 IF K1=1 THEN 370
340 WRITE (S,350)
350 FORMAT 2/,29X,"CASH RECEIPTS REGISTER"
360 GOTO 380
370 WRITE (S,380)
380 FORMAT 2/,23X,"CASH RECEIPTS TRANSACTION REGISTER"
390 WRITE (S,*)TAB(40-(LEN(Z#)/2)):Z#
400 WRITE (S,410)
410 FORMAT 2/
420 L=L+9
430 GOSUB 540
```

4. MAIN CALLING SEQUENCE

```
440 IF R1>R2 THEN 480
450 GOSUB 240
460 R1=R1+1
470 GOTO 440
480 FOR I=L TO 65
490 WRITE (S,*)
500 NEXT I
510 WRITE (S,520)95
520 FORMAT B,/
530 GOTO 960
```

5. PAGE NUMBER AND HEADING

```
540 IF J=1 THEN 600
550 DISP "TEAR PAPER NOW"
560 WAIT 3000
570 WRITE (S,580)J
580 FORMAT /,"PAGE",F5.0,2/
590 L=L+6
```

LISTING

DAILY REGISTERS (CONTINUED)

5. PAGE NUMBER AND HEADING (CONTINUED)

```
600 WRITE (S,610)0!
610 FORMAT 6X,"CUSTOMER",6X,"INVOICE",8X,"ADJUST-",8X,"DATE ",B
620 WRITE (S,630)
630 FORMAT 7X,"CASH"
640 WRITE (S,650)
650 FORMAT 8X,"NUMBER",7X,"NUMBER",9X,"MENTS",9X,"PAID",6X,"RECEIVED"
660 WRITE (S,670)0!
670 FORMAT 6X,"=====",6X,"=====",8X,"=====",8X,B
680 WRITE (S,690)
690 FORMAT "====",6X,"=====",/
700 L=L+4
710 RETURN
```

6. TOTALS

```
720 WRITE (S,730)60,S1
730 FORMAT /,20X,"TOTAL",6X,F11.2,14X,F12.2
740 L=L+2
750 RETURN
```

7. NEW PAGE

```
760 IF L <= 61 THEN 850
770 IF R1=R2 THEN 850
780 FOR I=L TO 65
790 WRITE (S,*)
800 NEXT I
810 WRITE (S,520)95
820 L=0
830 J=J+1
840 GOSUB 540
850 RETURN
```

LISTING

DAILY REGISTERS (CONTINUED)

9. PRINT A RECORD

```
860 IF R1#R2 OR L <= 59 THEN 880
870 GOSUB 780
880 Z1=FNS(NC12])
890 WRITE (S,900)NC2],NC1],NC11],S#,0,NC13],0
900 FORMAT 4X,F10.0,3X,F10.0,4X,F11.2,5X,B,X,F12.2,B
910 S0=S0+NC11]
920 S1=S1+NC13]
930 L=L+1
940 GOSUB 760
950 RETURN
```

10. PROGRAM TERMINATION

```
960 DISP "SELECT KEY"
970 END
```

11. DATE CONVERSION

```
980 DEF FNS(Z)
990 IF Z#0 THEN 1020
1000 S#=""
1010 RETURN 0
1020 Y=INTZ
1030 M=INT(100*(Z-INTZ))
1040 D=INT(100*(100*Z-INT(100*Z)))
1050 DEXP#,Y#
1060 S#[3]=Y#[3]
1070 S#[3]="/"
1080 DEXP#,Y#
1090 S#[4]=Y#[3]
1100 S#[6]="/"
1110 DEXP#,Y#
1120 S#[7]=Y#[3]
1130 RETURN 0
```

LISTING

DAILY INVOICE REGISTER (BILLING)

1. PROGRAM INITIALIZATION

```
1 DIM A$(29),B$(15),C$(29),D$(29),E$(31),F$(6)
20 DIM G$(29),H$(29),I$(29),J$(3),K$(6),N(23)
30 DIM Z$(72),S$(72)
40 DIM U$(80),V$(80),W$(80),X$(80),Y$(80)
50 FILES *,DATE
60 ASSIGN "DINV2",1,I
70 IF I<3 THEN 110
80 PRINT "DINV2 NOT OPENED OR ILLEGAL PROTECTION KEY"
90 PRINT
100 STOP
110 READ #1,I;R2,Z#
120 S0=S1=S2=S3=S4=S5=S6=S7=S8=S9=0
130 S=15
140 R1=8
150 L=0
160 IF END#1 THEN 920
170 READ #2,I;Z#
```

2. READ A NEW RECORD

```
180 READ #1,8;N(1),N(2),N(3),N(4),N(5),N(6),N(7),N(8),N(9)
190 READ #1;N(10),N(11),N(12),N(13),N(14),N(15),N(16),N(17),N(18)
200 READ #1;A$,B$,C$,D$,E$,F$,G$,H$,I$
210 READ #1;J$,K$,N(19),N(20),N(21),N(22),N(23)
220 GOTO 310
230 READ #1,R1;N(1),N(2),N(3),N(4),N(5),N(6),N(7),N(8),N(9)
240 READ #1;N(10),N(11),N(12),N(13),N(14),N(15),N(16),N(17),N(18)
250 READ #1;A$,B$,C$,D$,E$,F$,G$,H$,I$
260 READ #1;J$,K$,N(19),N(20),N(21),N(22),N(23)
270 GOSUB 830
280 IF R1#R2 THEN 300
290 GOTO 690
300 RETURN
```


LISTING

DAILY INVOICE REGISTER (CONTINUED)

3. REPORT TITLE

```
310 J=1
320 WRITE (S,330)
330 FORMAT 2/,28X,"DAILY INVOICE REGISTER"
340 WRITE (S,*)TAB(40-(LEN(Z#)/2));Z#
350 WRITE (S,360)
360 FORMAT 2/
370 L=L+9
380 GOSUB 510
```

4. MAIN CALLING SEQUENCE

```
390 IF R1>R2 THEN 430
400 GOSUB 230
410 R1=R1+1
420 GOTO 390
430 FOR I=L TO 65
440 WRITE (S,*)
450 NEXT I
460 WRITE (S,470)95
470 FORMAT B,/
480 DISP "TEAR PAPER NOW"
490 WAIT 3000
500 GOTO 920
```

5. PAGE NUMBER AND HEADING

```
510 IF J=1 THEN 570
520 DISP "TEAR PAPER NOW"
530 WAIT 3000
540 WRITE (S,550)J
550 FORMAT /,"PAGE",F5.0,2/
560 L=L+6
570 WRITE (S,580)0;
580 FORMAT 6X,"CUSTOMER",6X,"INVOICE",9X,"AMOUNT",9X;B
590 WRITE (S,600)
600 FORMAT "DATE",7X,"DISC"
610 WRITE (S,620)
620 FORMAT 3X,"NUMBER",7X,"NUMBER",9X,"BILLED",8X,"BILLED",6X,"PERC"
```

LISTING

DAILY INVOICE REGISTER (CONTINUED)

5. PAGE NUMBER AND HEADING (CONTINUED)

```
630 WRITE (S,640)01
640 FORMAT (6X,"=====",6X,"=====",9X,"=====",8X,B
650 WRITE (S,660)
660 FORMAT ("=====",6X,"====="),/
670 L=L+4
680 RETURN
```

6. TOTALS

```
690 WRITE (S,700)80
700 FORMAT (/;20X,"TOTAL",5X,F12.2
710 L=L+2
720 RETURN
```

7. NEW PAGE

```
730 IF L <= 51 THEN 820
740 IF R1=R2 THEN 820
750 FOR I=L TO 65 .
760 WRITE (S,*)
770 NEXT I
780 WRITE (S,470)95
790 L=0
800 J=J+1
810 GOSUB 510
820 RETURN
```

9. PRINT A RECORD

```
830 IF R1#R2 OR L <= 59 THEN 850
840 GOSUB 750
850 Z1=FNS(NC3J)
860 WRITE (S,870)NC2J,NC1J,NC9J,$$,0,NC10J
870 FORMAT (4X,F10.0,3X,F10.0,3X,F12.2,6X,B,3X,F7.2
```

LISTING

DAILY INVOICE REGISTER (CONTINUED)

9. PRINT A RECORD (CONTINUED)

```
880 S0=S0+NI[9]  
890 L=L+1  
900 GOSUB 730  
910 RETURN
```

10. PROGRAM TERMINATION

```
920 PRINT #2,310  
930 GET "BILL15",1,1  
940 END
```

11. DATE CONVERSION

```
950 DEF FNS(Z)  
960 IF Z#0 THEN 990  
970 S#=""  
980 RETURN 0  
990 Y=INTZ  
1000 M=INT(100*(Z-INTZ))  
1010 D=INT(100*(100*Z-INT(100*Z)))  
1020 DEXPM,Y#  
1030 S#[3]=Y#[3]  
1040 S#[3]="/"  
1050 DEXPD,Y#  
1060 S#[4]=Y#[3]  
1070 S#[6]="/"  
1080 DEXPY,Y#  
1090 S#[7]=Y#[3]  
1100 RETURN 0
```

LISTING

OUTSTANDING INVOICES (BILL17)

1. PROGRAM INITIALIZATION

```
1 DIM A#[29],B#[15],C#[29],D#[29],E#[3],F#[6]
20 DIM G#[29],H#[29],I#[29],J#[3],K#[6],N#[23]
30 DIM Z#[72],S#[72]
40 DIM U#[80],V#[80],W#[80],X#[80],Y#[80]
50 DISP "OUTSTANDING INVOICES"
60 WAIT 1500
70 FILES *,DATE
80 ASSIGN "MINV1",1,I
90 IF I<3 THEN 130
100 PRINT "MINV1 NOT OPENED OR ILLEGAL PROTECTION KEY"
110 PRINT
120 STOP
130 READ #1,I;R2,Z#
140 S0=S1=S2=S3=S4=S5=S6=S7=S8=S9=0
150 S=15
160 R1=8
170 L=0
180 IF END#1 THEN 900
190 READ #2,I;Z#
```

2. READ A NEW RECORD

```
200 READ #1,S;N#[1],N#[2],N#[3],N#[4],N#[5],N#[6],N#[7],N#[8],N#[9]
210 READ #1;N#[10],N#[11],N#[12],N#[13],N#[14],N#[15],N#[16],N#[17],N#[18]
220 READ #1;A#,B#,C#,D#,E#,F#,G#,H#,I#
230 READ #1;J#,K#
240 GOTO 330
250 READ #1,R1;N#[1],N#[2],N#[3],N#[4],N#[5],N#[6],N#[7],N#[8],N#[9]
260 READ #1;N#[10],N#[11],N#[12],N#[13],N#[14],N#[15],N#[16],N#[17],N#[18]
270 READ #1;A#,B#,C#,D#,E#,F#,G#,H#,I#
280 READ #1;J#,K#
290 GOSUB 850
300 IF R1#R2 THEN 320
310 GOTO 710
320 RETURN
```

LISTING

OUTSTANDING INVOICES (CONTINUED)

3. REPORT TITLE

```
330 J=1
340 WRITE (S,350)
350 FORMAT (2/,30X,"OUTSTANDING INVOICES"
360 WRITE (S,*)TAB(40-(LEN(Z#)/2))I Z#
370 WRITE (S,380)
380 FORMAT (2/
390 L=L+9
400 GOSUB 510
```

4. MAIN CALLING SEQUENCE

```
410 IF R1>R2 THEN 450
420 GOSUB 250
430 R1=R1+1
440 GOTO 410
450 FOR I=L TO 65
460 WRITE (S,*)
470 NEXT I
480 WRITE (S,490)95
490 FORMAT (B, /
500 GOTO 980
```

5. PAGE NUMBER AND HEADING

```
510 IF J=1 THEN 570
520 DISP "TEAR PAPER NOW"
530 DAIT 3000
540 WRITE (S,550)J
550 FORMAT (/, "PAGE",F5.0,2/
560 L=L+6
570 WRITE (S,580)0#
580 FORMAT (2X,"CUSTOMER",2X,"INVOICE",4X,"DATE",4X,"TOTL AMT",3X,"PARTIAL ",9
590 WRITE (S,600)
600 FORMAT (" ADJUST- FINANCE BALANCE")
```

LISTING

OUTSTANDING INVOICES (CONTINUED)

5. PAGE NUMBER AND HEADING (CONTINUED)

```
610 WRITE (S,620)0;
620 FORMAT 4X,"NUMBER",3X,"NUMBER",3X,"BILLED",4X,"BILLED",5X,"AMT PD",3X,B
630 WRITE (S,640)
640 FORMAT "MENTS",4X,"CHARGE",6X,"DUE"
650 WRITE (S,660)0;
660 FORMAT "=====",2X,"=====",3X,"=====",3X,"=====",3X,"=====",B
670 WRITE (S,680)
680 FORMAT 2X,"=====",2X,"=====",4X,"=====",/
690 L=L+4
700 RETURN
```

6. TOTALS

```
710 WRITE (S,720)S0,S1,S2,S3,S4
720 FORMAT /,17X,"TOTAL",5X,F12.2,X,F9.2,X,F8.2,F9.2,F11.2
730 L=L+2
740 RETURN
```

7. NEW PAGE

```
750 IF L <= 61 THEN 840
760 IF R1=R2 THEN 840
770 FOR I=L TO 65
780 WRITE (3,*)
790 NEXT I
800 WRITE (S,490)95
810 L=0
820 J=J+1
830 GOSUB 510
840 RETURN
```

LISTING

OUTSTANDING INVOICES (CONTINUED)

9. PRINT A RECORD

```
850 IF R1#R2 OR L <= 59 THEN 870
860 GOSUB 770
870 Z1=FNS(NC[3])
880 WRITE (S,890)NC[2],NC[1],S#,0,NC[9],NC[14],NC[11],NC[18],NC[16]
890 FFORMAT F10.0,F9.0,X,B,X,F10.2,X,F9.2,X,F8.2,X,F8.2,X,F10.2
900 S0=S0+NC[9]
910 S1=S1+NC[14]
920 S2=S2+NC[11]
930 S3=S3+NC[18]
940 S4=S4+NC[16]
950 L=L+1
960 GOSUB 750
970 RETURN
```

10. PROGRAM TERMINATION

