

Burroughs

B20 Systems Data Manager

TRAINING GUIDE

PRICED ITEM

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TRAINING GUIDE

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PRICED ITEM

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INTRODUCTION

The purpose of this training guide is to teach experienced applications programmers how to use the programming forms of the B20 Data Manager. By completing the sample programs, you will learn how quickly you can create programs with Data Manager.

Before you begin working through this guide, read Sections 1-4 of the Data Manager Programmer's Manual. Install the Data Manager Development system on your B20 and become familiar with the operational features of DMCREATE and DMRUN.

This manual has several parts. This introduction also includes a specific statement of course objectives. Next is an overview of Data Manager, with information on how to read the instructions. Following are step-by-step instructions for creating 12 different programs using Data Manager. These programs provide examples of some of the different types of programs that you can create with B20 Data Manager, such as file maintenance, batch update, run-time data entry, and report programs.

At the end of the Guide are two Appendices. Appendix A contains information on Data Manager function keys. Appendix B contains the output of all of the Data Manager programs in the guide, with the exception of the preliminary program.

The programs in this guide pertain to a typical business problem: inventory control. Their purpose is to acquaint you with the features of B20 Data Manager.

Other documentation which may be helpful to you includes:

- . B20 Data Manager Capabilities Manual, form 1143195.
- . B20 Data Manager Programmer's Manual, form 1143203.
- . B20 Operations, Part II, Learning to Use the System Software, form 1148400.

B20 System Software Operations Guide, form
1148772.

OBJECTIVES FOR
B20 DATA MANAGER TRAINING GUIDE

This Training Guide has been written for experienced applications programmers who are familiar with data processing concepts and with programming languages. They also should have some background in systems analysis and design. B20 Data Manager is a programming facilitation tool which will allow programmers to implement their applications systems more quickly and efficiently.

The major objective of the Training Guide is therefore to familiarize experienced programmers with the operation of the Data Manager and with its programming forms by having the programmer execute the steps and complete the forms to create and run twelve Data Manager programs.

More specifically, in completing the major objective of this Training Guide, the programmer will:

1. Create a Program Library.
2. Locate and use Data Manager function keys.
3. Use Field Helps and Form Helps.
4. List the various program types that can be created with DMCREATE.
5. Change entries made in DMCREATE.
6. Delete entries made in DMCREATE.
7. Specify numeric and alphanumeric range checking in DMCREATE.
8. Define fields in a record using DMCREATE.
9. Use both programmer-defined Field Descriptions and Standard Field Descriptions in DMCREATE.
10. Create the following types of fields:
 - a. Mandatory Entry fields.
 - b. Allow Entry fields.
 - c. Include in Record fields.

- d. Fields having Field Duplication.
- e. Fields having Automatic Increment.
- 11. Create primary-key fields in DMCREATE.
- 12. Create Help forms for the application-user.
- 13. Use Data Manager to link several programs together.
- 14. Run programs using DMRUN.
- 15. Use the Direct Program Select feature of DMRUN.
- 16. Complete DMCREATE programming forms for the following specific types of programs:
 - a. A File Maintenance program for a master file.
 - b. An Inquiry program.
 - c. A simple Batch-Update program.
 - d. A Real-time Update program.
 - e. A File Maintenance program for batch data entry.
 - f. A Batch Update program which updates a product master file.
 - g. A simple Report program which lists the transactions in a transaction file.
 - h. A Report program which uses record selection.
 - i. A Run-time Data program.
 - j. A Report program which uses Run-time parameters to report selectively on the product master file.
 - k. A Menu program.

Once the programmers are familiar with the operation of the Data Manager through completing the programs in the Training Guide, they should then consult the Data Manager Programmer's Manual for specific assistance in

using Data Manager to implement programs of their own design.

SECTION 1

OVERVIEW

Programming with Burroughs B20 Data Manager is much faster and easier than traditional programming. Once you become familiar with the Data Manager, you will be able to implement many kinds of typical application programs in minutes rather than days.

To use the Data Manager to implement your programming, you need to be familiar with the operation of the Data Manager and with its programming forms. The programs which you will create using this Guide are sample programs designed to acquaint you with Data Manager.

Several features have been included to help you as you proceed through the Guide. Function Key information has been included in Appendix A. In addition, if you have questions on a programming form as you are working on it, you may press the HELP key.

The first time you press the HELP key, DMCREATE displays an explanation of the specific field you are working on. If you press HELP again, in most cases you will see a general explanation of the entire form.

On some of the shorter forms, the FIELD HELP and FORM HELPS have been combined. On these forms all information will appear the first time you press the HELP key. Then to return from a Help form to a programming form, press the GO key.

To enable you check your programs, output for each of the programs (with the exception of the preliminary program) has been included in Appendix B.

The programs you are about to create present examples of a typical Data Manager programming environment. To give you an idea of both the Data Manager programming environment and of the Data Manager application user environment, these programs were patterned after a sample inventory-control system.

As you create these programs, try to concentrate on the Data Manager itself rather than on the inventory-control features of the programs. First create the programs exactly according to the instructions and take the time to run them as a system. You might then want to modify the system to incorporate your own ideas and perhaps some additional application features.

There is one warm-up program to introduce the Data Manager Development system and eleven additional programs which make up the inventory-control applications. This sounds as if you will be doing a great deal of programming, but the entire system can usually be completed in less than a day. Allow yourself plenty of time, however, since you will want to run your programs as you complete them. By the time you complete these programs, you will be thoroughly acquainted with the Data Manager and its important features.

Here are the programs you will create:

1. NAMELIST This is the warm-up or introductory program. It is a file maintenance utility program which is used only as an introduction to the DMCREATE module. It is not one of the inventory-control programs.

2. PRODUTIL A file maintenance utility for the product master file (PRODUCTS). This file is used to store static and balance information for all products.

3. STOCKINQ An inquiry program which extracts stock-on-hand and price information from the product master file.

4. PERIOD-END A simple batch update program that clears the period-to-date balances in the product master file.

5. ISSUES A program which allows an operator to enter stock issue transactions (sales) and immediately update the product master file balances to reflect each transaction.

6. PR-ENTRY A maintenance program used for batch data entry of purchase and receipt transactions. This program creates a transaction file called PRTRANS.

7. PR-UPDATE Another, more typical batch update program which updates the product master file according to the purchase and receipt transactions in PRTRANS.

8. PR-JOURNAL A simple report which lists the transactions in PRTRANS.

9. LOWSTOCK A more complicated report which prints a "buyer's guide" of items in the PRODUCTS file that have on-hand balances less than their reorder points.

10. PRE-PRODLIST A run-time data program which allows the operator to enter values to be used by the PRODLIST report.

11. PRODLIST A report which uses run-time parameters to report selectively on the product master file.

12. ICMENU1 A menu program which is the initial menu for your Inventory Control Program Library. It allows you to access all of the inventory-control programs (Programs 2-12) through the Data Manager Menu interface.

You will create these programs by following simple step-by-step instructions. An example of the format of the instructions is given below. This is only an example, so just read through the following material. Do not make any entries here. You will actually begin to create your programs in SECTION 2.

FORMAT OF INSTRUCTIONS

1. The first information given is the name of the DMCREATE form on which you are entering data.

Example: MAINTENANCE PROGRAM SECTIONS

From time to time, some information which will help you understand an entry will be given before the actual prompt.

2. The second item, which is indented under the name of the form, is the prompt. The prompt tells you what data is requested.

Example: SECTION

3. The third item of information, given next to the prompt, is the entry. This is the actual data you are to enter.

Example: "1"

4. The last item of information, given to the right of the data to enter, is the instruction on which key to press to move to the next entry.

Example: press GO

SAMPLE ENTRY

Here is a sample entry, with the parts labeled:

MAINTENANCE PROGRAM SECTIONS

[The entry above is the name of the form on which you are working.]

If this form is not on the screen, see the Programmer's Manual.

[The entry above is a typical comment.]

| | | |
|----------|-----------------|--------------|
| SECTION | 1 | (press GO) |
| (Prompt) | (Data to enter) | (Key to use) |

SECTION 2

FIRST STEPS IN CREATING PROGRAMS WITH B20 DATA MANAGER

The preceding information explained how the inventory control programs are organized and how the material is presented. In the section which follows, you will actually complete Data Manager forms.

To create programs with B20 Data Manager, you first need to create an Application Disk Directory and a Program Library. The following instructions will show you how to create an Application Disk Directory and a Program Library. Follow the instructions and enter data on the DMCREATE forms when you are directed to do so.

CREATING AN APPLICATION DISK DIRECTORY

It is a good practice to keep all the files related to an application in a special disk directory for that application. If you would like to keep your DM programs and the files for your Inventory Control system in a special directory, you should use the B20 CREATE DIRECTORY utility to create it at this time.

The directory here has been named an <IC> directory. <IC> is short for Inventory Control. The instructions refer to an <IC> directory. However, you may also call your directory any name you choose.

NOTE

If you do choose another name for your directory, be sure to enter that name whenever you are asked to enter a directory name.

CREATING A PROGRAM LIBRARY

First begin the DMCREATE program. You should have just completed the installation procedure in the B20 Data Manager Programmer's manual and the COMMAND prompt should be on the screen. If the COMMAND prompt is not on the screen, refer

to the B20 Data Manager Programmer's manual for start-up procedures.

In the highlighted COMMAND field, enter: "DMCREATE".

COMMAND

DMCREATE

(press GO)

CREATE/MAINTAIN PROGRAM LIBRARY
LIBRARY INFORMATION

LIBRARY FILE ID: No change (press FINISH)

Pressing FINISH here returns you to the Programming Activity Selection menu. When you are on the Programming Activity Selection menu, you are ready to begin creating NAMELIST. The following instructions will tell you exactly what to do.

SECTION 3. NAMELIST

(PROGRAM 1: PRELIMINARY PROGRAM)

This file maintenance program allows you to build an ISAM file of records containing an employee number and employee name. The key to the file is the employee number. The program will automatically create the file if necessary, and will then either add, change, or delete records from it.

The purpose of the next programs is to introduce you to the programming forms in DMCREATE. If you would like additional information about a form, press the HELP key to see the Help screen for that form, or refer to the B20 Data Manager Programmer's Manual. However, all you need to do here is follow the instructions step by step.

PROGRAMMING ACTIVITY SELECTION

ACTIVITY NUMBER 1 is the default value here.

ACTIVITY NUMBER: No change (press GO)

CREATE/MAINTAIN DM PROGRAM LIBRARY AND PROGRAM INFORMATION

For the "FILE ID" entry, use the name of the Program Library that you have just created. (This file is <IC>XXXLIB, where XXX are your initials.) You will use this FILE ID name as you create all of the next programs.

NOTE

If you have used another name than <IC> for your directory, enter that name before your initials. If you have created your own directory name, be sure to use that name throughout, in place of <IC>.

FILE ID: No change (push RETURN)

PROGRAM NAME: PROGRAM1 (push GO)

PROGRAM TYPE SELECTION

You do not need to make an entry for PROGRAM HELP FORM and PROGRAM ERROR HELP FORM. If you would like an explanation of these features, see the B20 Data Manager Programmer's Manual.

Enter the "1" for PROGRAM TYPE and leave the other entries blank.

PROGRAM TYPE: 1 (push GO)

MAINTENANCE PROGRAM SECTIONS

If the MAINTENANCE PROGRAM SECTIONS form is not on the screen, you probably entered a program type other than 1 on the previous form. To correct the problem, press FINISH. Now press RETURN and then change the name of the program to PROGRAM2. Press GO. Now re-enter the program type correctly. After PROGRAM TYPE, enter a 1. Press GO.

SECTION: No change (push GO)

PRIMARY DATA FILE

When you press GO, the default values are automatically entered for the other prompts on this form. Again, enter your initials in place of the XXX.

PRIMARY FILE ID: <IC>XXXFILE1 (push GO)

FILE MANAGEMENT

SELECTION NUMBER: 2 (press GO)

SECONDARY FILES RECORD DESCRIPTION PROGRAMS

No secondary files will be used in this program.

PROGRAM NAME Leave blank (press GO)

FORM SELECTION

SELECTION NUMBER: 2 (press GO)

STANDARD FORM
FORM HEADING

HEADING: NAME LIST UTILITY (press GO)

NUMERIC RANGE TABLE

No numeric range checking will be used in this program.

RANGE 1 Leave blank (press GO)

ALPHANUMERIC RANGE TABLE

No alpha range checking will be used in this program.

RANGE 1 Leave blank (press GO)

On the next page is an explanation of the FIELD DEFINITION form. It will be helpful to look at this form as you read the explanation.

FIELD DEFINITION FORM

The Field Definition form has more entries than any other form in the DMCREATE program. Therefore some further information may be helpful. The following comments are for your general information.

1. On this form you are defining one field in a record.
2. The number of the field you are currently defining appears at the top of the form. Note that you are now on FIELD DEFINITION 1.
3. The NEXT FIELD area is located in the top of the left-hand column. This area is used after you have already defined some fields and want to skip forward or backward to another field.

For example, suppose you were on FIELD DEFINITION 5 and wanted to return to FIELD DEFINITION 2. You would use the Up Arrow key to move the cursor to the NEXT FIELD area. You would then enter a 2. Next, you would press GO. Pressing GO would return you to FIELD DEFINITION 2.

However, you do not need to use this area now.

4. On the right side of this form are standard field descriptions. You may use these descriptions by entering the number of the description you want under the STD DESCRIPTION entry.
5. The cursor is positioned in the lighted FIELD NAME area. You will begin defining your field with this entry.
6. Key use: Press RETURN to move down the entries. Use the UP ARROW to move up the form. When you have entered all the data you want to on the form, press GO. You may press GO from the field you are on. When you have finished all your FIELD DEFINITIONS, press F3.
7. On FIELD DEFINITION 1, you will be asked to move the cursor through all of the entries on a form in order to become familiar with the forms. After this first FIELD DEFINITION, you will not need to tab through all of the entries.

8. As you use the Field Definition form to define fields in the NAMELIST program, you are defining the fields in a record and at the same time creating a data entry form. The data entry form that you create with this program is reproduced below.

NAME LIST UTILITY
==== =====

EMPLOYEE NUMBER_____

EMPLOYEE NAME_____

9. You are now ready to define fields in the NAMELIST program.

SOURCE Leave blank (press RETURN)

SKIP TO FIELD Leave blank (press RETURN)

When you enter N for FIELD DUP/INCREMENT, the cursor will skip the INCREMENT AMOUNT field. If you entered Y for FIELD DUP/INCREMENT, you can specify an INCREMENT AMOUNT.

FIELD DUP/INCREMENT N (default) (press RETURN)

No entry is required for any of the range check prompts. Since you have completed all of the entries required on this form, you should continue on to the next form.

RANGE 1 Leave blank (press GO)

The GO key enters an entire form and may be used as soon as you have completed all your entries.

