DAWSON COLLEGE
COMPUTER SCIENCE DEPARTMENT

LABORATORY PRESENTATION MANUAL

TABLE OF CONTENTS

		Page
I	Lab Report Contents	1
II	Lab Report Requirements	2
III	Sample Lab Report	3
IV	Report Program Guidelines	27

I LAB REPORT CONTENTS

Your laboratory presentation should include the following detail specifications.

1 - Title page

2 - Table of contents

3 - Program narrative

* 4 - Program constraints (if any)

5 - System flowchart

6 - File description form(s)

7 - Printer Spacing Chart (or VDU/CRT form)

8 - Structure chart (Hierarchy chart)

9 - Structured flowchart or Pseudocode

10 - The test data file listing

11 - Validation of test results

12 - The Deskchecking Procedure

13 - The compiled listing of the source code

14 - The test data run

15 - The production run

*PROGRAM CONSTRAINTS:

In this section you state the limitations imposed on your program. For example, if you left a two digit field for hours worked, then the program can only handle hours worked up to 99 hours per pay period. Other constraints are such things as the maximum pay rate, gross pay, net pay, and sizes allocated to internal tables, if any. Impossible values are **not** listed as constraints. For example, if you leave a 3 digit field for the number of years that the employee has been with the company, it is physically impossible that this be considered a constraint. The reason being that you will never encounter an employee who has been with a company for over 999 years.

II LAB REPORT REQUIREMENTS

1. All lab reports must be submitted in a **duo-tang** folder, with a label on the outside containing the following information:

   Your name
   Title of the lab
   Lab Assignment #

2. All lab documentation must be produced using a word processor and checked for correct spelling, except where diagrams or hand calculations are involved.

3. Lab reports must be submitted on the date due, at the time requested. <u>If lab reports are due at the start of class, those reports submitted during or after class will be considered late</u>.

COBOL I
420-201-90
Section 02

LAB TITLE: Purchase Report

(Lab #1)

Prepared by: C.Legendre
Student id: 9999999
Date Due: 01/08/93

Prepared for: Teacher's name
Date submitted:
Grade Awarded:

TABLE OF CONTENTS

	PAGE
Program Narrative	5
System Flowchart	6
File Description Form	7
Printer Spacing Chart	8
Structure Chart	9
Structured Flowchart	10-15
Listing of Test Data File.....	16
Statement of Verification Technique.....	17
Deskchecking Routine	18-20
Compiled Listing	21-25
Test Run	25
Production Run	26

PROGRAM NARRATIVE

Program name: PURCHRPT

Purpose: The program prepares a detail report containing all customer purchases.

Description: Each record of the input file contains the following fields: a customer number, a customer name and a purchase amount.

For each customer record read an output line is printed containing the customer number, the customer name and the amount purchased by the customer. The data is printed in edited form. The program accumulates the purchase amounts so that the total amount purchased by the customers can be printed at the end of the report.

The output is a multi-page detail report with appropriate report and column headings. There is a maximum of 40 detail lines which can be printed per page.

Input file(s): A purchase transaction file. See attached File Description Form (page 7) and System Flow Chart (page 6).

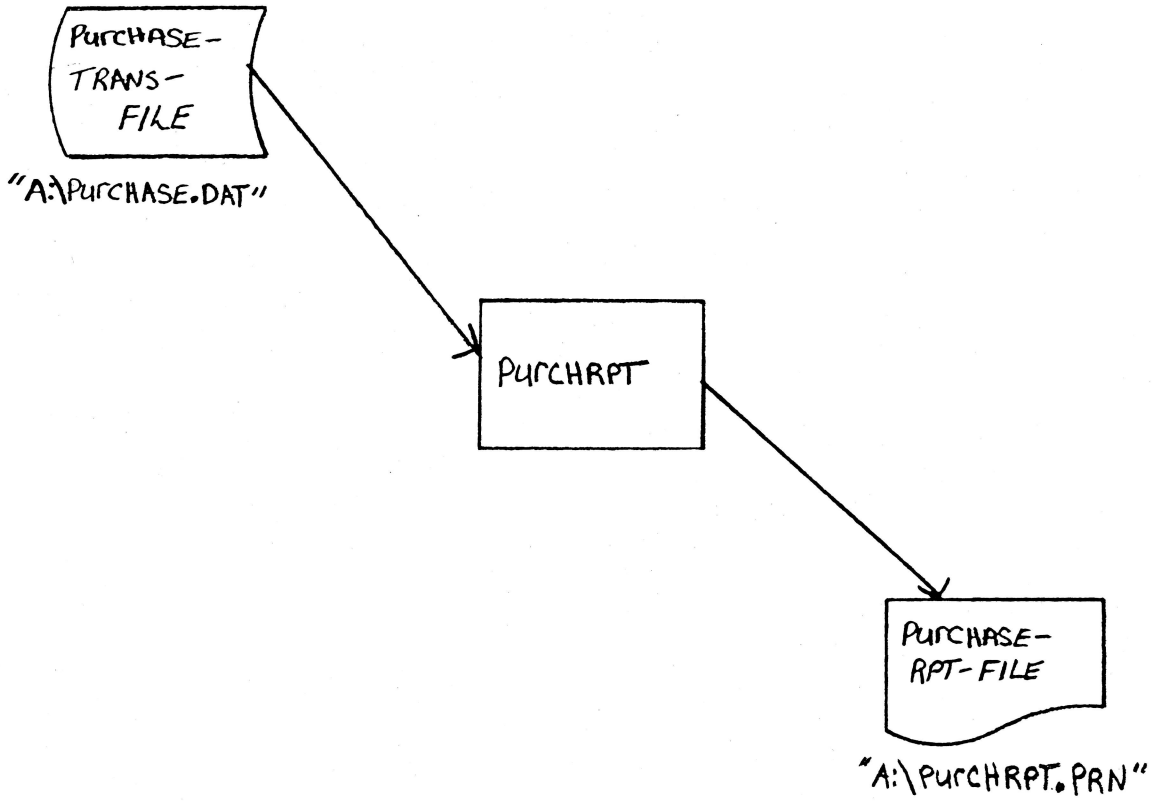
Output: File(s) A purchase report file. See attached Printer Spacing Chart (page 8).

Program Constraints: Purchase amount cannot exceed $99,999.99

Assumes a maximum of 100 customers in order to determine the size of the sum of the purchases. Maximum sum = 99,999.99 X 100 = $9,999,999.99

There is a maximum of 40 detail lines per page.

