TRMS®

Total Report Management Solution

Release 6.0A

For MVS and VSE

Administrators Guide

Batch Support Manual

This manual applies to Release 6.0A of the TRMS® product for **MVS** and **VSE** versions. It replaces all previous releases of documentation for TRMS in their entirety.

Additional documentation supporting this release:

TRMS Administrator's Online Interface Guide
TRMS System Programmer & Installation Guide
TRMS User's Guide
TRMS Messages & Codes Manual
TRMS Management Introduction

TABLE OF CONTENTS

FIGURES

TRMS System Requirements

Hardware/Software Requirements

* Runs on all IBM supported levels of OS/390 and Z/OS using JES2 or JES3.
* Runs with any current level of ISPF that supports 31 Bit addressing.
* May be added as an option to the ISPF Primary Menu.
* Runs under ACF/VTAM Version 4.1 and higher.
* Supports SNA and non-SNA 3270-type terminals, including IBM 3278 Model 2, Model 4, Model 5, IBM 3279, and the IBM 3290 in native mode plus all the other sizes supported by 3290s.
* Runs with any PC that has 3270 terminal emulation.
* Runs with ROSCOE level 6.0 or higher using Version 2 EPL parameters
* Supports VCSI Release 2.1B or higher
* IBM based SMTP Processor required for email processing from TRMS..

Output Media Considerations

* **TRMS** supports all JES printers.
* **TRMS** supports microfiche processors.
* **TRMS** supports VTAM Print facility release 3.1A or higher.

Software Compatibility

* **TRMS** is compatible with TNET 2.2B.
* **TRMS** is compatible with TRMS NET/WEB 2.2.1.

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What's New With TRMS® Release T6.0A

This is an overview of the major enhancements provided in release 6.0A of TRMS®

Starting with the Logon panel, TRMS 6.0A is a new era in Report Management as SEA moves towards a global repository. The TRMS user interface has been revised in almost every aspect and designed to integrate with TRMS/NET beginning with Release 2.2A.

Generic Changes

TRMS has changed to allow clients more flexibility, more capability and more power as they manage their report database.   The changes to the general appearance of TRMS are seen as soon as one reaches the Primary Menu. Here the user is shown up to 13 separate functions, dependent on their security profile. Many Information Items that were formerly displayed on this menu are now on the action bar under User/Site information.

On the Primary Menu, CALENDARS is now a separate function. Globals has changed to INTERNALS. Security is no longer on the Primary Menu, but is a maintenance choice under Recipients. New to the Primary Menu are EXTERNALS, ACTION LISTS, QUERY RULES and UTILITIES. Many features previously found under reports or distributions now reside in these new functions. This new organization will allow users to reduce the time required for TRMS system maintenance. For example, a new printer would require changes to the SYSOUT EXTERNAL and not all the maildrop definitions using that printer.

There are two new distribution types (now called Output Media), 'EMAIL' and 'TRMSWEB'. 'EMAIL distributes the report text as a SMTP data stream using an IBM based SMTP task. TRMSWEB distributions produce an e-mail with an embedded URL which will direct the user to TRMSWEB to view a report.

The "TAPE" distribution type is now 'DSN' as T6.0A supports take and DASD distribution including SMS.

Users may now receive e-mail notifications from the accumulator for 'view' and "TRMSWEB' distributions or from the bundle job for other distribution types when their reports are completed.

Note Feature

Also new in TRMS 6.0A is the STICKY NOTES feature. Notes may be placed on almost every panel or on any report in the database. Notes may be public, private or accessed by access list only.

Navigational Changes

A number of POWER-USER features have been incorporated into TRMS 6.0A. Users can now navigate TRMS using either function codes or function numbers. This means that 4.2 will still take you to the directory panel for recipients, or that 4.3 will take you to define a new recipient. Now you may also enter: 'RCP.DEF TRMSDFLT PRIMUSER' from any function panel and go directly to the ReCiPient DEFine panel with the model information from TRMSDFLT loaded and the new name PRIMUSER also pre-filled. These function codes are also language independent.

Another new feature is that TRMS 6.0A supports double mouse click and cursor Location/Enter for terminal emulators with these features.