FIELD DEFINITION 2

FIELD NAME EMPLOYEE NAME (press RETURN)

FIELD NAME and STD DESCRIPTION are the only entries you need to make for FIELD DEFINITION 2. You may want to tab through the other entries to become more familiar with them. Otherwise, press GO after entering the STD DESCRIPTION.

STD DESCRIPTION 9 (press GO)

FIELD DEFINITION 3

FIELD DEFINITION 2 was the last field you needed to define in this program. The F3 key will move you to the next program section.

FIELD NAME Leave blank (press F3)

Page through the next forms of DMCREATE in order to see what they look like.

INITIAL FUNCTION

 Leave blank (press F3)

REPEATING FUNCTION

 Leave blank (press F3)

PROGRAM/UTILITY LINKAGE

 Leave blank (press F3)

APPLICATION FILE ERROR HELP

 Leave blank (press F3)

MAINTENANCE PROGRAM SECTIONS

Congratulations! You have just completed your first Data Manager program. This is the same form you used a few minutes ago when you began creating your NAMELIST program. DMCREATE always returns to the Program Sections menu after displaying all the programming forms for the type of program you are creating. Your program is now ready to test, but before you test it, follow the next instructions to see how easy it is to modify a Data Manager program.

CHANGING A DATA MANAGER PROGRAM

From the Maintenance Program Sections menu, you can skip to any section of your program and change any of your previous entries.

Suppose you want to change a specification for the second field defined in this program.

MAINTENANCE PROGRAM SECTIONS

To skip directly to the Field Definitions section, enter the number of that section.

SECTION 3 (press GO)

FIELD DEFINITION 1

FIELD NAME No change (press GO)

FIELD DEFINITION 2

Now you are on FIELD DEFINITION 2. The name of this field is EMPLOYEE NAME. Let's practice changing one of the entries in this field definition.

Move the cursor to MANDATORY ENTRY, using the RETURN key.

MANDATORY ENTRY Change to Y (press GO)

FIELD DEFINITION 3

No other field definition changes are needed. Return to the Maintenance Program Sections menu.

FIELD NAME Leave blank (press FINISH)

MAINTENANCE PROGRAM SECTIONS

Notice that when you are in a program section, pressing the FINISH key always takes you back to the Program Sections menu. Now make another change. This time the change will be in the Input/Output section.

SECTION No change (press GO)

PRIMARY DATA FILE

Change the name of the file to NAMEFILE. To do this, type over the original entry.

PRIMARY FILE ID: <IC>XXXNAMEFILE (press GO)

FILE MANAGEMENT FORM

You do not need to make any more changes.

SELECTION NUMBER No change (press FINISH)

MAINTENANCE PROGRAM SECTIONS

You could continue to change other entries in your program by using the Maintenance Program Sections menu to reenter different sections of your program.

However, you do not need to make any further changes now. Instead, you should return to the Programming Activity menu to test your program. To do this, use the FINISH key to "back out" of the programming activity.

SECTION No change (press FINISH)

CREATE/MAINTAIN DM PROGRAM
LIBRARY AND PROGRAM INFORMATION

LIBRARY FILE ID: No change (press FINISH)

PROGRAMMING ACTIVITY SELECTION

You have completed your first program using DMCREATE. You have also learned how to return to the Program Sections menu using the FINISH key, and how to reenter the program to change or correct specifications.

You are now ready to test the program you have created.

ACTIVITY NUMBER 7 (press GO)

DMRUN MODULE

The DMRUN module is a separate B20 Data Manager module which runs the programs you create. Instructions on key use in DMRUN will be given on the next pages. Additional information is also available in Appendix A.

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DATA MANAGER 1.0
LIBRARY SELECTIONS

This is the main menu form for the DMRUN program. Use the Direct Program Selection feature to run your program.

ENTER SELECTION 11 (press GO)

DIRECT PROGRAM SELECTION

PROGRAM TYPE 1 (press RETURN)

LIBRARY FILE ID <IC>XXXLIB (press RETURN)

Here you must enter the same program name you used when you created the program. The entry suggested above is correct, unless you created your own program using a name other than the one given in the previous instructions.

PROGRAM NAME PROGRAM1 (press GO)

DMRUN FUNCTION KEYS

The following function keys are used with DMRUN. The F10 and CANCEL keys are of particular interest here.

| <u>Key</u> | <u>Function</u> |
|-------------|---|
| CANCEL | Void all entries on the current form without updating the data file. |
| DELETE | Character delete. |
| Down Arrow | Enter the selected field and select the next field. |
| FINISH | Return to the previous menu. Terminate DMRUN. |
| F8 | Print contents of screen. Available only when lit for inquiries and reports output to screen. |
| F10 | Delete the current primary file record. Available only when lit. |
| GO | Enter any remaining fields on the form with the values that they contain and continue to the next form. |
| HELP | Display all available help forms. |
| NEXT/RETURN | Enter the selected field and select the next field. |
| Up Arrow | Return to the previous field. |

EMPLOYEE NUMBER 40 (press RETURN)

EMPLOYEE NAME JANE (press GO)

Now practice changing some data.

EMPLOYEE NUMBER 10 (press RETURN)

EMPLOYEE NAME Change SAM
to ALBERT (press GO)

EMPLOYEE NUMBER 40 (press RETURN)

EMPLOYEE NAME Change JANE to
JUNE (press GO)

Now practice deleting data.

EMPLOYEE NUMBER 30 (press RETURN)

Notice that the F10 key is lit.

EMPLOYEE NAME No entry (press F10)

EMPLOYEE NUMBER 30 (press RETURN)

The EMPLOYEE NAME field should be empty. "Bill" has been deleted from the file. Return to the EMPLOYEE NUMBER field by pressing the GO key.

Now practice using the CANCEL key.

EMPLOYEE NUMBER 20 (press RETURN)

EMPLOYEE NAME ZZZZZZZ (press CANCEL)

EMPLOYEE NUMBER 20 (press RETURN)

Notice that pressing the CANCEL key prevented your change from affecting data in the file.

EMPLOYEE NAME No change (press GO)

You have completed adding, changing, and deleting data. You have also practiced using the CANCEL key. You should now end your program and return to the LIBRARY SELECTIONS menu.

EMPLOYEE NUMBER No entry (press FINISH)

LIBRARY SELECTIONS

You should now end DMRUN and return to DMCREATE to begin your second Data Manager program.

SELECTION No entry (press FINISH)

PRIMARY DATA FILE

After entering the primary file name, press GO to automatically enter default values for the other prompts on this form.

PRIMARY FILE ID: <IC>XXXPRODUCTS (press GO)

FILE MANAGEMENT

SELECTION NUMBER: 2 (press GO)

SECONDARY FILES RECORD DESCRIPTION PROGRAMS

No secondary files will be used in this program.

PROGRAM NAME Leave blank (press GO)

FORM SELECTION

SELECTION NUMBER: 2 (press GO)

STANDARD FORM
FORM HEADING

HEADING: PRODUCT INFORMATION (press GO)

NUMERIC RANGE TABLE

You will enter two numeric ranges here. Press RETURN to move between the entries. Press GO to move to the next form.

| RANGE # | LOWER | UPPER |
|---------|------------------|------------------------|
| 01 | 1 (press RETURN) | 5 (press RETURN) |
| 02 | 0 (press RETURN) | 99999.99 (press GO) |

ALPHANUMERIC RANGE TABLE

You will enter one alphanumeric range here.

| RANGE # | LOWER | UPPER |
|---------|------------------|--------------|
| 01 | A (press RETURN) | D (press GO) |

INSTRUCTIONS FOR THE NEXT SECTION

In FIELD DEFINITION 1 in the warm-up program, you looked at each of the entries, whether you needed to make an entry or not. In FIELD DEFINITION 2, you only made two entries.

For all of the succeeding Field Definitions, you will be given only the specific data you need to enter.

Use the RETURN key to move past fields in which you do not make an entry. When you have entered all the data needed, press GO.

FIELD DEFINITION 1

FIELD NAME STOCK NUMBER (press RETURN)

None of the STANDARD DESCRIPTIONS provides for an unsigned 8-digit number with no decimal places. Leave STD DESCRIPTION blank.

STD DESCRIPTION Leave blank (press RETURN)

The next entry is used for non-standard descriptions. This description is for an unsigned 8-digit number with no decimal places.

An explanation of the description code is on the Help form for this entry.

DESCRIPTION 8.0 (press RETURN)

MANDATORY ENTRY Y (press RETURN)

Entering a "Y" under PRIMARY KEY is the last entry you need to make on this Field Definition. After you have made this entry, press GO.

PRIMARY KEY Y (press GO)

FIELD DEFINITION 2

FIELD NAME CATEGORY (press RETURN)

STD DESCRIPTION 12 (press RETURN)

Where you are not given specific data to enter, use the system defaults. Use the RETURN key to tab through fields where you do not need to enter data.

MANDATORY ENTRY Y (press RETURN)

Press the RETURN key to move to the FIELD DUPLICATION/INCREMENT entry. If you are not sure what field duplication is, press the HELP key.

FIELD DUP/INCREMENT Y (press RETURN)

In the RANGE CHECKING entry, you indicate that you want the first set of ranges that you entered on the NUMERIC RANGE TABLE to be used as a range check on the CATEGORY field.

RANGE 1 1 (press GO)

FIELD DEFINITION 3

Note that you need to make only 2 entries on FIELD DEFINITION 3.

FIELD NAME BIN LOCATION (press RETURN)

STD DESCRIPTION 4 (press GO)

FIELD DEFINITION 4

| | | |
|-----------------|-------------|----------------|
| FIELD NAME | DESCRIPTION | (press RETURN) |
| STD DESCRIPTION | 9 | (press RETURN) |
| MANDATORY ENTRY | Y | (press GO) |

FIELD DEFINITION 5

These next entries cause a blank line to appear on the STANDARD FORM for this program.

| | | |
|-------------------|-------------|----------------|
| FIELD NAME | Leave blank | (press RETURN) |
| STD DESCRIPTION | 1 | (press RETURN) |
| INCLUDE IN RECORD | N | (press RETURN) |
| ALLOW ENTRY | N | (press GO) |

FIELD DEFINITION 6

| | | |
|-----------------|---------|----------------|
| FIELD NAME | ON HAND | (press RETURN) |
| STD DESCRIPTION | 15 | (press RETURN) |
| MANDATORY ENTRY | Y | (press GO) |

FIELD DEFINITION 7

| | | |
|------------|----------|----------------|
| FIELD NAME | ON ORDER | (press RETURN) |
|------------|----------|----------------|

STD DESCRIPTION 15 (press GO)

FIELD DEFINITION 8

FIELD NAME REORDER POINT (press RETURN)

STD DESCRIPTION 13 (press RETURN)

MANDATORY ENTRY Y (press GO)

FIELD DEFINITION 9

STANDARD DESCRIPTION 14 is a special STANDARD DESCRIPTION which causes automatic date validation to be applied to this field.

FIELD NAME DELIVERY DATE (press RETURN)

STD DESCRIPTION 14 (press GO)

FIELD DEFINITION 10

These entries cause a blank line on the STANDARD FORM for this program.

FIELD NAME Leave blank (press RETURN)

STD DESCRIPTION 1 (press RETURN)

INCLUDE IN RECORD N (press RETURN)

ALLOW ENTRY N (press GO)

FIELD DEFINITION 11

FIELD NAME UNIT (press RETURN)

STD DESCRIPTION 4 (press RETURN)

MANDATORY ENTRY Y (press GO)

FIELD DEFINITION 12

FIELD NAME PRICE (press RETURN)

STD DESCRIPTION 17 (press RETURN)

RANGE 1 2 (press GO)

FIELD DEFINITION 13

FIELD NAME REPLACEMENT COST (press RETURN)

STD DESCRIPTION 17 (press RETURN)

MANDATORY ENTRY Y (press RETURN)

RANGE 1 2 (press GO)

FIELD DEFINITION 14

| | | |
|-----------------|---------------|----------------|
| FIELD NAME | DISCOUNT CODE | (press RETURN) |
| STD DESCRIPTION | 1 | (press RETURN) |
| RANGE 1 | 1 | (press GO) |

FIELD DEFINITION 15

| | | |
|-------------------|-------------|----------------|
| FIELD NAME | Leave blank | (press RETURN) |
| STD DESCRIPTION | 1 | (press RETURN) |
| INCLUDE IN RECORD | N | (press RETURN) |
| ALLOW ENTRY | N | (press GO) |

FIELD DEFINITION 16

| | | |
|-----------------|-----------------|----------------|
| FIELD NAME | LAST ISSUE DATE | (press RETURN) |
| STD DESCRIPTION | 14 | (press GO) |

FIELD DEFINITION 17

| | | |
|-----------------|----------------|----------------|
| FIELD NAME | UNIT SALES PTD | (press RETURN) |
| STD DESCRIPTION | 16 | (press GO) |

FIELD DEFINITION 18

FIELD NAME \$ SALES PTD (push RETURN)

STD DESCRIPTION 18 (push GO)

FIELD DEFINITION 19

FIELD NAME \$ COST PTD (push RETURN)

STD DESCRIPTION 18 (push GO)

FIELD DEFINITION 20

You have completed all the entries that you need for this program. You should now return to the Program Section menu.

FIELD NAME Leave blank (push FINISH)

MAINTENANCE PROGRAM SECTIONS

Unless you need to change any of your specifications for this program, you should return to the Programming Activity Selection menu.

SECTION No change (push FINISH)

CREATE/MAINTAIN DM PROGRAM
LIBRARY AND PROGRAM INFORMATION

LIBRARY FILE ID: No change

(press FINISH)

PROGRAMMING ACTIVITY SELECTION

You have now completed the second program and may run this program using DMRUN.

ACTIVITY NUMBER 7

(press GO)

DMRUN MODULE

BURROUGHS B20 DATA MANAGER
LIBRARY SELECTIONS

You will again run your program using the Direct Program Selection feature.

ENTER SELECTION 11 (press GO)

DIRECT PROGRAM SELECTION

PROGRAM TYPE 1 (press RETURN)

LIBRARY FILE ID: <IC>XXXLIB (press RETURN)

PROGRAM NAME PRODUTIL (press GO)

The next form is the data entry form that you have just created with your file maintenance program. Practice entering some data on the form. You should enter at least five products into your data base. You will need a few records in the PRODUCTS file in order to test your other programs. Entering these records will also allow you to see how system features work. Some of the system features that you may observe here include MANDATORY ENTRY and RANGE CHECKING.

Use RETURN to move down the page. When you have entered all the data you want on the form, press GO. Pressing GO will give you another form.

When you have finished entering data, return to the Library Selections menu by pressing the FINISH key. Then press FINISH once again to return to DMCREATE.

BURROUGHS B20 DATA MANAGER

LIBRARY SELECTIONS

You should now return to DMCREATE.