```
980 DISP "SELECT KEY"
990 END
```

11. DATE CONVERSION

```
1000 DEF FNS(Z)
1010 IF Z#0 THEN 1040
1020 S#=""
1030 RETURN 0
1040 Y=INTZ
1050 M=INT(100*(Z-INTZ))
1060 D=INT(100*(100*Z-INT(100*Z)))
1070 DEXPM,Y#
1080 S#[3]=Y#[3]
1090 S#[3]="/"
1100 DEXPD,Y#
1110 S#[4]=Y#[3]
1120 S#[6]="/"
1130 DEXPY,Y#
1140 S#[7]=Y#[3]
1150 RETURN 0
```

LISTING

PARTIALLY PAID INVOICES (BILL18)

1. PROGRAM INITIALIZATION

```
1 DIM A#[29],B#[15],C#[29],D#[29],E#[3],F#[6]
20 DIM C#[29],M#[29],I#[29],J#[3],K#[6],N[23]
30 DIM Z#[72],S#[72]
40 DIM U#[80],V#[80],W#[80],X#[80],Y#[80]
50 DISP "PART PD INVOICES"
60 WAIT 1500
70 FILES *,DATE
80 ASSIGN "MINV1",1,I
90 IF I<3 THEN 130
100 PRINT "MINV1 NOT OPENED OR ILLEGAL PROTECTION KEY"
110 PRINT
120 STOP
130 READ #1,7#R2,Z#
140 S0=S1=S2=S3=S4=S5=S6=S7=S8=S9=0
150 S=15
160 R1=8
170 L=N=0
180 IF END#1 THEN 1050
190 READ #2,1#Z#
```

2. READ A NEW RECORD

```
200 READ #1,8#N[1],N[2],N[3],N[4],N[5],N[6],N[7],N[8],N[9]
210 READ #1;N[10],N[11],N[12],N[13],N[14],N[15],N[16],N[17],N[18]
220 READ #1;A#,B#,C#,D#,E#,F#,G#,H#,I#
230 READ #1;J#,K#,N[19],N[20],N[21],N[22],N[23]
240 GOTO 440
250 READ #1,R1;N[1],N[2],N[3],N[4],N[5],N[6],N[7],N[8],N[9]
260 READ #1;N[10],N[11],N[12],N[13],N[14],N[15],N[16],N[17],N[18]
270 READ #1;A#,B#,C#,D#,E#,F#,G#,H#,I#
280 READ #1;J#,K#,N[19],N[20],N[21],N[22],N[23]
290 IF N[9]=N[16] THEN 320
300 IF N[14]=0 THEN 320
310 GOSUB 900
320 IF R1#R2 THEN 340
330 GOTO 750
340 RETURN
```



LISTING

PARTIALLY PAID INVOICES (CONTINUED)

3. REPORT TITLE

```
350 J=1
360 WRITE (15,370)
370 FORMAT 2/,28X,"PARTIALLY PAID INVOICES"
380 WRITE (S,*)TAB(40-(LEN(Z#)/2))!Z#
390 WRITE (S,400)
400 FORMAT 2/
410 L=L+9
420 GOSUB 540
430 RETURN
```

4. MAIN CALLING SEQUENCE

```
440 IF R1>R2 THEN 480
450 GOSUB 250
460 R1=R1+1
470 GOTO 440
480 FOR I=L TO 65
490 WRITE (S,*)
500 NEXT I
510 WRITE (S,520)95
520 FORMAT B,/
530 GOTO 1050
```

5. PAGE NUMBER AND HEADING

```
540 IF J=1 THEN 600
550 DISP "TEAR PAPER NOW"
560 WAIT 3000
570 WRITE (S,580)J
580 FORMAT /,"PAGE",F5.0,2/
590 L=L+6
600 WRITE (S,610)0!
610 FORMAT 2X,"CUSTOMER"%2X,"INVOICE"%5X,"AMOUNT"%5X,"AMOUNT"%4X,"DATE"%B
620 WRITE (S,630)
630 FORMAT 2X,"ADJUST-";2X,"FINANCE";6X,"BALANCE"
640 WRITE (S,650)0!
```

LISTING

PARTIALLY PAID INVOICES (CONTINUED)

5. PAGE NUMBER AND HEADING (CONTINUED)

```
650 FORMAT 3X,"NUMBER      NUMBER      BILLED      PAID",4X,"PAID",8
660 WRITE (S,670)
670 FORMAT 4X,"MENTS",3X,"CHARGE",8X,"DUE"
680 WRITE (S,690)0;
690 FORMAT 2X,"=====","=====","=====","=====","====",6
700 WRITE (S,710)
710 FORMAT 2X,"=====","2X,"=====","6X,"=====","/
720 L=L+4
730 N=1
740 RETURN
```

6. TOTALS

```
750 IF N=0 THEN 1050
760 WRITE (S,770)S0,S1,S2,S3,S4
770 FORMAT /,8X,"TOTAL",5X,F12.2,X,F10.2,7X,F10.2,X,F8.2,X,F12.2
780 L=L+2
790 RETURN
```

7. NEW PAGE

```
800 IF L <= 61 THEN 890
810 IF R1=R2 THEN 890
820 FOR I=L TO 65
830 WRITE (S,*)
840 NEXT I
850 WRITE (S,520)95
860 L=0
870 J=J+1
880 GOSUB 540
890 RETURN
```

LISTING

PARTIALLY PAID INVOICES (CONTINUED)

9. PRINT A RECORD

```
900 IF N=1 THEN 920
910 GOSUB 350
920 IF R1#R2 OR L <= 59 THEN 940
930 GOSUB 820
940 ZI=FNS(NC12J)
950 WRITE (S,960)NC2J,NC1J,NC9J,NC14J,S#,0,NC11J,NC18J,NC16J
960 FORMAT F10.0,F9.0,X,F10.2,X,F10.2,X,B,X,F7.2,X,F8.2,X,F12.2
970 S0=S0+NC9J
980 S1=S1+NC14J
990 S2=S2+NC11J
1000 S3=S3+NC18J
1010 S4=S4+NC16J
1020 L=L+1
1030 GOSUB 800
1040 RETURN
```

10. PROGRAM TERMINATION

```
1050 DISP "SELECT KEY"
1060 END
```

11. DATE CONVERSION

```
1070 DEF FNS(Z)
1080 IF Z#0 THEN 1110
1090 S#=""
1100 RETURN 0
1110 Y=INTZ
1120 M=INT(100*(Z-INTZ))
1130 D=INT(100*(100*Z-INT(100*Z)))
1140 DEXPM,Y#
1150 S#[3]=Y#[3]
1160 S#[3]="/"
1170 DEXPD,Y#
1180 S#[4]=Y#[3]
1190 S#[6]="/"
1200 DEXPY,Y#
1210 S#[7]=Y#[3]
1220 RETURN 0
```

LISTING

STATEMENTS (BILL19)

1. PROGRAM INITIALIZATION

```
1 DIM A#[29],B#[15],C#[29],D#[29],E#[3],F#[6]
20 DIM G#[29],H#[29],I#[29],J#[3],K#[6],N#[23]
30 DIM Z#[72],S#[30],M#[30],O#[30]
40 DIM U#[80],V#[80],W#[80],X#[80],Y#[80]
50 DISP "STATEMENTS"
60 WAIT 1500
70 FILES *,DATE
80 ASSIGN "DINV2",1,I
90 IF 1<3 THEN 140
100 PRINT "DINV2 NOT OPENED OR ILLEGAL PROTECTION KEY"
110 PRINT
120 STOP
130 IF END#1 THEN 1090
140 S=15
150 L=0
160 READ #1,7;R1,Z#
170 IF R1=7 THEN 1090
180 DISP "ENTER YOUR COMPANY NAME";
190 INPUT O#
200 DISP "ENTER SENDERS NAME";
210 INPUT M#
220 DISP "ENTER SENDERS TITLE";
230 INPUT S#
240 READ #2,1;Z#
```

2. READ A NEW RECORD

```
250 FOR I=8 TO R1
260 READ #1,I;N#[1],N#[2],N#[3],N#[4],N#[5],N#[6],N#[7],N#[8],N#[9]
270 READ #1;N#[10],N#[11],N#[12],N#[13],N#[14],N#[15],N#[16],N#[17],N#[18]
280 READ #1;A#,B#,C#,D#,E#,F#,G#,H#,I#,J#
290 READ #1;K#,N#[19],N#[20],N#[21],N#[22],N#[23]
```

LISTING

STATEMENTS (CONTINUED)

4. MAIN CALLING SEQUENCE

```

300 WRITE (S,310)O$,0
310 FORMAT 9/,10X,B,3/
320 WRITE (S,330)Z$,0
330 FORMAT B,1/
340 WRITE (S,*)"SOLD TO:",TAB40,"SHIP TO:"
350 WRITE (S,*)A$,TAB40,G$
360 WRITE (S,*)C$,TAB40,H$
370 WRITE (S,*)D$1,"1" "1E$1" "%F$,TAB40,I$1","1" "1J$:" "1K$
380 WRITE (S,390)"DEAR SIR:",0
390 FORMAT 2/,B,1/
400 WRITE (S,410)0,"PER THE ATTACHED DOCUMENTS, PLEASE REMIT THE ",0
410 FORMAT 5X,2B,"FOLLOWING:",2/
420 WRITE (S,*)"YOUR PURCHASE ORDER NUMBER: "B$
430 WRITE (S,440)"INVOICE NUMBER: "I$NL4]
440 FORMAT F10,0,2/
450 WRITE (S,460)"PRICE OF GOODS $"I$NL4]
460 FORMAT F12,2
470 WRITE (S,480)"FREIGHT",0;NL5]
480 FORMAT B,12X,F12,2
490 WRITE (S,500)"SERVICE",0;NL6]
500 FORMAT B,12X,F12,2
510 WRITE (S,520)
520 FORMAT 24X,7"="
530 WRITE (S,540)"CITY TAX",0;NL7]
540 FORMAT B,11X,F12,2
550 WRITE (S,560)"STATE TAX",0;NL8]
560 FORMAT B,10X,F12,2
570 X=NL4]+NL5]+NL6]+NL7]+NL8]
580 WRITE (S,590)
590 FORMAT 24X,7"="
600 WRITE (S,610)X
610 FORMAT "TOTAL",13X,"*",F12,2
620 L=L+30
630 IF NL10]#0 THEN 680
640 WRITE (S,*)
650 WRITE (S,*)
660 L=L+2
670 GOTO 300
680 WRITE (S,690)NL10]
690 FORMAT "LESS",F7,2,"% DISCOUNT"
700 WRITE (S,710)"IF PAID IN 10 DAYS",0;NL15]
710 FORMAT B,5X,F8,2
720 X1=X-NL15]
730 WRITE (S,740)X1

```

LISTING

STATEMENTS (CONTINUED)

4. MAIN CALLING SEQUENCE (CONTINUED)

```
740 FORMAT "TOTAL",13X,"*";F12.2;2/
750 WRITE (S,760)"TERMS: ";IND10J
760 FORMAT F7.2,"% 10 DAYS; NET 30 DAYS FROM DATE OF STATEMENT."
770 WRITE (S,*)
780 L=L+7
790 GOTO 830
800 WRITE (S,*)"TERMS: NET 30 DAYS FROM DATE OF STATEMENT."
810 WRITE (S,*)
820 L=L+2
830 IF ND17J#0 THEN 870
840 WRITE (S,930)
850 L=L+2
860 GOTO 950
870 Y3=ND17J*12
880 WRITE (S,890)"FINANCE CHARGE: ";ND17J;"% PER MONTH("Y3)"% ANNUAL)"*0
890 FORMAT F7.2;F8.2;B;" WILL BE ADDED TO"
900 WRITE (S,910)
910 FORMAT 20X,"ALL PAST DUE ACCOUNTS."
920 WRITE (S,930)
930 FORMAT /
940 L=L+4
950 WRITE (S,960)
960 FORMAT 35X,"VERY TRULY YOURS:";3/
970 WRITE (S,*)TAB35;M#
980 WRITE (S,*)TAB35;S#
990 L=L+6
1000 FOR K=L TO 65
1010 WRITE (S,*)
1020 NEXT K
1030 WRITE (S,1040)95
1040 FORMAT B, /
1050 DISP "TEAR PAPER NOW"
1060 WAIT 3000
1070 L=0
1080 NEXT I
```

10. PROGRAM TERMINATION

```
1090 DISP "SELECT KEY"
1100 END
```

LISTING

PAST DUE LETTERS (BILL20)

1. PROGRAM INITIALIZATION

```
1 DIM A#[29],B#[15],C#[29],D#[29],E#[3],F#[6]
20 DIM G#[29],H#[29],I#[29],J#[3],K#[6],N#[23]
30 DIM Z#[72],S#[30],M#[30],L#[20],N#[30],O#[30]
40 DIM U#[80],V#[80],W#[80],X#[80],Y#[80]
50 DISP "PAST DUE LETTERS"
60 WAIT 1500
70 FILES *,DATE
80 ASSIGN "MINV1",1,I
90 IF I<3 THEN 130
100 PRINT "MINV1 NOT OPENED OR ILLEGAL PROTECTION KEY"
110 PRINT
120 STOP
130 IF END#1 THEN 1590
140 READ #1,8;N[1]
150 S=15
160 READ #1,7;R2,Z#
170 IF END#1 THEN 1590
180 DISP "ENTER YOUR COMPANY NAME";
190 INPUT O#
200 DISP "ENTER SENDERS NAME";
210 INPUT M#
220 DISP "ENTER SENDERS TITLE";
230 INPUT N#
240 READ #2,1;U#
250 DISP "ENTER PAST DUE DATE (M/D/Y)";
260 INPUT Z#
270 Z1=FNN(0)
280 IF Z1=0 THEN 250
290 DISP "ENTER TODAYS DATE (M/D/Y)";
300 INPUT Z#
310 Z2=FNN(0)
320 IF Z2=0 THEN 290
330 DISP "ENTER PHONE NUMBER (CODE & NO)";
340 INPUT L#
350 W=S0=L=0
360 J=1
```

LISTING

PAST DUE LETTERS (CONTINUED)

2. READ A NEW RECORD