Help Changes

Another new feature is the way you may access help. The user now allows five ways to access help:
  1. You may press the Help PF key with the cursor on the command line and go to help for this panel, or enter 'Help' on the command line.
  2. You may open the pull down menu and select help by topic or field.
  3. You may place the cursor on a field and press the Help PF key . This will take them directly to the help for this field.
The last two ways are under Help Maintenance under the INTERNALS function from the Primary Menu.
  4. The user may view 'Filters' for Help and search the 'Description' field. Then by entering a value, TRMS will search the Help Directory marked against the description field. This, in essence, equates to a glossary for TRMs help.
  5. Finally, administrators may create Site Help.

TRMS also allows the client to copy help panels and translate them into their own language. Help may be altered to fit their site and be added to in a way that will clarify and enhance TRMS provided HELP.

TRMS Help can be loaded via the Batch Program TRMUHLPD

Language Changes

TRMS now is capable of simultaneously running in 10 different languages at one site. Each user selects his language by setting his LANG= parameter in the Environment area. The ISPF or VCSI session for TRMS will be displayed in the selected language (dependant on site ISPF code page setup). The language of the report data stored is still the responsibility of the client and is NOT TRANSLATED by TRMS.

This release is primarily devoted to European-based languages. Once the system is established, one user could access TRMS in English, while in the next office, their co-worker, is working in Spanish and in the next office, a third worker is working in French. The goal for T6.0A was to have 90%+ of the online interface language independent. This means that the labels for panel variables, messages, help and directory headers may all be seen in the selected language. This possibility is based on availability of the tables for your particular language. The language displayed is based on the language selected macro(TRMSEA00) LANG= PARAMETER. **NOTE:** SEA is searching for clients interested in contributing to translating language tables into new languages. Contact technical support for the availability of Non-English language tables.

Double character set languages are not supported in T6.0A.

The client is responsible for having the desired pageset in ISPF or for your selected 3270 emulator.

Also, all Batch Reports produced by TRMS modules may be produced in the language indicated in the Lang Parameter.

TRMS does not translate reports produced by client programs.

Global Tables

To provide quick and easy access to the new Help Table and LANGUAGE Tables, the associated Help and Language tables are loaded to ECSA, subpool 241. TRMS allows the administrator to manage how the language tables are grouped together into a global table. Multiple global tables can be loaded, deleted and displayed at the administrator's discretion. This feature reduces system requirements and increases TRMS speed of processing.

Panel Changes

TRMS now has action bars and pull down menus on each panel. Almost every panel has been reworked to enhance the client's ease in using TRMS. Each panel allows users to use the action bar to move from function to function, to access help, to validate the current status of a record, to create or view sticky notes for a report or panel.

Many panels have either 'MORE' or directional pointers '<+->' to indicate to the user that more data may be available by scrolling. Also many panels now support use of generic entries, (Component Select), such as 'T*' entered in a field, to allow the user to select from available entries to complete a definition. Once a user has decided to select from a directory, they may view, model or select an entry. Model allows you to create a new entry and select it dynamically.

The top right corner of TRMS panels is designed to give detailed information on access path and current function. This facilitates the support from SEA to allow them to 'zoom in' should you have a problem or a question.

'Component View' is another new feature in TRMS that allows you to view a subordinate component directly from a panel without having to go to that component to see the full definition. Fields that are marked with ':>' rather than ':' indicate component view is available for that item. Any selectable field also allow Component View.

TRMS User Interface

The new simplified report definition and distribution definition will allow you to add and makes changes faster to TRMS definitions. Most functions are now completed in two panels. Many fields have been moved to the new EXTERNALS, ACTION LISTS and QUERY LISTS functions. This allows dynamic access and multiple usages of many fields that were redundant in prior releases of TRMS. The administrator decides whether to predefine components or define them 'on the fly'.

TRMS is shipped with safeguards that WILL NOT allow definitions that name reports and recipients to be defined unless the named report and recipient exist. There are customizations to reverse this feature. See TRMS Install Lib Member TRMSC06 and TRMSC172.

EXTERNALS are the grouping of items that are external to TRMS. Dataset, Sysout, DJDE inserts, TRMS inserts, Job Info (formerly 'Extended Report ID') and external addresses are now defined under Externals. This means that a dataset or sysout definition may be defined once and used by multiple reports or distributions.