ENTER SELECTION Leave blank (press FINISH)

SECTION 5. STOCKING

(PROGRAM 3: INQUIRY PROGRAM)

The purpose of the next section is to introduce you to the Data Manager programming forms for an Inquiry program. STOCKING is a short program which extracts stock-on-hand and price information from the master file.

The procedures for creating the inquiry program are similar to the procedures you followed to make the two earlier programs.

Once again, you will be given only the data you need to enter. Use RETURN key to skip over fields in which you do not need to make entries.

(If you have not already done so, begin the DMCREATE program. In the lighted COMMAND field, enter: DMCREATE.)

When the DMCREATE PROGRAMMING ACTIVITY SELECTION menu appears, begin creating your inquiry program.

PROGRAMMING ACTIVITY SELECTION

ACTIVITY NUMBER: No change (press GO)

CREATE/MAINTAIN DM PROGRAM
LIBRARY AND PROGRAM INFORMATION

LIBRARY FILE ID: <IC>XXXLIB (press RETURN)

PROGRAM NAME: STOCKING (press GO)

PROGRAM TYPE

PROGRAM TYPE SELECTION:4 (press GO)

INQUIRY PROGRAM SECTIONS

SECTION No change (press GO)

PRIMARY FILE RECORD DESCRIPTION PROGRAM

When you created your maintenance program, PRODUTIL, you defined the disk file id and record description for the PRODUCTS file. This inquiry program also needs that information. When you create an inquiry, rather than re-enter information that is already in a maintenance program, enter the name of the maintenance program only. DMRUN will then extract the required information from the maintenance program at run-time.

PROGRAM NAME: PRODUTIL (press GO)

SECONDARY FILES RECORD DESCRIPTION PROGRAMS

Leave blank (press GO)

FORMS SELECTION

SELECTION NUMBER: 2 (press GO)

STANDARD FORM
FORM HEADING

HEADING STOCK/PRICE INQUIRY (press GO)

NUMERIC RANGE TABLE

Since neither numeric nor alphanumeric ranges are used in this program, use F3 to skip to the next program section.

RANGE 1 Leave blank (press F3)

FIELD DEFINITION 1

FIELD NAME STOCK NUMBER (press RETURN)

The SOURCE entry tells DMRUN that you want information displayed in a field. This entry also tells the origin of that information.

Because STOCK NUMBER is the first field we defined in the primary ("A") file, we use the SOURCE code A1. A1 refers to a field in a record. Therefore it is a

special kind of variable called a Field Identifier. In this program, all your SOURCE entries are Field Identifiers.

SOURCE A1 (press RETURN)

At least one primary key field should be a MANDATORY ENTRY field.

MANDATORY ENTRY Y (press RETURN)

PRIMARY KEY Y (press GO)

FIELD DEFINITION 2

FIELD NAME DESCRIPTION (press RETURN)

SOURCE A4 (press GO)

FIELD DEFINITION 3

FIELD NAME ON HAND (press RETURN)

SOURCE A6 (press GO)

FIELD DEFINITION 4

FIELD NAME PRICE (press RETURN)

SOURCE A12 (press GO)

FIELD DEFINITION 5

FIELD NAME DISCOUNT CODE (press RETURN)

SOURCE A14 (press GO)

FIELD DEFINITION 6

You have completed all the entries needed for the inquiry program.

FIELD NAME Leave blank (press FINISH)

INQUIRY PROGRAM SECTIONS

SECTION No change (press FINISH)

CREATE/MAINTAIN DM PROGRAM
LIBRARY AND PROGRAM INFORMATION

LIBRARY FILE ID: No change (press FINISH)

PROGRAMMING ACTIVITY SELECTIONS

You may now test your inquiry program, STOCKINQ. Use the Direct Program Selection feature of the LIBRARY SELECTION menu of DMRUN to start your program. When you have finished testing your program, press FINISH to return to the LIBRARY SELECTION menu. Press FINISH again to return to DMCREATE.

ACTIVITY NUMBER 7

(press GO)

SECTION 6. PERIOD-END

(PROGRAM 4: BATCH UPDATE PROGRAM)

The purpose of this section is to introduce you to the Data Manager programming forms for a batch-update program. This program is a simple batch update program that clears the period-to-date balances in the product master file.

PROGRAMMING ACTIVITY SELECTION

ACTIVITY NUMBER No change (press GO)

CREATE/MAINTAIN DM PROGRAM
LIBRARY AND PROGRAM INFORMATION

LIBRARY FILE ID: <IC>XXXLIB (press RETURN)

PROGRAM NAME: PERIOD-END (press GO)

PROGRAM TYPE

This is a batch update program.

PROGRAM TYPE 2 (press GO)

BATCH UPDATE PROGRAM SECTIONS

SECTION No change (press GO)

PRIMARY FILE RECORD DESCRIPTION PROGRAM

PROGRAM NAME: PRODUTIL (press GO)

SECONDARY FILES RECORD DESCRIPTION PROGRAMS

PROGRAM NAME Leave blank (press GO)

INITIAL FUNCTION

STATEMENT 1 Leave blank (press GO)

UPDATE FUNCTION

In your last program, STOCKING, you used Field Identifiers to tell DMRUN the SOURCE of a data field. Here you are using Field Identifiers to tell DMRUN which fields to update in DM programs. References to data fields in files are made by Field Identifiers.

NOTE

The character "!" should be typed as an exclamation point.

STATEMENT

1 A16 = 010199 !RESET DT (press RETURN)

2 A17 = 0 !UNITS PTD (press RETURN)

3 A18 = 0 !SALES PTD (press RETURN)

4 A19 = 0 !COST PTD (press GO)

PROGRAM/UTILITY LINKAGE

PROG/FILE NAME Leave blank (press FINISH)

BATCH UPDATE PROGRAM SECTIONS

SECTION

No change

(press FINISH)

CREATE/MAINTAIN DM PROGRAM
LIBRARY AND PROGRAM INFORMATION

LIBRARY FILE ID

No change

(press FINISH)

PROGRAMMING ACTIVITY SELECTION

You may now test your batch update program, PERIOD-END. If you do not have any balances in your PRODUCTS file for the fields which PERIOD-END updates, you might want to run the PRODUTIL program (Program 2) again and make some entries for those fields which are updated by PERIOD-END.

When you run PERIOD-END, DMRUN displays the message: "DATA MANAGER IS PROCESSING YOUR SELECTION." DMRUN displays this message during Batch Update and Report programs. This message lets you know that your program is running.

When your program ends, DMRUN displays the LIBRARY SELECTION menu. If there is no error message on the menu, your program has terminated normally. From the LIBRARY SELECTION menu, you can either press FINISH to return to the DMCREATE program, or you can run PRODUTIL again to check the results of the update.

ACTIVITY NUMBER 7

(press GO)

SECTION 7. ISSUES

(PROGRAM 5: REAL-TIME UPDATE PROGRAM)

The purpose of this program is to introduce you to the Data Manager programming forms for a real-time update program. This program allows an operator to enter stock issue transactions (sales) and immediately update the product master file balances to reflect each transaction.

The ISSUES program is similar to the programs you have already created, except it uses secondary files and Function statements.

PROGRAMMING ACTIVITY SELECTION

ACTIVITY NUMBER: No change (press GO)

CREATE/MAINTAIN DM PROGRAM
LIBRARY AND PROGRAM INFORMATION

LIBRARY FILE ID: <IC>XXXLIB (press RETURN)

PROGRAM NAME: ISSUES (press GO)

PROGRAM TYPE

You are creating a real-time update program.

PROGRAM TYPE 3 (press GO)

REAL TIME UPDATE PROGRAM SECTIONS

SECTION No change (press GO)

TRANSACTION LOG

If you wanted DMRUN to create a log of some or all fields involved in inventory issue transactions, you could enter the name of the log file here. Creating a transaction log is an optional feature which you do not need for this program.

FILE ID Leave blank (press GO)

SECONDARY FILES RECORD DESCRIPTION PROGRAMS

In this entry, you specify the DM maintenance programs which define the file you want to update.

| FILE | PROGRAM NAME | |
|------|--------------|----------------|
| B | PRODUTIL | (press RETURN) |

Entering a "Y" under CRITICAL tells DMRUN you want the transaction halted and an error message displayed if an attempt to access this file is unsuccessful.

| | | |
|----------|-------------|------------|
| CRITICAL | Y (default) | (press GO) |
|----------|-------------|------------|

FORM SELECTION

| | | |
|------------------|---|------------|
| SELECTION NUMBER | 2 | (press GO) |
|------------------|---|------------|

STANDARD FORM
FORM HEADING

| | | |
|---------|------------------|------------|
| HEADING | INVENTORY ISSUES | (press GO) |
|---------|------------------|------------|

NUMERIC RANGE TABLE

As in the Inquiry program, you use F3 to skip to the Field Definition section.

| | | |
|---------|-------------|------------|
| RANGE 1 | Leave blank | (press F3) |
|---------|-------------|------------|

FIELD DEFINITION 1

Once again you will be given only the data you need to enter. Use RETURN key to "tab through" fields in which you do not make an entry.

FIELD NAME STOCK NUMBER (press RETURN)

STD DESCRIPTION Leave blank (press RETURN)

For an explanation of the DESCRIPTION entry, press HELP.

DESCRIPTION 8.0 (press RETURN)

MANDATORY ENTRY Y (press GO)

FIELD DEFINITION 2

FIELD NAME DESCRIPTION (press RETURN)

STD DESCRIPTION 9 (press RETURN)

You want the product description to appear on the form, but you don't need to save it for update purposes.

INCLUDE IN RECORD N (press RETURN)

The product description is displayed to provide visual verification that the correct product number was entered. You don't want the application user to be able to change the description. An "N" entry here will tell DMRUN not to position the cursor in this field or allow anything to be entered.

ALLOW ENTRY N (press RETURN)

This entry indicates that the information for this FIELD DEFINITION is found in the fourth field of the PRODUCTS file, (secondary file B)

SOURCE B4 (press GO)

FIELD DEFINITION 3

The purpose of this field is also for visual verification only. You therefore use the INCLUDE IN RECORD and ALLOW ENTRY parameters in the same way as in FIELD DEFINITION 2.

FIELD NAME UNIT (press RETURN)

STD DESCRIPTION 4 (press RETURN)

INCLUDE IN RECORD N (press RETURN)

ALLOW ENTRY N (press RETURN)

SOURCE B11 (press GO)

FIELD DEFINITION 4

FIELD NAME QUANTITY SOLD (press RETURN)

STD DESCRIPTION 13 (press RETURN)

MANDATORY ENTRY Y (press GO)

FIELD DEFINITION 5

Here you are defining a field which will obtain default data from the twelfth field of the "B" file. You want to save the entry in this field for update purposes, so leave INCLUDE RECORD = Y. You also want the application user to be able to override the default price, so leave ALLOW ENTRY = Y.

| | | |
|-----------------|-------|----------------|
| FIELD NAME | PRICE | (press RETURN) |
| STD DESCRIPTION | 17 | (press RETURN) |
| MANDATORY ENTRY | Y | (press RETURN) |
| SOURCE | B12 | (press GO) |

FIELD DEFINITION 6

| | | |
|-----------------|------------|----------------|
| FIELD NAME | TRANS DATE | (press RETURN) |
| STD DESCRIPTION | 14 | (press RETURN) |
| MANDATORY ENTRY | Y | (press RETURN) |

When you run this program, notice that the date you enter on the first form will appear as a default each time the form is repeated. It will remain the same until you change it.

| | | |
|---------------------|-----------|----------------|
| FIELD DUP/INCREMENT | Y | (press RETURN) |
| INCREMENT AMOUNT | No change | (press F3) |

PRIMARY FILE FIELDS USED FOR

SECONDARY FILE KEY - FILE B

The next entry asks you which field(s) in this program should be used to compose a key for secondary file B.

FIELD NUMBER 1 (press GO)

INITIAL FUNCTION

STATEMENT 1 Leave blank (press GO)

REPEATING FUNCTION

In the following entries, you specify the Function Statements that you want executed to do the real-time update.

(A refers to the fields in this program, B to the secondary file, and P to the Program registers available to the program for temporary storage. The information after the "!" is a comment which explains the calculation further.)

NOTE

The character "!" should be typed as an exclamation point.

STATEMENT 1 B6=B6-A4 !DEDUCT ISSUE

(press RETURN)

STATEMENT 2 B17=B17+A4 !PTD UNITS

(press RETURN)

STATEMENT 3 P1=A4*A5 !SALES EXTEN.

(press RETURN)

STATEMENT 4 B18=B18+P1 !PTD SLS

(press RETURN)

STATEMENT 5 P2=A4*B13 !COST EXTEN.

(press RETURN)

STATEMENT 6 B19=B19+P2 !PTD COST

(press RETURN)

STATEMENT 7 B16=A6 !TRANS DATE

(press GO)

PROGRAM/UTILITY LINKAGE

You do not need to make any more entries for this program.

PROG/FILE NAME Leave blank (press FINISH)

REAL TIME UPDATE PROGRAM SECTIONS

SECTION No change (press FINISH)

CREATE/MAINTAIN LIBRARY PROGRAM
LIBRARY AND PROGRAM INFORMATION

No entry

(press FINISH)

PROGRAMMING ACTIVITY SELECTION

You are now ready to run your program using DMRUN. This program references the PRODUCTS file as a critical secondary file. Therefore you will be able to enter transactions only for those products you already added to that file when you ran your PRODUTIL program. First use DMRUN to run the ISSUES program. Enter a few transactions with your program. Then run your PRODUTIL program again (using DMRUN) to make sure that the balances are being updated correctly. If not, you can easily return to DMCREATE and correct your specifications for this program.

ACTIVITY

7

(press GO)

SECTION 8. PR-ENTRY

(PROGRAM 6: MAINTENANCE PROGRAM FOR BATCH DATA ENTRY)

As you create the following program, you will learn how to make a file maintenance program which creates a transaction file. The following program is a file maintenance program used for batch data entry of purchase and receipt transactions. This program creates a transaction file called PRTRANS.

This program is similar to the file maintenance program you've created before, except it uses a secondary file. It also uses range checking and Function Statements for additional transaction validation.

By now you are familiar with the RETURN, GO, UP ARROW, and FINISH keys. Therefore in succeeding programs, you will no longer be given instructions on which key to press. If you have problems, refer to Appendix A of this manual.

If you find yourself on the wrong form once you are past the PROGRAM SECTIONS menu, press FINISH to return to that menu and then select the section in which you had the problem. If necessary, you may also start the whole PROGRAM CREATE activity over. This will enable you to correct or revise your entries.

PROGRAMMING ACTIVITY SELECTION

ACTIVITY NUMBER: No change

CREATE/MAINTAIN DM PROGRAM
LIBRARY AND PROGRAM INFORMATION

LIBRARY FILE ID: <IC>XXXLIB

PROGRAM NAME: PR-ENTRY

PROGRAM TYPE

This is a file maintenance program.

PROGRAM TYPE: 1

MAINTENANCE PROGRAM SECTIONS

SECTION No change

PRIMARY DATA FILE

This is the transaction file created by this program.
Enter your initials in place of XXX.