```
370 READ #1, S; NC 1 J, NC 2 J, NC 3 J, NC 4 J, NC 5 J, NC 6 J, NC 7 J, NC 8 J, NC 9 J
380 READ #1; NC 10 J, NC 11 J, NC 12 J, NC 13 J, NC 14 J, NC 15 J, NC 16 J, NC 17 J, NC 18 J
390 READ #1; A$, B$, C$, D$, E$, F$, G$, H$, I$, J$
400 READ #1; K$, NC 19 J, NC 20 J, NC 21 J, NC 22 J, NC 23 J
410 AC 1 J=NC 2 J
420 GOTO 590
430 READ #1, R1; NC 1 J, NC 2 J, NC 3 J, NC 4 J, NC 5 J, NC 6 J, NC 7 J, NC 8 J, NC 9 J
440 READ #1; NC 10 J, NC 11 J, NC 12 J, NC 13 J, NC 14 J, NC 15 J, NC 16 J, NC 17 J, NC 18 J
450 READ #1; A$, B$, C$, D$, E$, F$, G$, H$, I$, J$
460 READ #1; K$, NC 19 J, NC 20 J, NC 21 J, NC 22 J, NC 23 J
470 IF AC 1 J=NC 2 J THEN 530
480 AC 1 J=NC 2 J
490 IF W=0 THEN 530
500 GOSUB 1530
510 GOSUB 1110
520 W=0
530 RETURN
```

4. MAIN CALLING SEQUENCE

```
540 PRINT #1, R1; NC 1 J, NC 2 J, NC 3 J, NC 4 J, NC 5 J, NC 6 J, NC 7 J, NC 8 J, NC 9 J
550 PRINT #1; NC 10 J, NC 11 J, NC 12 J, NC 13 J, NC 14 J, NC 15 J, NC 16 J, NC 17 J, NC 18 J
560 PRINT #1; A$, B$, C$, D$, E$, F$, G$, H$, I$, J$
570 PRINT #1; K$, NC 19 J, NC 20 J, NC 21 J, NC 22 J, NC 23 J
580 RETURN
590 FOR R1=8 TO R2
600 GOSUB 430
610 IF NC 3 J >= Z1 THEN 700
620 IF NC 16 J <= 0 THEN 700
630 X1=Z2+0.12*(INT Z2-INT NC 3 J)
640 X1=INT((X1-INT X1-NC 3 J)+INT NC 3 J)*100)
650 IF X1 <= 0 THEN 700
660 IF W#0 THEN 680
670 GOSUB 770
680 GOSUB 1300
690 W=W+1
700 IF R1#R2 THEN 740
```


LISTING

PAST DUE LETTERS (CONTINUED)

4. MAIN CALLING SEQUENCE (CONTINUED)

```
710 IF W=0 THEN 1590
720 GOSUB 1530
730 GOSUB 1110
740 NEXT R1
750 GOTO 1590
760 REM START LETTER - HEADINGS
770 WRITE (S,780)O$,0
780 FORMAT 9/,10X,B,3/
790 WRITE (S,800)U$,0
800 FORMAT B,/
810 WRITE (S,*)A$
820 WRITE (S,*)C$
830 WRITE (S,*)D$;"",;" " "E$;" "F$
840 WRITE (S,850)"DEAR SIR:";0
850 FORMAT 2/,B,/
860 IF J=1 THEN 930
870 DISP "TEAR PAPER NOW"
880 WAIT 3000
890 WRITE (S,900)J
900 FORMAT 9/,"PAGE",F5.0,2/
910 L=L+17
920 GOTO 970
930 WRITE (S,940)0;"OUR RECORDS INDICATE THE FOLLOWING INVOICES ARE ";0
940 FORMAT 6X,2B,"PAST DUE."
950 WRITE (S,960)0;"YOUR ATTENTION TO THESE WOULD BE APPRECIATED.";0
960 FORMAT 2B,2/
970 WRITE (S,980)0:
980 FORMAT 4X;"INVOICE";3X;"P.O. NUMBER";6X;"DATE";8X;"UNPAID";4X;"FINANCE";/
990 WRITE (S,1000)
1000 FORMAT 6X;"BALANCE"
1010 WRITE (S,1020)
1020 FORMAT 5X;"NUMBER";19X;"BILLED";6X;"BALANCE";5X;"CHARGE";8X;"DUE"
1030 WRITE (S,1040)0:
1040 FORMAT 4X;"=====";3X;"=====";5X;"=====";6X;"=====";4X;B
1050 WRITE (S,1060)
1060 FORMAT "=====";6X;"=====";/
1070 IF J#1 THEN 1090
1080 L=L+31
1090 RETURN
```

LISTING

PAST DUE LETTERS (CONTINUED)

4. MAIN CALLING SEQUENCE (CONTINUED)

```
1100 REM FINISH LETTER
1110 WRITE (S,1120)0,"IF THERE ARE ANY QUESTIONS PLEASE CONTACT ME AT",0;
1120 FORMAT 2/,6X,2B
1130 WRITE (S,1140)L$,0
1140 FORMAT X,B,".",2/
1150 WRITE (S,1160)
1160 FORMAT 35X,"VERY TRULY YOURS:",3/
1170 WRITE (S,*)TAB35,M$
1180 WRITE (S,*)TAB35,N$
1190 L=L+11
1200 FOR K=L TO 65
1210 WRITE (S,*)
1220 NEXT K
1230 WRITE (S,1240)95
1240 FORMAT B,/
1250 DISP "TEAR PAPER NOW"
1260 WAIT 3000
1270 L=0
1280 J=1
1290 RETURN
1300 X2=FHR((NI 16 J#NI 17 J)/100)
1310 NI 18 J=NI 18 J+X2
1320 NI 16 J=NI 16 J+X2
1330 GOSUB 540
```

7. NEW PAGE

```
1340 IF L <= 42 THEN 1450
1350 WRITE (S,1360)
1360 FORMAT 4/,45X,"CONTINUED ON NEXT PAGE"
1370 L=L+5
1380 FOR K=L TO 65
1390 WRITE (S,*)
1400 NEXT K
1410 WRITE (S,1240)95
1420 L=0
1430 J=J+1
1440 GOSUB 860
```

LISTING

PAST DUE LETTERS (CONTINUED)

9. PRINT A RECORD

```
1450 Z$=""
1460 B#[LEN(B#)+1]=Z#[1,10-LEN(B#)]
1470 Z3=FNS(NC3])
1480 WRITE (S,1490)N[1],B#,S#,0,N[16]-X2,X2,N[16]
1490 FORMAT F10.0,8X,B,X,F12.2,X,F10.2,X,F12.2
1500 S0=S0+N[16]
1510 L=L+1
1520 RETURN
```

6. TOTALS

```
1530 IF M=1 THEN 1580
1540 WRITE (S,1550)S0
1550 FORMAT /,45X,"TOTAL",9X,F14.2
1560 S0=0
1570 L=L+2
1580 RETURN
```

10. PROGRAM TERMINATION

```
1590 DISP "SELECT KEY"
1600 END
1610 DEF FNR(Z)
1620 RETURN INT((Z+0.005)*100)/100
```

LISTING

PAST DUE LETTERS (CONTINUED)

11. DATE CONVERSION (STRING TO NUMERIC)

```
1630 DEF FNN(Z)
1640 Y$="1234567890."
1650 IF LEN(Z$)=0 THEN 1780
1660 M=INTVAL(Z$)
1670 GOSUB 1790
1680 IF LEN(Z$)=0 THEN 1780
1690 D=INTVAL(Z$)
1700 GOSUB 1790
1710 IF LEN(Z$)=0 THEN 1780
1720 Y=INTVAL(Z$)
1730 Y=Y-INT(Y/100)*100
1740 IF Y>99 OR Y<70 THEN 1780
1750 IF M>12 OR M<1 THEN 1780
1760 IF D>31 OR D<1 THEN 1780
1770 RETURN Y+M/100+D/10000
1780 RETURN 0
1790 FOR I=1 TO LEN(Z$)-1
1800 IF POS(Y$,Z#[I,I])=0 THEN 1820
1810 NEXT I
1820 Z#=Z#[I+1]
1830 RETURN
```

DATE CONVERSION (NUMERIC TO STRING)

```
1840 DEF FNS(Z)
1850 IF Z#0 THEN 1880
1860 S$=" "
1870 RETURN 0
1880 Y=INTZ
1890 M=INT(100*(Z-INTZ))
1900 D=INT(100*(100*Z-INT(100*Z)))
1910 DEXPM,Y$
1920 S$=Y#[3]
1930 S#[3]="/"
1940 DEXPD,Y$
1950 S#[4]=Y#[3]
1960 S#[6]="/"
1970 DEXPY,Y$
1980 S#[7]=Y#[3]
1990 RETURN 0
```

LISTING

MONTHLY TAX REPORT (CONTINUED)

8. SUBTOTALS (BY STATE)

```
1230 S#[LEN(S#)+1]=Z#[1,3-LEN(S#)]
1240 WRITE (S,1250)S#,T0,T1,T2,T3,T4
1250 FORMAT 20X,F15.2,X,F10.2,X,F10.2,X,F8.2,X,F8.2,X
1260 X0=X0+T0
1270 X1=X1+T1
1280 X2=X2+T2
1290 X3=X3+T3
1300 X4=X4+T4
1310 T0=T1=T2=T3=T4=T5=T6=T7=T8=T9=0
1320 L=L+2
1330 GOSUB 980
1340 RETURN
```

9. PRINT A RECORD

```
1350 IF R1#R2 OR L<53 THEN 1370
1360 GOSUB 1000
1370 Z#=""
1380 IF LEN(A#)<26 THEN 1410
1390 A#=A#[1,26]
1400 GOTO 1420
1410 A#[LEN(A#)+1]=Z#[1,26-LEN(A#)]
1420 WRITE (S,1430)A#,N[5],N[6],N[7],N[8],N[9],0
1430 FORMAT F12.2,X,F10.2,X,F10.2,X,F8.2,X,F8.2,B
1440 S0=S0+N[5]
1450 S1=S1+N[6]
1460 S2=S2+N[7]
1470 S3=S3+N[8]
1480 S4=S4+N[9]
1490 L=L+1
1500 GOSUB 980
1510 RETURN
```

10. PROGRAM TERMINATION

```
1520 DISP "SELECT KEY"
1530 END
```

LISTING

MONTHLY TAX REPORT (CONTINUED)

7. NEW PAGE

```
980 IF L <= 61 THEN 1070
990 IF R1=R2 THEN 1070
1000 FOR I=L TO 65
1010 WRITE (S,*)
1020 NEXT I
1030 WRITE (S,740)95
1040 L=0
1050 J=J+1
1060 GOSUB 760
1070 RETURN
```

8. SUBTOTALS (BY CITY)

```
1080 IF LEN(S#) >= 20 THEN 1110
1090 S#[LEN(S#)+1]=Z#[1,20-LEN(S#)]
1100 GOTO 1120
1110 S#=S#[1,20]
1120 WRITE (S,1130)S#,S0,S1,S2,S3,S4
1130 FORMAT 6X,F12.2,X,F10.2,X,F10.2,X,F8.2,X,F8.2,✓
1140 T0=T0+S0
1150 T1=T1+S1
1160 T2=T2+S2
1170 T3=T3+S3
1180 T4=T4+S4
1190 S0=S1=S2=S3=S4=S5=S6=S7=S8=S9=0
1200 L=L+2
1210 GOSUB 980
1220 RETURN
```

LISTING

MONTHLY TAX REPORT (CONTINUED)

4. MAIN CALLING SEQUENCE

```
660 IF R1>R2 THEN 700
670 GOSUB 260
680 R1=R1+1
690 GOTO 660
700 FOR I=L TO 65
710 WRITE (S,*)
720 NEXT I
730 WRITE (S,740)95
740 FORMAT B, /
750 GOTO 1520
```

5. PAGE NUMBER AND HEADING

```
760 IF J=1 THEN 820
770 DISP "TEAR PAPER NOW"
780 WAIT 3000
790 WRITE (S,800)J
800 FORMAT /, "PAGE", F5.0, 2 /
810 L=L+6
820 WRITE (S,830)
830 FORMAT 69X, "TAXES"
840 WRITE (S,850)0;
850 FORMAT "      CUSTOMER NAME          SALES  FREIGHT  SERVICE      "4B
860 WRITE (S,870)
870 FORMAT "CITY      STATE"
880 WRITE (S,890)0;
890 FORMAT "===== "9X, "===== "4X, "===== "4X, "===== "5X, B
900 WRITE (S,910)
910 FORMAT "====", 4X, "====", /
920 L=L+4
930 RETURN
```

6. TOTALS

```
940 WRITE (S,950)X0, X1, X2, X3, X4
950 FORMAT /, 2X, "TOTAL", 19X, F12.2, X, F10.2, X, F10.2, X, F8.2, X, F8.2
960 L=L+2
970 RETURN
```

LISTING

MONTHLY TAX REPORT (CONTINUED)

2. PRINT A NEW RECORD (CONTINUED)

```
360 IF V#=C# THEN 400
370 S#=V#
380 V#=C#
390 GOSUB 1080
400 IF U#=D# THEN 440
410 S#=U#
420 U#=D#
430 GOSUB 1230
440 IF L1 THEN 480
450 IF L <= 59 THEN 500
460 GOSUB 1000
470 GOTO 500
480 IF L <= 57 THEN 500
490 GOSUB 990
500 GOSUB 1350
510 IF R1=R2 THEN 530
520 RETURN
530 S#=V#
540 GOSUB 1080
550 S#=U#
560 GOSUB 1230
570 GOTO 940
```

3. REPORT TITLE