ACTION LISTS are lists that TRMS acts upon to manage report distributions. Currently defined are Access Lists, Requirements Lists, Distribution Lists (formerly PATHS) and Definition Alias Lists. Definition Alias Lists are used to log changes via the new rename feature and are View Only in this release.

QUERY RULES are definitions that TRMS uses to control report results. Currently defined are 'Break On Change', Indices, and PARTIAL Lists.

UTILITIES contain MASS CHANGE, DATABASE UTILIZATION, DEFINITION ANALYSIS, COMBINE DISTRIBUTION CRITERIA and RRDS WARNING SETTINGS. Mass Change now allows saving an audit that records were changed/moved along with supporting information. Database utilization shows record counts for the KSDS. This information may be forwarded to SEA for support purposes. Definition Analysis allows administrators to view all relationships for a given distribution to verify integrity.

Filtering has been expanded in TRMS T6.0A. A user may activate a filter to reduce the size of the directory to be displayed. Any DIRECTORY HEADER field that you can SORT can be used as a FILTER. For example, you request only the recipients with PHONE area code '202'. Filtering uses a generic search that uses the first non-blank data in the field selected. Site Administrators may also limit the maximum size of directories, thus enforcing a more disciplined approach to TRMS use of system resources.

None of the "What's New" items above (Generic Changes, Language Changes, Global Tables, Panel Changes, or the User Interface) apply to TRMS CICS.

Batch Process

Most Batch jobs now feature a "LANG(language ID)" parameter that allows the corresponding TRMS report to print its' files and columnar headings in the selected language using the language global tables.

The KSDS file conversion process converts 5.1A definitions to 6.0A format and copies active report and history records, data records are not moved. The TRMS 5.1A level RRDSes are upward compatible after the conversion is run. The same RRDSes are used by 6.0A with the same DSnames.

TRMSWEB, E-mail notification and distributions to DASD are now available in batch bundle.

TRMS Database Import/Export are batch administration functions which allows an administrator to input definitions in a batch format. Export allows definitions to be exported in a format that can be edited with ISPF and then reloaded to the database. (Export Feature is a separately licensed Option).

Logical Split 5.1A is an optional part of the conversion used to remove orphan records or split the database before converting.

5.1A Databases may be split before being converted to the new T60A format. Logical Split extracts a subset of an existing TRMS database by Distribution name. All records related to the Distribution are copied to another database yielding a fully functional TRMS 5.1A database that can be converted to the 6.0A database format.

The 5.1A mid-release programs TRMS Dead Block Recovery and Forward Merge have been added to TRMS 6.0A.

TRMS now supports batch job accumulation from sources other than JES.

With the new Batch accumulation, a step of a production job can be a TRMS program that can process from tape or DASD one or more reports into a TRMS database. Each report must be a separate file.

The Batch Accumulation Program can also rebreak a report that currently resides in a TRMS database. This will re-establish a recipients boundaries within a report according to the current definitions.

System Introduction

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System Introduction

System Overview

This overview is designed to give the administrators and users a brief description of TRMS®.

What is TRMS®?

The Total Report Management Solution, or TRMS (pronounced "trims"), is a powerful and flexible report distribution and management system. TRMS completely automates report management and distribution. TRMS offers control over the bundling, distribution, on-screen viewing, archival, and printing of critical production reports and listings. With TRMS it is possible to trigger, break, bundle, and distribute a high volume of output and monitor report distribution.

Because TRMS has extensive user-defined options, the ability exists to distribute and retrieve reports throughout the mainframe environment easily, efficiently, and effectively, and still maintain a strict level of security. TRMS offers the flexibility to change the **distribution** as requirements change, including distributing reports to SMTP and the Internet. In addition, TRMS automatically and reliably tracks report distribution functions.

Rather than printing every report in the job stream for manual distribution, TRMS captures all reports assigned to its accumulation class(es) from JES (both JES2 and JES3) or POWER and stores each report, as a report image, in the TRMS dynamically reusable VSAM database. It then distributes reports, or selected portions of reports, based on sophisticated hierarchical user-defined criteria. However, irrespective of how the distribution is subdivided, only one copy of the report resides in the database.

As a TRMS Administrator, consider TRMS as being divided into three major areas;

1) The full **Online User Interface** - allows for the definition, maintenance and review of the TRMS database,

2) The **Report Accumulator(s)** - one or more STC's that run continuously. The accumulator interrogates JES or POWER to intercept or retrieve and store the reports you have defined.