PRIMARY FILE ID: <IC>XXXPRTRANS

FILE MANAGEMENT

SELECTION NUMBER: 2

SECONDARY FILES RECORD DESCRIPTION PROGRAMS

The program which defines the secondary file here is the product master file maintenance program, PRODUTIL. For the other entry, CRITICAL, use the system default of "Y".

| FILE | PROGRAM NAME |
|----------|--------------|
| B | PRODUTIL |
| CRITICAL | Y (default) |

FORM SELECTION

SELECTION NUMBER 2

STANDARD FORM
FORM HEADING

| HEADING | INVENTORY PURCHASE/RECEIPT TRANSACTIONS |
|---------|---|
|---------|---|

NUMERIC RANGE TABLE

In most of your previous programs, you have been using F3 here to skip to the next section. This time you want to enter some alphanumeric ranges on the next form. To see the next form in the Ranges section, use GO this time.

RANGE 1 Leave blank

ALPHANUMERIC RANGE TABLE

| RANGE # | LOWER | UPPER |
|---------|-------|-------|
| 01 | P | P |
| 02 | R | R |

FIELD DEFINITION 1

| FIELD NAME | TRANSACTION NBR |
|-----------------|-----------------|
| STD DESCRIPTION | 13 |
| MANDATORY ENTRY | Y |
| PRIMARY KEY | Y |

This time, instead of just duplicating your TRANSACTION NBR entry on each form, DMRUN will add 1 to your last TRANSACTION NBR each time you add a record to the transaction file. Changing previous records will not cause the TRANSACTION NBR to be incremented.

FIELD DUP/INCREMENT Y

INCREMENT AMOUNT 1

FIELD DEFINITION 2

| FIELD NAME | TRANS TYPE (P,R) |
|------------|------------------|
|------------|------------------|

| | |
|-----------------|---|
| STD DESCRIPTION | 1 |
|-----------------|---|

| | |
|-----------------|---|
| MANDATORY ENTRY | Y |
|-----------------|---|

| | |
|---------------------|---|
| FIELD DUP/INCREMENT | Y |
|---------------------|---|

RANGE CHECKING

| | |
|---------|---|
| RANGE 1 | 1 |
|---------|---|

| | |
|---------|---|
| RANGE 2 | 2 |
|---------|---|

FIELD DEFINITION 3

| FIELD NAME | Leave blank |
|------------|-------------|
|------------|-------------|

| | |
|-----------------|---|
| STD DESCRIPTION | 1 |
|-----------------|---|

| | |
|-------------------|---|
| INCLUDE IN RECORD | N |
|-------------------|---|

| | |
|-------------|---|
| ALLOW ENTRY | N |
|-------------|---|

FIELD DEFINITION 4

| | |
|------------|--------------|
| FIELD NAME | STOCK NUMBER |
|------------|--------------|

| | |
|-----------------|-------------|
| STD DESCRIPTION | Leave blank |
|-----------------|-------------|

| | |
|-------------|-----|
| DESCRIPTION | 8.0 |
|-------------|-----|

| | |
|-----------------|---|
| MANDATORY ENTRY | Y |
|-----------------|---|

FIELD DEFINITION 5

This field and the next one are used for visual verification of the STOCK NUMBER, just as in the ISSUES program.

| | |
|------------|-------------|
| FIELD NAME | DESCRIPTION |
|------------|-------------|

| | |
|-----------------|---|
| STD DESCRIPTION | 9 |
|-----------------|---|

| | |
|-------------------|---|
| INCLUDE IN RECORD | N |
|-------------------|---|

| | |
|-------------|---|
| ALLOW ENTRY | N |
|-------------|---|

| | |
|--------|----|
| SOURCE | B4 |
|--------|----|

FIELD DEFINITION 6

| | |
|------------|------|
| FIELD NAME | UNIT |
|------------|------|

STD DESCRIPTION 4

INCLUDE IN RECORD N

ALLOW ENTRY N

SOURCE B11

FIELD DEFINITION 7

This field definition provides a blank line on the standard form.

FIELD NAME Leave blank

STD DESCRIPTION 1

INCLUDE IN RECORD N

ALLOW ENTRY N

FIELD DEFINITION 8

This field definition will provide a sub-heading on the standard form. The application user should make entries for the next two fields only if a purchase transaction is being entered.

FIELD NAME **PURCHASES**

STD DESCRIPTION 1

INCLUDE IN RECORD N

ALLOW ENTRY N

FIELD DEFINITION 9

FIELD NAME QTY ORDERED

STD DESCRIPTION 15

Your next entry will cause DMRUN to alter the field sequence conditionally. If the application user makes a blank entry for QTY ORDERED, the cursor will skip automatically to FIELD 13, QTY RECEIVED. This saves the application user from having to tab through both the QTY ORDERED and the DELIVERY DATE fields to enter a receipt transaction.

SKIP TO FIELD 13

FIELD DEFINITION 10

FIELD NAME DELIVERY DATE

STD DESCRIPTION 14

FIELD DEFINITION 11

This field definition also creates a blank line.

FIELD NAME Leave blank

STD DESCRIPTION 1

INCLUDE IN RECORD N

ALLOW ENTRY N

FIELD DEFINITION 12

FIELD NAME **RECEIPTS**

STD DESCRIPTION 1

INCLUDE IN RECORD N

ALLOW ENTRY N

FIELD DEFINITION 13

FIELD NAME QTY RECEIVED

STD DESCRIPTION 15

FIELD DEFINITION 14

FIELD NAME UNIT COST

STD DESCRIPTION 17

FIELD DEFINITION 15

This FIELD DEFINITION reserves space in the record for the transaction date.

FIELD NAME Leave blank

STD DESCRIPTION 14

This is the last FIELD DEFINITION here.

ALLOW ENTRY N (press GO)

FIELD DEFINITION 16

FIELD NAME Leave blank (press F3)

PRIMARY FILE FIELDS USED FOR
SECONDARY FILE KEY - FILE B

FIELD NUMBER 4

INITIAL FUNCTION

Leave blank

REPEATING FUNCTION

The first statement is a conditional branch to statement 7 if the transaction type (the second field defined in this program) contains a P.

NOTE

The character "!" should be typed as an exclamation point.

STATEMENT

1 IF A2 EQ "P" 7!IF PURCH

2 !VALIDATE RECEIPT

3 IF A9 NE 0 12 !QTY ORD

4 IF A10 NE 0 12 !DLVY DT

5 GOTO 10 !GOOD TRANS

6 !VALIDATE PURCHASE

7 IF A13 NE 0 14 !QTY RCD

8 IF A14 NE 0 14 !COST

9 !GOOD TRANSACTION

10 A15=X1 !INSERT DATE

11 EXIT !UPDATE PRTRANS

This statement will cause a standard error message to appear on the screen. The error message simply tells the application user that "Validation Error 1" had occurred. In this case, Error 1 means that the application user was processing a receipt, but made an entry for Quantity Ordered or Delivery Date. Since these fields only apply to purchases, the transaction was not entered correctly.

You would normally create a Help form to explain this error to the application user. However, since you are the only user of this practice program, just remember what this error indicates. Error 2 indicates that the same situation has occurred in a purchase transaction.

12 ERROR 1 !INVALID RECPT

13 EXIT !REENTER TRANS

14 ERROR 2 !INVALID PURCH

PROGRAM/UTILITY LINKAGE

PROG/FILE NAME Leave blank

MAINTENANCE PROGRAM SECTIONS

SECTION No change

CREATE/MAINTAIN
LIBRARY AND PROGRAM INFORMATION

LIBRARY FILE ID No change

PROGRAMMING ACTIVITY SELECTIONS

You have now completed this program and may run it by using DMRUN. When you ran the real-time update program, ISSUES, you could only complete transactions for STOCK NUMBERS which you had previously entered in the PRODUCTS file. Similarly, when you run this program you also can only complete transactions for STOCK NUMBERS which you have previously entered in the PRODUCTS file.

SECTION 9. PR-UPDATE

(PROGRAM 7: BATCH UPDATE PROGRAM)

The next program introduces you to the procedures for creating a more typical batch update program. This program updates the product master file according to the purchase and receipt transactions in PRTRANS, the transaction file which you created in PROGRAM 6.

PROGRAMMING ACTIVITY SELECTION

ACTIVITY NUMBER: No change

CREATE/MAINTAIN
LIBRARY AND PROGRAM INFORMATION

LIBRARY NAME: <IC>XXXLIB

PROGRAM NAME: PR-UPDATE

PROGRAM TYPE

PROGRAM TYPE: 2

BATCH UPDATE PROGRAM SECTIONS

SECTION No change

PRIMARY FILE RECORD DESCRIPTION PROGRAM

PROGRAM NAME: PR-ENTRY

Later you may want to change the next entry to Y. For test purposes, however, you should enter an N as indicated. This will permit you to run this program more than once without entering more transactions. You also will need your PRTRANS file for the next program. Enter N here.

DELETE PRIMARY FILE
AT END OF UPDATE ? N

SECONDARY FILES RECORD DESCRIPTION PROGRAMS

| | |
|----------|--------------|
| FILE | PROGRAM NAME |
| B | PRODUTIL |
| CRITICAL | Y (default) |

PRIMARY FILE FIELDS USED FOR SECONDARY FILE KEY - FILE B

This entry tells DMRUN that the key to secondary file B is composed of only the fourth field in the primary file.

FIELD NUMBER 4

INITIAL FUNCTION FUNCTION

STATEMENT 1 Leave blank.

UPDATE FUNCTION

The Function Statements below will be executed once for each transaction in the primary file, PRTRANS. For a purchase transaction, the ON ORDER field in PRODUCTS will be updated. The DELIVERY DATE field in PRODUCTS will also be replaced by the DELIVERY DATE field from PRTRANS if it was entered in the transaction.

NOTE

The character "!" should be typed as an exclamation point.


```
# STATEMENT

1 IF A2 EQ "R" 6!RECEIPT

2 B7=B7+A9 !ON ORDER

3 IF A10 EQ 0 5 !DT=0

4 B9=A10 !DELIVERY DT

5 EXIT

6 B6=B6+A13 !ON HAND

7 B7=B7-A13 !ON ORDER

8 B13=A14 !COST
```

PROGRAM/UTILITY LINKAGE

You have now made all the required entries for PR-UPDATE. Use the FINISH key, as before, to return to the Programming Activity Selection menu. You may then test your program. Afterward, you can run PRODUTIL again to check the results of the update.

SECTION 10. PR-JOURNAL

(PROGRAM 8: PURCHASES AND RECEIPTS JOURNAL)

This section introduces you to the Data Manager programming forms for a report program. The PURCHASES AND RECEIPTS JOURNAL program produces a simple report which lists the transactions in PRTRANS, the transaction file which you created with PR-ENTRY.

To see the output for this report, please refer to Appendix B.

Because the forms for a report are slightly different from the forms for the other programs you have been working on, instructions on key use are given again in this program.

PROGRAMMING ACTIVITY SELECTION

ACTIVITY NUMBER: No change (press GO)

CREATE MAINTAIN PROGRAM
LIBRARY AND PROGRAM INFORMATION

LIBRARY FILE ID <IC>XXXLIB (press RETURN)

PROGRAM NAME: PR-JOURNAL (press GO)

PROGRAM TYPE

This is a report program.

PROGRAM TYPE: 5 (press GO)

REPORT PROGRAM SECTIONS

SECTION No change (press GO)

INPUT FILE RECORD DESCRIPTION PROGRAMS

After entering the program name for the input file record description, PR-ENTRY, use the system defaults for the other entries on this form.

| FILE | PROGRAM NAME | |
|------|--------------|------------|
| A | PR-ENTRY | (press GO) |

SORT SPECIFICATIONS FOR CONTROL FILE

FIELD NUMBER Leave blank (press GO)

OUTPUT SPECIFICATIONS

If you don't have a printer on your system, you should change the Output Device to 3 for Screen. If you have a B22, you will then see the entire report normally formatted. If you have a B21, one line of the report will take up two lines on the screen. The default value, Spooler, will work whether or not you have the spooler installed.

PHYSICAL PAGE SIZE No change (press GO)

PRIMARY FILE RECORD SELECTION

STATEMENT 1 Leave blank (press GO)

REPORT TEXT

In the following table, you provide the headings which will appear on the report.

| # | HEADING OR MESSAGE |
|---|--------------------|
|---|--------------------|

There are 3 spaces between B 20 and D A T A.

| | | |
|----|------------------|----------------|
| 01 | B 2 0 D A T A | (press RETURN) |
|----|------------------|----------------|

| | | |
|----|---------------|----------------|
| 02 | M A N A G E R | (press RETURN) |
|----|---------------|----------------|

03 PAGE (press RETURN)

04 INVENTORY (press RETURN)

05 CONTROL SYSTEM (press RETURN)

06 PURCHASES AND (press RETURN)

07 RECEIPTS JOURNAL (press RETURN)

There are 3 spaces between TRANS and TRANS. There is one space between TRANS and DT.

008 TRANS TRANS DT (press RETURN)

There are 3 spaces between TYPE and STOCK and one space between STOCK and NBR.

09 TYPE STOCK NBR (press RETURN)

010 ORDER QTY (press RETURN)

011 RECEIPT DT (press RETURN)

012 QTY RECEIVED (press RETURN)

013 UNIT COST (press GO)

REPORT HEADER OUTPUT ITEMS

SOURCE Leave blank (press F3)

PAGE HEADER OUTPUT ITEMS

Your entries on the next forms define output items that will appear at the top of each page of the report.

To complete the entries on the following form, you need to use the RETURN key to "tab through" each field (whether you make an entry in that field or not).

Output Item 1

X1 refers to the Data Manager "X" Register. This register contains the system date.

SOURCE X1 (press RETURN)

PRINT POS 6 (press RETURN)

Output Item 2

R1 refers to the first of your Report text entries. This one contains the first part of the report title, B 2 0 D A T A.

SOURCE R1 (press RETURN)

PRINT POS 33 (press RETURN)

Output Item 3

R2 contains M A N A G E R.

SOURCE R2 (press RETURN)

PRINT POS 51 (press RETURN)

Output Item 4

R3 contains page.

SOURCE R3 (press RETURN)

PRINT POS 78 (press RETURN)

Output Item 5

P1 refers to program register 1, which you use to keep a page count.

SOURCE P1 (press RETURN)

PRINT POS 84 (press RETURN)

OUTPUT DESC 2.0 (press RETURN)

LINE ADV 2 (press RETURN)

Output Item 6

Output items 6 and 7 make up the second line of the report title, INVENTORY CONTROL SYSTEM.

