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**DATATRIEVE-11(V1.1)
IAS, RSX-11M, RSTS/E
Installation Guide**

Order No. AA-H169A-TC

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This manual describes the procedures to install DATATRIEVE-11 on the following operating systems: IAS, RSX-11M, and RSTS/E.

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Contents

	Page
Preface	<i>v</i>
Documentation Conventions	<i>v</i>
Chapter 1 General Information	
1.1 Installation Kit	1-1
1.2 Physically Mounting Distribution Media	1-1
1.3 Possible Errors during Installation	1-2
Chapter 2 IAS V02 Installation Procedures	
2.1 System Requirements	2-1
2.1.1 Software Requirements	2-1
2.1.2 Hardware Requirements	2-2
2.2 Procedures for Installing DATATRIEVE-11 on IAS V02	2-2
2.2.1 Summary of Installation Procedures.	2-2
2.2.2 Log in Under a Privileged Account	2-2
2.2.3 Logically Mount the Distribution Medium.	2-2
2.2.4 Copy the Distribution Medium	2-3
2.2.5 Executing the Command File DTRIAS.COMD	2-3
2.2.6 Log off the System.	2-5
2.3 DATATRIEVE-11 Files	2-6
Chapter 3 RSX-11M V03 Installation Procedures	
3.1 System Requirements	3-1
3.1.1 Software Requirements	3-1
3.1.2 Hardware Requirements	3-2
3.2 Procedures for Installing DATATRIEVE-11 on RSX-11M V03	3-2
3.2.1 Summary of Installation Procedures.	3-2
3.2.2 Log in Under a Privileged Account	3-2
3.2.3 Allocate (and Mount, if Disk) the Distribution Medium	3-2
3.2.4 Copy the Distribution Medium	3-3
3.2.5 Executing the Command File DTR11M.COMD	3-3
3.2.6 Log off the System.	3-5
3.3 DATATRIEVE-11 Files	3-5
Chapter 4 RSTS/E V06C Installation Procedures	
4.1 System Requirements	4-1
4.1.1 Software Requirements	4-1
4.1.2 Hardware Requirements	4-2

4.2	Procedures for Installing DATATRIEVE-11 on RSTS/E V06C	4-2
4.2.1	Summary of Installation Procedures.	4-2
4.2.2	Log in Under a Privileged Account	4-2
4.2.3	Logically Assign the Magtape or Mount the Disk Distribution . . .	4-2
4.2.4	Copy the Distribution Medium	4-3
4.2.5	Executing the BUILD Program	4-3
4.3	DATATRIEVE-11 Files	4-7

Chapter 5 Compressing the Data Dictionary and Extending DATATRIEVE-11

5.1	Compressing the Data Dictionary	5-1
5.2	Extending DATATRIEVE-11 Task Space	5-2
5.3	Extending the Data Dictionary	5-3
5.4	Automatic Spooling under RSX-11M	5-3

Appendix A The Acceptance Test Procedure

A-1

Preface

This manual is a guide to the installation of DATATRIEVE-11 on the following operating systems:

IAS V2.0

RSX-11M V3.1

RSTS/E V6C

This manual is written for the system manager who is responsible for performing the installation procedures.

The information in this manual is organized in the following manner:

Chapter 1 comments about the installation kit, describes how to physically mount the distribution media, and indicates errors that might occur during installation.

Chapter 2 describes how to install DATATRIEVE-11 on an IAS system.

Chapter 3 describes how to install DATATRIEVE-11 on an RSX-11M system.

Chapter 4 describes how to install DATATRIEVE-11 on an RSTS/E system.

Chapter 5 describes possible uses of the Data Dictionary Extend Program, extending DATATRIEVE-11 task space, and the Dictionary Compression Utility Program.

Appendix A contains the Acceptance Test Procedure.

Documentation Conventions

The following conventions are used throughout this manual to illustrate the DATATRIEVE installation procedures:

- RET** The symbol **RET** represents the non-printing carriage return key.
- lower case** Lower-case text indicates variable information that you supply; **UPPER CASE** text indicates literal information that you enter as shown.
- color** Information that you type during the installation procedure is indicated in red.
- ^** The circumflex (^) represents a control character. That is, **CTRL/Z** is the same as **^Z**.

Chapter 1

General Information

1.1 Installation Kit

You receive a kit containing all material necessary to install DATATRIEVE-11 on the computer at your site. Check the contents against your original order. If there are any discrepancies between what you ordered and what you received, report the discrepancies to your sales representative.

1.2 Physically Mounting Distribution Media

1. For magtape distribution proceed as follows:
 - a. Obtain the magtape from your kit and mount it on a free tape drive with the write enable ring removed.
 - b. Ensure that the FILE PROT (file protection) indicator light is lit.
 - c. Ensure that the tape is at its load point (the LD PT indicator light is lit).
 - d. Set the ON LINE/OFF LINE switch on the tape unit to ON LINE, and ensure that the RDY (ready) indicator light is lit.
2. For disk cartridge distribution proceed as follows:
 - a. Obtain the disk cartridge from your kit and insert it into a free disk drive unit.
 - b. Place either the LOAD/RUN switch for the RK05 or the RUN/STOP switch for the RK06 and RK07 to run position. Press the LOAD button on the RL01.
 - c. Ensure that the RDY (ready) indicator light is lit.
 - d. Ensure that the WR PROT (write protect) indicator light is lit.

1.3 Possible Errors during Installation

When you are performing your installation procedures, you may get certain error messages. Should you get one of these messages, refer to this section.

A possible error that can occur during the DATATRIEVE-11 installation is the failure of the QDICT program. If such an error occurs, the following message is printed on the terminal.

```
RMS ERROR STATUS:xxx
```

where *xxx* is an octal RMS error code. Refer to the *IAS/RSX-11M RMS-11 MACRO Programmer's Manual* for the meaning of the error code and possible recovery procedures. When you have corrected the error, rerun the command file.

If the following message appears:

```
WRITE SHARING NOT AVAILABLE, PROCEEDING ANYWAY
```

write-locking has not been installed on the system. The installation continues from this point; however, you must install write-locking and reinstall DATATRIEVE-11. A system generation may be required to install write-locking. With write-locking installed, you can rerun the command file.

Another possible error is the termination of the QDICT task build. If the task build terminates with the following error message:

```
TKB -- *DIAG*6 UNDEFINED SYMBOLS SEGMENT SAVREG
```

The most likely cause is that RMS-11K has not been installed. To determine whether or not RMS-11K has been installed, examine the QDICT.MAP file. If these symbols:

\$CLO3E	\$CON3E
\$CRE3E	\$DIS3E
\$OPE3E	\$PUT3E

are undefined, RMS-11K has not been installed on the system.

Chapter 2

IAS V02 Installation Procedures

This chapter is a guide to the installation of DATATRIEVE-11 on the IAS V02 Operating System.

The information in this chapter is organized in the following manner.

Section 2.1 presents both the software and hardware requirements needed to install DATATRIEVE-11.

Section 2.2 contains the procedures to install DATATRIEVE-11 on your system.

Section 2.3 lists the DATATRIEVE-11 files that reside in the target UIC's.

2.1 System Requirements

The software and hardware listed in Sections 2.2.1 and 2.2.2 respectively are required to install DATATRIEVE-11.

2.1.1 Software Requirements

IAS Version 2

RMS-11K Version 1 (for RMS Indexed Record I/O)

RMS-11K software must be present on your computer prior to installing DATATRIEVE-11. If RMS-11K is not present, you must first install it before installing DATATRIEVE-11. Get the kit containing the RMS-11K software, and install this software following the procedures presented in the *RMS-11K IAS Installation Guide*.