SYSTEM FLOWCHART



FILE DESCRIPTION FORM

FILE DEFINITION:

FILE NAME:
INTERNAL PURCHASE-TRANS-FILE
EXTERNAL PURCHASE.DAT (DOS FILE NAME/DDNAME)
DSNAME _____ (MAINFRAME ONLY)

MEDIUM: MICRO DISK X INPUT STREAM ___ MAINFRAME DISK ___

FILE TYPE:
MICRO: TEXT X MAINFRAME: PHYSICAL SEQUENTIAL ___
BINARY ___ VSAM-ESDS ___
VSAM-KSDS ___
VSAM-RRDS ___
PARTITIONED ___

RECORD DEFINITION:

RECORD NAME: PURCHASE-TRANS-REC
RECORD LENGTH: 32 BLOCKSIZE: NA
RECORD FORMAT: FIXED X
VARIABLE ___
PRIMARY KEY: NA KEY LENGTH: ___ KEY POSITION: ___
SECONDARY KEY: _____ KEY LENGTH: ___ KEY POSITION: ___
_____ ___ ___

FIELD DEFINITION(S):

COLUMNS	FIELD NAME	TYPE/PICTURE	SIZE/BYTES
01-05	CUST-NUM-IN	X(05)	5
06-25	CUST-NAME-IN	X(20)	20
26-32	PURCH-AMT-IN	9(05)V99	7