3) The **Batch Support Programs -** supports programs including archiving, bundling, restoring and reporting.

As a <u>TRMS User</u>, consider of TRMS as having two parts:

1) **the accumulator** that builds the report database and

2) **the browse element of the online interface** that allows you to access and review the database.

At SEA, we are concerned with both the speed and power of the accumulator as well as the ease of use and versatility of the online interface.

In summary, TRMS provides a time proven, cost-effective solution to the vital process of report management.

<u>**Introduction to TRMS**</u>

Minimum Support Staff Requirements

In the organization where TRMS will be installed and maintained, there should be a **minimum of 2** key people assigned to support the product. The <u>Technical Support </u>(TS) Representative, usually an MVS Systems Programmer, responsible for the initial setup of TRMS Jobs and JCL as well as technical communications with SEA and support of the software; and the <u>TRMS Administrator </u>(TA), usually a member of the Production/Data Control group, responsible for printing, breakdown and delivery of user reports, creating and maintaining TRMS definitions, becoming a resource to other TRMS Administrators and TRMS Users.

It is crucial that these staff members understand the concepts below before getting involved with the project. It is recommended that the Administrator have at least 1 backup staff member, to 'carry the ball' if the main Administrator is unavailable for any reason.

Concepts

Traditionally, MVS legacy batch job generates report output to the JES Spool Output Queue. Once the job completes execution (or continues to a successive step and 'frees' report output to JES Spool), it's printed on the LOCAL printer, then prepared for delivery to the User. This simple concept needs to be understood before attempting to understand how TRMS fits into this picture.
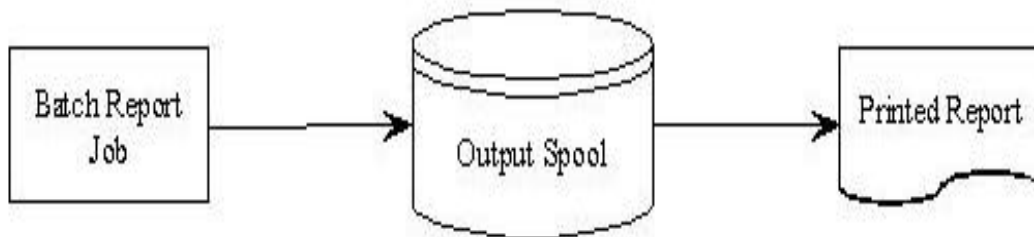
Figure 1 Traditional Report Concept