2.1.2 Hardware Requirements

The following system configuration is required for DATATRIEVE-11 installation.

CPU	PDP-11 with EIS hardware.
MEMORY	64K bytes above the minimum operating system requirements.
TERMINAL	Any supported terminal (hard copy terminals are preferred.)
TAPE	One 9-track magtape drive.
or	
DISK	RK05, RK06, RK07, or RL01 drive.
DISK SPACE	2300 free blocks must be available in the target account for DATATRIEVE-11.

2.2 Procedures for Installing DATATRIEVE-11 on IAS V02

2.2.1 Summary of Installation Procedures

1. Log in under a privileged account([1,x]).
2. Physically mount the distribution medium as described in Chapter 1.
3. Logically mount the distribution medium.
4. Copy the distribution medium into your account (then remove the distribution medium).
5. Execute the command file DTRIAS.CMD.
6. Log off the system.

2.2.2 Log in Under a Privileged Account

Log into your computer system under a privileged account in the form ([1,x]).

2.2.3 Logically Mount the Distribution Medium

1. For magtape distribution use the command

```
MOUNT/FOR/NOOP dev: DTR11 RET
```

2. For disk cartridge distribution use the command

```
MOUNT/NOOP dev: DTR11 RET
```

where *dev:* is the device specification of the drive containing the distribution medium.

2.2.4 Copy the Distribution Medium

1. To copy the data on the magtape into the target account type the command

```
COPY dev:[1,1]*.*/DOS *.* (RET)
```

2. To copy the data on the disk cartridge into the target account type the command

```
COPY dev:[1,1]*.* *.* (RET)
```

At this time, data on the distribution medium is copied into the target account. when the copying operation is complete, the prompt PDS> appears on your terminal.

To logically dismount the distribution medium, type the command

```
DISMOUNT dev: (RET)
```

When the DISMOUNT COMPLETE message appears at your terminal, remove the distribution medium and store it in a safe place.

The installation dialog to this point will be similar to the following example (magtape distribution):

```
PDS> MOUNT/FOR/NOOP MM1: DTR11
MOUNT-**VOLUME INFORMATION**
      DEVICE      =MM1
      CLASS       =FOREIGN
      UIC         =[1,1]
      ACCESS      =[RWED,RWED,RWED,RWED]
      CHARAC      =[FOR,ATCH,DCF]

PDS>COPY MM1:[1,1]*.*/DOS *.*

PDS> DISMOUNT MM1:
DMO -- MM1: ** DISMOUNT COMPLETE **

PDS>
```

2.2.5 Executing the Command File DTRIAS.CMD

Now type:

```
@DTRIAS (RET)
```

DTRIAS.CMD is the command file that installs DATATRIEVE-11 into your system. As part of the command file, the DATATRIEVE-11 Acceptance Test is executed. During the Acceptance Test, you are required to enter data. Observe the test as it outputs and respond as the test requests input.

The following example is the log printed as a result of command file execution. Note that the Acceptance Test has been deleted from the example. The complete Acceptance Test is in Appendix A.

```

PDS> @DTRIAS
!
! CREATE DATATRIEVE DIRECTORIES
!
REMOVE          $$$DTR
REM -- TASK $$$DTR NOT IN SYSTEM
CREATE/DIR      LB:[11,130]
CREATE/DIR      LB:[111,130]
CREATE/DIR      LB:[311,130]
!
! COPY FILES TO PROPER LOCATIONS
!
COPY   QDIAS.MAC          LB:[311,130]*.*
DELETE QDIAS.MAC;*
COPY   QEIAS.LNK          LB:[11,130]*.*
DELETE QEIAS.LNK;*
COPY   QEIAS.ODL          LB:[11,130]*.*
DELETE QEIAS.ODL;*
COPY   DTRIAS.ODL          LB:[11,130]*.*
DELETE DTRIAS.ODL;*
COPY   DTRIAS.LNK          LB:[11,130]*.*
DELETE DTRIAS.LNK;*
COPY   RMSIAS.ODL          LB:[11,130]*.*
DELETE RMSIAS.ODL;*
COPY   QCIAS.LNK          LB:[11,130]*.*
DELETE QCIAS.LNK;*
COPY   QCIAS.ODL          LB:[11,130]*.*
DELETE QCIAS.ODL;*
!
! INSTALL DATATRIEVE OBJECT LIBRARY
!
MAC/OBJ:QD          LB:[311,130]QDIAS
08:40:23 Size: 26K CPU: 0.11 Status: Success
LIBR   INSERT   DTRLIB QD
COPY   DTRLIB.OLB          LB:[1,1]*.*
DELETE DTRLIB.OLB;*
DELETE QD.OBJ;*
!
! INSTALL DATATRIEVE TASKS
!
@QDIAS.LNK
LINK /OVERLAY:QDIAS /TASK:QDICT/OPT/MAP:QDICT/READ
08:41:52 Size: 27K CPU: 22.10 Status: Success
!

```

```

RUN QDICT
08:41:54
CREATING QUERY DICTIONARY
CREATING MESSAGE FILE
POPULATING MESSAGE FILE
BYE
08:46:22 Size: 21K CPU: 21.46
@LB:[11,130]DTRIAS.LNK
LINK /OVERLAY:LB:[11,130]DTRIAS -
      /TASK:LB:[11,1]DTR/OPT/MAP:LB:[111,130]DTR/MUL/READ
08:51:45 Size: 27K CPU: 48.96 Status: Success
@LB:[11,130]QEIAS.LNK
LINK /OVERLAY:LB:[11,130]QEIAS -
      /TASK:LB:[11,1]QDEXT/OPT/MAP:LB:[111,130]QDEXT/READ
08:52:31 Size: 27K CPU: 13.98 Status: Success
!
@LB:[11,130]QCIAS.LNK
LINK /OVERLAY:LB:[11,130]QCIAS -
      /TASK:LB:[11,1]QCPRS/OPT/MAP:LB:[111,130]QCPRS/READ
08:53:53 Size: 27K CPU: 26.60 Status: Success
SET PROTECTION LB:[1,2]QUERY.DIC WORLD:WRE
INSTALL LB:[11,1]DTR
!
! RUN DATATRIEVE ACCEPTANCE TEST
!
DTR @DTR.TST
.
.
.
•  The DATATRIEVE-11 Acceptance Test Procedure
  is contained in Appendix A.
.
.
EXIT
BYE
!
! SAVE YACHT DEMO FILE
!
COPY YACHT.DAT LB:[1,2]*.*
DELETE YACHT.DAT;*
!
! END OF DATATRIEVE INSTALLATION
!
PDS>

```

2.2.6 Log Off the System

Log off the system after the DTRIAS.COMD file has completed execution (you observe the PDS> prompt).

2.3 DATATRIEVE-11 Files

When DATATRIEVE-11 has been installed, the following files reside in the indicated UIC's. Note that the [SELF] designation represents your privileged account.