FILE NAME: PURCHASE-RPT-FILE

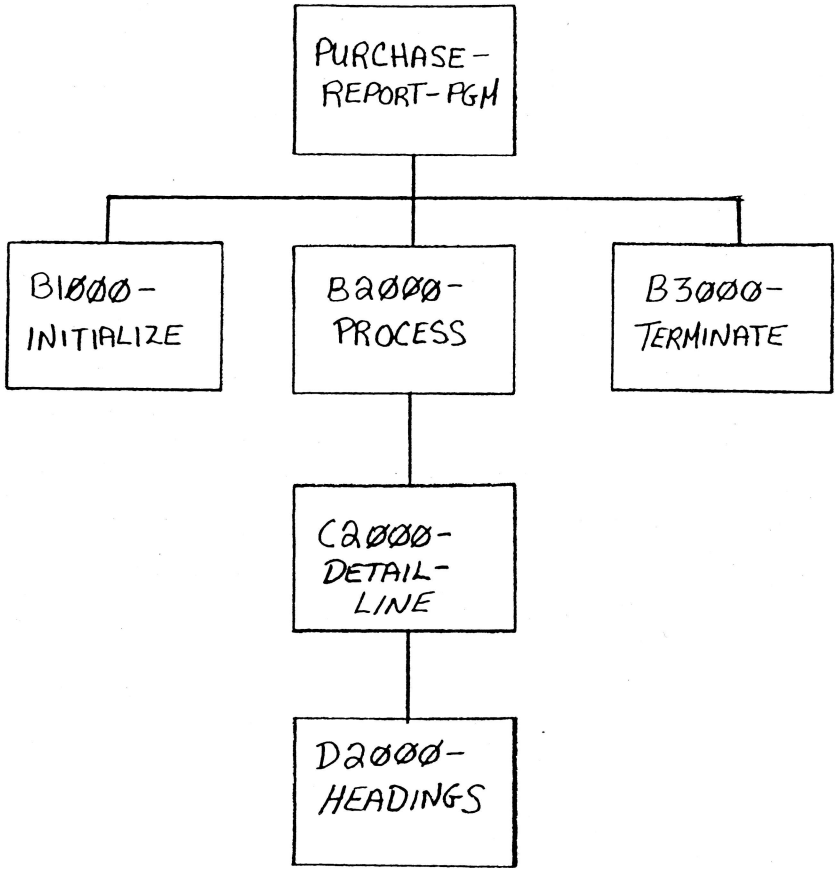
RECORD LENGTH: 80 CHARACTERS

PRINTER SPACING CHART

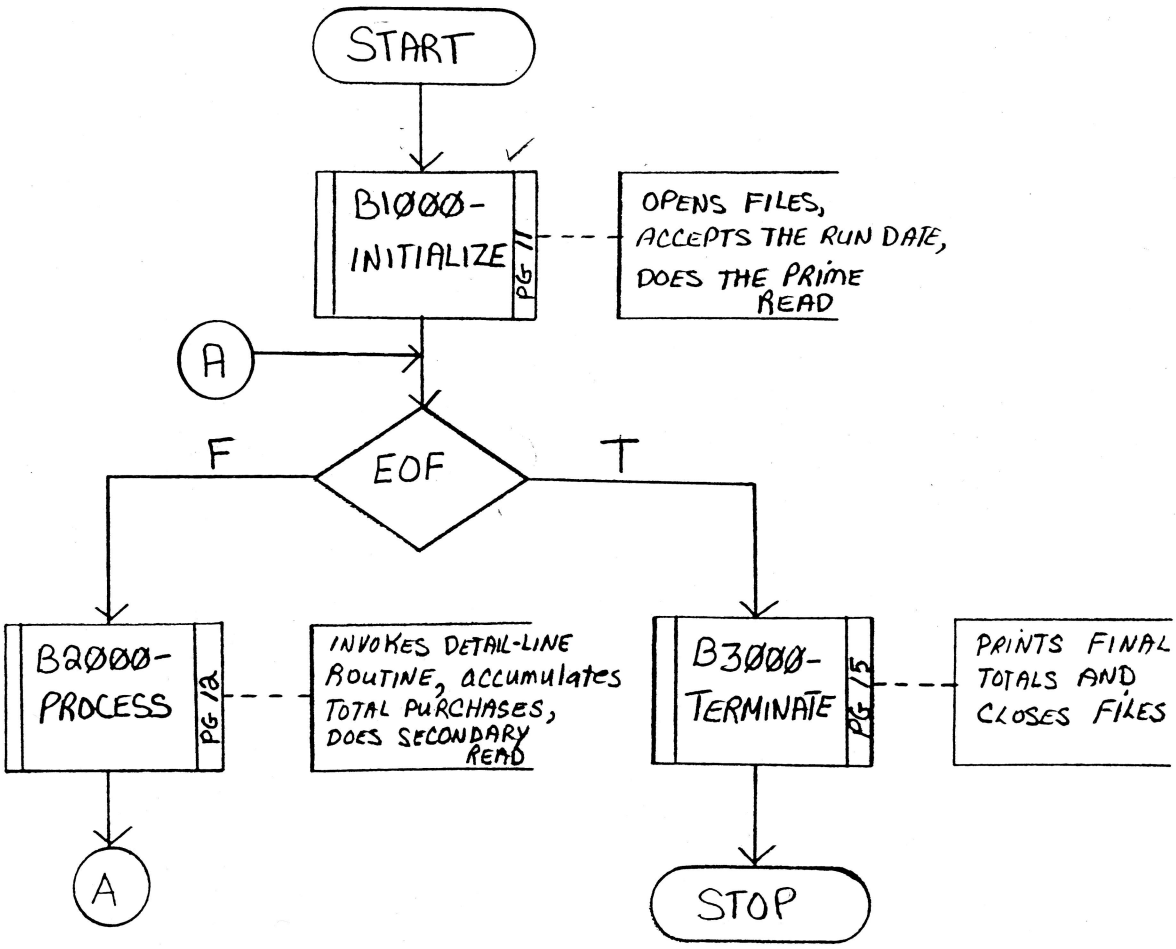
CARRIAGE CONTROL

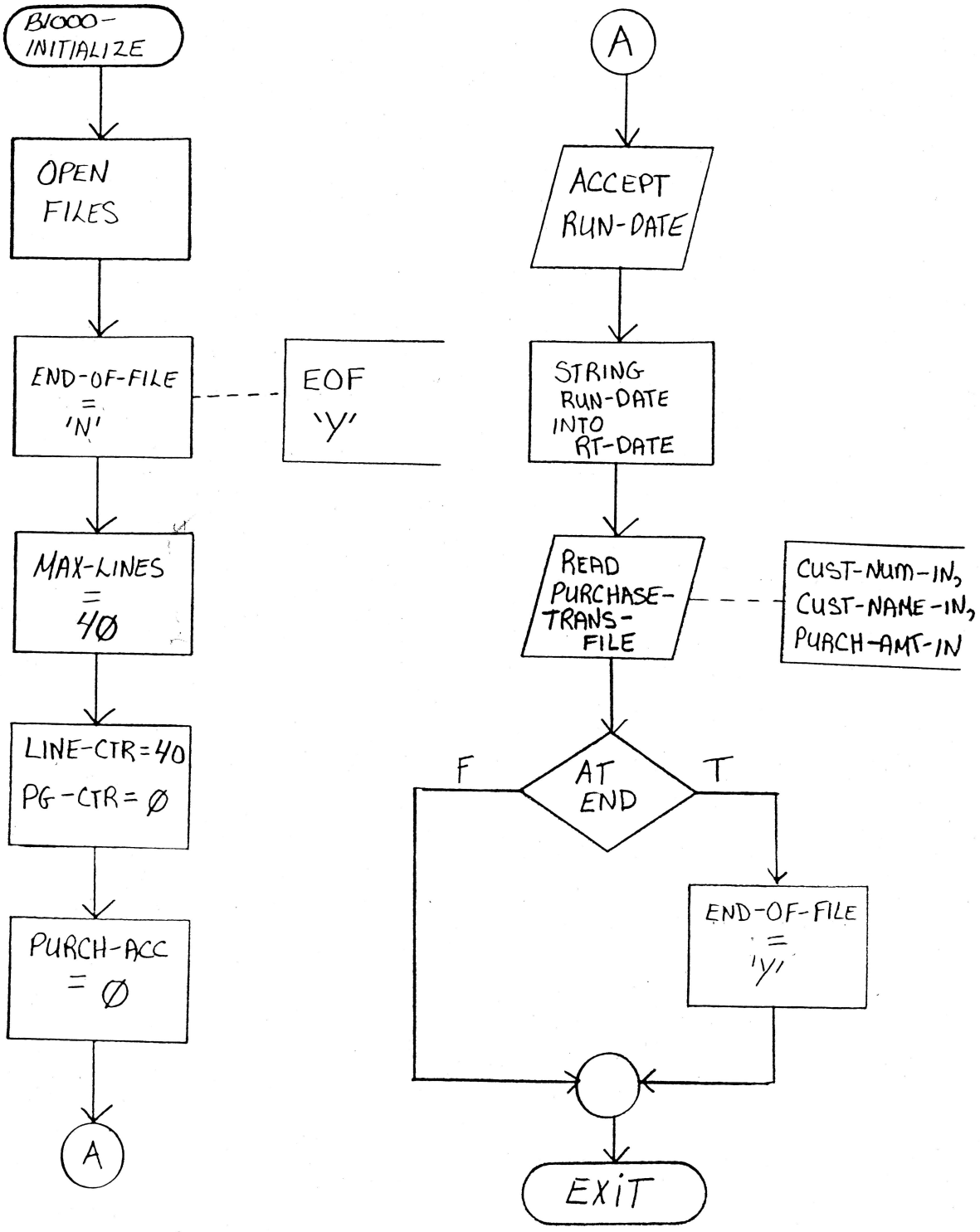
H	1	MM/DD/YY PURCHASE REPORT PAGE ZZ9
	2	
	3	
H	4	CUSTOMER NO CUSTOMER NAME AMOUNT OF PURCHASE
	5	
D	6	XXX-XX XXXXXXXXXXXXXXXXXXXX ZZ,ZZ9.99
D	7	XXX-XX XXXXXXXXXXXXXXXXXXXX ZZ,ZZ9.99
	8	
	9	
	10	
	11	
	12	
	13	
	14	
	15	
D	16	XXXXX XXXXXXXXXXXXXXXXX ZZ,ZZ9.99
	17	
T	18	TOTAL: $$,$$$,$$9.99
	19	
	20	
	21	
	22	
	23	
	24	
	25	
	26	
	27	
	28	
	29	
	30	
	31	
	32	
	33	
	34	
	35	
	36	
	37	
	38	
	39	
	40	
	41	
	42	
	43	
	44	
	45	
	46	
	47	
	48	
	49	
	50	