The TRMS System
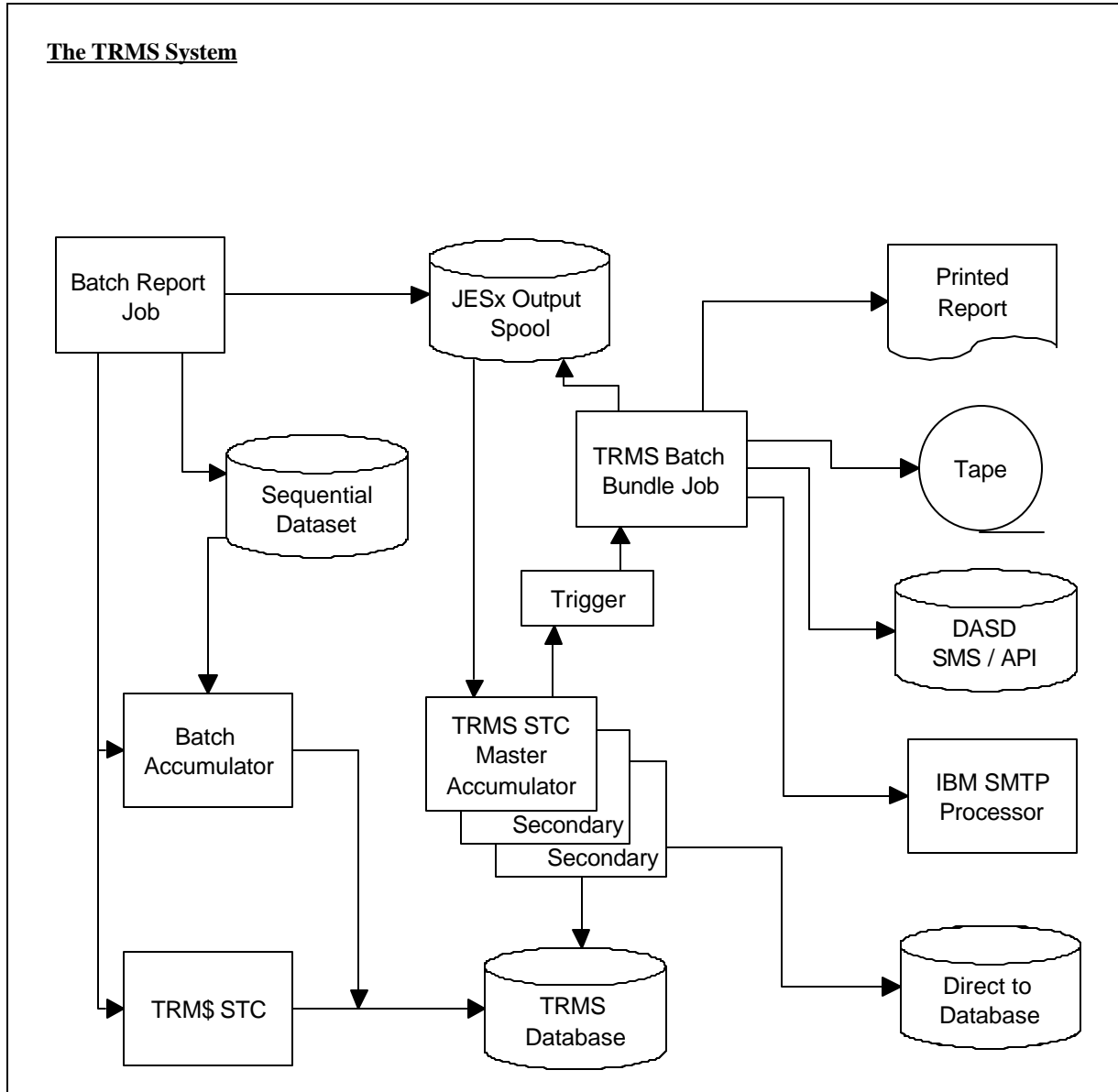
Figure 2   The TRMS System

TRMS Basic Operation

The diagram above shows the flow of TRMS' basic operation, which is explained below in five separate phases.

Batch Report Job generates the report to an output class reserved for TRMS accumulation from *Output Spool*

Any of the TRMS Batch Accumulator, *TRMS started task (STC)*, or TRM$ Sybsystem may be used to accumulate the report from an *Output Spool* and transfers it to the *TRMS Database*

TRMS started task triggers (submits) the *TRMS Batch Bundle Job*

TRMS Batch Bundle Job extracts the report from the *TRMS Database* and places it into the *Output Spool* for printing

Report viewing is available after a report is accumulated into the database. It can be viewed from a terminal while it is waiting to be printed, sent as E-MAIL, stored on DISK, TAPE, or MICROFICHE.

Distribution of Reports

Additionally, it is important to understand the multiple functions of report distribution. There are five (5) basic questions that must be answered before distribution can be accomplished, and that we call the WHO-WHAT-WHEN-WHERE-HOW Scenario.

WHO gets the report ?
WHAT report is being delivered ?
WHEN is the report created ?
WHERE is the user located ?
HOW is the report to be prepared for delivery ? (or, what are the breakdown instructions?)

The following is a cross reference to help understand the TRMS perspective of the **WHO-WHAT-WHEN-WHERE-HOW** Scenario. Keeping this cross reference in mind will enhance understanding and maintaining the TRMS' environment.

WHO - - - - - - - - - - - - - - RECIPIENT
WHAT - - - - - - - - - - - - - REPORT
WHEN - - - - - - - - - - - - - TRIGGER
WHERE - - - - - - - - - - - - MAILDROP
HOW - - - - - - - - - - - - - - DISTRIBUTION

The five scenarios above are supplemented by the sub scenarios below:

LIMITED TO/BY-------------ACTION LISTS
ONLY IF/WHEN-------------QUERY RULES
SPECIAL VALUES-----------EXTERNALS

TRMS' CAPABILITIES

I Online Interface:

!   Creation of a distribution database consisting of user-defined criteria to **trigger**, **break**, **bundle**, and **distribute** reports to selected users and locations.