```
580 J=1
590 WRITE (S,600)
600 FORMAT 2/,31X,"MONTHLY TAX REPORT"
610 WRITE (S,*)TAB(40-(LEN(Z#)/2));Z#
620 WRITE (S,630)
630 FORMAT 2/
640 L=L+9
650 GOSUB 760
```



LISTING

MONTHLY TAX REPORT (BILL22)

1. PROGRAM INITIALIZATION

```
1 DIM A#[29],B#[29],C#[29],D#[3],E#[6],F#[29]
20 DIM G#[29],H#[29],I#[3],J#[6],K#[2],N#[14]
30 DIM Z#[72],S#[72],O#[29],P#[29],Q#[29],R#[3]
40 DIM U#[80],V#[80],W#[80],X#[80],Y#[80]
50 FILES *,DATE
60 ASSIGN "CUST2",1,1
70 IF I<3 THEN 110
80 PRINT "CUST2 NOT OPENED OR ILLEGAL PROTECTION KEY"
90 PRINT
100 STOP
110 READ #1,7;R2,Z#
120 S0=S1=S2=S3=S4=S5=S6=S7=S8=S9=T0=T1=T2=T3=T4=T5=T6=T7=T8=T9=0
130 U0=U1=U2=U3=U4=U5=U6=U7=U8=U9=V0=V1=V2=V3=V4=V5=V6=V7=V8=V9=0
140 W0=W1=W2=W3=W4=W5=W6=W7=W8=W9=X0=X1=X2=X3=X4=X5=X6=X7=X8=X9=0
150 R1=8
160 L=0
170 IF END#1 THEN 1520
180 READ #2,1;Z#
190 S=15
```

2. READ A NEW RECORD

```
200 READ #1,8;N[1],A#,B#,C#,D#,E#,F#,G#,H#
210 READ #1;I#,J#,N[2],K#,N[3],N[4],N[5],N[6],N[7]
220 READ #1;N[8],N[9],N[10],N[11],N[12],N[13],N[14]
230 U#=D#
240 V#=C#
250 GOTO 580
260 READ #1,R1;N[1],A#,B#,C#,D#,E#,F#,G#,H#
270 READ #1;I#,J#,N[2],K#,N[3],N[4],N[5],N[6],N[7]
280 READ #1;N[8],N[9],N[10],N[11],N[12],N[13],N[14]
290 IF R1=R2 THEN 360
300 READ #1,R1+1;B[1],O#,P#,Q#,R#
310 IF O#=C# THEN 360
320 IF R##D# THEN 350
330 L1=0
340 GOTO 360
350 L1=1
```

LISTING

CUSTOMER LISTING (BILL23)

1. PROGRAM INITIALIZATION

```
1 DIM A#[29],B#[29],C#[29],D#[3],E#[6],F#[29]
20 DIM G#[29],H#[29],I#[3],J#[6],K#[2],N#[14]
30 DIM Z#[72],S#[72]
40 DIM U#[80],V#[80],W#[80],X#[80],Y#[80]
50 DISP "CUSTOMER LISTING"
60 WAIT 1500
70 FILES *,DATE
80 ASSIGN "CUST1",1,I
90 IF I<3 THEN 130
100 PRINT "CUST1 NOT OPENED OR ILLEGAL PROTECTION KEY"
110 PRINT
120 STOP
130 READ #1,7;R2,Z#
140 S=15
150 R1=8
160 L=0
170 IF END#1 THEN 310
180 READ #2,1;Z#
```

2. READ A NEW RECORD

```
190 READ #1,8;N#[1],A#,B#,C#,D#,E#,F#,G#,H#
200 READ #1;I#,J#,N#[2],K#,N#[3],N#[4],N#[5],N#[6],N#[7]
210 READ #1;N#[8],N#[9],N#[10],N#[11],N#[12],N#[13],N#[14]
220 GOTO 270
230 READ #1,R1;N#[1],A#,B#,C#,D#,E#,F#,G#,H#
240 READ #1;I#,J#,N#[2],K#,N#[3],N#[4],N#[5],N#[6],N#[7]
250 READ #1;N#[8],N#[9],N#[10],N#[11],N#[12],N#[13],N#[14]
260 GOTO 690
```

3. REPORT TITLE

```
270 J=1
280 WRITE (S,290)
290 FORMAT 2/,29X,"CUSTOMER FILE LISTING"
300 WRITE (S,*)TAB(40-(LEN(Z#)/2));Z#
310 WRITE (S,320)
320 FORMAT 2/
330 L=L+9
340 GOSUB 450
```

LISTING

CUSTOMER LISTING (CONTINUED)

4. MAIN CALLING SEQUENCE

```
350 IF R1>R2 THEN 390
360 GOSUB 230
370 R1=R1+1
380 GOTO 350
390 FOR I=L TO 65
400 WRITE (S,*)
410 NEXT I
420 WRITE (S,430)95
430 FORMAT B, /
440 GOTO 810
```

5. PAGE NUMBER AND HEADING

```
450 IF J=1 THEN 510
460 DISP "TEAR PAPER NOW"
470 WAIT 3000
480 WRITE (S,490)J
490 FORMAT /, "PAGE", F5.0, 2/
500 L=L+6
510 WRITE (S,520)
520 FORMAT 2X, "CUSTOMER", 8X, "CUSTOMER NAME", 20X, "CREDIT", 14X, "YTD"
530 WRITE (S,540)
540 FORMAT 4X, "NUMBER", 42X, "LIMIT", 13X, "SALES"
550 WRITE (S,560)
560 FORMAT 2X, "=====" 6X, "=====" 12X, "=====" 13X, "====="
570 L=L+4
580 RETURN
```

LISTING

CUSTOMER LISTING (CONTINUED)

7. NEW PAGE

```
590 IF L <= 58 THEN 680
600 IF R1=R2 THEN 680
610 FOR I=L TO 65
620 WRITE (S,*)
630 NEXT I
640 WRITE (S,430)95
650 L=0
660 J=J+1
670 GOSUB 450
680 RETURN
```

9. PRINT A RECORD

```
690 Z$=""
700 A#[LEN(A#)+1]=Z#[1,29-LEN(A#)]
710 X1=NC[10]+NC[11]+NC[12]+NC[13]+NC[14]
720 WRITE (S,730)NC[1],A#,NC[2],X1
730 FORMAT F10.0,6X,F12.2,2X,F16.2
740 WRITE (S,770)B#,0
750 WRITE (S,770)C#,0
760 WRITE (S,770)D##", ";E#,0
770 FORMAT 18X,B
780 L=L+4
790 GOSUB 590
800 RETURN
```

10. PROGRAM TERMINATION

```
810 DISP "SELECT KEY"
820 END
```

LISTING

DAILY REGISTERS (BILL24)

1. PROGRAM INITIALIZATION

```
1  DIM A#[29],B#[15],C#[29],D#[29],E#[3],F#[6]
20  DIM G#[29],H#[29],I#[29],J#[3],K#[6],NL23]
30  DIM Z#[72],S#[72]
40  DIM U#[80],V#[80],W#[80],X#[80],Y#[80]
50  DISP "DAILY REGISTERS"
60  WAIT 1500
70  FILES *,DATE
80  ASSIGN "DINV2",1,I
90  IF I<3 THEN 130
100 PRINT "DINV2 NOT OPENED OR ILLEGAL PROTECTION KEY"
110 PRINT
120 STOP
130 READ #1,I#;R2,Z#
140 S0=S1=S2=S3=S4=S5=S6=S7=S8=S9=0
150 S=15
160 R1=S
170 L=0
180 IF END#1 THEN 980
190 READ #2,I;Z#
```

2. READ A NEW RECORD

```
200 READ #1,S#;NC 1],NC 2],NC 3],NC 4],NC 5],NC 6],NC 7],NC 8],NC 9]
210 READ #1;NC 10],NC 11],NC 12],NC 13],NC 14],NC 15],NC 16],NC 17],NC 18]
220 READ #1;A#,B#,C#,D#,E#,F#,G#,H#,I#
230 READ #1;J#,K#,NC 19],NC 20],NC 21],NC 22],NC 23]
240 GOTO 330
250 READ #1,R1;NE 1],NE 2],NE 3],NE 4],NE 5],NE 6],NE 7],NE 8],NE 9]
260 READ #1;NC 10],NC 11],NC 12],NC 13],NC 14],NC 15],NC 16],NC 17],NC 18]
270 READ #1;A#,B#,C#,D#,E#,F#,G#,H#,I#
280 READ #1;J#,K#,NC 19],NC 20],NC 21],NC 22],NC 23]
290 GOSUB 870
300 IF R1#R2 THEN 320
310 GOTO 730
320 RETURN
```

LISTING

DAILY REGISTERS (CONTINUED)

3. REPORT TITLE

```
330 J=1
340 WRITE (S,350)
350 FORMAT 2/,23X,"DAILY INVOICE TRANSACTION REGISTER"
360 WRITE (S,370)
370 FORMAT 30X,"(EXCLUDES SALES TAX)"
380 WRITE (S,*)TAB(40-(LEN(Z$)/2))#Z$
390 WRITE (S,400)
400 FORMAT 2/
410 L=L+10
420 GOSUB 550
```

4. MAIN CALLING SEQUENCE

```
430 IF R1>R2 THEN 470
440 GOSUB 250
450 R1=R1+1
460 GOTO 430
470 FOR I=L TO 65
480 WRITE (S,*)
490 NEXT I
500 WRITE (S,510)95
510 FORMAT B,/
520 DISP "TEAR PAPER NOW"
530 WAIT 3000
540 GOTO 980
```

5. PAGE NUMBER AND HEADING

```
550 IF J=1 THEN 610
560 DISP "TEAR PAPER NOW"
570 WAIT 3000
580 WRITE (S,590)J
590 FORMAT /,"PAGE",F5.0,2/
600 L=L+6
```

LISTING

DAILY REGISTERS (CONTINUED)

5. PAGE NUMBER AND HEADING (CONTINUED)

```
610 WRITE (S,620)0;
620 FORMAT 2X,"CUSTOMER",3X,"INVOICE",8X,"BILL",6X,B
630 WRITE (S,640)
640 FORMAT "FREIGHT",5X,"SERVICE",4X,"DATE",7X,"DISC"
650 WRITE (S,660)
660 FORMAT 4X,"NUMBER",4X,"NUMBER",7X,"AMOUNT",27X,"BILLED",6X,"PERC"
670 WRITE (S,680)0;
680 FORMAT 2X,"=====",3X,"=====",7X,"=====",5X,B
690 WRITE (S,700)
700 FORMAT "=====",5X,"=====",3X,"=====",6X,"====",/
710 L=L+4
720 RETURN
```

6. TOTALS

```
730 WRITE (S,740)S0,S1,S2
740 FORMAT /,13X,"TOTAL",5X,F10.2,3X,F9.2,3X,F9.2
750 L=L+2
760 RETURN
```

7. NEW PAGE

```
770 IF L <= 61 THEN 860
780 IF R1=R2 THEN 860
790 FOR I=L TO 65
800 WRITE (S,*)
810 NEXT I
820 WRITE (S,510)95
830 L=0
840 J=J+1
850 GOSUB 550
860 RETURN
```

LISTING

DAILY REGISTERS (CONTINUED)

9. PRINT A RECORD