SOURCE R4 (press RETURN)

PRINT POS 36 (press RETURN)

Output Item 7

| | | |
|-----------|----|----------------|
| SOURCE | R5 | (press RETURN) |
| PRINT POS | 46 | (press RETURN) |
| LINE ADV | 2 | (press RETURN) |

Output Item 8

Output items 8 and 9 define the third line of the report title, PURCHASES AND RECEIPTS JOURNAL.

| | | |
|-----------|----|----------------|
| SOURCE | R6 | (press RETURN) |
| PRINT POS | 33 | (press RETURN) |

Output Item 9

| | | |
|-----------|----|----------------|
| SOURCE | R7 | (press RETURN) |
| PRINT POS | 47 | (press RETURN) |
| LINE ADV | 3 | (press RETURN) |

Output Item 10

Output items 10 through 15 provide the column headings for the report.

| | | |
|-----------|----|----------------|
| SOURCE | R8 | (press RETURN) |
| PRINT POS | 3 | (press GO) |

The next form continues the PAGE HEADER OUTPUT ITEMS.

PAGE HEADER OUTPUT ITEMS

Output Item 11

SOURCE R9 (press RETURN)

PRINT POS 22 (press RETURN)

Output Item 12

SOURCE R10 (press RETURN)

PRINT POS 41 (press RETURN)

Output Item 13

SOURCE R11 (press RETURN)

PRINT POS 53 (press RETURN)

Output Item 14

SOURCE R12 (press RETURN)

PRINT POS 66 (press RETURN)

Output Item 15

| | | |
|-----------|-----|----------------|
| SOURCE | R13 | (press RETURN) |
| PRINT POS | 81 | (press RETURN) |
| LINE ADV | 2 | (press GO) |

PAGE HEADER FUNCTION

This Function Statement will be executed each time DMRUN begins to print a new page. The statement is executed before the Page Header is printed. For this report, the following single statement is used to update a page count. You use program register 1 for this purpose, since that is the register you referred to in Page Header Output Item 5 above.

NOTE

The character "!" should be typed as an exclamation point.

STATEMENT

01 P1=P1+1 !INCREMENT PG. (press RETURN)

02 Leave blank (press F3)

REPORT BODY STRUCTURE

On this form, you indicate whether or not you want the detail elements of your report grouped for totals, subtotals, or any other purpose. In this report you just want a simple list of the transactions with no grouping. Therefore, the only report body element you will define is the DETAIL ELEMENT itself. Use the RETURN key to tab through the other entries until you get to the field for DETAIL ELEMENT.

DETAIL ELEMENT Y (press GO)

DETAIL ELEMENT OUTPUT ITEMS

On this form, you will specify output items which represent the actual data that you want on the report.

Output Item 1

SOURCE A1 represents the first field in the primary ("A") file. In this case the first field in the primary file is the TRANSACTION NUMBER field in PRTRANS.

SOURCE A1 (push RETURN)

PRINT POS 4 (push RETURN)

Output Item 2

SOURCE A15 (push RETURN)

PRINT POS 11 (push RETURN)

Output Item 3

SOURCE A2 (push RETURN)

PRINT POS 24 (push RETURN)

Output Item 4

SOURCE A4 (push RETURN)

PRINT POS 30 (push RETURN)

Output Item 5

| | | |
|--------------|----|----------------|
| SOURCE | A9 | (press RETURN) |
| PRINT POS | 44 | (press RETURN) |
| NUMERIC EDIT | 3 | (press RETURN) |

Output Item 6

| | | |
|-----------|-----|----------------|
| SOURCE | A10 | (press RETURN) |
| PRINT POS | 54 | (press RETURN) |

Output Item 7

| | | |
|--------------|-----|----------------|
| SOURCE | A13 | (press RETURN) |
| PRINT POS | 72 | (press RETURN) |
| NUMERIC EDIT | 3 | (press RETURN) |

Output Item 8

| | | |
|--------------|-----|----------------|
| SOURCE | A14 | (press RETURN) |
| PRINT POS | 80 | (press RETURN) |
| NUMERIC EDIT | 3 | (press RETURN) |
| LINE ADV | 1 | (press RETURN) |

Output Item 9

This entry completes your PR-JOURNAL.

SOURCE

Leave blank

(press F3)

PROGRAM/UTILITY LINKAGE

Use the FINISH key to return to the Programming
Activity Selection menu. You may then test your
report.

SECTION 11. LOWSTOCK

(PROGRAM 9: REPORT PROGRAM)

The purpose of this section is to introduce you to the procedures for creating a report program which uses record selection. Your second report program, LOWSTOCK, prints a "buyer's guide" of items in stock having on-hand (plus on order) balances less than their re-order point. To see the output for this report, please refer to Appendix B.

You will notice that the information on key use has been left out of the following instructions. Be sure to check the form title on the screen with the form title in the instructions before you start to enter specifications.

PROGRAMMING ACTIVITY SELECTION

ACTIVITY NUMBER No change

CREATE/MAINTAIN DM PROGRAM
LIBRARY AND PROGRAM INFORMATION

LIBRARY FILE ID: <IC>XXXLIB

PROGRAM NAME: LOWSTOCK

PROGRAM TYPE

This is a report program.

PROGRAM TYPE 5

REPORT PROGRAM SECTIONS

SECTION No change

INPUT FILE RECORD DESCRIPTION PROGRAMS

After entering the name of the MAINTENANCE PROGRAM, use the system defaults for the other entries on this form.

| FILE | PROGRAM NAME |
|------|--------------|
| A | PRODUTIL |

SORT SPECIFICATIONS FOR CONTROL FILE - FILE A

FIELD NUMBER leave blank

OUTPUT SPECIFICATIONS

As in the previous program, you may want to specify screen for your output device if you don't have a printer.

Physical Page Size No change

PRIMARY FILE RECORD SELECT

In Data Manager report programs, record selection is done by using the CANCEL statement. In this example, you can see the branch to the CANCEL statement for all records that should NOT be selected.

NOTE

The character "!" should be typed as an exclamation point.

```
#    STATEMENT  
  
1    P2=A6+A7 !ON HAND + ORD  
  
2    IF P2 GT A8 4 !GT MIN  
  
3    EXIT !PRINT RECORD  
  
4    CANCEL !READ NEXT REC
```

REPORT TEXT

On this form, you provide the headings which will appear on the report.

HEADING OR MESSAGE

There is one space between the B, 2, and the 0. There are 3 spaces between B 2 0 and D A T A.

| | |
|-----|----------------|
| 01 | B 2 0 D A T A |
| 02 | M A N A G E R |
| 03 | PAGE |
| 04 | INVENTORY |
| 05 | CONTROL SYSTEM |
| 06 | BUYER'S GUIDE |
| 07 | STOCK NUMBER |
| 08 | DESCRIPTION |
| 09 | PTD UNITS SOLD |
| 010 | MINIMUM |
| 011 | ON HAND |
| 012 | ON ORDER |
| 013 | DELIVERY DATE |

REPORT HEADER OUTPUT ITEMS

No Report Header or Trailer will be specified for this report. Do you remember which function key to press to skip to the next section? (If you need to, look at the function key information in Appendix A.)

PAGE HEADER OUTPUT ITEMS

Your entries on the next forms define output items that will appear at the top of each page of the report.

To complete the entries on the following form, you need to use the RETURN key to "tab through" each field (whether you need to make an entry in that field or not).

Output Item 1

| | |
|--------|----|
| SOURCE | X1 |
|--------|----|

| | |
|-----------|----|
| PRINT POS | 14 |
|-----------|----|

Output Item 2

| | |
|--------|----|
| SOURCE | R1 |
|--------|----|

| | |
|-----------|----|
| PRINT POS | 51 |
|-----------|----|

Output Item 3

SOURCE R2

PRINT POS 69

Output Item 4

SOURCE R3

PRINT POS 111

Output Item 5

SOURCE P1

PRINT POS 116

OUTPUT DESC 2.0

LINE ADV 2

Output Item 6

SOURCE R4

PRINT POS 54

Output Item 7

SOURCE R5

PRINT POS 64

LINE ADV 2

Output Item 8

SOURCE R6

PRINT POS 59

LINE ADV 3

Output Item 9

SOURCE R7

PRINT POS 14

Output Item 10

SOURCE R8

PRINT POS 29

The next form continues the PAGE HEADER OUTPUT ITEMS.

PAGE HEADER OUTPUT ITEMS

Output Item 11

SOURCE R9

PRINT POS 57

Output Item 12

SOURCE R10

PRINT POS 74

Output Item 13

SOURCE R11

PRINT POS 84

Output Item 14

SOURCE R12

PRINT POS 94

Output Item 15

| | |
|-----------|-----|
| SOURCE | R13 |
| PRINT POS | 105 |
| LINE ADV | 2 |

PAGE HEADER FUNCTION

STATEMENT

1 P1=P1+1

REPORT BODY STRUCTURE

Use system defaults here, except for DETAIL ELEMENT,
which is changed to Y.

| | |
|----------------|---|
| DETAIL ELEMENT | Y |
|----------------|---|

DETAIL ELEMENT OUTPUT ITEMS

Output Item 1

| | |
|-----------|----|
| SOURCE | A1 |
| PRINT POS | 18 |

Output Item 2

| | |
|--------|----|
| SOURCE | A4 |
|--------|----|

PRINT POS 29

Output Item 3

SOURCE A17

PRINT POS 59

NUMERIC EDIT 3

Output Item 4

SOURCE A8

PRINT POS 76

NUMERIC EDIT 3

Output Item 5

SOURCE A6

PRINT POS 85

NUMERIC EDIT 3

Output Item 6

| | |
|--------------|----|
| SOURCE | A7 |
| PRINT POS | 97 |
| NUMERIC EDIT | 3 |

Output Item 7

| | |
|--------------|-----|
| SOURCE | A9 |
| PRINT POS | 110 |
| NUMERIC EDIT | 3 |
| LINE ADV | 1 |

Output Item 8

No entry is required for this OUTPUT ITEM. You have completed this program. Press GO. This will process the data you have just entered. Now press FINISH until you return to the Programming Activity Selection menu. From there you will be able to test your LOWSTOCK program.

However, before you start it, you might want to run your PRODUTIL program again and maintain the ON HAND, ON ORDER, and REORDER POINT entries for your products. Remember, product information will not be printed by this report unless the sum of the ON HAND and ON ORDER figure is less than the REORDER POINT.

SECTION 12. PRE-PRODLIST

(PROGRAM 10: RUN-TIME DATA PROGRAM)

Section 12 introduces you to the Data Manager programming forms for a Run-time Data program. PRE-PRODLIST is a Run-time Data program which allows the application user to enter values to be used by the PRODLIST report. (You will be creating PRODLIST next.)

PROGRAMMING ACTIVITY SELECTION

ACTIVITY NUMBER No change

CREATE/MAINTAIN DM PROGRAM
LIBRARY AND PROGRAM INFORMATION

LIBRARY FILE ID: <IC>XXXLIB

PROGRAM NAME: PRE-PRODLIST

PROGRAM TYPE

PROGRAM TYPE: 6

RUNTIME DATA PROGRAM SECTIONS

SECTION No change

SECONDARY FILES RECORD DESCRIPTION PROGRAMS

PROGRAM NAME leave blank

FORM SELECTION

SELECTION NUMBER 2

STANDARD FORM
FORM HEADING

HEADING: PRODUCT INFORMATION REPORT

NUMERIC RANGE TABLE

| RANGE # | LOWER | UPPER |
|---------|-------|-------|
| 1 | 0 | 5 |

ALPHANUMERIC RANGE TABLE

| | |
|---------|-------------|
| RANGE 1 | leave blank |
|---------|-------------|

FIELD DEFINITION 1

| | |
|-----------------|------------------|
| FIELD NAME | STARTING PRODUCT |
| DESCRIPTION | 8.0 |
| MANDATORY ENTRY | Y |

FIELD DEFINITION 2

| | |
|--------------------------|--------------------|
| FIELD NAME | Leave blank |
| STD DESCRIPTION | 1 |
| INCLUDE IN RECORD | N |
| ALLOW ENTRY | N |

FIELD DEFINITION 3

| | |
|------------------------|-----------------------|
| FIELD NAME | ENDING PRODUCT |
| DESCRIPTION | 8.0 |
| MANDATORY ENTRY | Y |

FIELD DEFINITION 4

| | |
|--------------------------|--------------------|
| FIELD NAME | Leave blank |
| STD DESCRIPTION | 1 |
| INCLUDE IN RECORD | N |
| ALLOW ENTRY | N |

FIELD DEFINITION 5

| FIELD NAME | SELECT CATEGORY |
|-------------------|-----------------|
| STD DESCRIPTION | 1 |
| INCLUDE IN RECORD | N |
| ALLOW ENTRY | N |

FIELD DEFINITION 6

| FIELD NAME | (0 = ALL CATGYS) |
|-----------------|------------------|
| STD DESCRIPTION | 12 |
| RANGE CHECKING | |
| RANGE 1 | 1 |

RANGE OF RECORDS - LOWER KEY FIELDS

| | |
|--------------|---|
| FIELD NUMBER | 1 |
|--------------|---|

RANGE OF RECORDS - UPPER KEY FIELDS

FIELD NUMBER 3

INITIAL FUNCTION

STATEMENT 1 Leave blank

REPEATING FUNCTION

In order to save the value entered in Field 6 (CATEGORY) for the report program to reference, it is assigned to program register 2. X Register 19 is set to T, indicating that you are supplying range of records information to the report.

STATEMENT

1 P2=A6

2 X19="T"

PROGRAM/UTILITY LINKAGE

Entries in this section tell DMRUN that you have another program you want to run when this one ends.

| # | PROG/FILE NAME | TYPE |
|---|----------------|------|
| 1 | PRODLIST | 1 |

RUNTIME DATA PROGRAM SECTIONS

This program is now complete. Use FINISH key to return to the Programming Activity Selection Menu. You may test this program if you wish. However, DMRUN will display an error message. The problem is that DMRUN will not be able to link to PRODLIST because you have not created it yet. Once PRODLIST is created, you can run them both together.

SECTION 13. PRODLIST

(PROGRAM 11: REPORT PROGRAM)

This section introduces you to the procedures for creating a more complex report. The last report program, PRODLIST, uses run-time parameters to report selectively on the product master file.

PROGRAMMING ACTIVITY SELECTION

ACTIVITY NUMBER No change

CREATE/MAINTAIN DM PROGRAM
LIBRARY AND PROGRAM INFORMATION

LIBRARY FILE ID: <IC>XXXLIB

PROGRAM NAME: PRODLIST

PROGRAM TYPE

PROGRAM TYPE: 5

REPORT PROGRAM SELECTIONS

SECTION No change

INPUT FILE RECORD DESCRIPTION PROGRAMS

Enter only the information given. Use the system
defaults for the rest of the entries.

| FILE | PROGRAM NAME |
|------|--------------|
| A | PRODUTIL |

SORT SPECIFICATIONS FOR CONTROL FILE

FIELD NUMBER leave blank

OUTPUT SPECIFICATIONS

Change OUTPUT DEVICE if necessary.