!   Administer and control access to all reports using passwords, multiple levels of security, (internal or external security products), and data encryption.

!   Browse and view on-screen a complete report, subsections of a report, selected pages, or lines.

!   Define and refer to **recipients** and reports using short or long identification names, and refer to them using generic search criteria such as common destinations and departments.

!   Monitor distribution of all reports online and Browse the inventory logs for each bundle's point of delivery.

!   TRMS has extensive internal security. Multiple levels of security help control the flow of information. All users are associated with Security Group names, which control access to reports. For **MVS**, TRMS also interfaces to external data security packages such as RACF, ACF2, and TOP-SECRET. This interface permits total access control of all TRMS resources using the data security package of the installation.

!   Flexibility. TRMS is designed for the real world of data processing, where things change constantly. TRMS allows total flexibility along all lines of report management. The capability exists to produce, in any combination, multiple versions of reports and create any combination of distributions.

II. Accumulation

! Capture any reports from production or test job streams.

! Store reports, as report images, in a dynamically reusable VSAM database created and maintained by TRMS. TRMS compresses all data for efficient use of system resources.

! Trigger reports for distribution based on time of day, date, day of week, a holiday calendar, whether or not other reports have accumulated, and elapsed time since the first report starts a bundle.

! Distribute reports for online browsing, on paper, tape, DASD, as email or microfiche.

! Store reports online in the TRMS database for a user-specified period of time, or for a number of cycles, definable at the Report level.

! Efficient use of system resources. Take effective control over what is stored in the system, where it is stored, and how long it is stored. TRMS fully compresses all reports in its dynamically reusable VSAM database, using state-of-the-art techniques. There is never more than one copy of a report stored in the TRMS database at one time, regardless of how the report is broken down or duplicated for distribution.

! Archive any reports to Tape, Disk, SMS, Optical or other devices that support BSAM or OAM, and easily restore any archived report to the TRMS database.

! Record the distribution of all reports online and with printed reports.

The Interactive Interface of TRMS

TRMS runs under ISPF, VTAM (using VCSI - VTAM Common System Interface), CICS Version 3.0 only or CICS using VCSI, native TSO or ROSCOE ETSO. For **VSE**, TRMS runs under VTAM using VCSI (VTAM Common System Interface) and CICS.

The interactive interface of TRMS begins with the TRMS Primary Option Menu. The TRMS Primary Option Menu offers selection of the various functions of TRMS. The full menu has the following options:

```
 User/Site  Whats-New   Help                 Licensed to:
------------------------------------------ S. E. A. TEST SYSTEM  --
            TRMS Primary Option Menu        FNTVXHSY SS(R) DEST(R987) EA(MB
COMMAND ===>                                ACTIVITY : GEN-PRIM  / 6.0A-00

 OPT  FUN                                    DATE INPUT ORDER:  ===> MDY
 NBR  COD  FUNCTION        FUNCTION DESCRIPTION
 ---  ---  --------------  ------------------------------------------------
   1  ADM  ADMINISTRATION  Tracking Functions    * Reports / Archive
   2  BRW  BROWSE          View Your Reports      * TRMS DB Browse
   3  MLD  MAILDROP        Define Destinations    * Output Locations
   4  RCP  RECIPIENT       Define Users           * Users, Password Maint.
   5  RPT  REPORT          Define Actual Reports  * Application Print
   6  TRG  TRIGGER         Define Schedules       * Triggers
   7  DST  DISTRIBUTION    Define Report Segments *
   8  ITR  INTERNAL        Set System Values      * 12 Globals Types
   9  ACL  ACTION LIST     Define Action Lists    * Paths, Req, Access, Alias
  10  CAL  CALENDAR        Define Schedules       * Calendars
  11  EXC  EXTERNAL        Define External Control* DJDE, Files, SYS, Attr
  12  UTL  UTILITIES       Mass Change / Others   * DB Utilization
  13  QRL  QUERY RULE      Sub-division logic     * BOC, index, Partial

     Press END PF-KEY or Enter X to exit TRMS                          |<-
```

Figure 3 TRMS Primary Menu Panel

TRMS is completely menu-driven. Users are offered different choices on the screen for each function of TRMS according to their Authorization Levels.