```
870 IF R1#R2 OR L <= 59 THEN 890
880 GOSUB 790
890 Z1=FNS(NC[3])
900 WRITE (S,910)NC[2],NC[1],NC[4],NC[5],NC[6],S#,0,NC[10]
910 FORMAT F10.0,X,F9.0,3X,F10.2,3X,F9.2,3X,F9.2,X,B,3X,F7.2
920 S0=S0+NC[4]
930 S1=S1+NC[5]
940 S2=S2+NC[6]
950 L=L+1
960 GOSUB 770
970 RETURN
```

10. PROGRAM TERMINATION

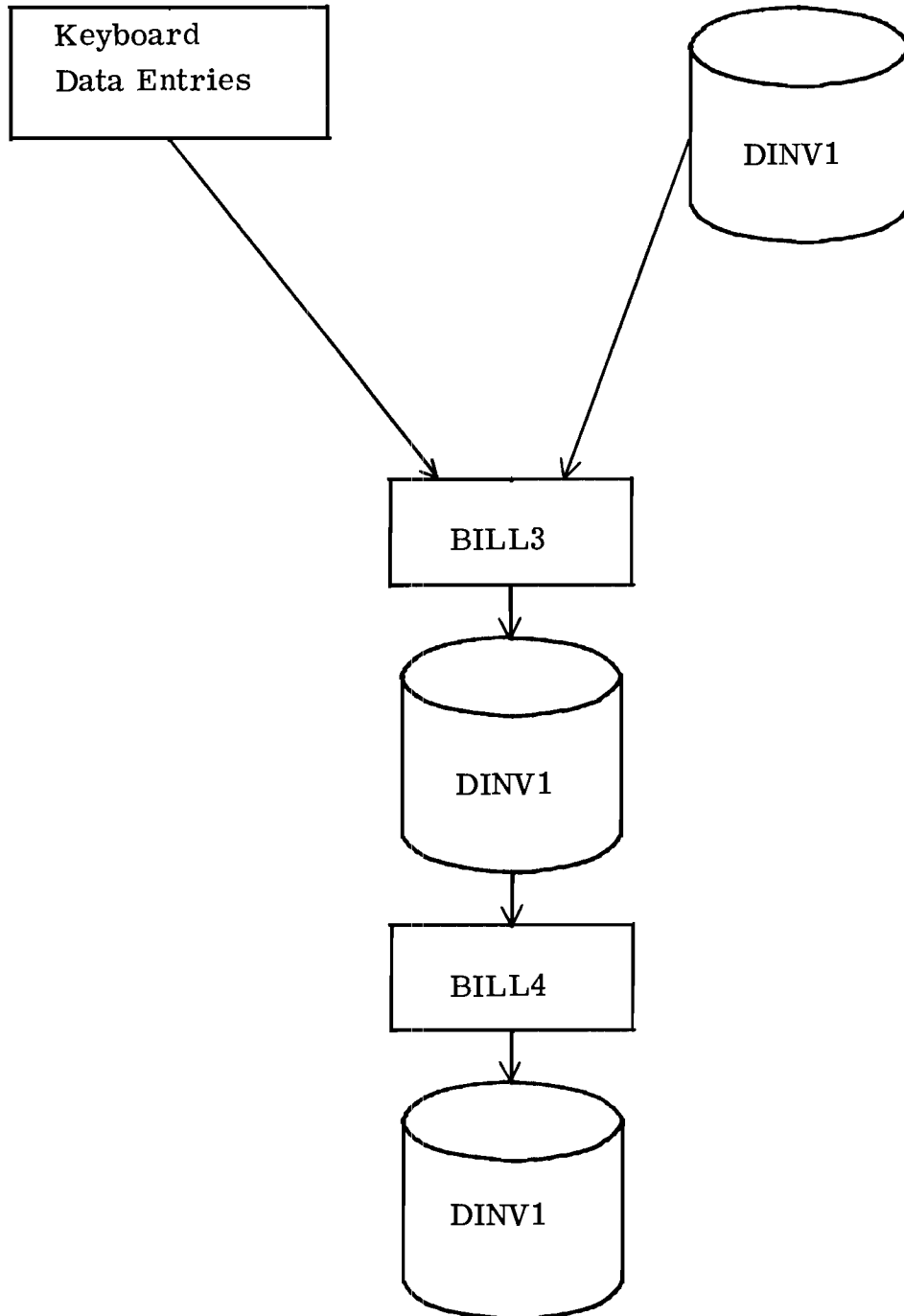
```
980 PRINT #2,3#1
990 GET "BILL15",1,1
1000 END
```

11. DATE CONVERSION

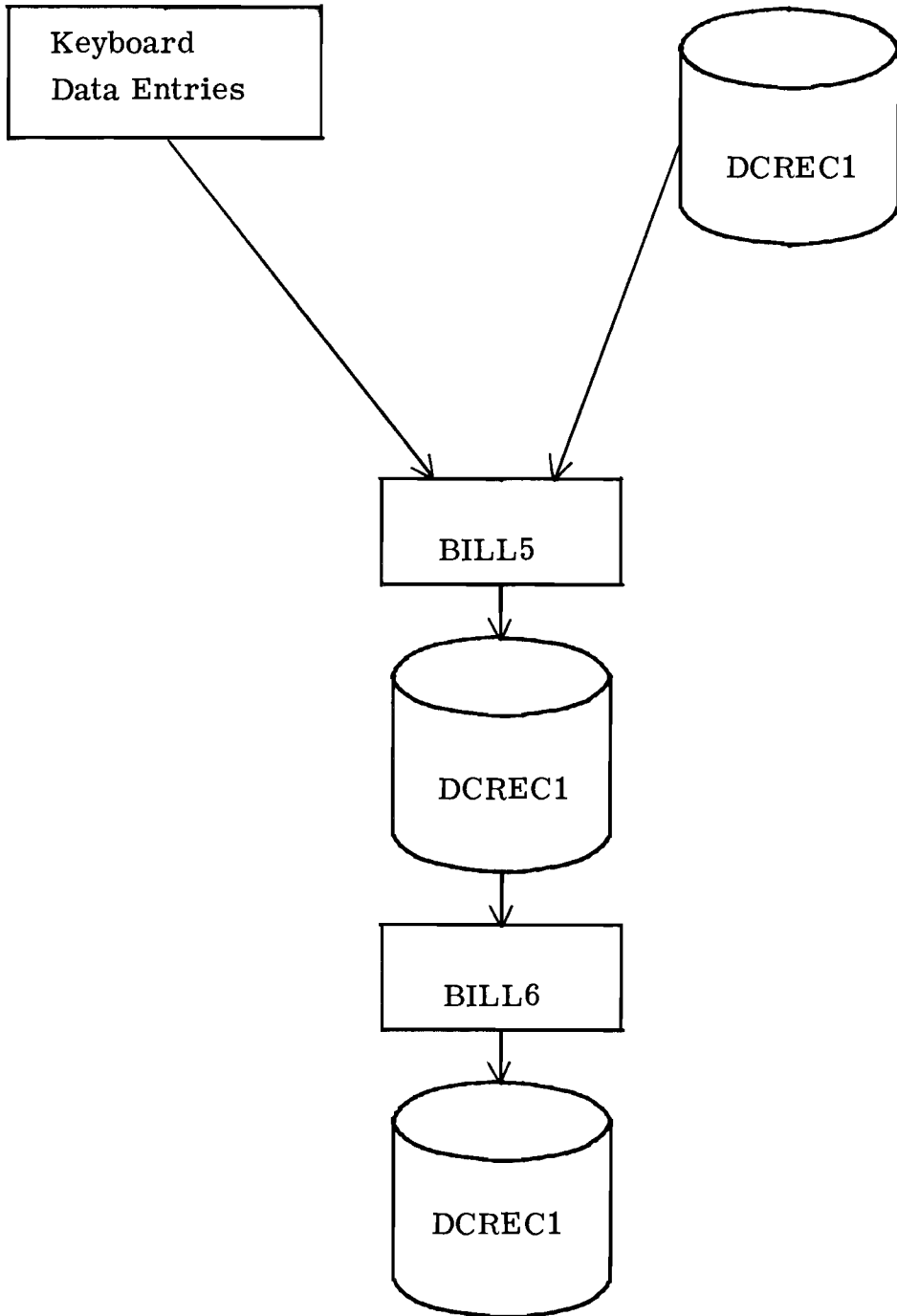
```
1010 DEF FNS(Z)
1020 IF Z#0 THEN 1050
1030 S#=""
1040 RETURN 0
1050 Y=INTZ
1060 M=INT(100*(Z-INTZ))
1070 D=INT(100*(100*Z-INT(100*Z)))
1080 DEXPB,Y#
1090 S#[3]=Y#[3]
1100 S#[3]="/"
1110 DEXPD,Y#
1120 S#[4]=Y#[3]
1130 S#[6]="/"
1140 DEXPY,Y#
1150 S#[7]=Y#[3]
1160 RETURN 0
```


Appendix E
FLOW CHARTS

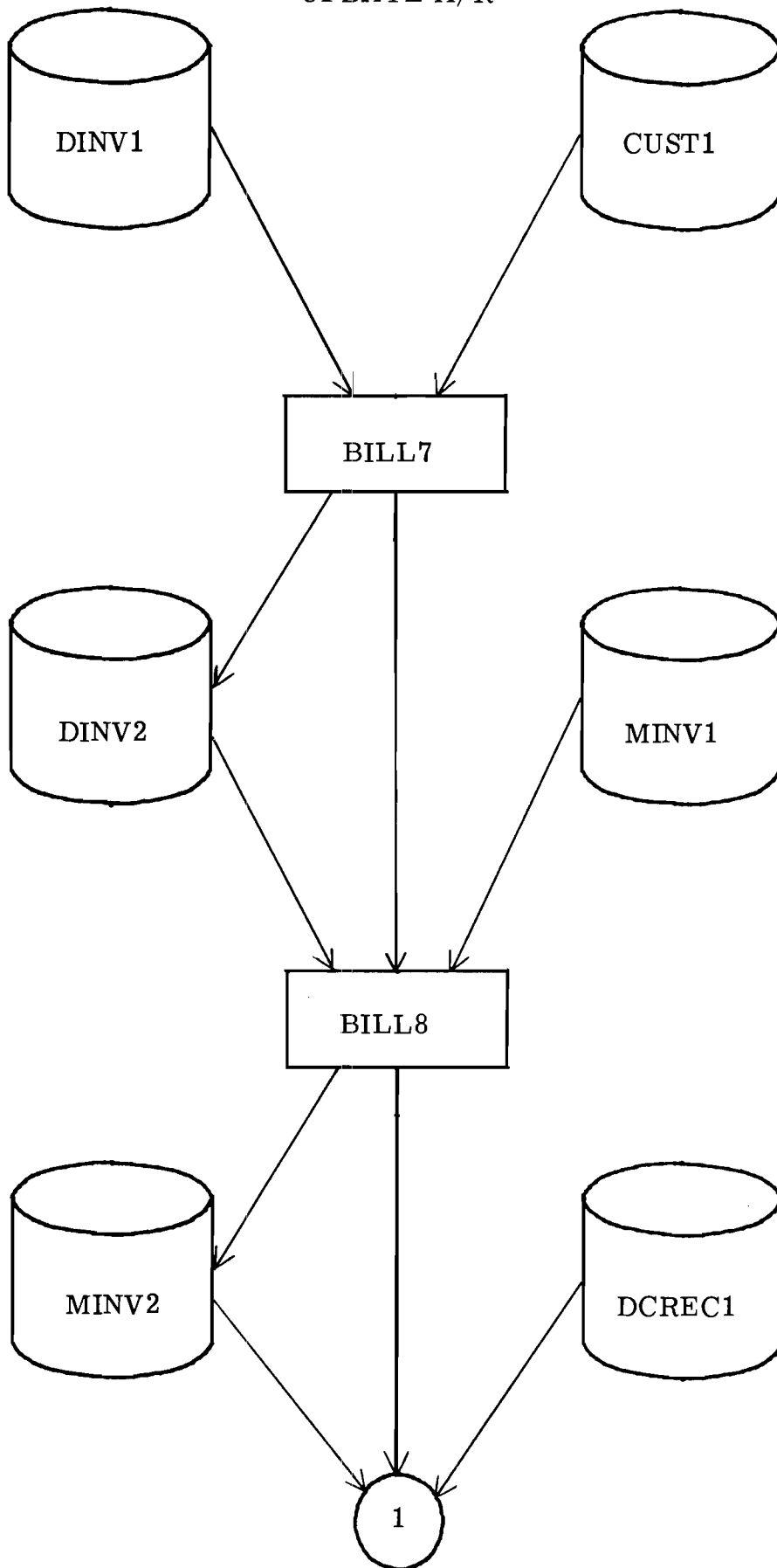
NEW INVOICES