PRIMARY FILE RECORD SELECT

In this example, a branch is provided to exit the function on each selected record. Otherwise the transaction is canceled, indicating that no record should be printed. The comments are right justified for appearance only.

NOTE

The character "!" should be typed as an exclamation point.

```
#    STATEMENT
1    IF P2 EQ 0 4   !ALL CATS
2    IF A2 EQ P2 4 !GOOD CAT
3    CANCEL        !READ NEXT REC
4    EXIT           !PRINT RECORD
```

REPORT TEXT

HEADING OR MESSAGE
There are 3 spaces between B 2 0 and D A T A.

01 B 2 0 D A T A

02 M A N A G E R

03 PAGE

04 INVENTORY

05 CONTROL SYSTEM

06 PRODUCT INFORMAT

07 ION REPORT

08 STOCK NUMBER

09 CAT

010 DESCRIPTION

There are 6 spaces between BIN and UNIT.

011 BIN UNIT

012 PRICE

013 DISC CD

014 REPL COST

| | |
|-----|--------------|
| 015 | LAST ISSUE |
| 016 | ON HAND |
| 017 | MINIMUM OH |
| 018 | ON ORDER |
| 019 | DELIVERY DT |
| 020 | PTD UNITS |
| 021 | \$ SALES PTD |
| 022 | \$ COST PTD |

REPORT HEADER OUTPUT ITEMS

| | |
|--------|-------------|
| SOURCE | Leave blank |
|--------|-------------|

REPORT HEADER FUNCTION

| | |
|-----------|-------------|
| STATEMENT | Leave blank |
|-----------|-------------|

REPORT TRAILER OUTPUT ITEMS

| | |
|--------|-------------|
| SOURCE | Leave blank |
|--------|-------------|

REPORT TRAILER FUNCTION

STATEMENT Leave blank

PAGE HEADER OUTPUT ITEMS

Output Item 1

SOURCE X1

PRINT POS 6

Output Item 2

SOURCE R1

PRINT POS 51

Output Item 3

SOURCE R2

PRINT POS 69

Output Item 4

SOURCE R3

PRINT POS 117

Output Item 5

| | |
|-------------|-----|
| SOURCE | P1 |
| PRINT POS | 122 |
| OUTPUT DESC | 2.0 |
| LINE ADV | 2 |

Output Item 6

| | |
|-----------|----|
| SOURCE | R4 |
| PRINT POS | 54 |

Output Item 7

| | |
|-----------|----|
| SOURCE | R5 |
| PRINT POS | 64 |
| LINE ADV | 2 |

Output Item 8

| | |
|-----------|----|
| SOURCE | R6 |
| PRINT POS | 53 |

Output Item 9

SOURCE R7

PRINT POS 69

LINE ADV 3

Output Item 10

SOURCE R8

PRINT POS 6

The next form continues the PAGE HEADER OUTPUT ITEMS.

PAGE HEADER OUTPUT ITEMS

Output Item 11

SOURCE R9

PRINT POS 20

Output Item 12

SOURCE R10

PRINT POS 28

Output Item 13

SOURCE R11

PRINT POS 56

Output Item 14

SOURCE R12

PRINT POS 78

Output Item 15

SOURCE R13

PRINT POS 88

Output Item 16

SOURCE R14

PRINT POS 100

Output Item 17

SOURCE R15

PRINT POS 114

LINE ADV 1

Output Item 18

SOURCE R16

PRINT POS 28

Output Item 19

SOURCE R17

PRINT POS 38

Output Item 20

SOURCE R18

PRINT POS 51

The next form continues the PAGE HEADER OUTPUT ITEMS.

PAGE HEADER OUTPUT ITEMS

Output Item 21

SOURCE R19

PRINT POS 62

Output Item 22

SOURCE R20

PRINT POS 79

Output Item 23

SOURCE R21

PRINT POS 95

Output Item 24

SOURCE R22

PRINT POS 114

LINE ADV 2

PAGE HEADER FUNCTION

STATEMENT

1 P1=P1+1

This is the last PAGE HEADER/TRAILER specification here. Now press F3 to move to REPORT BODY STRUCTURE.

REPORT BODY STRUCTURE

Change DETAIL ELEMENT to "Y". For the other entries,
use the system defaults.

DETAIL ELEMENT Y

DETAIL ELEMENT OUTPUT ITEMS

Output Item 1

SOURCE A1

PRINT POS 10

Output Item 2

SOURCE A2

PRINT POS 22

Output Item 3

SOURCE A4

PRINT POS 28

Output Item 4

SOURCE A3

PRINT POS 56

Output Item 5

SOURCE A11

PRINT POS 65

Output Item 6

SOURCE A12

PRINT POS 73

NUMERIC EDIT 3

Output Item 7

SOURCE A14

PRINT POS 92

Output Item 8

SOURCE A13

PRINT POS 99

NUMERIC EDIT 3

Output Item 9

SOURCE A16

PRINT POS 116

LINE ADV 1

Output Item 10

SOURCE A6

PRINT POS 29

NUMERIC EDIT 3

The next form continues the DETAIL ELEMENT ITEM SPECIFICATIONS.

DETAIL ELEMENT ITEM SPECIFICATIONS

Output Item 11

SOURCE A8

PRINT POS 43

NUMERIC EDIT 3

Output Item 12

SOURCE A7

PRINT POS 54

NUMERIC EDIT 3

Output Item 13

SOURCE A9

PRINT POS 65

Output Item 14

SOURCE A17

PRINT POS 76

NUMERIC EDIT 3

Output Item 15

SOURCE A18

PRINT POS 91

NUMERIC EDIT 3

Output Item 16

SOURCE A19

PRINT POS 109

NUMERIC EDIT 3

LINE ADV 2

DETAIL ELEMENT FUNCTION STATEMENT

STATEMENT Leave blank

PROGRAM/UTILITY LINKAGE

PROG/FILE NAME Leave blank

You have now completed PRODLIST. When you test this program, you will want to run PRE-PRODLIST to enter your run-time data. PRE-PRODLIST will start PRODLIST automatically.

SECTION 14. ICMENU

(PROGRAM 12: MENU PROGRAM)

This last section introduces you to the Data Manager Programming forms for creating a Menu program. This menu program is the initial program for your Inventory Control Program Library. It allows you to use the Data Manager Menu interface to access all of the inventory control programs which you have just made.

The ICMENU1 program is the last program you will create in this training session.

PROGRAMMING ACTIVITY SELECTION

ACTIVITY NUMBER No change

CREATE/MAINTAIN DM PROGRAM
LIBRARY INFORMATION

LIBRARY FILE ID: <IC>XXXLIB

PROGRAM NAME: ICMENU1

PROGRAM TYPE

This is a standard menu program.

PROGRAM TYPE 8

STANDARD FORM MENU

HEADING B20 DATA MANAGER INVENTORY CONTROL SYSTEM

SELECTION PROMPT: SELECTION NUMBER (default)

Note that you do not need to make an entry under TYPE.
Use the system default of 1 for that entry.

(Each DESCRIPTION should be entered on one line, even
though it may be printed on two lines below.)

| PROG/FILE NAME | DESCRIPTION |
|-------------------|--|
| 1 PRODUTIL | ENTER OR CHANGE PRODUCT INFORMATION |
| 2 STOCKINQ | STOCK ON HAND INQUIRY |
| 3 ISSUES | INVENTORY ISSUE TRANSACTIONS |
| 4 PR-ENTRY | ENTER INVENTORY PURCHASES AND RECEIPTS |
| 5 PR-JOURNAL | PRINT PURCHASES AND RECEIPTS JOURNAL |
| 6 PR-UPDATE | UPDATE INVENTORY PURCHASES AND RECEIPTS |
| 7 LOWSTOCK | PRINT BUYER'S GUIDE |
| 8 PRE-PRODLIST | PRINT PRODUCT INFORMATION REPORT |
| 9 PERIOD-END | PERIOD END UPDATE |

This completes ICMENU1.

Now that you have seen many of the features of B20 DATA MANAGER, it would be a good idea quickly to review the first sections of the Programmer's Manual. Much of the information there will be more meaningful now that you are an experienced DM programmer.

Congratulations again! You have just completed the entire Data Manager Inventory Control System. You can now run all your programs by starting ICMENU1. Even better, select DM utilities on the DMRUN Library Selection Menu. Use Install/Maintain Library Selections to install your <IC> XXXLIB in DMRUN. You can then run all your programs just by naming menu selections.

There are additional features and combinations of features that have not been included in these sample programs. Some of these are discussed in the last sections of the Programmer's Manual. It will be well worth reading the rest of the manual before you begin your application systems.

Good luck and good programming with B20 Data Manager.

APPENDIX A

DMCREATE & DMRUN FUNCTION KEYS

B20 Data Manager has 11 function keys which are used in DMCREATE and DMRUN. The function of some of these keys changes when used during DMCREATE or DMRUN.

DMCREATE FUNCTION KEYS

There are 10 DMCREATE function keys. These keys are described below:

| <u>Key</u> | <u>Function</u> |
|-------------|--|
| DELETE | Character delete. |
| Down Arrow | Enter the selected field and select the next field. |
| FINISH | Return to the previous form or to the Program Sections menu, or terminate DMCREATE. This key will not cause data to be entered in a specification. |
| F3 | Advance to the next program section without entering any fields on the current form. Available only when lit. |
| F8 | Print contents of screen. Available only when lit for obtaining printed copies of a Program Library directory. |
| F10 | Delete the last entry in a group of identical fields. This is the only way to delete field definitions, report output items, etc. |
| GO | Enter any remaining fields on the form with the values that they contain and continue to the next form. |
| HELP | Display all available help forms. |
| NEXT/RETURN | Enter the selected field and select the next field. |

Up Arrow Return to the previous field.

DMRUN FUNCTION KEYS

There are 10 DMRUN function keys. These keys are described below:

| <u>Key</u> | <u>Function</u> |
|-------------|---|
| CANCEL | Void all entries on the current form without updating the data file. |
| DELETE | Character delete. |
| Down Arrow | Enter the selected field and select the next field. |
| FINISH | Return to the previous menu. Terminate DMRUN. |
| F8 | Print contents of screen. Available only when lit for inquiries and reports output to screen. |
| F10 | Delete the current primary file record. Available only when lit. |
| GO | Enter any remaining fields on the form with the values that they contain and continue to the next form. |
| HELP | Display all available help forms. |
| NEXT/RETURN | Enter the selected field and select the next field. |
| Up Arrow | Return to the previous field. |

PROGRAM NAME PRODUTIL LIST DATE 08/27/82 LIST TIME 09:19:59

CREATE VERSION 0.40

LIBRARY NAME ICLIB APPENDIX B

PROGRAM NAME PRODUTIL PROGRAM OUTPUT

PROGRAM SIZE 01224

FORM HEADING PRODUCT INFORMATION

PROGRAM TYPE MAINTENANCE

PROGRAM HELP

ERROR HELP

PROGRAM VERSION

PRIMARY DATA FILE

FILE NAME <IC>PRODUCTS

RECORD SIZE 00119

KEY LENGTH 00008

ALLOW ADD YES

ALLOW CHANGE YES

ALLOW DELETE YES

SECURITY ERROR HELP

LOG ERROR HELP

FILE UNAVAILABLE CREATE NEW FILE

NUMERIC RANGE TABLE

| RANGE # | LOWER | UPPER |
|---------|-------|-----------|
| 001 | +1 | +5 |
| 002 | +0 | +99999.99 |

ALPHANUMERIC RANGE TABLE

| RANGE # | LOWER | UPPER |
|---------|-------|-------|
| 01 | A | D |

BURRDUUGHS DATA MANAGER 0.40

PROGRAM NAME PRODTIL LIST DATE 08/27/82 LIST TIME 09:19:59

FIELD DEFINITIONS

| FLD NUM | FIELD NAME | STD DESC | DESC | MANDATORY ENTRY | PRIMARY KEY | INCLUDE RECORD | IN | ALLOW ENTRY | HELP FORM | SOURCE | SKIP TO | FIELD DUP/INCR | INCR AMT | RANGES | POS IN REC |
|------------|------------------|-------------|---------|--------------------|----------------|-------------------|----|----------------|--------------|--------|------------|-------------------|-------------|--------|---------------|
| 001 | STOCK NUMBER | | N 08 | Y | Y | Y | | Y | | | | N | | | 0001 |
| 002 | CATEGORY | 12 | N 01 | Y | N | Y | | Y | | | | Y | 01 | | 0009 |
| 003 | BIN LOCATION | 04 | A 04 | N | N | Y | | Y | | | | N | | | 0010 |
| 004 | DESCRIPTION | 09 | A 25 | Y | N | Y | | Y | | | | N | | | 0014 |
| 005 | | 01 | A 01 | N | N | N | | N | | | | N | | | |
| 006 | ON HAND | 15 | SN04 | Y | N | Y | | Y | | | | N | | | 0039 |
| 007 | ON ORDER | 15 | SN04 | N | N | Y | | Y | | | | N | | | 0044 |
| 008 | REORDER POINT | 13 | N 04 | Y | N | Y | | Y | | | | N | | | 0049 |
| 009 | DELIVERY DATE | 14 | D 06 | N | N | Y | | Y | | | | N | | | 0053 |
| 010 | | 01 | A 01 | N | N | N | | N | | | | N | | | |
| 011 | UNIT | 04 | A 04 | Y | N | Y | | Y | | | | N | | | 0059 |
| 012 | PRICE | 17 | SN05.02 | N | N | Y | | Y | | | | N | 02 | | 0063 |
| 013 | REPLACEMENT COST | 17 | SN05.02 | Y | N | Y | | Y | | | | N | 02 | | 0071 |
| 014 | DISCOUNT CODE | 01 | A 01 | N | N | Y | | Y | | | | N | 01 | | 0079 |
| 015 | | 01 | A 01 | N | N | N | | N | | | | N | | | |
| 016 | LAST ISSUE DATE | 14 | D 06 | N | N | Y | | Y | | | | N | | | 0080 |
| 017 | UNIT SALES PTD | 16 | SN09 | N | N | Y | | Y | | | | N | | | 0086 |
| 018 | SALES PTD | 18 | SN09.02 | N | N | Y | | Y | | | | N | | | 0096 |
| 019 | COST PTD | 18 | SN09.02 | N | N | Y | | Y | | | | N | | | 0108 |