UIC	FILE NAME	DESCRIPTION
[1,1]	DTRLIB.OLB	Datatrieve object library
[1,2]	QUERY.DIC	Data dictionary
[1,2]	QUERY.MSG	Message file
[1,2]	YACHT.DAT	Acceptance test data file
[11,130]	DTRIAS.LNK	Datatrieve task-build command file
[11,130]	DTRIAS.ODL	Datatrieve overlay description file
[11,130]	QCIAS.LNK	COMPRESS program task-build command file
[11,130]	QCIAS.ODL	COMPRESS program overlay description file
[11,130]	QEIAS.LNK	EXTEND program task-build command file
[11,130]	QEIAS.ODL	EXTEND program overlay description file
[11,130]	RMSIAS.ODL	RMS overlay description file
[11,1]	DTR.TSK	Datatrieve task image
[11,1]	QCPRS.TSK	Dictionary COMPRESS program
[11,1]	QDEXT.TSK	Dictionary EXTEND program
[111,130]	DTR.MAP	Datatrieve map file
[111,130]	QCPRS.MAP	Dictionary COMPRESS program map file
[111,130]	QDEXT.MAP	Dictionary EXTEND program map file
[311,130]	QDIAS.MAC	Dictionary file-name source module
[SELF]	DTR.TST	Acceptance test command file
[SELF]	MSG.SEQ	Message file (distribution format)
[SELF]	QDIAS.LNK	Dictionary build program task-build command file
[SELF]	QDIAS.ODL	Dictionary build program overlay description file
[SELF]	QDICT.MAP	Dictionary build program map file
[SELF]	QDICT.TSK	Dictionary build program
[SELF]	YACHT.SEQ	Acceptance test data file (distribution format)

Chapter 3

RSX-11M V03 Installation Procedures

This chapter is a guide to the installation of DATATRIEVE-11 on the RSX-11M V03.1 Operating System.

The information in this chapter is organized in the following manner:

Section 3.1 presents both the software and hardware requirements needed to install DATATRIEVE-11

Section 3.2 contains the procedures to install DATATRIEVE-11 on your system.

Section 3.3 lists the DATATRIEVE-11 files that reside in the target UIC's.

3.1 System Requirements

The software and hardware listed in Section 3.1.1 and 3.1.2 respectively are required to install DATATRIEVE-11.

3.1.1 Software Requirements

RSX-11M Version 3.1 Mapped System

RMS-11K Version 1.5 (for RMS Indexed Record I/O)

RMS-11K Software must be present on your computer prior to installing DATATRIEVE-11. If RMS-11K is not present, you must first install it before installing DATATRIEVE-11. Get the kit containing the RMS11-K software,

and install this software following the procedures presented in the *RMS-11K RSX-11M Installation Guide*.

3.1.2 Hardware Requirements

The following system configuration is required for DATATRIEVE-11 installation.

CPU	PDP-11 with EIS hardware.
MEMORY	64K bytes above the minimum operating system requirements.
TERMINAL	Any supported terminal (hard copy terminals preferred).
TAPE	One 9-track magtape drive.
or	
DISK	RK05, RK06, RK07 or RL01 drive.
DISK SPACE	2300 free blocks must be available in the target account for DATATRIEVE-11.

3.2 Procedures for Installing DATATRIEVE-11 on RSX-11M V03

3.2.1 Summary of Installation Procedures

1. Log in under a privileged account ([1,x]).
2. Physically mount the distribution medium as described in Chapter 1.
3. Allocate (and mount, if disk) the distribution medium.
4. Copy the distribution medium into your account (then remove the distribution medium).
5. Execute the command file DTR11M.CMD.
6. Log off the system.

3.2.2 Log in Under a Privileged Account

Log into your computer system under a privileged account in the form [1,x].

3.2.3 Allocate (and Mount, if Disk) the Distribution Medium

1. For magtape distribution use the command

```
ALL dev: (RET)
```

2. For disk cartridge distribution use the commands

```
ALL dev: (RET)
MOU dev:DTR11 (RET)
```

where *dev*: is the device specification of the drive containing the distribution medium.

3.2.4 Copy the Distribution Medium

1. To copy the data on the magtape into the target account type the command

```
FLX SY:/RSX=dev:[1,1]*.*/DOS (RET)
```

2. To copy the data on the disk cartridge into the target account type the command

```
PIP SY:/NV=dev:[1,1]*.* (RET)
```

At this time, data on the distribution medium is copied into the target account. When the copying operation is complete, the prompt > appears on your terminal

To logically dismount the magtape distribution medium, type the command

```
DEA dev: (RET)
```

For the disk distribution, type the commands

```
DMD dev: (RET)
DEA dev: (RET)
```

When the prompt appears on your terminal, remove the distribution medium and store it in a safe place.

The installation dialog to this point will be similar to the following example (magtape distribution):

```
> ALL MM1:
> FLX SY:/RSX=MM1:[1,1]*.*/DOS
> DEA MM1:
>
```

3.2.5 Executing the Command File DTR11M.CMD

Now type

```
@DTR11M (RET)
```

DTR11M.CMD is the command file that installs DATATRIEVE-11 into your system. As part of the command file, the DATATRIEVE-11 Acceptance Test is executed. During the Acceptance Test, you are required to enter data. Observe the test as it outputs and respond as the test requests input.

The following example is the log printed as a result of command file execution. Note that the Acceptance Test has been deleted from the example. The complete Acceptance Test is in Appendix A.

```

>@DTR11M
>
> COPY TASK BUILD COMMAND FILES
>
>REM    ...DTR
REM -- TASK NOT IN SYSTEM
>PIP LB:[1,24]/NV=QE11M.TKB
>PIP    QE11M.TKB;*/DE
>PIP LB:[1,24]/NV=QE11M.ODL
>PIP    QE11M.ODL;*/DE
>PIP LB:[1,24]/NV=DTR11M.TKB
>PIP    DTR11M.TKB;*/DE
>PIP LB:[1,24]/NV=DTR11M.ODL
>PIP    DTR11M.ODL;*/DE
>PIP LB:[1,24]/NV=RMS11M.ODL
>PIP    RMS11M.ODL;*/DE
>PIP LB:[1,24]/NV=QC11M.TKB
>PIP    QC11M.TKB;*/DE
>PIP LB:[1,24]/NV=QC11M.ODL
>PIP    QC11M.ODL;*/DE
>!
>! INSTALL DATATRIEVE OBJECT LIBRARY
>!
>MAC QD=QD11M
>LBR DTRLIB/IN=QD
>PIP LB:[1,1]/NV=DTRLIB.OLB
>PIP    DTRLIB.OLB;*/DE
>PIP    QD.OBJ;*/DE
>!
>! INSTALL DATATRIEVE TASKS
>!
>TKB @QD11M.TKB
>RUN QDICT
CREATING QUERY DICTIONARY
CREATING MESSAGE FILE
POPULATING MESSAGE FILE
BYE
>TKB @LB:[1,24]DTR11M.TKB
>TKB @LB:[1,24]QE11M.TKB
>TKB @LB:[1,24]QC11M.TKB
>INS LB:[1,54]DTR
>!
>! RUN DATATRIEVE ACCEPTANCE TEST
>!
>DTR @DTR.TST

```

-
-
-
-
-



The DATATRIEVE-11 Acceptance Test Procedure is contained in Appendix A.

```

>PIP LB:[1,2]/NV=YACHT.DAT
>PIP YACHT.DAT;*/DE
>!
>! END OF DATATRIEVE INSTALLATION
>!
>@ <EOF>
>

```

3.2.6 Log Off the System

Log off the system after the DTR11M.CMD file has completed execution (you observe the > prompt).

3.3 DATATRIEVE-11 Files

When DATATRIEVE-11 has been installed the following files reside in the indicated UIC's. Note that the [SELF] designation represents your privileged account.