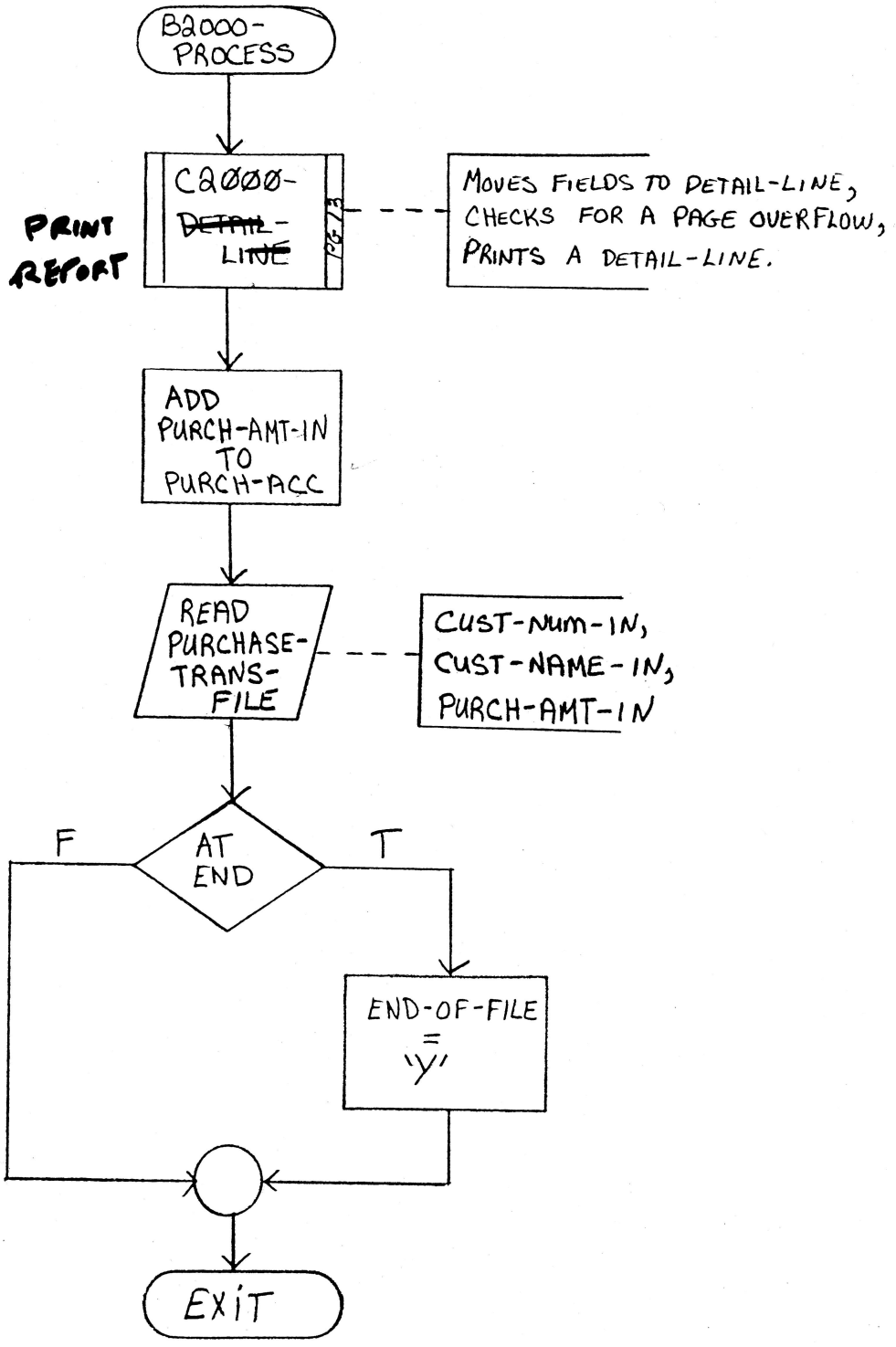
STRUCTURE CHART

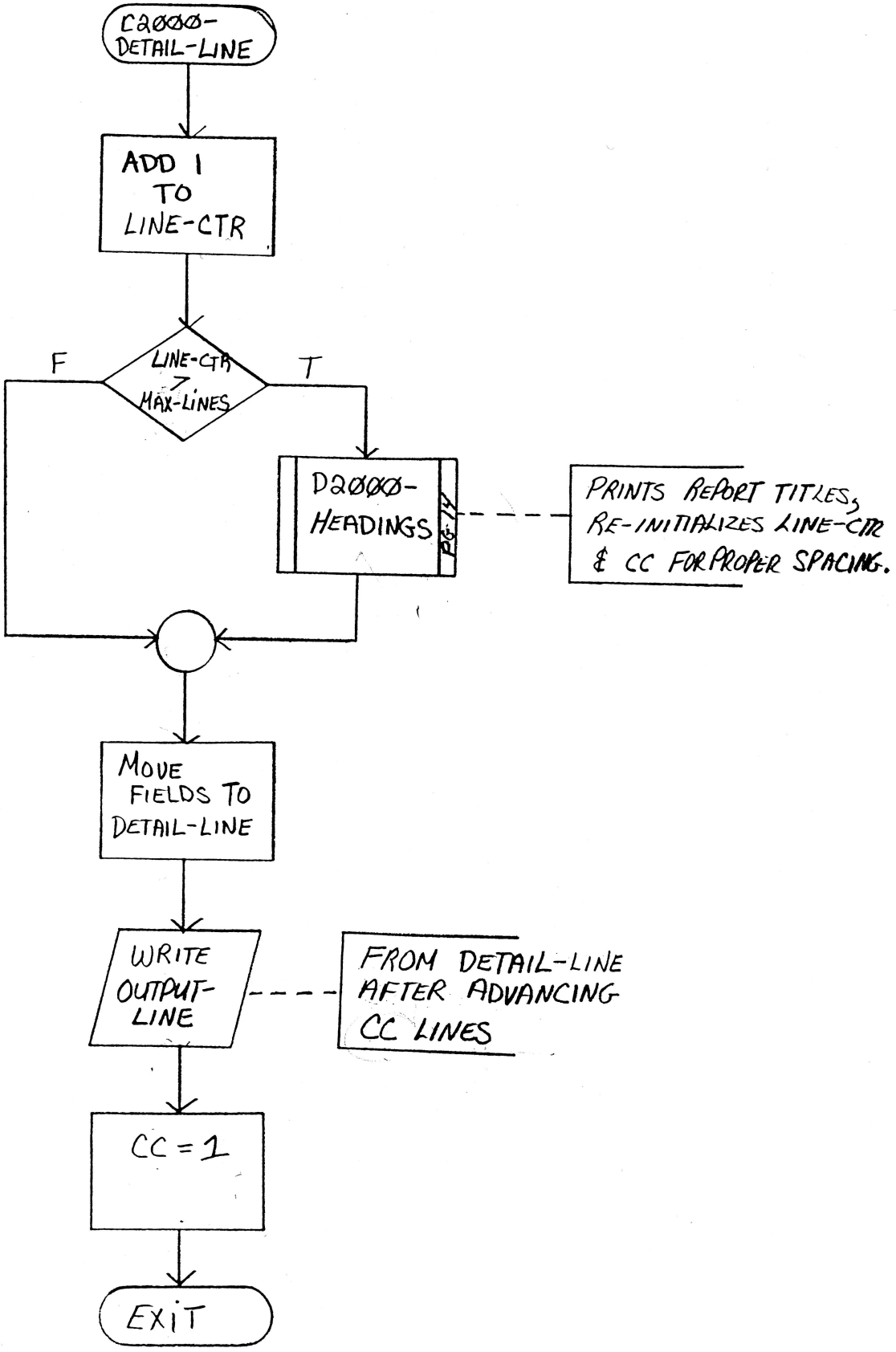


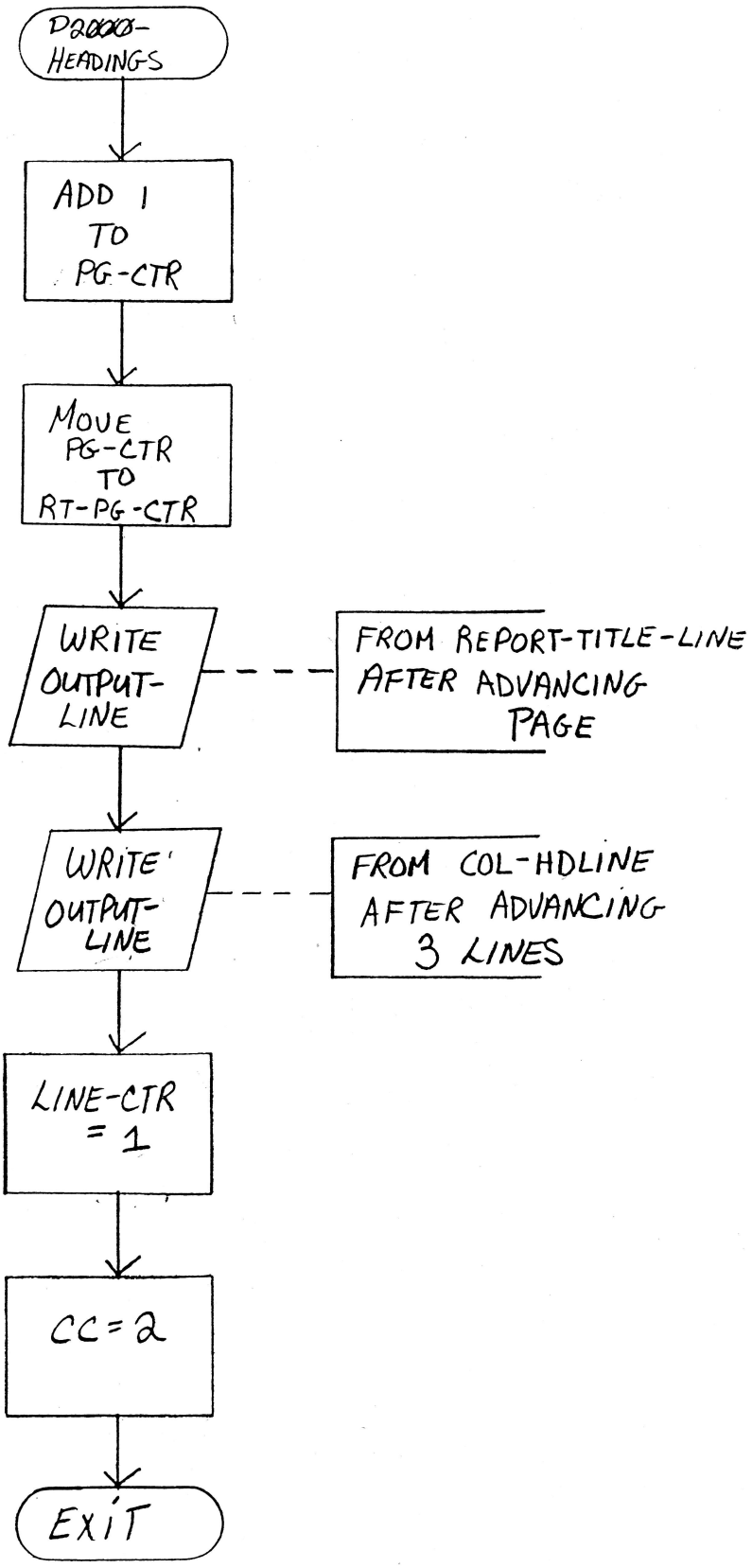
STRUCTURED FLOWCHART

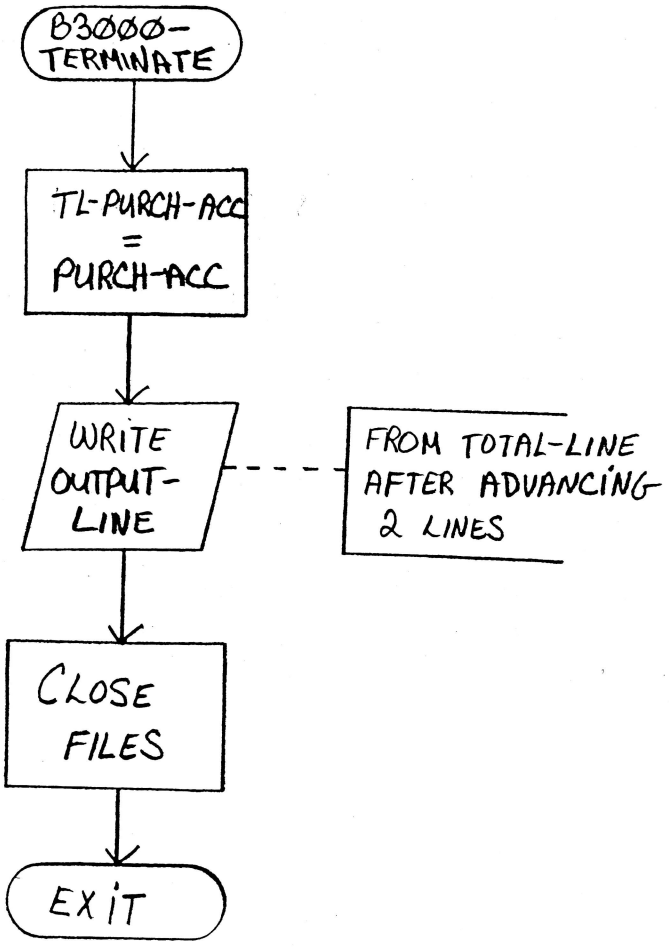



B1000-
INITIALIZE
OPEN
FILES
END-OF-FILE
=
'N'
EOF
'Y'
MAX-LINES
=
40
LINE-CTR=40
PG-CTR=Ø
PURCH-ACC
=Ø
A
A
ACCEPT
RUN-DATE
STRING
RUN-DATE
INTO
RT-DATE
READ
PURCHASE-
TRANS-
FILE
CUST-NUM-IN,
CUST-NAME-IN,
PURCH-AMT-IN
F
AT
END
T
END-OF-FILE
=
'Y'
EXIT


B2000-
PROCESS
C2000-
~~DETAIL~~-
LINE
PRINT
REPORT
MOVES FIELDS TO DETAIL-LINE,
CHECKS FOR A PAGE OVERFLOW,
PRINTS A DETAIL-LINE.
ADD
PURCH-AMT-IN
TO
PURCH-ACC
READ
PURCHASE-
TRANS-
FILE
CUST-NUM-IN,
CUST-NAME-IN,
PURCH-AMT-IN
F
AT
END
T
END-OF-FILE
=
'Y'
EXIT


C20000-
DETAIL-LINE
ADD 1
TO
LINE-CTR
F
LINE-CTR
>
MAX-LINES
T
D20000-
HEADINGS
PG. 14
PRINTS REPORT TITLES,
RE-INITIALIZES LINE-CTR
& CC FOR PROPER SPACING.
MOVE
FIELDS TO
DETAIL-LINE
WRITE
OUTPUT-
LINE
FROM DETAIL-LINE
AFTER ADVANCING
CC LINES
CC = 1
EXIT


D2000-
HEADINGS
ADD 1
TO
PG-CTR
MOVE
PG-CTR
TO
RT-PG-CTR
WRITE
OUTPUT-
LINE
FROM REPORT-TITLE-LINE
AFTER ADVANCING
PAGE
WRITE
OUTPUT-
LINE
FROM COL-HDLINE
AFTER ADVANCING
3 LINES
LINE-CTR
= 1
CC=2
EXIT


B3000-
TERMINATE
TL-PURCH-ACC
=
PURCH-ACC
WRITE
OUTPUT-
LINE
FROM TOTAL-LINE
AFTER ADVANCING
2 LINES
CLOSE
FILES
EXIT

TEST DATA LISTING

1234Susan Smith	0017523
21456Tammy Cree	0021817
34111Peter Jones	0218319
TOTAL	0257659