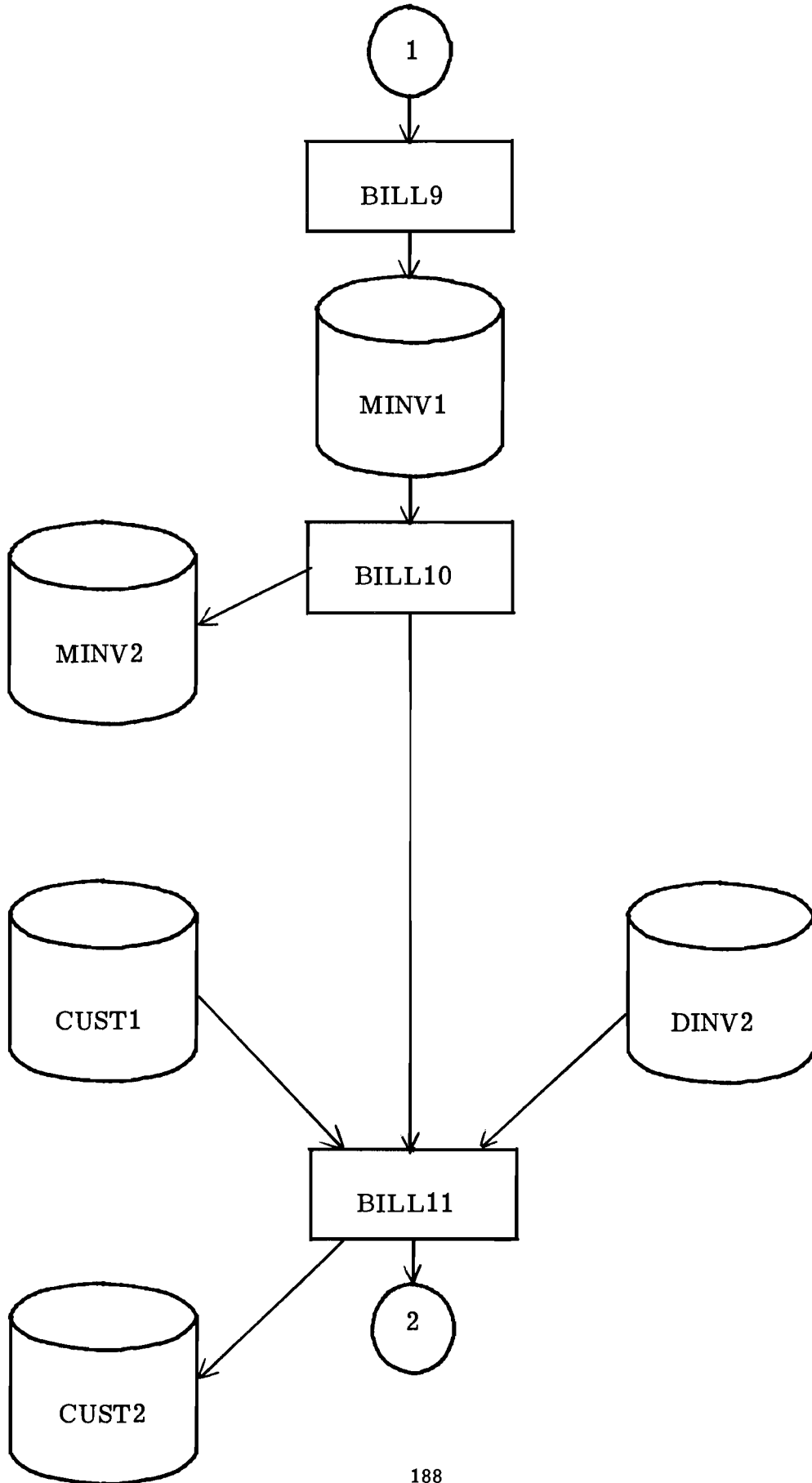
NEW CASH RECEIPTS



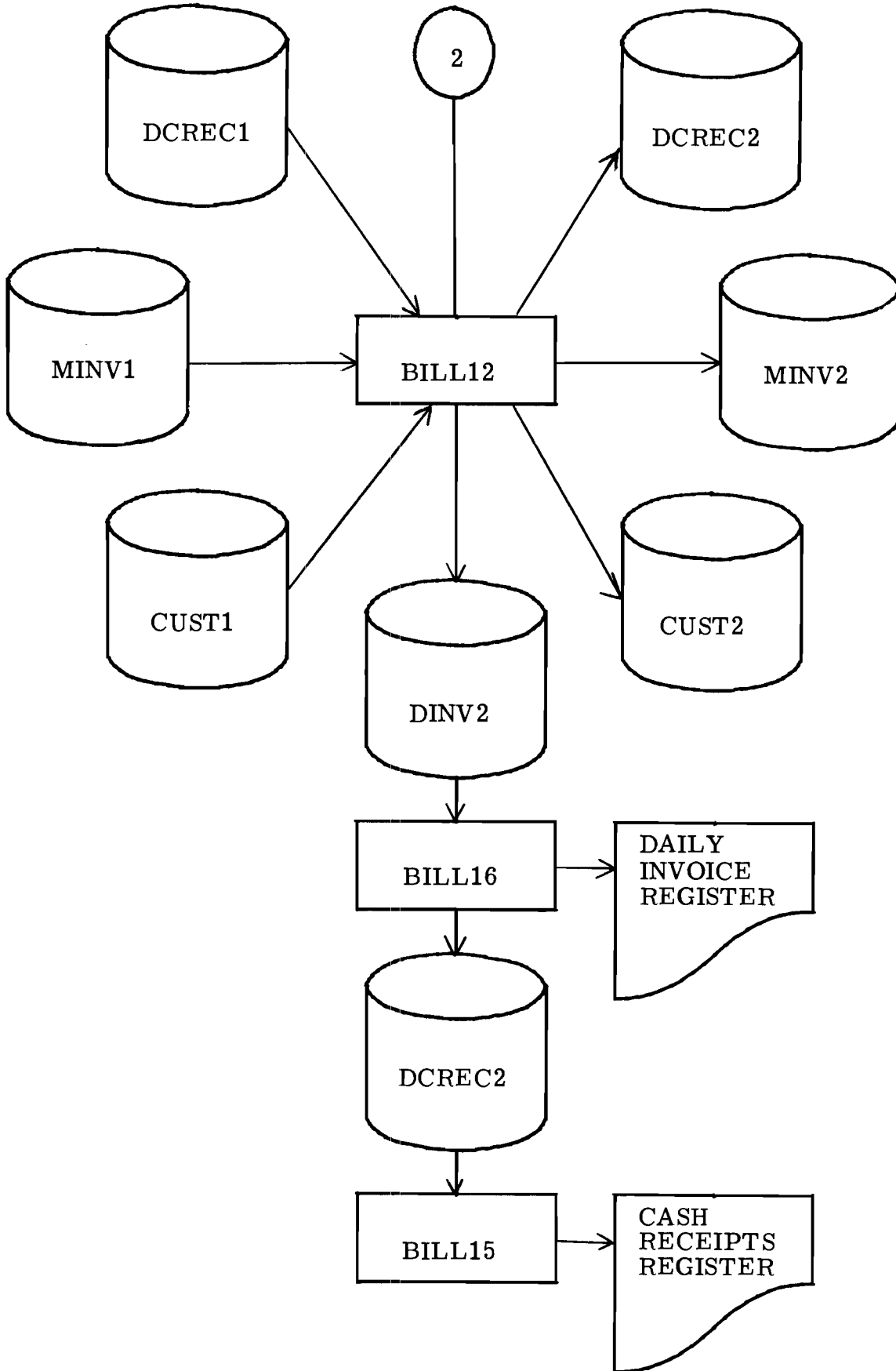
UPDATE A/R



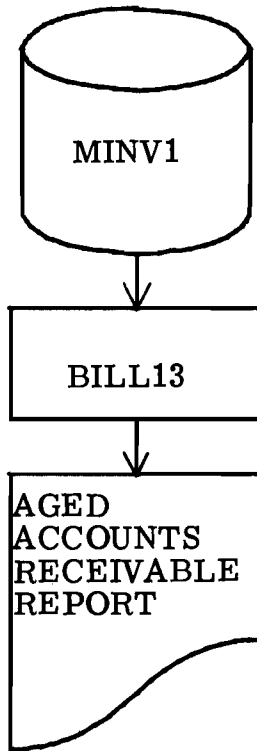
UPDATE A/R
(continued)



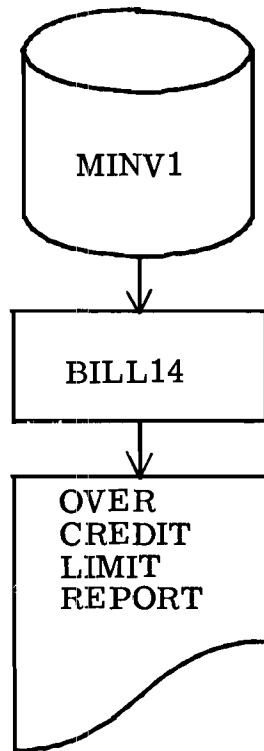
UPDATE A/R
(continued)



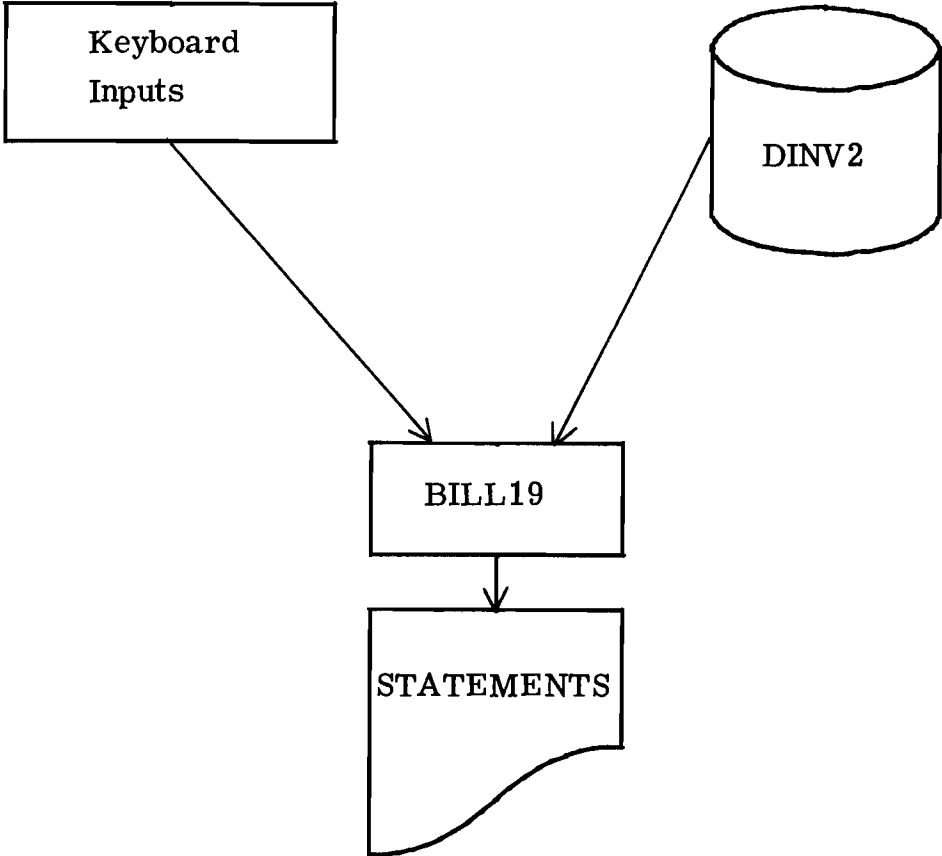
AGED A/R REPORT



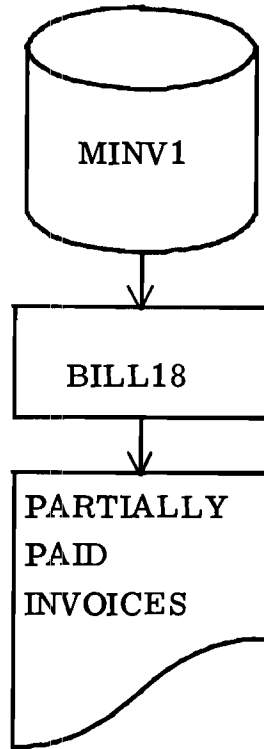
OVER CREDIT LIMIT



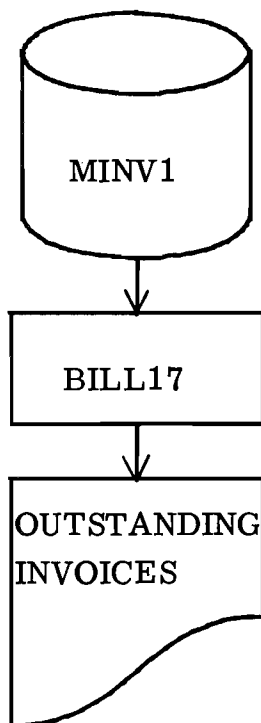
STATEMENTS



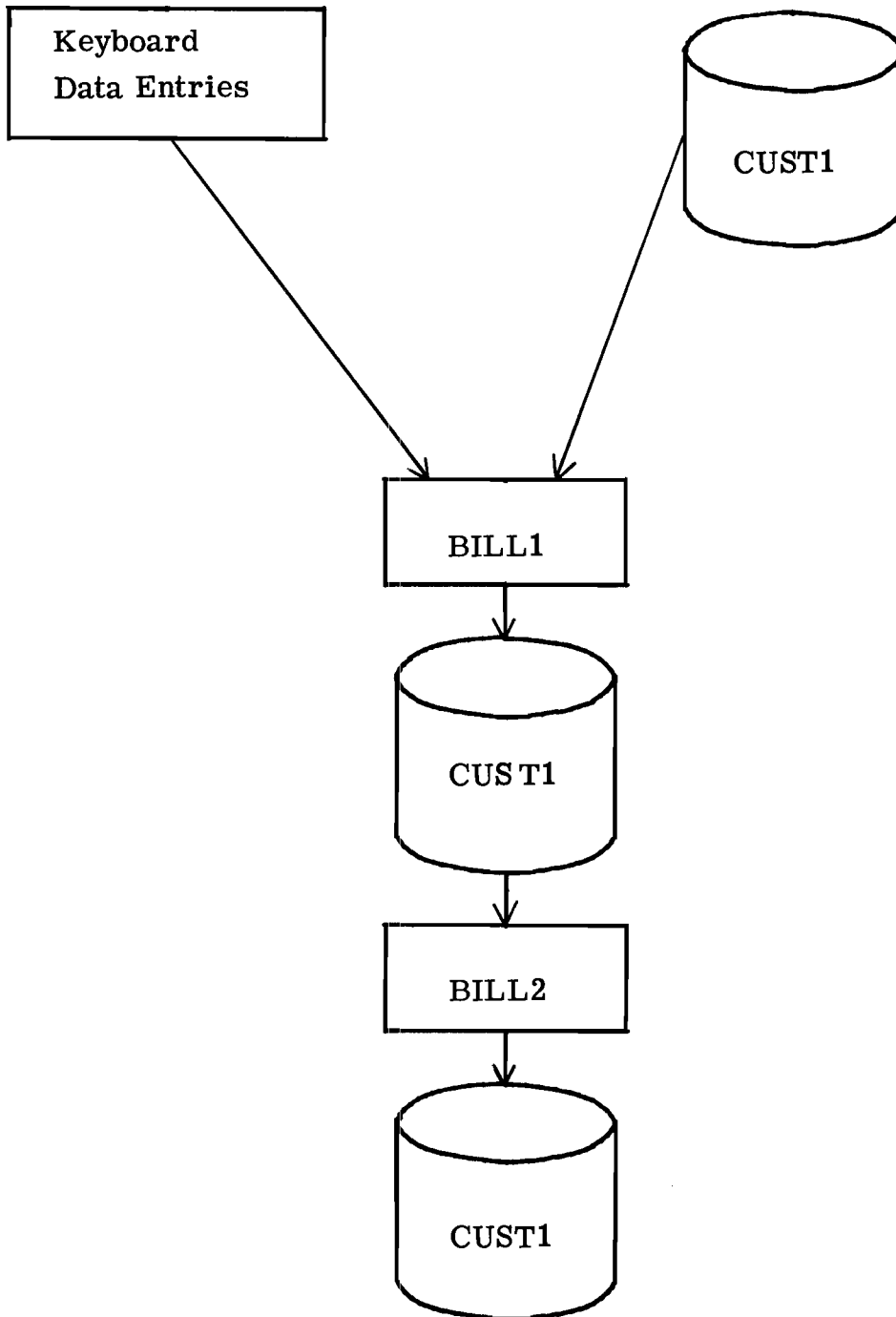
PART PD INVOICES



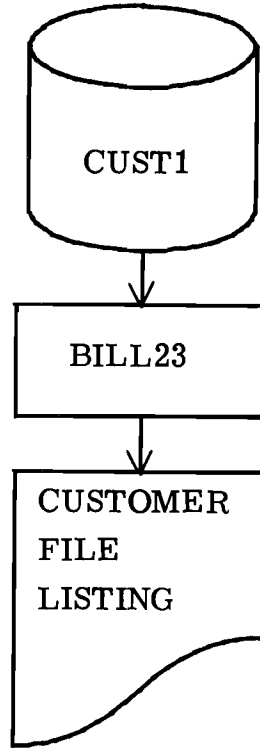
OUTSTANDING INVOICES



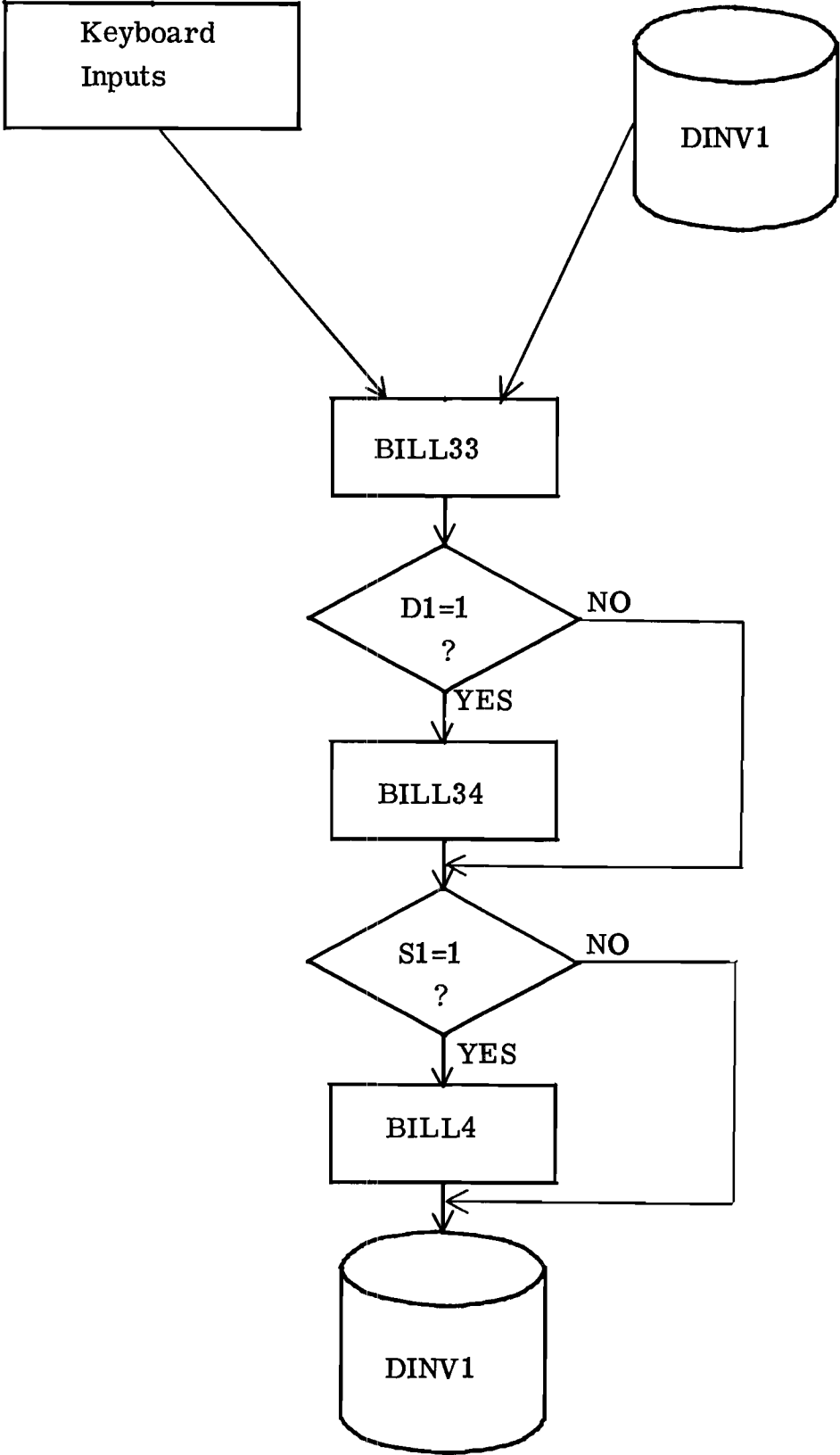
ADD CUSTOMERS



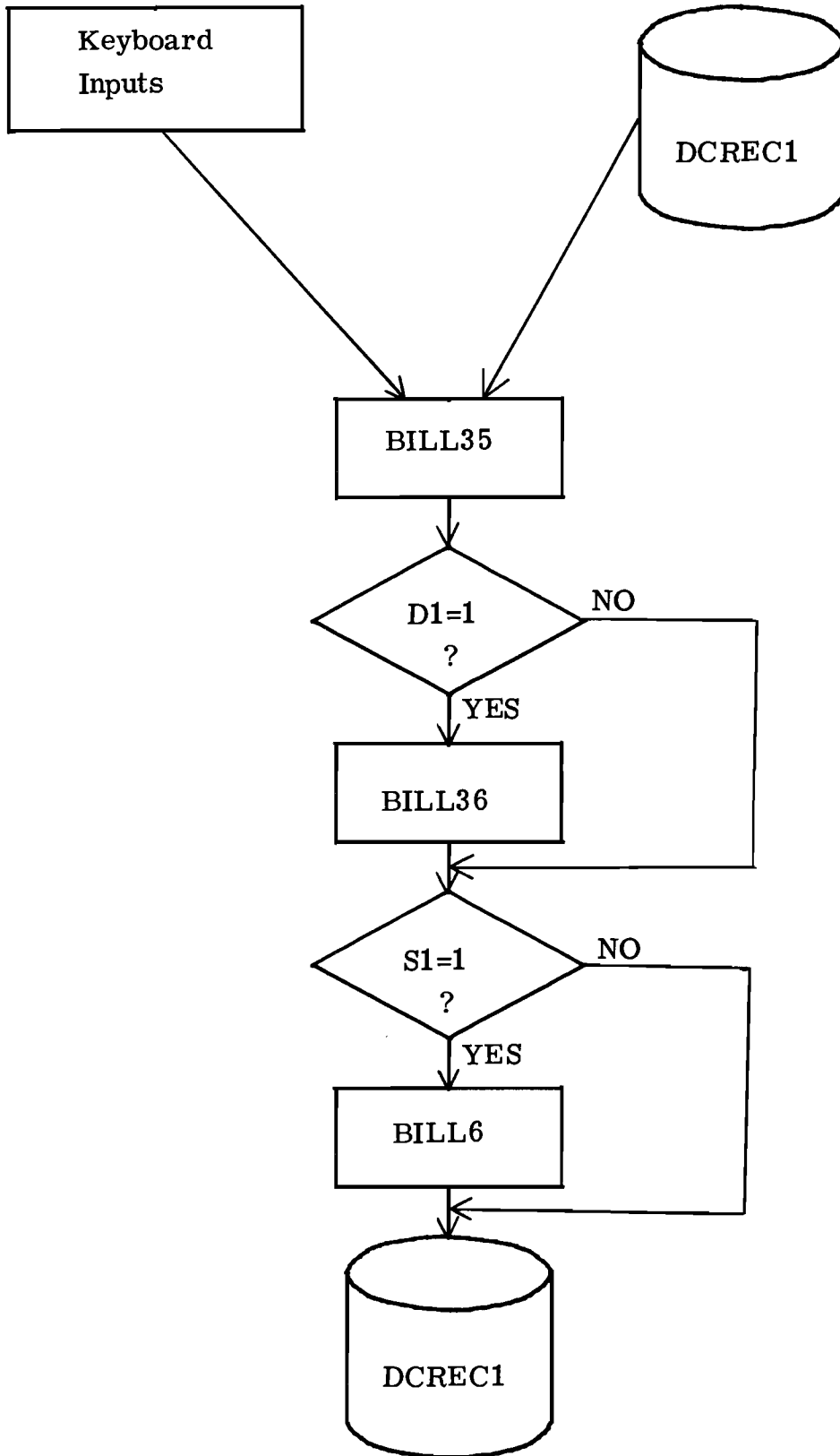
CUSTOMER LISTING



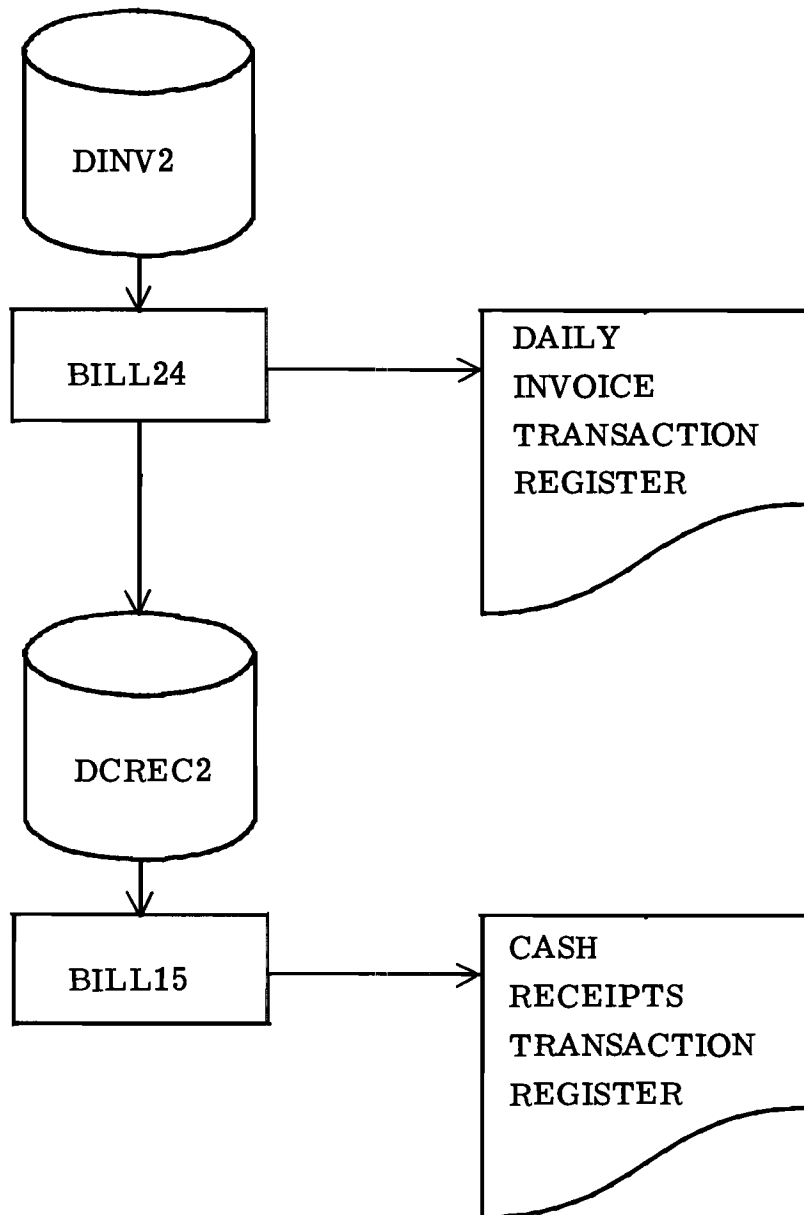
EDIT NEW INVOICES



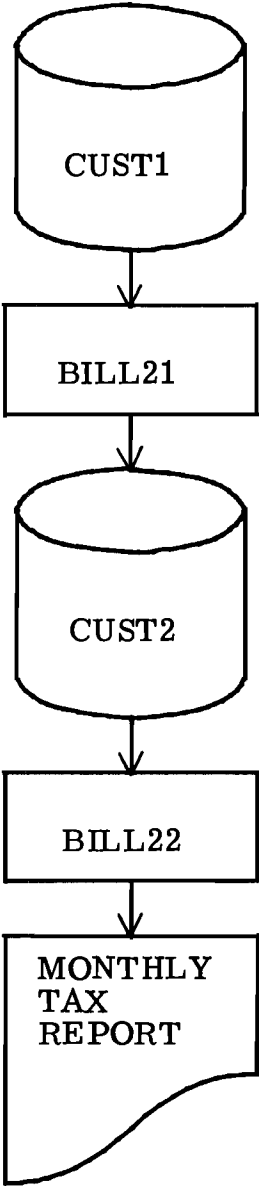
EDIT NEW CASH REC



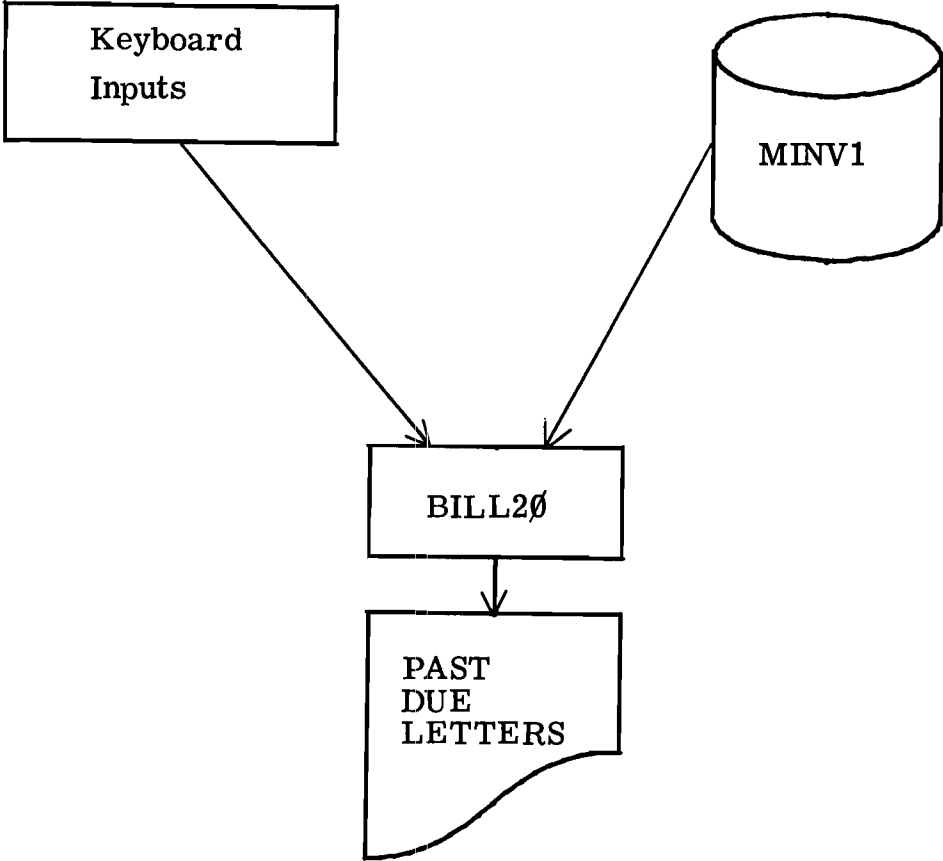
DAILY REGISTERS