UIC	FILE NAME	DESCRIPTION
[1,1]	DTRLIB.OLB	Datatrieve object library
[1,24]	DTR11M.ODL	Datatrieve overlay description file
[1,24]	DTR11M.TKB	Datatrieve task-build command file
[1,24]	QC11M.ODL	COMPRESS program overlay description file
[1,24]	QC11M.TKB	COMPRESS program task-build command file
[1,24]	QE11M.ODL	EXTEND program overlay description file
[1,24]	QE11M.TKB	EXTEND program task-built command file
[1,24]	RMS11M.ODL	RMS overlay description file
[1,2]	QUERY.DIC	Data dictionary
[1,2]	QUERY.MSG	Message file
[1,2]	YACHT.DAT	Acceptance test data file
[1,34]	DTR.MAP	Datatrieve map file
[1,34]	QCPRS.MAP	Dictionary COMPRESS program map file
[1,34]	QDEXT.MAP	Dictionary EXTEND program map file
[1,54]	DTR.TSK	Datatrieve task image
[1,54]	QCPRS.TSK	Dictionary COMPRESS program
[1,54]	QDEXT.TSK	Dictionary EXTEND program
[SELF]	DTR.TST	Acceptance test command file
[SELF]	MSG.SEQ	Message file (distribution format)
[SELF]	QD11M.MAC	Dictionary file-name source module
[SELF]	QD11M.ODL	Dictionary build program overlay description file
[SELF]	QD11M.TKB	Dictionary build program task-build command file
[SELF]	QDICT.MAP	Dictionary build program map file
[SELF]	QDICT.TSK	Dictionary build program
[SELF]	YACHT.SEQ	Acceptance test data file (distribution format)

Chapter 4

RSTS/E V06C Installation Procedures

This chapter is a guide to the installation of DATATRIEVE-11 on the RSTS/E V06C Operating System.

The information in the chapter is organized in the following manner:

Section 4.1 presents both the software and hardware requirements needed to install DATATRIEVE-11.

Section 4.2 contains the procedures to install DATATRIEVE-11 on your system.

Section 4.3 lists the DATATRIEVE-11 files that reside in the target accounts.

4.1 System Requirements

The software and hardware listed in Sections 4.2.1 and 4.2.2 respectively are required to install DATATRIEVE-11.

4.1.1 Software Requirements

RSTS/E, Version V06C

RSX.RTS - The RSX run-time system

RT.RTS - The RT-11 run-time system

SYSLIB.OLB - The RSX system object library

RMS11.RTS - The RMS-11 run-time system

PIP.SAV - Peripheral Interchange Program in account [1,2]

TKB.TSK - The Task Builder in account [1,2]

MAC.TSK - The MACRO-11 assembler in account [1,2]

RMS-11K - Version 1.5 (for RMS Indexed Record I/O)

RMS-11K software must be present on your computer prior to installing DATATRIEVE-11. If RMS-11K is not present, you must install it before installing DATATRIEVE-11. Get the kit containing the RMS-11K software, and install this software following the procedures presented in the *RMS-11K RSTS/E Installation Guide*.

4.1.2 Hardware Requirements

The following system configuration is required for DATATRIEVE-11 installation.

CPU	PDP-11 with EIS hardware.
MEMORY	64K bytes above the minimum operation system requirements.
TERMINAL	Any supported terminal (hardcopy terminals are preferred).
TAPE	One 9-track magtape drive.
or	
DISK	RK05, RK06, RK07 or RL01 drive.
DISK SPACE	2300 free blocks must be available in the target account for DATATRIEVE-11.

4.2 Procedures for Installing DATATRIEVE-11 on RSTS/E V06C

4.2.1 Summary of Installation Procedures

1. Log in under a privileged account [1,x].
2. Physically mount the distribution medium as described in chapter 1.
3. Logically assign the magtape or mount the disk distribution medium.
4. Copy the distribution medium into your account (then remove the distribution).
5. Execute the BUILD program.
6. Log off the system.

4.2.2 Log in Under a Privileged Account

Log into your computer system under a privileged account in the form [1,x].

4.2.3 Logically Assign the Magtape or Mount the Disk Distribution Medium

1. For magtape distribution use the command

```
ASSIGN dev: .DOS (RET)
```

2. For disk cartridge distribution use the command

```
MOUNT dev:DTR11/RONLY (RET)
```

where *dev*: is the device specification of the drive containing the distribution medium.

4.2.4 Copy the Distribution Medium

To copy the data on either the magtape or disk distribution into the target account type the commands

```
RUN $PIP.SAV 
**.*=dev:[1,1]*.* 
*^Z
```

At this time, data on the distribution medium is copied into the target account. When the copying operation is complete, the prompt Ready appears on your terminal.

To logically dismount the magtape distribution medium, type the command

```
DEASSIGN dev: 
```

For the disk distribution, type the command

```
DISMOUNT dev:DTR11 
```

When the Ready prompt appears on your terminal, remove the distribution medium and store it in a safe place.

The installation dialog to this point will be similar to the following example (magtape distribution).

```
Ready
ASSIGN MMO:.DOS
Ready
RUN $PIP.SAV
**.*=MMO:[1,1]*.*
*^Z
Ready
DEASSIGN MMO:
Ready
```

4.2.5 Executing the BUILD Program

Now type

```
RUN $BUILD 
```

The computer initiates the following dialog; respond as shown.

```
BUILD V06C-03 RSTS V06C-03 SYSTEM 52547
System Build <No>? 
Source Input Device <SY:>? 
Library Output Device <SY>? 
Library Account <[1,2]>? 
Control File is? DTRSTS.CTL 
*** Copying file SY:DTRSTS.CTL to SY:BUILD.TMP
BUILD Detaching. . .
```

The BUILD program then installs DATATRIEVE-11. The dialog continues, as shown by the following example. Note that you must enter the command DTR @DTR.TST to run the Acceptance Test.

```
^C
HELLO

RSTS V06C-03 Basic+2/Cobol Job 17 KB20 29-Aug-78 12:42 PM
#1/250
Password:
Job 12 is detached under this account
Job number to attach to?
1 other user is logged in under this account
```

Ready

```
ASSIGN SY:SYSDISK.
```

Ready

```
ASSIGN SY:SYSTEM
```

Ready

```
ASSIGN [1,2]
```

Ready

```
ASSIGN SY:INPUT
```

Ready

```
!
! Make sure PXS.RTS and RT11.RTS are present
!
RUN $UTILITY
UTILITY V06C-03 RSTS V06C-03 Basic+2/Cobol
#ADD RSX
?Name or account now exists - in ADD
#ADD RT11
?Name or account now exists - in ADD
#CCL DTR=
?Can't find file or account - in CCL
#EXIT
```

Ready

```
!
! Install Datatrieve object library
!
RUN $MAC
MAC>QD=QDRSTS
MAC>^C
```

Ready

```
RUN $LBR
LBR>DTRLIB/IN=QD
LBR^C
```

Ready

```
RUN $FIP.SAV
*LB:=DTRLIB.OLB
*DTRLIB.OLB/DE
*QD.OBJ/DE
*LB:RMS11.TSK<40>/RE
*^C
```

Ready

```
!
! Install Datatrieve tasks
!
RUN $TKB
TKB>@QDRSTS.TKB
```

Ready

```
RUN QDICT
CREATING QUERY DICTIONARY
CREATING MESSAGE FILE
POPULATING MESSAGE FILE
BYE
```

Ready

```
RUN $TKB
TKB>@DTRSTS.TKB
```

Ready

```
RUN $TKB
TKB>@QERSTS.TKB
```

Ready

```
RUN $TKB
TKB>@QCRSTS.TKB
```

Ready

```
RUN $UTILITY
UTILITY V06C-03 RSTS V06C-03 Basic+2/Cobol
#CCL DTR==SYSTEM:@DTR.TSK
#EXIT
```

Ready

```
!
! Clean up accounts
!
$FIP.SAV
*SYSTEM:@<104>=DTR.TSK
*SYSTEM:@=QDEXT.TSK
*SYSTEM:@=QCPRS.TSK
*DTR.TSK/DE
*QDEXT.TSK/DE
*QCPRS.TSK/DE
*SYSTEM:@QUERY.DIC<0>/RE
*SYSTEM:@QUERY.MSG<40>/RE
*^C
```

Ready

```
!  
! Ready to run Datatrieve acceptance test.  
!  
C
```

Ready

HELLO

```
RSTS V06C-03 Basic+2/Cobol Job 17 [1,250] KB20 29-Aug-78 12:56 PM  
Job 12 is detached under this account  
Job number to attach to? 12  
Attaching to Job 12
```

BUILD Complete

Ready

DIR @DIR.TST

-
-
-
-
-



The DATATRIEVE-11 Acceptance Test Procedure is contained in Appendix A.