STATEMENT OF VERIFICATION TECHNIQUE

Procedure:

1. Manually add the values in the field PURCH-AMT-IN in the test data file.

2. Deskcheck the flowchart. The total arrived at in step 1, will be compared with the total obtained in the deskchecking routine to ensure that the logic is correct.

3 Both totals will match Total on Test Run

DESKCHECKING ROUTINE

CONSTANTS: MAX-LINES = 40 / 2 → (deskchecking routine assumes 2 lines per page)

CONTROL FLOW	EOF 'Y' END-OF-FILE	LINE-CTR	PG-CTR	PURCH-ACC	RUN-DATE	RT-DATE	CUST-NUM-IN	CUST-NAME-IN	PURCH-AMT-IN	RT-PG-CTR	CC
MM											
B1000	N	2	~~0~~	~~0~~	920123	01/23/92	~~12345~~	~~Susan Smith~~	~~0017523~~		
MM											
B2000											
C2000		~~3~~									
D2000		X	X							+	~~2~~
C2000											+
B2000				~~0017523~~			~~21456~~	~~Tammy Free~~	~~0021817~~		
MM											
B2000											
C2000		~~2~~									+
B2000				~~0039340~~			34111	PETER JONES	0218319		
MM											
B2000											
C2000		~~3~~									
D2000		1	2							2	~~2~~
C2000											1
B2000	Y			0257659							
MM											
B3000											
MM											

	DETAIL-LINE			
CONTROL FLOW	DL-CUST-NUM	DL-CUST-NAME	DL-PURCH-AMT	TL-PURCH-ACC
C2000	~~12345~~	~~Susan Smith~~	~~175.23~~	
C2000	~~21456~~	~~Tammy Cree~~	~~218.17~~	
C2000	34111	PETER Jones	2183.19	
B3000				$2,576.59

OUTPUT

01/23/92 Report title PAGE 1

CUSTOMER NO	CUSTOMER NAME	AMOUNT OF PURCHASE
12345	Susan Smith	175.23
21456	Tammy Cree	218.17