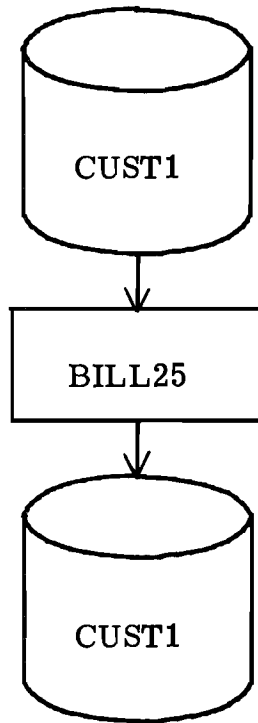
MONTHLY TAX REPORT



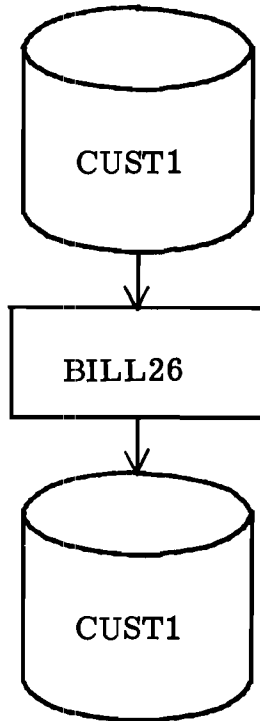
PAST DUE LETTERS



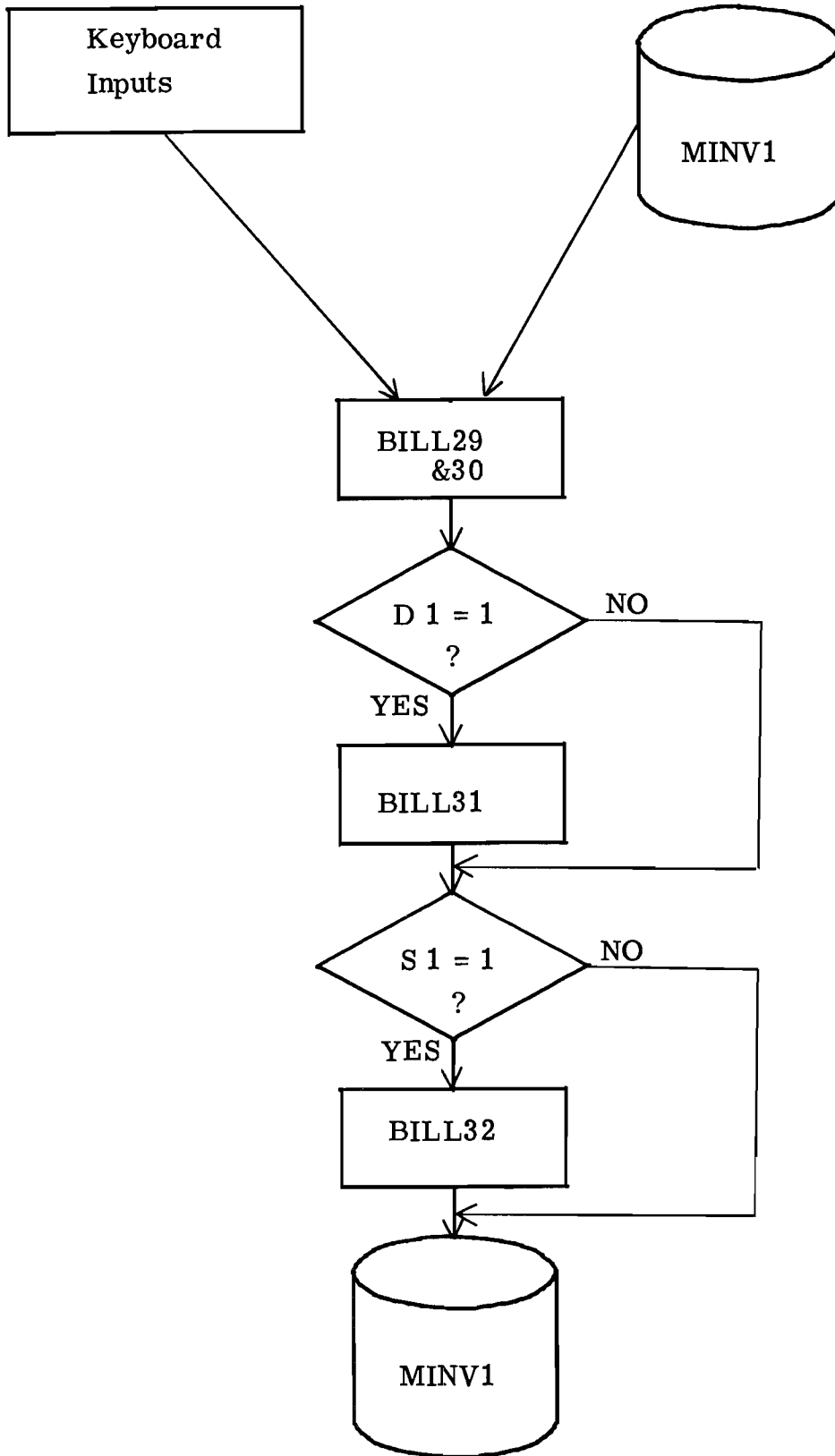
NEW MONTH



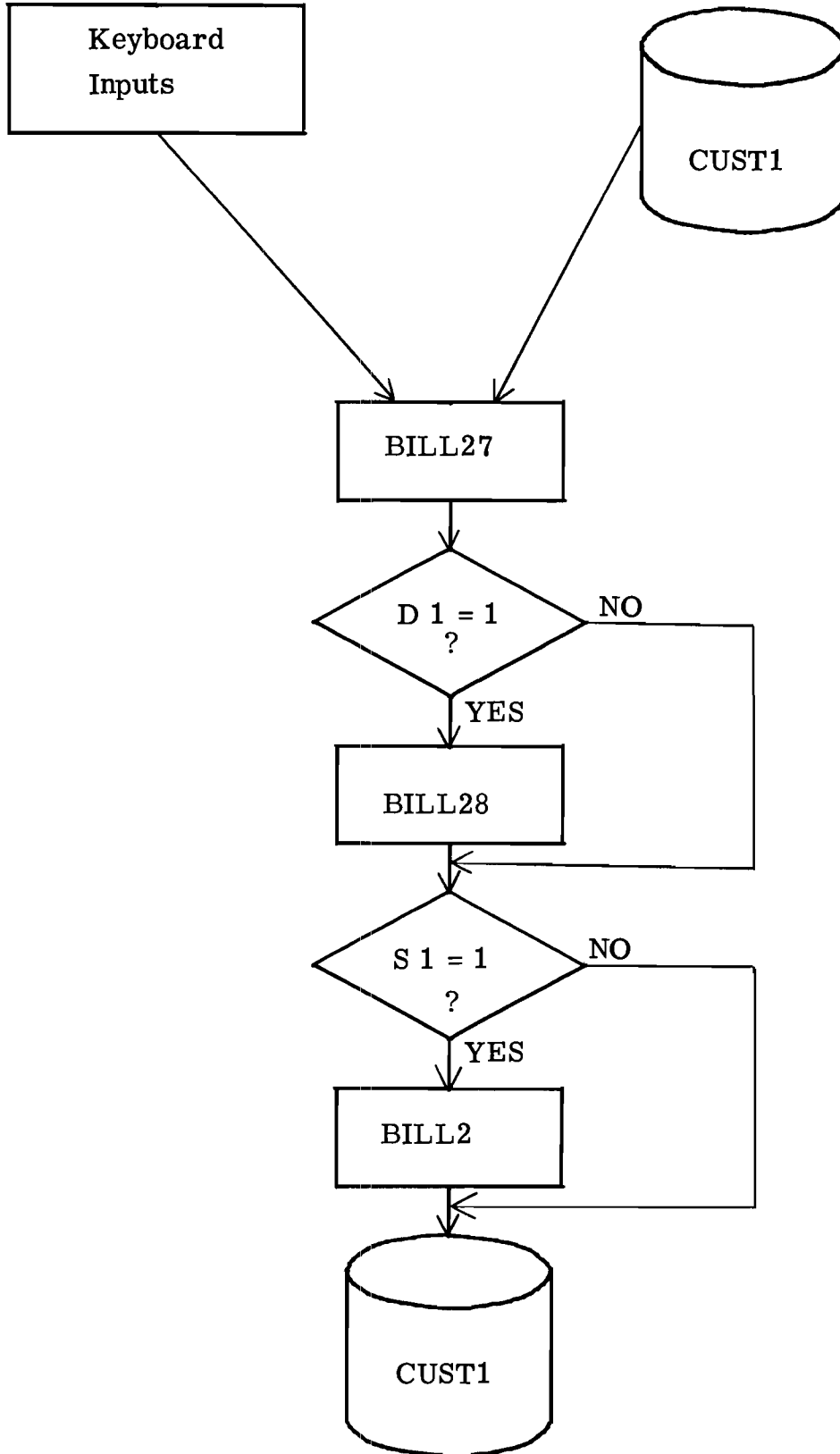
NEW YEAR



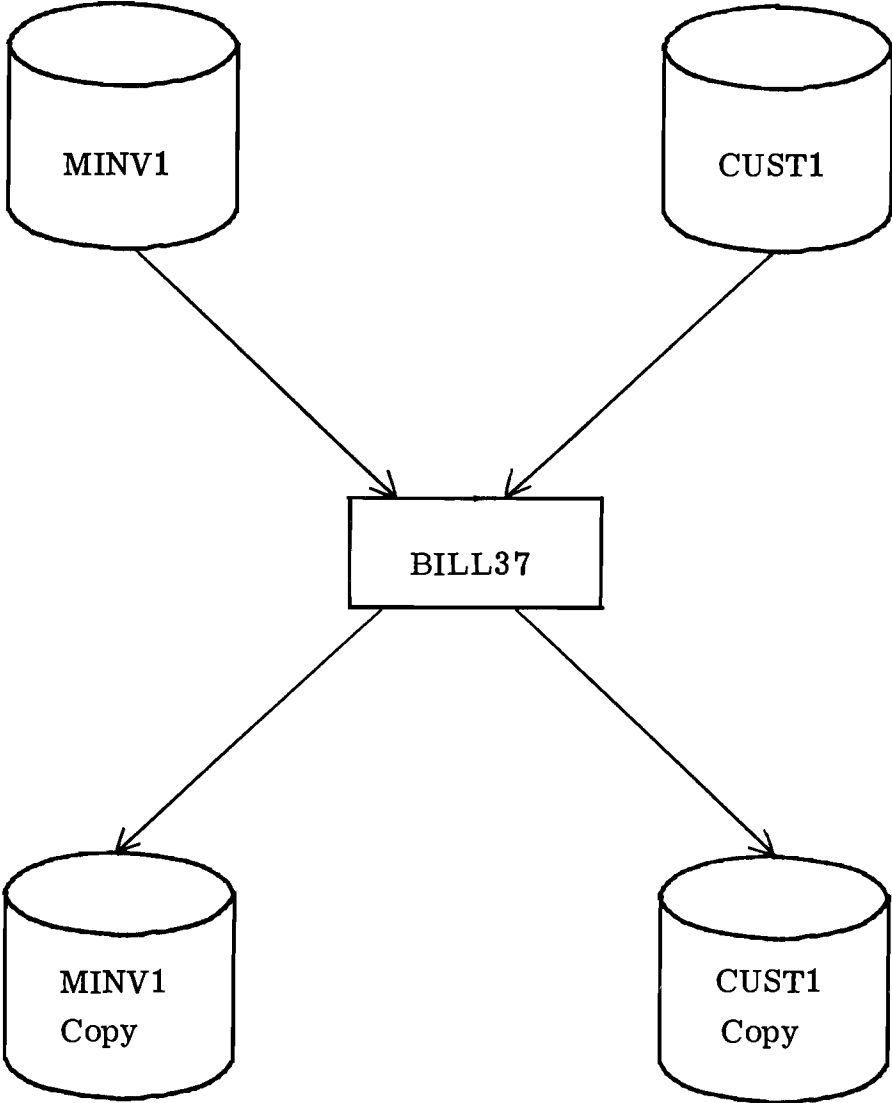
EDIT MASTER INV



EDIT CUSTOMERS



BACKUP



Program Submittal Form

Hewlett-Packard Company
Calculator Products Division

1. Initial Submission Revision
2. Equipment required: _____
3. Program Title: _____
4. Program Description and Application: _____

5. Contributor's Name: _____
Organization: _____ Title: _____
Address: _____

Telephone: _____
6. Do you want your name to appear in the catalog?..... yes no
7. Do you want your organization's name to appear in the catalog?.. yes no
8. May an HP customer contact you directly?.....yes no
9. Check (✓) to be sure each item below is included.
 - Program introduction, including equations solved and text reference.
 - User instructions.
 - Numeric input/output example, including sample plot or printer tape if applicable.
 - Program listing (including program steps and step codes if applicable).
 - Recorded magnetic cards or cassette.Shall we return original recorded cards/cassette or blank cards/cassette ?
10. Acknowledgement and Agreement

To the best of my knowledge, this contributed program is free of any proprietary information belonging to any person or organization. I am making this program available to Hewlett-Packard, and I agree that HP may reproduce, publish, and use it, and authorize others to do so without obligation or liability of any kind.

(Signature)

(Date)





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