BURROUGHS DATA MANAGER 0.40

PROGRAM NAME STOCKING LIST DATE 08/26/82 LIST TIME 16:04:00

CREATE VERSION 0.40

LIBRARY NAME ICLIB

PROGRAM NAME STOCKING

PROGRAM SIZE 00440

FORM HEADING STOCK/PRICE INQUIRY

PROGRAM TYPE INQUIRY

PROGRAM HELP

ERROR HELP

PROGRAM VERSION

PRI FILE PROGRAM PRODUTIL

FIELD DEFINITIONS

| FLD NUM | FIELD NAME | STD DESC | DESC | MANDATORY ENTRY | PRIMARY KEY | INCLUDE RECORD | IN | ALLOW ENTRY | HELP FORM | SOURCE | SKIP TO | FIELD DUP/INCR | INCR AMT | RANGES | POS IN REC |
|------------|---------------|-------------|------|--------------------|----------------|-------------------|----|----------------|--------------|--------|------------|-------------------|-------------|--------|---------------|
| 001 | STOCK NUMBER | | | Y | Y | Y | | Y | | A001 | | N | | | |
| 002 | DESCRIPTION | | | N | N | Y | | Y | | A004 | | N | | | |
| 003 | ON HAND | | | N | N | Y | | Y | | A006 | | N | | | |
| 004 | PRICE | | | N | N | Y | | Y | | A012 | | N | | | |
| 005 | DISCOUNT CODE | | | N | N | Y | | Y | | A014 | | N | | | |

BURROUGHS DATA MANAGER 0.40

PROGRAM NAME PERIOD-END LIST DATE 09/26/82 LIST TIME 16:04:00

CREATE VERSION 0.40

LIBRARY NAME ICLIB

PROGRAM NAME PERIOD-END

PROGRAM SIZE 00182

PROGRAM TYPE BATCH UPDATE

ERROR HELP

PROGRAM VERSION

PRI FILE PROGRAM PRODUTIL

DELETE PRIMARY FILE AT END OF UPDATE NO

UPDATE FUNCTION

001 A16 = 010199 !RESET DT

002 A17 = 0 !UNITS PTD

003 A18 = 0 !SALES PTD

004 A19 = 0 !COST PTD

BURROUGHS DATA MANAGER 0.40

PROGRAM NAME ISSUES LIST DATE 08/26/82 LIST TIME 16:04:00

POST FORM FUNCTION

001 B6=B6-A4 !DEDUCT ISSUE
002 B17=B17+A4 !INC PTD UNITS
003 P1=A4*A5 !SALES EXTEN.
004 B18=B18+P1 !PTD SLS
005 P2=A4*B13 !COST EXTEN.
006 B19=B19+P2 !PTD COST
007 B16=A6 !TRANS DATE

BURROUGHS DATA MANAGER 0.40

PROGRAM NAME ISSUES LIST DATE 08/26/82 LIST TIME 16:04:00

CREATE VERSION 0.40
 LIBRARY NAME ICLIB
 PROGRAM NAME ISSUES
 PROGRAM SIZE 00778
 FORM HEADING INVENTORY ISSUES
 PROGRAM TYPE REAL TIME UPDATE
 PROGRAM HELP
 ERROR HELP
 PROGRAM VERSION

SECONDARY FILES

| FILE | MAINTENANCE | PROGRAM | CRITICAL |
|------|-------------|---------|----------|
| B | PROUTIL | | Y |

SECONDARY FILE KEY FIELDS

| FILE | B | FIELD NUMBER | POSITION IN RECORD | LENGTH |
|------|---|--------------|--------------------|--------|
| | | 001 | | |

FIELD DEFINITIONS

| FLD NUM | FIELD NAME | STD DESC | DESC | MANDATORY ENTRY | PRIMARY KEY | INCLUDE IN RECORD | IN | ALLOW ENTRY | HELP FORM | SOURCE | SKIP TO | FIELD DUP/INCR | INCR ANT | RANGES | POS IN REC |
|---------|---------------|----------|---------|-----------------|-------------|-------------------|----|-------------|-----------|--------|---------|----------------|----------|--------|------------|
| 001 | STOCK NUMBER | N | 08 | Y | N | Y | | Y | | | | N | | | 0001 |
| 002 | DESCRIPTION | 09 | A 25 | N | N | N | | N | | B004 | | N | | | |
| 003 | UNIT | 04 | A 04 | N | N | N | | N | | B011 | | N | | | |
| 004 | QUANTITY SOLD | 13 | N 04 | Y | N | Y | | Y | | | | N | | | 0009 |
| 005 | PRICE | 17 | SN05.02 | Y | N | Y | | Y | | B012 | | N | | | 0013 |
| 006 | TRANS DATE | 14 | D 06 | Y | N | Y | | Y | | | | Y | | | 0021 |

BURRDUUGHS DATA MANAGER 0.40

PROGRAM NAME PR-ENTRY LIST DATE 08/27/82 LIST TIME 09:29:39

CREATE VERSION 0.40
 LIBRARY NAME ICLIB
 PROGRAM NAME PR-ENTRY
 PROGRAM SIZE 01414
 FORM HEADING INVENTORY PURCHASE/RECEIPT TRANSACTIONS
 PROGRAM TYPE MAINTENANCE
 PROGRAM HELP
 ERROR HELP
 PROGRAM VERSION

PRIMARY DATA FILE

FILE NAME <IC>PRTRANS
 RECORD SIZE 00043
 KEY LENGTH 00004
 ALLOW ADD YES
 ALLOW CHANGE YES
 ALLOW DELETE YES
 SECURITY ERROR HELP
 LOG ERROR HELP
 FILE UNAVAILABLE CREATE NEW FILE

SECONDARY FILES

| FILE | MAINTENANCE | PROGRAM | CRITICAL |
|------|-------------|---------|----------|
| B | PRODUTIL | | Y |

SECONDARY FILE KEY FIELDS

| FILE B | FIELD NUMBER | POSITION IN RECORD | LENGTH |
|--------|--------------|--------------------|--------|
| | 004 | | |

PROGRAM NAME PR-ENTRY LIST DATE 08/27/82 LIST TIME 09:29:39

ALPHANUMERIC RANGE TABLE

| RANGE # | LOWER | UPPER |
|---------|-------|-------|
| 01 | P | P |
| 02 | R | R |

FIELD DEFINITIONS

| FLD NUM | FIELD NAME | STD DESC | DESC | MANDATORY ENTRY | PRIMARY KEY | INCLUDE RECORD | IN | ALLOW ENTRY | HELP FORM | SOURCE | SKIP TO | FIELD DUP/INCR | INCR AMT | RANGES | POS IN REC |
|---------|------------------|----------|---------|-----------------|-------------|----------------|----|-------------|-----------|--------|---------|----------------|----------|--------|------------|
| 001 | TRANSACTION NBR | 13 | N 04 | Y | Y | Y | | Y | | | | Y | +1 | | 0001 |
| 002 | TRANS TYPE (P,R) | 01 | A 01 | Y | N | Y | | Y | | | | Y | | 01 02 | 0005 |
| 003 | | 01 | A 01 | N | N | N | | N | | | | N | | | |
| 004 | STOCK NUMBER | | N 08 | Y | N | Y | | Y | | | | N | | | 0006 |
| 005 | DESCRIPTION | 09 | A 25 | N | N | N | | N | B004 | | | N | | | |
| 006 | UNIT | 04 | A 04 | N | N | N | | N | B011 | | | N | | | |
| 007 | | 01 | A 01 | N | N | N | | N | | | | N | | | |
| 008 | **PURCHASES** | 01 | A 01 | N | N | N | | N | | | | N | | | |
| 009 | QTY ORDERED | 15 | SN04 | N | N | Y | | Y | | | 013 | N | | | 0014 |
| 010 | DELIVERY DATE | 14 | D 06 | N | N | Y | | Y | | | | N | | | 0019 |
| 011 | | 01 | A 01 | N | N | N | | N | | | | N | | | |
| 012 | **RECEIPTS** | 01 | A 01 | N | N | N | | N | | | | N | | | |
| 013 | QTY RECEIVED | 15 | SN04 | N | N | Y | | Y | | | | N | | | 0025 |
| 014 | UNIT COST | 17 | SN05.02 | N | N | Y | | Y | | | | N | | | 0030 |
| 015 | | 14 | D 06 | N | N | Y | | N | | | | N | | | 0038 |

POST FORM FUNCTION

- 001 IF A2 EQ "P" ?!IF PURCH
- 002 !VALIDATE RECEIPT
- 003 IF A9 NE 0 12 !QTY ORD
- 004 IF A10 NE 0 12 !DLVY DT
- 005 GOTO 10 !GOOD TRANS
- 006 !VALIDATE PURCHASE
- 007 IF A13 NE 0 14 !QTY RCD
- 008 IF A14 NE 0 14 !COST
- 009 !GOOD TRANSACTION
- 010 A15= X1 !INSERT DATE
- 011 EXIT !UPDATE PRTRANS
- 012 ERROR 1 !INVALID RECPT
- 013 EXIT !REENTER TRANS
- 014 ERROR 2 !INVALID PURCH

BURROUGHS DATA MANAGER 0.40

PROGRAM NAME PR-UPDATE LIST DATE 08/26/82 LIST TIME 16:04:00

CREATE VERSION 0.40

LIBRARY NAME ICLIB

PROGRAM NAME PR-UPDATE

PROGRAM SIZE 00344

PROGRAM TYPE BATCH UPDATE

ERRDR HELP

PROGRAM VERSION

PRI FILE PROGRAM PR-ENTRY

DELETE PRIMARY FILE AT END OF UPDATE NO

SECONDARY FILES

| FILE | MAINTENANCE | PROGRAM | CRITICAL |
|------|-------------|---------|----------|
| B | PRODUTIL | | Y |

SECONDARY FILE KEY FIELDS

| FILE | B | FIELD NUMBER | POSITION IN RECORD | LENGTH |
|------|---|--------------|--------------------|--------|
| | | 004 | | |

UPDATE FUNCTION

001 IF A2 EQ "R" 6!RECEIPT
 002 B7=B7+A9 !ON ORDER
 003 IF A10 EQ 0 5 !DT=0
 004 B9=A10 !DELIVERY DT
 005 EXIT
 006 B6=B6+A13 !ON HAND
 007 B7=B7-A13 !ON ORDER
 008 B13=A14 !COST

BURROUGHS DATA MANAGER 0.40

PROGRAM NAME PR-JOURNAL LIST DATE 08/26/82 LIST TIME 16:04:00

CREATE VERSION 0.40

LIBRARY NAME ICLIB

PROGRAM NAME PR-JOURNAL

PROGRAM SIZE 00753

PROGRAM TYPE REPORT

ERROR HELP

PROGRAM VERSION

INPUT FILE SPECIFICATIONS

FILE MAINTENANCE PROGRAM CRITICAL

A PR-ENTRY

THE CONTROL FILE FOR THIS REPORT IS A

OUTPUT SPECIFICATIONS

PHYSICAL PAGE SIZE 66

NUMBER OF LINES SKIPPED AT THE TOP OF EACH PAGE 06

NUMBER OF LINES SKIPPED AT THE BOTTOM OF EACH PAGE 06

OUTPUT DEVICE SPDOLER

DATE SEPERATOR

FORM LOAD PROMPT

FORM UNLOAD PRNT

TEXT TABLE

| | HEADING OR MESSAGE | HEADING OR MESSAGE |
|----|-------------------------------|--------------------|
| 01 | B 2 0 | D A T A |
| 02 | M A N A G E R | |
| 03 | P A G E | |
| 04 | I N V E N T O R Y | |
| 05 | C O N T R O L S Y S T E M | |
| 06 | P U R C H A S E S A N D | |
| 07 | R E C E I P T S J O U R N A L | |
| 08 | T R A N S T R A N S D T | |
| 09 | T Y P E S T O C K N B R | |
| 10 | O R D E R Q T Y | |
| 11 | R E C E I P T D T | |
| 12 | Q T Y R E C E I V E D | |
| 13 | U N I T C O S T | |

| PAGE HEADER | | OUTPUT ITEMS | | | | |
|-------------|--------|--------------|-------------|-------------|-----------|----------|
| | SOURCE | PRINT POS | OUTPUT DESC | OUTPUT EDIT | ACCUM NUM | LINE ADY |
| 001 | X001 | 006 | | | | |
| 002 | R001 | 033 | | | | |
| 003 | R002 | 051 | | | | |
| 004 | R003 | 078 | | | | |
| 005 | P001 | 084 | N 02 | | | 002 |
| 006 | R004 | 036 | | | | |
| 007 | R005 | 046 | | | | 002 |
| 008 | R006 | 033 | | | | |
| 009 | R007 | 047 | | | | 003 |
| 010 | R008 | 003 | | | | |
| 011 | R009 | 022 | | | | |
| 012 | R010 | 041 | | | | |
| 013 | R011 | 053 | | | | |
| 014 | R012 | 066 | | | | |
| 015 | R013 | 081 | | | | 002 |

NUMERIC EDIT CODES :

- PRINT IF ZERO NO COMMAS
- 1 PRINT IF ZERO COMMAS
- 2 BLANK IF ZERO NO COMMAS
- 3 BLANK IF ZERO COMMAS
- 4 ZERO REPL. PROTECT NO COMMAS
- 5 ZERO REPL. PROTECT COMMAS
- 6 DATE PRINTED WITOUT SEPARATOR

PAGE HEADER FUNCTION

001 P1=P1+1 !INCREMENT PG.

REPORT BODY STRUCTURE

| | |
|-----------------|---|
| LEVEL 3 HEADER | N |
| LEVEL 2 HEADER | N |
| LEVEL 1 HEADER | N |
| DETAIL ITEM | Y |
| LEVEL 1 TRAILER | N |
| LEVEL 2 TRAILER | N |
| LEVEL 3 TRAILER | N |

PROGRAM NAME PR-JOURNAL LIST DATE 08/26/82 LIST TIME 16:04:00

FIELDS THAT TRIGGER THE PRINTING OF THE HEADERS AND TRAILERS LEVEL 1

SOURCE FILE PDS LENGTH

LEVEL 1
LEVEL 2
LEVEL 3

DETAIL ELEMENT OUTPUT ITEMS

| | SOURCE | PRINT PDS | OUTPUT DESC | OUTPUT EDIT | ACCUM NUM | LINE ADV |
|-----|--------|--------------|----------------|----------------|--------------|-------------|
| 001 | A001 | 004 | | | | |
| 002 | A015 | 011 | | | | |
| 003 | A002 | 024 | | | | |
| 004 | A004 | 030 | | | | |
| 005 | A009 | 044 | | 3 | | |
| 006 | A010 | 054 | | | | |
| 007 | A013 | 072 | | 3 | | |
| 008 | A014 | 080 | | 3 | | 001 |

NUMERIC EDIT CODES :

- PRINT IF ZERO NO COMMAS
- 1 PRINT IF ZERO COMMAS
- 2 BLANK IF ZERO NO COMMAS
- 3 BLANK IF ZERO COMMAS
- 4 ZERO REPL. PROTECT NO COMMAS
- 5 ZERO REPL. PROTECT COMMAS
- 6 DATE PRINTED WITOUT SEPARATOR