Part of the BUILD program's processing is the DATATRIEVE-11 Acceptance Test. You must enter data at the points shown in Appendix A to execute this test properly.

At the completion of the Acceptance Test, look for the lines

```
!  
! END OF QUERY/REPORT WRITER TEST  
!  
EXIT  
BYE
```

Ready

Next, type the following under "Ready"

```
RUN $PIP.SAV (RET)  
*$<40>=YACHT.DAT (RET)  
*^Z (RET)
```

Watch for the prompt Ready to appear. After "Ready" prints out, log off your system. DATATRIEVE-11 has been installed.

4.3 DATATRIEVE-11 Files

When DATATRIEVE-11 has been installed, the following files reside in the indicated accounts. Note that the [SELF] designation represents your privileged account.

ACCOUNT	FILE NAME	DESCRIPTION
[1,1]	DTRLIB.OLB	Datatrieve object library
[1,2]	DTR.TSK	Datatrieve task image
[1,2]	QCPRS.TSK	Dictionary COMPRESS program
[1,2]	QDEXT.TSK	Dictionary EXTEND program
[1,2]	QUERY.DIC	Data dictionary
[1,2]	QUERY.MSG	Message file
[1,2]	YACHT.DAT	Acceptance test data file
[SELF]	DTR.MAP	Datatrieve map file
[SELF]	DTR.TST	Acceptance test command file
[SELF]	DTRSTS.ODL	Datatrieve overlay description file
[SELF]	DTRSTS.TKB	Datatrieve task-build command file
[SELF]	MSG.SEQ	Message file (distribution format)
[SELF]	QCPRS.MAP	Dictionary COMPRESS program map file
[SELF]	QCRSTS.ODL	COMPRESS program overlay description file
[SELF]	QCRSTS.TKB	COMPRESS program task-build command file
[SELF]	QDEXT.MAP	Dictionary EXTEND program map file
[SELF]	QDICT.MAP	Dictionary build program map file
[SELF]	QDICT.TSK	Dictionary build program
[SELF]	QDRSTS.MAC	Dictionary file-name source module
[SELF]	QDRSTS.ODL	Dictionary build program overlay description file
[SELF]	QDRSTS.TKB	Dictionary build program task-build command file
[SELF]	QERSTS.ODL	EXTEND program overlay description file
[SELF]	QERSTS.TKB	EXTEND program task-build command file
[SELF]	RMSRST.ODL	RMS overlay description file
[SELF]	YACHT.SEQ	Acceptance test data file (distribution format)

Chapter 5

Compressing the Data Dictionary and Extending DATATRIEVE-11

This chapter contains procedures you can use to:

1. Compress the data dictionary
2. Extend DATATRIEVE-11 task space
3. Extend (temporarily) the data dictionary

5.1 Compressing the Data Dictionary

You use the utility program, QCPRS, to periodically compress the data dictionary. As DATATRIEVE-11 is used, the data dictionary can accumulate deleted record headers, deoptimized index structures and scattered and fragmented buckets; run QCPRS to reclaim the disk space wasted by this fragmentation.

To run QCPRS, invoke the program with the operating system command:

```
RUN QCPRS (RET)
```

The utility program responds with the prompt:

```
CPR>
```

To compress the data dictionary, enter the command line in the form

new-file=old-file

to QCPRS, where *old-file* is the file name of the data dictionary, and *new-file* is the name of the compressed copy of the dictionary.

The default file name for both *new-file* and *old-file* is SY:QUERY.DIC; the UIC (or account) defaults to your directory.

On RSX-11M and IAS systems, *new-file* and *old-file* can have the same name; either system creates a new version of the name. Under RSTS/E, however, the name must be different. The best strategy is to rename the dictionary to a suitable name, such as QUERY.BAK, and use QCPRS to copy it back to its original name, QUERY.DIC.

QCPRS then prompts for an initial allocation for the new version of the file with the message:

```
ENTER ALLOCATION FOR AREA 0:
```

Enter a "best guess" for the new compressed version. If the value entered is too low, the file will be extended automatically to hold the contents of the original file.

To terminate QCPRS, type `CTRL/Z` after the prompt CPR>.

The original file is not altered by QCPRS. It may be saved as a backup or deleted.

An example of a typical QCPRS run follows:

```
RUN QCPRS (RET)
QUERY FILE COPY-COMPRESS UTILITY
CPR> QUERY.DIC = SY:[1,2] QUERY.DIC (RET)
ENTER ALLOCATION FOR AREA 0: 250 (RET)
CPR> CTRL/Z
```

5.2 Extending DATATRIEVE-11 Task Space

DATATRIEVE-11 utilizes extend task space for RMS buffers, internal control blocks, and SORT work space. When this space is exhausted during execution of a command, one of the following messages is printed:

```
CENTRAL STORAGE POOL EXHAUSTED
SORT WORK SPACE EXHAUSTED
COMPILER STORAGE POOL EXHAUSTED
```

There are two solutions to this problem. First, the amount of memory in use can be reduced by taking one or more of the following steps:

1. Use the RELEASE command to release any unnecessary collections.
2. Use the FINISH command to finish any unnecessary domains.
3. If any DEFINE or DELETE commands have been issued, exit and re-invoke DATATRIEVE-11.

Second, if the problem persists, the extend task size parameter in the DATATRIEVE-11 task build command file can be modified to increase the

size of DATATRIEVE-11. To do this, edit the file DTRIAS.TKB (IAS System), or DTR11M.TKB (RSX-11M System), or DTRSTS.TKB (RSTS/E System). The syntax of the extend task size parameter is:

```
EXTTSK=xxxxxx
```

where *xxxxx* is the number of decimal words that the task is to be extended. Next, rebuild DATATRIEVE-11 with the command(s):

```
@DTRIAS.LNK (RET)      (for IAS System)
RUN $TKB (RET)         (for RSX-11M System)
TKB> @DTR11M.TKB (RET)
RUN $TKB (RET)         (for RSTS/E System)
TKB> @DTRSTS.TKB (RET)
```

Upon completion of the task build, DATATRIEVE-11 is ready for execution.

5.3 Extending the Data Dictionary

When DATATRIEVE-11 is installed in an RSX-11M System, RMS automatically extends the data dictionary file, should that file become full. However, all RSTS/E systems (and some IAS Systems) will return error messages indicating that the data dictionary is full.

The reason for the message is that in RSTS/E Systems (and some IAS Systems) any attempt to extend a file by a user who is not the owner of the file is rejected by RMS.

To extend the size of the data dictionary, you can use the QDEXT utility program. Run the program by typing

```
RUN QDEXT
```

QDEXT then prompts for the name of the file (the data dictionary) and the number of blocks it is to be extended.

5.4 Automatic Spooling Under RSX-11M

Automatic line printer spooling under RSX-11M is controlled by the global symbol SPL11M. If this symbol is set to 1 (as distributed), all PRINT and REPORT command references to the device LP: are redirected to disk, and queued to the spooler following request execution. If the symbol SPL11M is set to 0, line printer output is sent directly to the line printer.