01/23/92 REPORT TITLE PAGE 2

CUSTOMER NO	CUSTOMER NAME	AMOUNT OF PURCHASE
34111	PETER Jones	2,183.19
	TOTAL:	$ 2,576.59

* Options: LIST(PURCHRPT.LST) NOASMLIST

```
    1 IDENTIFICATION DIVISION.
    2
    3 PROGRAM-ID.                 PURCHRPT.
    4 AUTHOR.                     C.LEGENDRE.
    5 DATE-WRITTEN.               DECEMBER 14, 1993.
    6 DATE-COMPILED. 14-Dec-93 16:30.
    7
    8*****************************************************************
    9* THIS PROGRAM PREPARES A PURCHASE DETAIL REPORT.                *
   10*                                                               *
   11* EACH RECORD OF THE INPUT FILE CONTAINS THE FOLLOWING FIELDS:  *
   12* A CUSTOMER NUMBER, A CUSTOMER NAME AND A PURCHASE AMOUNT.     *
   13*                                                               *
   14* FOR EACH CUSTOMER RECORD READ AN OUTPUT LINE WILL BE PRINTED  *
   15* CONTAINING THE CUSTOMER NUMBER, THE CUSTOMER NAME AND THE     *
   16* AMOUNT PURCHASED BY THE CUSTOMER.  THE DATA IS PRINTED IN     *
   17* EDITED FORM.  THE PROGRAM ACCUMULATES THE PURCHASE AMOUNTS    *
   18* SO THAT THE TOTAL AMOUNT PURCHASED BY THE CUSTOMERS CAN BE    *
   19* PRINTED AT THE END OF THE REPORT.                             *
   20*                                                               *
   21* THE OUTPUT IS A MULTI-PAGE DETAIL REPORT WITH APPROPRIATE     *
   22* REPORT AND COLUMN HEADINGS.  THERE IS A MAXIMUM OF 40 DETAIL  *
   23* LINES PER PAGE.                                               *
   24*****************************************************************
   25
   26 ENVIRONMENT DIVISION.
   27
   28 INPUT-OUTPUT SECTION.
   29
   30 FILE-CONTROL.
   31     SELECT PURCHASE-TRANS-FILE  ASSIGN TO  "A:\PURCHASE.DAT"
   32        ORGANIZATION IS LINE SEQUENTIAL.
   33     SELECT PURCHASE-RPT-FILE ASSIGN TO  "A:\PURCHRPT.PRN".
   34
   35 DATA DIVISION.
   36
   37 FILE SECTION.
   38
   39 FD  PURCHASE-TRANS-FILE
   40     BLOCK CONTAINS 0 RECORDS
   41     RECORD CONTAINS 32 CHARACTERS.
   42
   43 01  PURCHASE-TRANS-REC.
   44
   45     05 CUST-NUM-IN          PIC X(05).
   46     05 CUST-NAME-IN         PIC X(20).
   47     05 PURCH-AMT-IN         PIC 9(05)V99.
   48
   49 FD  PURCHASE-RPT-FILE
   50     BLOCK CONTAINS 0 RECORDS
   51     RECORD CONTAINS 80 CHARACTERS.
   52
   53 01  OUTPUT-LINE            PIC X(80).
   54
   55
   56 WORKING-STORAGE SECTION.
   57
```

```
    58 01  REPORT-TITLE-LINE.
    59
    60      05 FILLER                PIC X(10) VALUE SPACES.
    61      05 RT-DATE               PIC X(08).
    62      05 FILLER                PIC X(13) VALUE SPACES.
    63      05 FILLER                PIC X(30) VALUE 'PURCHASE REPORT'.
    64      05 FILLER                PIC X(05) VALUE 'PAGE'.
    65      05 RT-PG-CTR             PIC Z9.
    66      05 FILLER                PIC X(12) VALUE SPACES.
    67
    68 01  COL-HDLINE.
    69
    70      05 FILLER                PIC X(10) VALUE SPACES.
    71      05 FILLER                PIC X(14) VALUE 'CUSTOMER NO'.
    72      05 FILLER                PIC X(26) VALUE 'CUSTOMER NAME'.
    73      05 FILLER                PIC X(30) VALUE
    74                                        'AMOUNT OF PURCHASE'.
    75
    76 01  DETAIL-LINE.
    77
    78      05 FILLER                PIC X(13) VALUE SPACES.
    79      05 DL-CUST-NUM           PIC X(05).
    80      05 FILLER                PIC X(06) VALUE SPACES.
    81      05 DL-CUST-NAME          PIC X(20).
    82      05 FILLER                PIC X(15) VALUE SPACES.
    83      05 DL-PURCH-AMT          PIC ZZ,ZZ9.99.
    84      05 FILLER                PIC X(12) VALUE SPACES.
    85
    86 01  TOTAL-LINE.
    87
    88      05 FILLER                PIC X(47) VALUE SPACES.
    89      05 FILLER                PIC X(08) VALUE 'TOTAL:'.
    90      05 TL-PURCH-ACC          PIC $$,$$$,$$9.99.
    91      05 FILLER                PIC X(12) VALUE SPACES.
    92
    93
    94 01  INDICATORS.
    95
    96      05 END-OF-FILE           PIC X(01) VALUE 'N'.
    97         88 EOF                          VALUE 'Y'.
    98      05 CC                    PIC 9(01).
    99      05 MAX-LINES             PIC S9(02) VALUE +40 BINARY.
   100
   101 01  WORKFIELDS.
   102
   103      05 RUN-DATE.
   104         10 RUN-YR             PIC 9(02).
   105         10 RUN-MTH            PIC 9(02).
   106         10 RUN-DAY            PIC 9(02).
   107
   108 01  COUNTERS.
   109
   110      05 LINE-CTR              PIC S9(02) VALUE +40 BINARY.
   111      05 PG-CTR                PIC S9(02) VALUE +0 PACKED-DECIMAL.
   112
   113 01  ACCUMULATORS.
   114
   115      05 PURCH-ACC             PIC S9(07)V99 VALUE +0 PACKED-DECIMAL.
```

```
116
117 PROCEDURE DIVISION.
118
119 A0000-MAINLINE.
120
121     PERFORM B1000-INITIALIZE
122     PERFORM B2000-PROCESS
123       UNTIL EOF
124     PERFORM B3000-TERMINATE
125     STOP RUN.
126
127 B1000-INITIALIZE.
128
129*****************************************************************
130* INVOKED BY THE MAINLINE RTN.  THIS MODULE OPENS THE FILES,     *
131* ACCEPTS THE RUN DATE AND DOES THE PRIME READ.                  *
132*****************************************************************
133
134     OPEN INPUT PURCHASE-TRANS-FILE
135          OUTPUT PURCHASE-RPT-FILE.
136     ACCEPT RUN-DATE FROM DATE
137     STRING RUN-MTH '/' RUN-DAY '/' RUN-YR
138       DELIMITED BY SIZE INTO RT-DATE
139     READ PURCHASE-TRANS-FILE AT END
140       SET EOF TO TRUE
141     END-READ.
142
143 B2000-PROCESS.
144
145*****************************************************************
146* INVOKED BY THE MAINLINE RTN.  THIS MODULE INVOKES THE DETAIL   *
147* LINE RTN IN ORDER TO SEND A LINE TO THE REPORT. IT ACCUMULATES *
148* THE TOTAL PURCHASE AMOUNTS, THEN IT DOES THE SECONDARY READ.   *
149*****************************************************************
150
151     PERFORM C2000-DETAIL-LINE
152     ADD PURCH-AMT-IN TO PURCH-ACC
153     READ PURCHASE-TRANS-FILE AT END
154       SET EOF TO TRUE
155     END-READ.
156
157 B3000-TERMINATE.
158
159*****************************************************************
160* INVOKED BY THE MAINLINE RTN. THIS MODULE PRINTS FINAL TOTALS   *
161* AND CLOSES THE FILES.                                          *
162*****************************************************************
163
164     MOVE PURCH-ACC  TO TL-PURCH-ACC
165     WRITE OUTPUT-LINE FROM TOTAL-LINE
166       AFTER ADVANCING 2 LINES
167     CLOSE PURCHASE-TRANS-FILE
168           PURCHASE-RPT-FILE.
169
170 C2000-DETAIL-LINE.
171
172*****************************************************************
173* INVOKED BY B2000-PROCESS.  THIS MODULE MOVES FIELDS TO THE     *
```

```
   174* DETAIL LINE, CHECKS FOR A PAGE OVERFLOW, AND PRINTS THE DETAIL *
   175* LINE.                                                          *
   176*****************************************************************
   177
   178      ADD 1 TO LINE-CTR
   179      IF LINE-CTR > MAX-LINES
   180        PERFORM D2000-HEADINGS
   181      END-IF
   182      MOVE CUST-NUM-IN TO DL-CUST-NUM
   183      MOVE CUST-NAME-IN TO DL-CUST-NAME
   184      MOVE PURCH-AMT-IN TO DL-PURCH-AMT
   185      WRITE OUTPUT-LINE FROM DETAIL-LINE
   186        AFTER ADVANCING CC LINES
   187      MOVE 1 TO CC.
   188
   189 D2000-HEADINGS.
   190
   191*****************************************************************
   192* INVOKED BY C2000-DETAIL-LINE.  THIS MODULE PRINTS THE REPORT   *
   193* TITLES, RE-INITIALIZES THE LINE CTR AND SETS THE CARRIAGE CTRL.*
   194*****************************************************************
   195
   196      ADD 1 TO PG-CTR
   197      MOVE PG-CTR TO RT-PG-CTR
   198      WRITE OUTPUT-LINE FROM REPORT-TITLE-LINE
   199        AFTER ADVANCING PAGE
   200      WRITE OUTPUT-LINE FROM COL-HDLINE
   201        AFTER ADVANCING 3 LINES
   202      MOVE 1 TO LINE-CTR
   203      MOVE 2 TO CC.
* Micro Focus COBOL Version 3.0.62   L2.4 revision 003
* Copyright (C) 1985,1992 Micro Focus Ltd.     URN AXUPA/ZZ0/29744
*                                              REF GNB-043052003A8
*
* Total Messages:     0
* Data:         1358     Code:         608
```