PROGRAM NAME LOWSTOCK LIST DATE 08/26/82 LIST TIME 16:04:00

CREATE VERSION 0.40

LIBRARY NAME ICLIB

PROGRAM NAME LOWSTOCK

PROGRAM SIZE 00839

PROGRAM TYPE REPORT

ERROR HELP

PROGRAM VERSION

INPUT FILE SPECIFICATIONS

FILE MAINTENANCE PROGRAM CRITICAL

A PRODUTIL

THE CONTROL FILE FOR THIS REPORT IS A

OUTPUT SPECIFICATIONS

PHYSICAL PAGE SIZE 66

NUMBER OF LINES SKIPPED AT THE TOP OF EACH PAGE 06

NUMBER OF LINES SKIPPED AT THE BOTTOM OF EACH PAGE 06

OUTPUT DEVICE SPOOLER

DATE SEPERATOR

FORM LOAD PROMPT

FORM UNLOAD PRMT

PRIMARY FILE RECORD SELECTION

001 P2=A6+A7 !ON HAND + DRD

002 IF P2 GT A8 4 !GT MIN

003 EXIT !PRINT RECORD

004 CANCEL !READ NEXT REC

TEXT TABLE

HEADING OR MESSAGE

HEADING OR MESSAGE

01 B 2 0 D A T A

02 M A N A G E R

03 P A G E

04 I N V E N T O R Y

05 C O N T R O L S Y S T E M

BURROUGHS DATA MANAGER 0.40

PROGRAM NAME LOWSTOCK LIST DATE 08/26/82 LIST TIME 16:04:00

HEADING OR MESSAGE HEADING OR MESSAGE

- 06 BUYER'S GUIDE
- 07 STOCK NUMBER
- 08 DESCRIPTION
- 09 PTD UNITS SOLD
- 10 MINIMUM
- 11 ON HAND
- 12 ON ORDER
- 13 DELIVERY DATE

PAGE HEADER OUTPUT ITEMS

| | SOURCE | PRINT POS | OUTPUT DESC | OUTPUT EDIT | ACCUM NUM | LINE ADV |
|-----|--------|--------------|----------------|----------------|--------------|-------------|
| 001 | X001 | 014 | | | | |
| 002 | R001 | 051 | | | | |
| 003 | R002 | 069 | | | | |
| 004 | R003 | 111 | | | | |
| 005 | P001 | 116 | N 02 | | | 002 |
| 006 | R004 | 054 | | | | |
| 007 | R005 | 064 | | | | 002 |
| 008 | R006 | 059 | | | | 003 |
| 009 | R007 | 014 | | | | |
| 010 | R008 | 029 | | | | |
| 011 | R009 | 057 | | | | |
| 012 | R010 | 074 | | | | |
| 013 | R011 | 084 | | | | |
| 014 | R012 | 094 | | | | |
| 015 | R013 | 105 | | | | 002 |

NUMERIC EDIT CODES :

- PRINT IF ZERO NO COMMAS
- 1 PRINT IF ZERO COMMAS
- 2 BLANK IF ZERO NO COMMAS
- 3 BLANK IF ZERO COMMAS
- 4 ZERO REPL. PROTECT NO COMMAS
- 5 ZERO REPL. PROTECT COMMAS
- 6 DATE PRINTED WITOUT SEPARATOR

PAGE HEADER FUNCTION

001 P1=P1+1

PROGRAM NAME LOWSTOCK LIST DATE 08/26/82 LIST TIME 16:04:00

REPORT BODY STRUCTURE

LEVEL 3 HEADER N
 LEVEL 2 HEADER N
 LEVEL 1 HEADER N
 DETAIL ITEM Y
 LEVEL 1 TRAILER N
 LEVEL 2 TRAILER N
 LEVEL 3 TRAILER N

FIELDS THAT TRIGGER THE PRINTING OF THE HEADERS AND TRAILERS LEVEL 1

SOURCE FILE POS LENGTH

LEVEL 1
 LEVEL 2
 LEVEL 3

DETAIL ELEMENT OUTPUT ITEMS

| | SOURCE | PRINT POS | OUTPUT DESC | OUTPUT EDIT | ACCUM NUM | LINE ADV |
|-----|--------|--------------|----------------|----------------|--------------|-------------|
| 001 | A001 | 018 | | | | |
| 002 | A004 | 029 | | | | |
| 003 | A017 | 059 | | 3 | | |
| 004 | A008 | 076 | | 3 | | |
| 005 | A006 | 085 | | 3 | | |
| 006 | A007 | 097 | | 3 | | |
| 007 | A009 | 110 | | 3 | | 001 |

NUMERIC EDIT CODES :

- PRINT IF ZERO NO COMMAS
- 1 PRINT IF ZERO COMMAS
- 2 BLANK IF ZERO NO COMMAS
- 3 BLANK IF ZERO COMMAS
- 4 ZERO REPL. PROTECT NO COMMAS
- 5 ZERO REPL. PROTECT COMMAS
- 6 DATE PRINTED WITDOUT SEPARATOR

BURROUGHS DATA MANAGER 0.40

PROGRAM NAME PRE-PRODLIST LIST DATE 08/26/82 LIST TIME 16:04:00

CREATE VERSION 0.40
 LIBRARY NAME ICLIB
 PROGRAM NAME PRE-PRODLIST
 PROGRAM SIZE 01170
 FORM HEADING PRODUCT INFORMATION REPORT
 PROGRAM TYPE RUNTIME DATA
 PROGRAM HELP
 ERROR HELP
 PROGRAM VERSION

NUMERIC RANGE TABLE
 RANGE # LOWER UPPER
 001 +0 +5

FIELD DEFINITIONS

| FLD NUM | FIELD NAME | STD DESC | DESC | MANDATORY ENTRY | PRIMARY KEY | INCLUDE RECORD | IN | ALLOW ENTRY | HELP FORM | SOURCE | SKIP TO | FIELD DUP/INCR | INCR RANGES AMT | POS IN REC |
|------------|------------------|-------------|------|--------------------|----------------|-------------------|----|----------------|--------------|--------|------------|-------------------|-----------------------|---------------|
| 001 | STARTING PRODUCT | N 08 | | Y | N | Y | | Y | | | | N | | 0001 |
| 002 | | 01 A 01 | | N | N | N | | N | | | | N | | |
| 003 | ENDING PRODUCT | N 08 | | Y | N | Y | | Y | | | | N | | 0009 |
| 004 | | 01 A 01 | | N | N | N | | N | | | | N | | |
| 005 | SELECT CATEGORY | 01 A 01 | | N | N | N | | N | | | | N | | |
| 006 | (0 = ALL CATGYS) | 12 N 01 | | N | N | Y | | Y | | | | N | 01 | 0017 |

RANGE OF RECORDS LOWER KEY FIELDS

| FIELD NUMBER | POSITION IN RECORD | LENGTH |
|-----------------|-----------------------|--------|
| 0001 | | |

BURROUGHS DATA MANAGER 0.40

PROGRAM NAME PRE-PRODLIST LIST DATE 08/26/82 LIST TIME 16:04:00

RANGE OF RECORDS UPPER KEY FIELDS

| FIELD NUMBER | POSITION IN RECORD | LENGTH |
|-----------------|-----------------------|--------|
| 0003 | | |

POST FORM FUNCTION

001 P2=A6
002 X19="T"

PROGRAM LINKAGE

| PROGRAM NAME | LANGUAGE |
|--------------|----------|
| 01 PRODLIST | DM |

BURROUGHS DATA MANAGER 0.40

PROGRAM NAME PRODLIST LIST DATE 08/27/82 LIST TIME 09:44:13

CREATE VERSION 0.40
LIBRARY NAME ICLIB
PROGRAM NAME PRODLIST
PROGRAM SIZE 01181
PROGRAM TYPE REPORT
ERROR HELP
PROGRAM VERSION

INPUT FILE SPECIFICATIONS

FILE MAINTENANCE PROGRAM CRITICAL
A PRODUTIL

THE CONTROL FILE FOR THIS REPORT IS A

OUTPUT SPECIFICATIONS

PHYSICAL PAGE SIZE 66
NUMBER OF LINES SKIPPED AT THE TOP OF EACH PAGE 06
NUMBER OF LINES SKIPPED AT THE BOTTOM OF EACH PAGE 06

OUTPUT DEVICE SPOOLER
DATE SEPARATOR

FORM LOAD PROMPT
FORM UNLOAD PRMT

PRIMARY FILE RECORD SELECTION

001 IF P2 EQ 0 4 !ALL CATS
002 IF A2 EQ P2 4 !GOOD CAT
003 CANCEL !READ NEXT REC
004 EXIT !PRINT RECORD

TEXT TABLE

| | HEADING OR MESSAGE | | HEADING OR MESSAGE |
|----|--------------------|----|--------------------|
| 01 | B 2 0 D A T A | 21 | * SALES PTD |
| 02 | M A N A G E R | 22 | * COST PTD |
| 03 | PAGE | | |
| 04 | INVENTORY | | |
| 05 | CONTROL SYSTEM | | |

BURROUGHS DATA MANAGER 0.40

PROGRAM NAME PRDLIST LIST DATE 08/27/82 LIST TIME 09:44:13

HEADING OR MESSAGE HEADING OR MESSAGE

06 PRODUCT INFORMAT
 07 IDN REPORT
 08 STOCK NUMBER
 09 CAT
 10 DESCRIPTION
 11 BIN UNIT
 12 PRICE
 13 DISC CD
 14 REPL COST
 15 LAST ISSUE
 16 ON HAND
 17 MINIMUM OH
 18 ON ORDER
 19 DELIVERY DT
 20 PTD UNITS

PAGE HEADER OUTPUT ITEMS

| | SOURCE | PRINT POS | OUTPUT DESC | OUTPUT EDIT | ACCUM NUM | LINE ADV |
|-----|--------|--------------|----------------|----------------|--------------|-------------|
| 001 | X001 | 006 | | | | |
| 002 | R001 | 051 | | | | |
| 003 | R002 | 069 | | | | |
| 004 | R003 | 117 | | | | |
| 005 | P001 | 122 | N 02 | | | 002 |
| 006 | R004 | 054 | | | | |
| 007 | R005 | 064 | | | | 002 |
| 008 | R006 | 053 | | | | |
| 009 | R007 | 069 | | | | 003 |
| 010 | R008 | 006 | | | | |
| 011 | R009 | 020 | | | | |
| 012 | R010 | 028 | | | | |
| 013 | R011 | 056 | | | | |
| 014 | R012 | 078 | | | | |
| 015 | R013 | 088 | | | | |
| 016 | R014 | 100 | | | | |
| 017 | R015 | 114 | | | | 001 |
| 018 | R016 | 028 | | | | |
| 019 | R017 | 038 | | | | |
| 020 | R018 | 051 | | | | |
| 021 | R019 | 062 | | | | |
| 022 | R020 | 079 | | | | |
| 023 | R021 | 095 | | | | |
| 024 | R022 | 114 | | | | 002 |

NUMERIC EDIT CODES :

PRINT IF ZERO NO COMMAS
 1 PRINT IF ZERO COMMAS
 2 BLANK IF ZERO NO COMMAS
 3 BLANK IF ZERO COMMAS

PROGRAM NAME PRODLIST LIST DATE 08/27/82 LIST TIME 09:44:13

4 ZERO REPL. PROTECT NO COMMAS
 5 ZERO REPL. PROTECT COMMAS
 6 DATE PRINTED WITOUT SEPARATOR

PAGE HEADER FUNCTION

001 P1=P1+1

REPORT BODY STRUCTURE

LEVEL 3 HEADER N
 LEVEL 2 HEADER N
 LEVEL 1 HEADER N
 DETAIL ITEM Y
 LEVEL 1 TRAILER N
 LEVEL 2 TRAILER N
 LEVEL 3 TRAILER N

FIELDS THAT TRIGGER THE PRINTING OF THE HEADERS AND TRAILERS LEVEL 1

SOURCE FILE POS LENGTH

LEVEL 1
 LEVEL 2
 LEVEL 3

DETAIL ELEMENT OUTPUT ITEMS

| | SOURCE | PRINT POS | OUTPUT DESC | OUTPUT EDIT | ACCUM NUM | LINE ADV |
|-----|--------|--------------|----------------|----------------|--------------|-------------|
| 001 | A001 | 010 | | | | |
| 002 | A002 | 022 | | | | |
| 003 | A004 | 028 | | | | |
| 004 | A003 | 056 | | | | |
| 005 | A011 | 065 | | | | |
| 006 | A012 | 073 | | 3 | | |
| 007 | A014 | 092 | | | | |
| 008 | A013 | 099 | | 3 | | |
| 009 | A016 | 116 | | | | 001 |
| 010 | A006 | 029 | | 3 | | |
| 011 | A008 | 043 | | 3 | | |
| 012 | A007 | 054 | | 3 | | |
| 013 | A009 | 065 | | | | |
| 014 | A017 | 076 | | 3 | | |
| 015 | A018 | 091 | | 3 | | |
| 016 | A019 | 109 | | 3 | | 002 |

NUMERIC EDIT CODES :

BURROUGHS DATA MANAGER 0.40

PROGRAM NAME PRODLIST LIST DATE 08/27/82 LIST TIME 09:44:13

- PRINT IF ZERO NO COMMAS
- 1 PRINT IF ZERO COMMAS
- 2 BLANK IF ZERO NO COMMAS
- 3 BLANK IF ZERO COMMAS
- 4 ZERO REPL. PROTECT NO COMMAS
- 5 ZERO REPL. PROTECT COMMAS
- 6 DATE PRINTED WITOUT SEPARATOR

BURROUGHS DATA MANAGER 0.40

PROGRAM NAME ICMENU1 LIST DATE 08/26/82 LIST TIME 16:04:00

CREATE VERSION 0.40
 LIBRARY NAME ICLIB
 PROGRAM NAME ICMENU1
 PROGRAM SIZE 00898
 FORM HEADING B20 DATA MANAGER INVENTORY CONTROL SYSTEM
 PROGRAM TYPE STANDARD MENU
 PROGRAM HELP
 ERROR HELP
 PROGRAM VERSION

STANDARD FORM MENU
 HEADING B20 DATA MANAGER INVENTORY CONTROL SYSTEM

SELECTION PROMPT SELECTION NUMBER PROMPT HELP FORM

| PROGRAM NAME | DESCRIPTION | LANGUAGE |
|-----------------|---|----------|
| 01 PRODUITL | ENTER OR CHANGE PRODUCT INFORMATION | DM |
| 02 STOCKING | STOCK ON HAND INQUIRY | DM |
| 03 ISSUES | INVENTORY ISSUE TRANSACTIONS | DM |
| 04 PR-ENTRY | ENTER INVENTORY PURCHASES AND RECEIPTS | DM |
| 05 PR-JOURNAL | PRINT PURCHASES AND RECEIPTS JOURNAL | DM |
| 06 PR-UPDATE | UPDATE INVENTORY PURCHASES AND RECEIPTS | DM |
| 07 LOWSTOCK | PRINT BUYER'S GUIDE | DM |
| 08 PRE-PRODLIST | PRINT PRODUCT INFORMATION REPORT | DM |
| 09 PERIOD-END | PERIOD END UPDATE | DM |