The SPL11M symbol is defined in the RSX-11M DATATRIEVE Task Build Command File DTR11M.TKB. To send line printer output directly to the line printer, edit the DTR11M.TKB file (setting SPL11M to 0), then run the Task Builder:

```
RUN $TKB (RET)
TKB>@DTR11M.TKB (RET)
```


Appendix A

Acceptance Test Procedure

```
!  
! CLEAN UP FROM POSSIBLE PREVIOUS RUNS OF TEST  
!  
DELETE YACHTS-SEQUENTIAL;  
"YACHTS-SEQUENTIAL" has not been defined in the dictionary  
DELETE YACHTS;  
"YACHTS" has not been defined in the dictionary  
DELETE YACHT;  
"YACHT" has not been defined in the dictionary  
DELETE PRICE-PER-POUND;  
"PRICE-PER-POUND" has not been defined in the dictionary  
DELETE STORE-YACHT;  
"STORE-YACHT" has not been defined in the dictionary  
DELETE LOA-REPORT;  
"LOA-REPORT" has not been defined in the dictionary  
!  
! DEFINE RECORD  
!  
DEFINE RECORD YACHT USING  
01 BOAT.  
  03 TYPE.  
    06 MANUFACTURER PIC X(10)  
      QUERY-NAME IS BUILDER.  
    06 MODEL PIC X(10).  
  03 SPECIFICATIONS  
    QUERY-NAME SPECS.  
    06 RIG PIC X(6).  
    06 LENGTH-OVER-ALL PIC XXX  
      QUERY-NAME IS LOA.  
    06 DISPLACEMENT PIC 99999  
      QUERY-HEADER IS "WEIGHT"  
      EDIT-STRING IS ZZ,ZZ9  
      QUERY-NAME IS DISP.  
    06 BEAM PIC 99.  
    06 PRICE PIC 99999  
      EDIT-STRING IS $$$,$$$ .;  
[Record YACHT is 41 bytes long]  
!  
! DEFINE DOMAINS  
!  
DEFINE DOMAIN YACHTS-SEQUENTIAL USING YACHT ON YACHT.SEQ ;  
DEFINE DOMAIN YACHTS USING YACHT ON YACHT.DAT;  
!  
! DEFINE THE ACTUAL FILE FOR YACHTS  
!  
DEFINE FILE YACHTS KEY=BUILDER(DUP),KEY=MODEL(DUP,CHANGE),  
  ALLOCATION=30, SUPERCEDE
```

```

!
! MAKE YACHTS ACCESSABLE BY OTHERS
!
DEFINEP YACHTS 2,PW,"SHHHH",W ! PASSWORD FOR WRITE
DEFINEP YACHTS 3,UIC,[*,*],R ! EVERYONE ELSE GETS READ
DEFINEP YACHT 2,UIC,[*,*],R ! GIVE ACCESS TO RECORD DEFINITION, TOO
SHOWP YACHTS
    1,UIC, [311,300], "RWMEC"
    2,PW, "SHHHH", "W"
    3,UIC, [*,*], "R"
!
! DEFINE PROCEDURES
!
DEFINE PROCEDURE PRICE-PER-POUND
PRICE*1.00/DISP ("PRICE"/"PER"/"POUND") USING $$ .99
END-PROCEDURE
!
DEFINE PROCEDURE STORE-YACHT
STORE YACHTS VERIFY USING
BEGIN
    IF BEAM EQ 0 THEN ABORT "BAD BEAM"
    IF DISP EQ 0 THEN ABORT "BAD DISPLACEMENT"
    IF LOA NOT BETWEEN 20 AND 60 THEN ABORT "BAD LENGTH"
    PRINT
    DISPLAY "CONFIRM WITH Y IF OK"
    IF *.CONFIRMATION NOT CONTAINING "Y" THEN ABORT "STORE ABORTED"
END
END-PROCEDURE
!
! COPY DATA FROM SEQUENTIAL TO INDEXED FILE
!
READY YACHTS WRITE
READY YACHTS-SEQUENTIAL
SHOW READY
Ready domains:
    YACHTS-SEQUENTIAL: RMS SEQUENTIAL, PROTECTED READ
    YACHTS: RMS INDEXED, PROTECTED WRITE
!
FOR YACHTS-SEQUENTIAL STORE YACHTS USING BOAT=BOAT
!
FINISH YACHTS-SEQUENTIAL;
!
! TEST STORE
!
! PLEASE SUPPLY THE FOLLOWING VALUES:
! MANUFACTURER: HINKLEY
! MODEL: BERMUDA 40
! RIG: YAWL
! LENGTH-OVER-ALL: 140
! DISPLACEMENT: 20000
! BEAM: 12
! PRICE: 82000
!
;STORE-YACHT
Enter MANUFACTURER: HINKLEY
Enter MODEL: BERMUDA 40
Enter RIG: YAWL
Enter LENGTH-OVER-ALL: 140
Enter DISPLACEMENT: 20000
Enter BEAM: 12
Enter PRICE: 82000
ABORT: BAD LENGTH
Execution terminated by "ABORT" statement
!

```

! PLEASE SUPPLY THE FOLLOW VALUES:

!
! MANUFACTURER: HINKLEY
! MODEL: BERMUDA 40
! RIG: YAWL
! LENGTH-OVER-ALL: 40
! DISPLACEMENT: 20,000
! BEAM: 12
! PRICE: \$82,000
! CONFIRMATION N
!

:STORE-YACHT

Enter MANUFACTURER:HINKLEY

Enter MODEL:BERMUDA 40

Enter RIG:YAWL

Enter LENGTH-OVER-ALL:40

Enter DISPLACEMENT:20,000

Enter BEAM:12

Enter PRICE:\$82,000

MANUFACTURER	MODEL	RIG	LENGTH OVER ALL	WEIGHT	BEAM	PRICE
HINKLEY	BERMUDA 40	YAWL	40	20,000	12	\$82,000

DISPLAY: CONFIRM WITH Y IF OK

Enter CONFIRMATION:N

ABORT: STORE ABORTED

Execution terminated by "ABORT" statement

!

! CHANGE READY MODE FOR READ ACCESS

!

READY YACHTS

FIND YACHTS WITH PRICE NE 0

[52 records found]

SORT BY LOA,DESC DISPLACEMENT

SHOW ALL

Domains:

YACHTS-SEQUENTIAL

YACHTS

Records:

YACHT

Procedures:

PRICE-PER-POUND

STORE-YACHT

Collections:

CURRENT

Ready domains:

YACHTS: RMS INDEXED, PROTECTED READ

SHOW CURRENT

Collection CURRENT

Domain: YACHTS

Number of records: 52

No selected record

Sort order: LENGTH-OVER-ALL,DISPLACEMENT

PRINT ALL

MANUFACTURER	MODEL	RIG	LENGTH		BEAM	PRICE
			ALL	OVER		
WINDPOWER	IMPULSE	SLOOP	16	650	07	\$3,500
CAPE DORY	TYPHOON	SLOOP	19	1,900	06	\$4,295
VENTURE	21	SLOOP	21	1,500	07	\$2,823
VENTURE	222	SLOOP	22	2,000	07	\$3,564
EASTWARD	HO	M/S	24	7,000	09	\$15,900
ISLANDER	BAHAMA	SLOOP	24	4,200	08	\$6,500
IRWIN	25	SLOOP	25	5,400	12	\$10,950
CAPE DORY	25	SLOOP	25	4,000	07	\$8,995
SALT	19	SLOOP	25	2,600	07	\$6,590
WESTERLY	CENTAUR	SLOOP	26	6,700	08	\$15,245
GRAMPIAN	26	SLOOP	26	5,600	08	\$11,495
AMERICAN	26-MS	M/S	26	5,500	08	\$18,895
TANZER	26	SLOOP	26	4,350	09	\$11,750
ALBIN	79	SLOOP	26	4,200	10	\$17,900
AMERICAN	26	SLOOP	26	4,000	08	\$9,895
HUNTER	27	SLOOP	27	6,500	09	\$14,999
ALBIN	VEGA	SLOOP	27	5,070	08	\$18,600
CAPE DORY	28	SLOOP	28	9,000	09	\$21,990
SABRE	28	SLOOP	28	7,400	09	\$22,000
GRAMPIAN	28	SLOOP	28	6,900	10	\$14,475
TANZER	28	SLOOP	28	6,800	10	\$17,500
ISLANDER	28	SLOOP	28	5,994	10	\$15,908
NORTHERN	29	SLOOP	29	7,250	09	\$20,975
IRWIN	30	SLOOP	30	10,000	10	\$19,950
HUNTER	30	SLOOP	30	9,500	10	\$21,500
GRAMPIAN	30	SLOOP	30	8,600	09	\$17,775
ISLANDER	30	SLOOP	30	8,600	10	\$20,990
ALBIN	BALLAD	SLOOP	30	7,276	10	\$27,500
CLIPPER	CM 30	SLOOP	30	3,800	08	\$9,500
RYDER	S. CROSS	SLOOP	31	13,600	00	\$32,500
BOMBAY	CLIPPER	SLOOP	31	9,400	11	\$23,950
WRIGHT	SEAWIND II	SLOOP	32	14,900	00	\$34,480
CHALLENGER	32	SLOOP	32	12,800	11	\$31,835
O'DAY	32	SLOOP	32	11,000	00	\$29,500
BAYFIELD	30/32	SLOOP	32	9,500	10	\$32,875
CLIPPER	CM 32	SLOOP	32	4,500	08	\$12,950
GRAMPIAN	34	KETCH	33	12,000	10	\$29,675
GRAMPIAN	2-34	SLOOP	34	11,800	10	\$29,675
CARIBBEAN	35	SLOOP	35	18,000	11	\$37,850
CHRIS-CRAF	CARIBBEAN	SLOOP	35	18,000	11	\$37,850
CHALLENGER	35	SLOOP	35	14,800	12	\$39,215
I. TRADER	37	KETCH	36	18,600	12	\$39,500
ISLANDER	36	SLOOP	36	13,450	11	\$31,730
ALBERG	37 MK II	KETCH	37	20,000	12	\$36,951
IRWIN	37 MARK II	KETCH	37	20,000	11	\$36,950
NORTHERN	37	KETCH	37	14,000	11	\$50,000
LINDSEY	39	M/S	39	14,500	12	\$35,900
CHALLENGER	41	KETCH	41	26,700	13	\$51,228
GULFSTAR	41	KETCH	41	22,000	12	\$41,350
ISLANDER	FREEMPORT	KETCH	41	22,000	13	\$54,970
COLUMBIA	41	SLOOP	41	20,700	11	\$48,490
OLYMPIC	ADVENTURE	KETCH	42	24,250	13	\$80,500

```
SELECT FIRST
PRINT
```

MANUFACTURER	MODEL	RIG	LENGTH OVER ALL	WEIGHT	BEAM	PRICE
WINDPOWER	IMPULSE	SLOOP	16	650	07	\$3,500

```
SELECT
PRINT BOAT, :PRICE-PER-POUND
```

MANUFACTURER	MODEL	RIG	LENGTH OVER ALL	WEIGHT	BEAM	PRICE	PRICE PER POUND
CAPE DORY	TYPHOON	SLOOP	19	1,900	06	\$4,295	\$2.26

```
!
```

```
!
```

```
! DEFINE REPORT PROCEDURE
```

```
!
```

```
DEFINE PROCEDURE LOA-REPORT
REPORT ON *.FILE
```

```
  SET REPORT-NAME="JIM'S VERY OWN LISTING"/"OF"/"INTERESTING SAILBOATS"/
  "(BY LENGTH)"
```

```
  SET LINES-PAGE=55, COLUMNS-PAGE=72
```

```
  AT TOP OF LOA PRINT LOA("LENGTH")
```

```
  PRINT TYPE, RIG, DISP, BEAM USING Z9 , PRICE
```

```
  AT BOTTOM OF LOA PRINT SKIP, COL 32, "*** AVERAGE ***",
```

```
    AVERAGE DISP, AVERAGE BEAM, AVERAGE PRICE
```

```
  AT BOTTOM OF REPORT PRINT SKIP, "REPORT AVERAGES",
```

```
    AVERAGE DISP, AVERAGE BEAM, AVERAGE PRICE
```

```
  AT BOTTOM OF PAGE PRINT SKIP, COL 20,
```

```
    "***ANOTHER SERVICE OF QUERY ENTERPRISES***"
```

```
REPORT END
```

```
END-PROCEDURE
```

```
!
```

```
! INVOKE REPORT (SUGGEST OUTPUT ON TI:)
```

```
!
```

```
:LOA-REPORT
```

```
Enter FILE: TI:
```

JIM'S VERY OWN LISTING
OF
INTERESTING SAILBOATS
(BY LENGTH)

31-JUL-78
PAGE 1

LENGTH	MANUFACTURER	MODEL	RIG	WEIGHT	BEAM	PRICE
16	WINDPOWER	IMPULSE	SLOOP	650	7	\$3,500
		*** AVERAGE ***		650	07	\$3,500
19	CAPE DORY	TYPHOON	SLOOP	1,900	6	\$4,295
		*** AVERAGE ***		1,900	06	\$4,295
21	VENTURE	21	SLOOP	1,500	7	\$2,823
		*** AVERAGE ***		1,500	07	\$2,823
22	VENTURE	222	SLOOP	2,000	7	\$3,564
		*** AVERAGE ***		2,000	07	\$3,564
24	EASTWARD ISLANDER	H0 BAHAMA	M/S SLOOP	7,000 4,200	9 8	\$15,900 \$6,500
		*** AVERAGE ***		5,600	08	\$11,200
25	IRWIN CAPE DORY SALT	25 25 19	SLOOP SLOOP SLOOP	5,400 4,000 2,600	12 7 7	\$10,950 \$8,995 \$6,590
		*** AVERAGE ***		4,000	08	\$8,845
26	WESTERLY GRAMPIAN AMERICAN TANZER ALBIN AMERICAN	CENTAUR 26 26-MS 26 79 26	SLOOP SLOOP M/S SLOOP SLOOP SLOOP	6,700 5,600 5,500 4,350 4,200 4,000	8 8 8 9 10 8	\$15,245 \$11,495 \$18,895 \$11,750 \$17,900 \$9,895
		*** AVERAGE ***		5,058	08	\$14,196
27	HUNTER ALBIN	27 VEGA	SLOOP SLOOP	6,500 5,070	9 8	\$14,999 \$18,600
		*** AVERAGE ***		5,785	08	\$16,799
28	CAPE DORY SABRE GRAMPIAN TANZER	28 28 28 28	SLOOP SLOOP SLOOP SLOOP	9,000 7,400 6,900 6,800	9 9 10 10	\$21,990 \$22,000 \$14,475 \$17,500

ANOTHER SERVICE OF QUERY ENTERPRISES

JIM'S VERY OWN LISTING
 OF
 INTERESTING SAILBOATS
 (BY LENGTH)