CUSTOMER NO	CUSTOMER NAME	AMOUNT OF PURCHASE
12345	Susan Smith	175.23
21456	Tammy Cree	218.17
34111	Peter Jones	2,183.19
	TOTAL:	$2,576.59

TEST RUN

CUSTOMER NO	CUSTOMER NAME	AMOUNT OF PURCHASE
12346	Susan Brown	900.00
13345	Thomas Armstrong	1,000.00
13555	James Atre	450.00
14567	Karen Bradley	100.00
14669	Linda Carlson	1,250.76
15678	Joanne Klimbie	837.50
16788	Robert Hardgrave	132.50
17890	Tammy Martin	210.40
23451	Claude Bouffard	901.23
23566	Douglas Clayton	1,245.60
23677	George Cliche	230.00
34566	Adolphus Lewis	457.75
45673	Caroline Reynolds	2,250.00
	TOTAL:	$9,965.74

PRODUCTION RUN

COBOL I
420-201-90
Section 02

REPORT PROGRAM GUIDELINES

C. LEGENDRE
C. MARCHAND

THE REPORT PROGRAM

Typical structural REPORT requirements

1. Headings - report
   - column
2. Detail lines
3. Summary lines
4. Pagination
5. Totals

1. HEADINGS

i) Report Headings

- appear at the top of each page of the report
- are usually centered on each page
- consist of a single line or two
- are simple and descriptive

Contents

- title of report
  declared as a literal in Working-Storage Section
- page number
  declared as a variable in Working-Storage Section
- date information presented
  taken from the system date
  (ACCEPT data-name FROM DATE)
  or user input

ii) Column Headings

- appear at the top of columns of data
- describe accurately the information below them
- well spaced for readability
- aligned with the data in the columns
  a) centered for fixed length fields
  b) left-justified for variable non-numeric fields
  c) right-justified for numeric fields

2. Detail lines

- generally indicative or constant information is placed on the left and variable information on the right
- numeric data is right-justified
- non-numeric data is left justified
- detail information is edited before printing
- blank lines are inserted between report and column headings, and between column headings and summary lines

3. Summary lines

- totals of a group of records
- generally indicative or constant information is placed on the left and variable information on the right
- numeric data is right-justified
- non-numeric data is left-justified
- summary information is edited before printing
- blank lines are inserted between report and column headings, and between column headings and summary lines
- if the report contains both summary and detail lines then
  . detail lines may be group indicated (key field(s) printed only when there is a change in group)
  . blank lines are inserted between detail and summary lines

4. Pagination

- titles are produced at start of report and whenever the maximum number of lines per page is reached
- line counter is required (declared as a variable in the Working-Storage Section)
- in Summary report, often a change in group will also force a new page

5. Totals

- totals are the result of the summation of detail information in the columns
- totals are often printed within the same column as the data which is being summed; if so column width must be large enough to include the total field
- totals may be printed outside the column of detail information; however, an indicative literal should precede them
- totals are edited prior to printing

REPORT TYPES

1. Detail reports
2. Summary or Control break reports
3. Exception reports
4. Selection/Extraction reports
5. Classification reports

1. Detail report

Each record in the input file produces one or more lines of output on the report.

Report recipient :

Lower management or clerical staff

Report contents:

Information reflecting the day-to-day operations - the operating status of the organization.

2. Summary or Control Break reports

The information is condensed. One or more lines of output is produced for each group of records in the input file. Accumulators (totals and subtotals) are printed.

Report recipient :

Lower, middle and higher management

Report contents :

Information that presents the overall picture of the organization, dept. etc.

3. Exception reports

One line or more of output is produced for each record that contains information that is "other than normal".

Report recipient :

Person requiring specific information to make decisions or to take specific actions

Report contents :

The required information at minimum cost and maximum usability.

EXAMPLES

A paycheck containing an excessive amount

An item in inventory whose quantity has fallen below its reorder point

4. Selection/Extraction reports

One or more lines of output are produced from each input record that satisfies predetermined criteria.

Report recipient :

Lower management or clerical staff

Report contents :

Similar to detail report, but list only those records which meet specified criteria - required information at minimum cost and maximum usability

5. Classification reports

Each record is classified according to specific criteria and then printed. One or more lines of output is produced for each input record read. The information must be sorted either on one or more groups prior to its being printed.

Report recipient :

Lower management or clerical staff

Report contents :

Similar to detail report, but breaks the report into two or more groups for processing.

EXAMPLES

A list by job title
or years of experience

A list of grocery store sales by food items- perishable and non-perishable and non-food items

---

FILE DESCRIPTION FORM

FILE DEFINITION:

FILE NAME:
INTERNAL _____
EXTERNAL _____(DOS FILE NAME/DDNAME)
DSNAME _____(MAINFRAME ONLY)

MEDIUM: MICRO DISK___ INPUT STREAM___ MAINFRAME DISK___

FILE TYPE:
MICRO: TEXT ___ MAINFRAME: PHYSICAL SEQUENTIAL_____
BINARY___ VSAM-ESDS _____
VSAM-KSDS _____
VSAM-RRDS _____
PARTITIONED _____

RECORD DEFINITION:

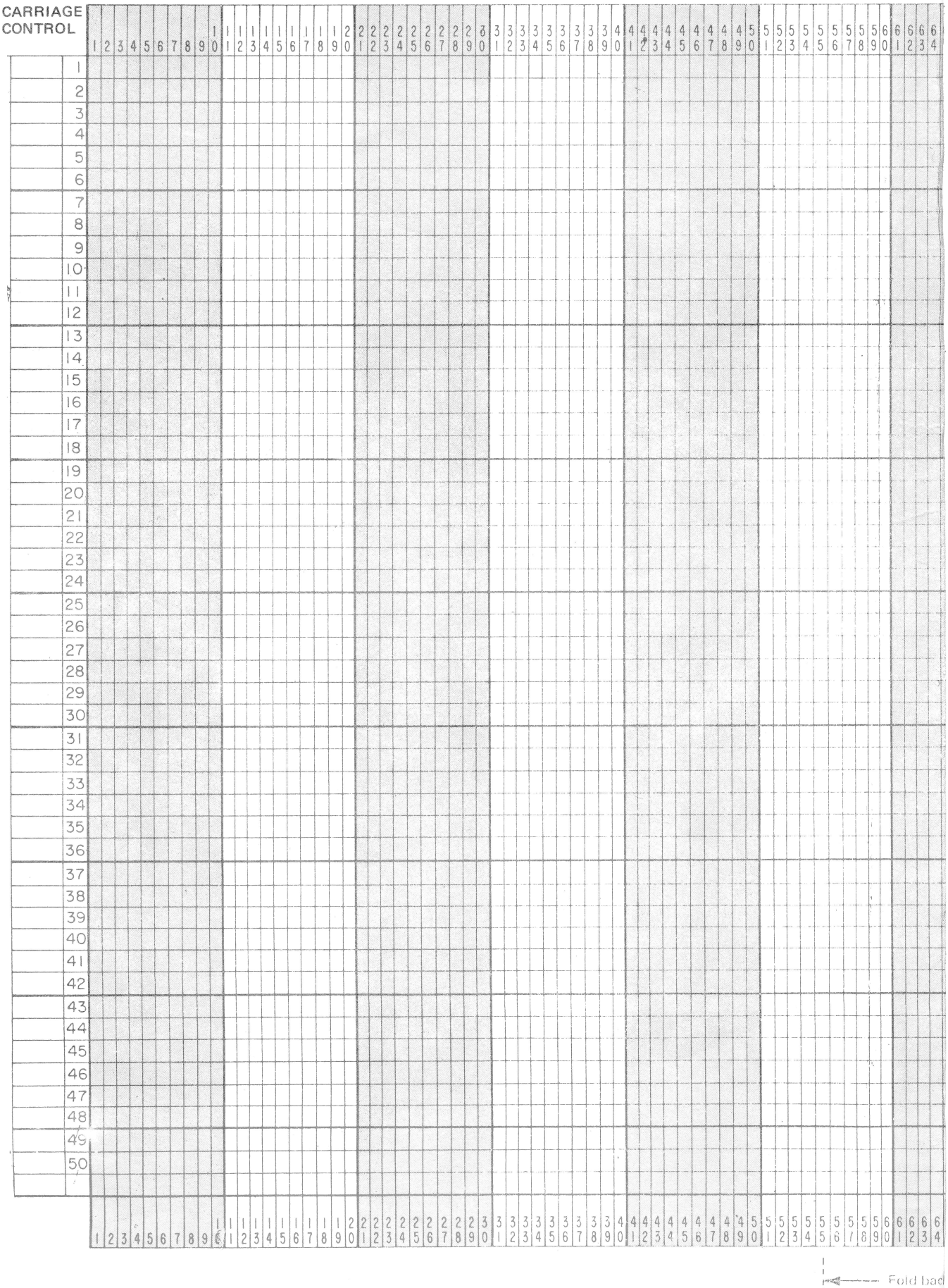
RECORD NAME: _____
RECORD LENGTH: _____ BLOCKSIZE: _____
RECORD FORMAT: FIXED _____
VARIABLE _____
PRIMARY KEY: _____ KEY LENGTH:_____ KEY POSITION: ____
SECONDARY KEY: _____ KEY LENGTH:_____ KEY POSITION: ____
_____ _____ ____

FIELD DEFINITION(S):

COLUMNS	FIELD NAME	TYPE/PICTURE	SIZE/BYTES

FILE NAME: _____ PRINTER

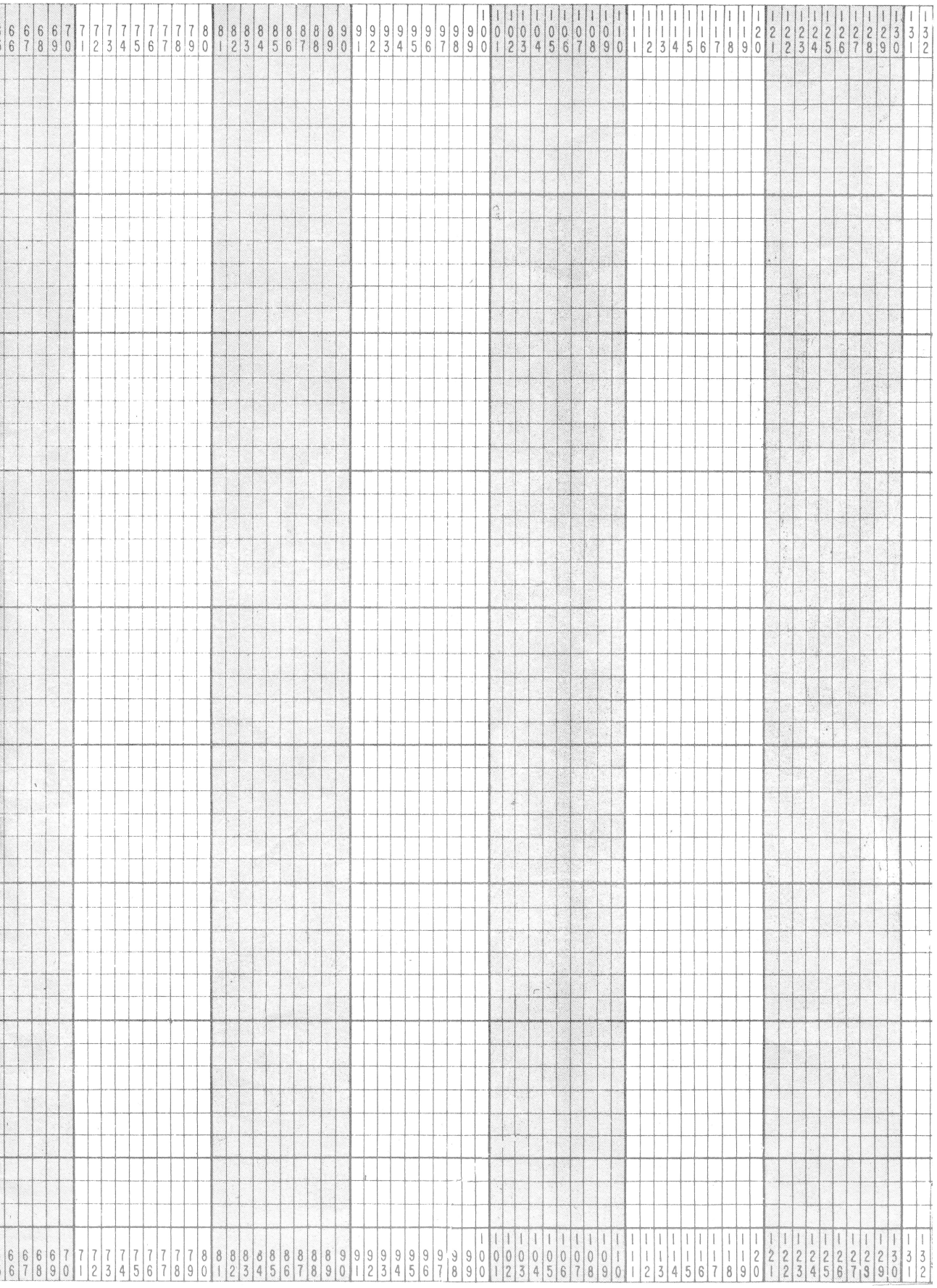
RECORD LENGTH: _____ CH



Fold back

SPACING
ART

DAWSON
COLLEGE



at dotted line.

Fold in at dotted line.