31-JUL-78
 PAGE 2

LENGTH	MANUFACTURER	MODEL	RIG	WEIGHT	BEAM	PRICE
	ISLANDER	28	SLOOP	5,994	10	\$15,908
29		*** AVERAGE ***		7,218	09	\$18,374
	NORTHERN	29	SLOOP	7,250	9	\$20,975
30		*** AVERAGE ***		7,250	09	\$20,975
	IRWIN	30	SLOOP	10,000	10	\$19,950
	HUNTER	30	SLOOP	9,500	10	\$21,500
	GRAMPIAN	30	SLOOP	8,600	9	\$17,775
	ISLANDER	30	SLOOP	8,600	10	\$20,990
	ALBIN	BALLAD	SLOOP	7,276	10	\$27,500
	CLIPPER	CM 30	SLOOP	3,800	8	\$9,500
31		*** AVERAGE ***		7,962	09	\$19,535
	RYDER	S. CROSS	SLOOP	13,600	0	\$32,500
	BOMBAY	CLIPPER	SLOOP	9,400	11	\$23,950
32		*** AVERAGE ***		11,500	05	\$28,225
	WRIGHT	SEAWIND II	SLOOP	14,900	0	\$34,480
	CHALLENGER	32	SLOOP	12,800	11	\$31,835
	O'DAY	32	SLOOP	11,000	0	\$29,500
	BAYFIELD	30/32	SLOOP	9,500	10	\$32,875
	CLIPPER	CM 32	SLOOP	4,500	8	\$12,950
33		*** AVERAGE ***		10,540	05	\$28,328
	GRAMPIAN	34	KETCH	12,000	10	\$29,675
34		*** AVERAGE ***		12,000	10	\$29,675
	GRAMPIAN	2-34	SLOOP	11,800	10	\$29,675
35		*** AVERAGE ***		11,800	10	\$29,675
	CARIBBEAN	35	SLOOP	18,000	11	\$37,850
	CHRIS-CRAF	CARIBBEAN	SLOOP	18,000	11	\$37,850
	CHALLENGER	35	SLOOP	14,800	12	\$39,215
36		*** AVERAGE ***		16,933	11	\$38,305
	I. TRADER	37	KETCH	18,600	12	\$39,500
	ISLANDER	36	SLOOP	13,450	11	\$31,730
		*** AVERAGE ***		16,025	11	\$35,615

ANOTHER SERVICE OF QUERY ENTERPRISES

JIM'S VERY OWN LISTING
OF
INTERESTING SAILBOATS
(BY LENGTH)

31-JUL-78
PAGE 3

LENGTH	MANUFACTURER	MODEL	RIG	WEIGHT	BEAM	PRICE
37	ALBERG	37 MK II	KETCH	20,000	12	\$36,951
	IRWIN	37 MARK II	KETCH	20,000	11	\$36,950
	NORTHERN	37	KETCH	14,000	11	\$50,000
		*** AVERAGE ***		18,000	11	\$41,300
39	LINDSEY	39	M/S	14,500	12	\$35,900
		*** AVERAGE ***		14,500	12	\$35,900
41	CHALLENGER	41	KETCH	26,700	13	\$51,228
	GULFSTAR	41	KETCH	22,000	12	\$41,350
	ISLANDER	FREEMPORT	KETCH	22,000	13	\$54,970
	COLUMBIA	41	SLOOP	20,700	11	\$48,490
	*** AVERAGE ***		22,850	12	\$49,009	
42	OLYMPIC	ADVENTURE	KETCH	24,250	13	\$80,500
		*** AVERAGE ***		24,250	13	\$80,500
REPORT AVERAGES				10,169	09	\$24,843

```

!                "ANOTHER SERVICE OF QUERY ENTERPRISES"
! INVOKE REPORT (SUGGEST OUTPUT ON LP;)
!
!LOA-REPORT
Enter FILE: LP:
!
! RATTLE UPDATE
!
FIND YACHTS WITH BEAM=0
[5 records found]
PRINT ALL

```

MANUFACTURER	MODEL	RIG	LENGTH OVER ALL	WEIGHT	BEAM	PRICE
METALMAST	GALAXY	SLOOP	32	9,500	00	
O'DAY	32	SLOOP	32	11,000	00	\$29,500
RYDER	S. CROSS	SLOOP	31	13,600	00	\$32,500
TA CHIAO	FANTASIA	SLOOP	35	23,200	00	
WRIGHT	SEAWIND II	SLOOP	32	14,900	00	\$34,480

SELECT FIRST;PRINT

MANUFACTURER	MODEL	RIG	LENGTH OVER ALL	WEIGHT	BEAM	PRICE
METALMAST	GALAXY	SLOOP	32	9,500	00	

READY YACHTS MODIFY

!

! RESPOND WITH 47 (OR SOMETHING)

!

MODIFY BEAM

Enter BEAM: 47

PRINT TYPE, BEAM

MANUFACTURER MODEL BEAM

METALMAST GALAXY 47

!

! RESPOND WITH 48 (OR SOMETHING)

!

MODIFY ALL BEAM

Enter BEAM: 48

!

PRINT ALL BEAM

BEAM

48

48

48

48

48

!

! RESPOND EACH TIME WITH 0 (PLEASE)

!

FOR CURRENT PRINT TYPE THEN MODIFY BEAM

MANUFACTURER MODEL

METALMAST GALAXY

Enter BEAM: 0

O'DAY 32

Enter BEAM: 0

RYDER S. CROSS

Enter BEAM: 0

TA CHIAO FANTASIA

Enter BEAM: 0

WRIGHT SEAWIND II

Enter BEAM: 0

READY YACHTS READ

PRINT ALL

MANUFACTURER	MODEL	RIG	LENGTH OVER ALL	WEIGHT	BEAM	PRICE
METALMAST	GALAXY	SLOOP	32	9,500	00	
O'DAY	32	SLOOP	32	11,000	00	\$29,500
RYDER	S. CROSS	SLOOP	31	13,600	00	\$32,500
TA CHIAO	FANTASIA	SLOOP	35	23,200	00	
WRIGHT	SEAWIND II	SLOOP	32	14,900	00	\$34,480

!

! CHECK MULTIPLE COLLECTIONS AND STATISTICAL FUNCTIONS

!

FIND SMALLS IN YACHTS WITH LOA<24 AND PRICE NE 0

[4 records found]

```

!
FIND BIGGIES IN YACHTS WITH LOA>40 AND PRICE NE 0
[5 records found]
!
SHOW COLLECTIONS
Collections:
    BIGGIES (also CURRENT)
    SMALLS
!
PRINT AVERAGE DISP
WEIGHT
23,130
!
PRINT MAX DISP
WEIGHT
26,700
!
PRINT AVERAGE PRICE OF BIGGIES,AVERAGE PRICE OF SMALLS
PRICE PRICE
$55,307 $3,545

```

```

!
SORT SMALLS BY LOA,DISP
SORT BIGGIES BY LOA,DISP
SELECT FIRST SMALLS
SELECT LAST BIGGIES
PRINT SMALLS.BOAT,SKIP,BIGGIES.BOAT

```

MANUFACTURER	MODEL	RIG	LENGTH	WEIGHT	BEAM	PRICE
			OVER			
			ALL			
WINDPOWER	IMPULSE	SLOOP	16	650	07	\$3,500
OLYMPIC	ADVENTURE	KETCH	42	24,250	13	\$80,500

```

!
! FINAL GALA TEST!
!
PRINT YACHTS WITH LOA EQ MAX LOA OF YACHTS

```

MANUFACTURER	MODEL	RIG	LENGTH	WEIGHT	BEAM	PRICE
			OVER			
			ALL			
OLYMPIC	ADVENTURE	KETCH	42	24,250	13	\$80,500
PEARSON	419	KETCH	42	21,000	13	

```

!
! END OF QUERY/REPORT WRITER TEST
!

```

READER'S COMMENTS

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Did you find errors in this manual? If so, specify the error and the page number.

Please indicate the type of user/reader that you most nearly represent.

- Assembly language programmer
- Higher-level language programmer
- Occasional programmer (experienced)
- User with little programming experience
- Student programmer
- Other (please specify) _____

Name _____ Date _____

Organization _____

Street _____

City _____ State _____ Zip Code _____
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