When a USERID is defined, they are assigned various authorization levels. These authorization levels determine which functions the user can invoke. The menu is dynamically constructed so that each user is presented only the functions for which they have security access (as defined in the recipient definition).

Online context-sensitive help is available for every function. The tutorials display only that information which matches the signed-on user's level of authorization. Thus, a manager responsible for making administrative changes in TRMS has online help and menu choices for administrative functions, while a user who is only allowed to browse and print certain reports only sees help and menu choices for features needed.

Generic search capability (fields using shared characters at the beginning of a string) makes it easier and much more efficient to locate reports or information. Optional Logon screen shown below.

```
Help                                        Licensed to:
----------------------------------------    S. E. A. TEST SYSTEM   --
           TRMS Signon Panel                FNTVXHSY SS(R) DEST(R987) EA(MB
COMMAND ===>                                ACTIVITY ; GEN-LOGN  / 6.0A-00


     T  -  TOTAL
     R  -    REPORT
     M  -      MANAGEMENT
     S  -        SOLUTION


------------------------------------------------------------------------*
    Please enter TRMS SIGNON ID and PASSWORD

       SIGNON ID            ===> C105P         Enter TRMS User ID

       PASSWORD             ===>               Enter Current Password

       NEW PASSWORD         ===>               Enter New Password
                                               (to alter current password)
       VALIDATE NEW PASSWORD ===>              Repeat New Password
------------------------------------------------------------------------*
 LICENSED BY SEA INC., 1230 HEMPSTEAD TURNPIKE,  FRANKLIN SQUARE, N.Y.
 PHONE  (516) 328-7000                           TRMS (C) 1987, 1998, 2004
```

Figure 4 TRMS Signon Panel

The Browse Function

The following paragraphs briefly describe the browse function.

The browse function allows the end user to view a report online, directly from the TRMS VSAM database, from an Archive File, or Optical Storage. Browse is a fully functional, ultra-high-speed interface which has a very low level of system overhead. Therefore, resource consumption is kept to a minimum. Users must have the correct authorization level to browse a report image.

A directory can be constructed according to selection criteria (by the short Report ID, or a longer descriptive report name, particular dates, times, or bundle cycle) that provides a refined list of only the reports that are of interest to a user.

Reports are available for browsing only if they are defined as distributions by the Administrator when TRMS is set up. Users can only browse Distributions that are defined to them in the Distribution Definition area. The user's browse directory includes only eligible reports. However, by assigning multiple users the same Security Group Name, each can browse and subsequently demand print the other's distribution.

The TRMS Browse Component has full navigational scrolling of a report. When browsing, the Lock feature allows the specification of columns of a report to be locked while continuing to scroll left or right. The browse feature also gives the end user the capability to demand print a completed distribution or only selected pages.

The TRMS Browse Report Directory screen shows a *numbered* list of reports available for browsing. It displays the name of the report, the Group ID name, the Distribution ID, the User ID, the date and time the report was accumulated, the number of lines and pages, the Job Name, Job Number, the Bundle Cycle Number, and the Distribution Long Name. From the list, the user selects the particular report to browse. The selection can be performed by either entering the *number* of a desired directory entry on the command line and press <ENTER> or by placing an "s" next to the desired entry and pressing <ENTER>.

The LOCATE command allows the user to position the directory display to a specific line or report name.

From the Browse Directory, a chosen report or section of a report can be easily printed. Distribution can be selected for detail viewing, the bundling of reports for printing, or deletion of reports from the database (with proper authorization).

When an index has been defined for a report, the directory has an Action indicator that shows the user that, rather than enter the browse display at the top of the report, the index can be displayed, and from the index the user can select an index. Browsing begins at the place in the report where the indexed data begins. The index can be from one to three tiers or by monitoring more than one location to construct each tier. Demand Print allows Sysout/Syslst attributes to be changed from those originally defined in TRMS. This gives the authorized user a great deal of flexibility in actually printing the reports. For example, at times a hard copy of the report is needed, at other times only a few pages are needed and frequently the report needs only to be viewed online.

TRMS Window Facility

The TRMS Browse Function includes the TRMS Windowing facility which allows report data to be reformatted for online display and printing. The user can:

> **!**   cause one or more lines from the top lines of a page to be held at the top of the screen while the body of the report is scrolled,
> **!**   change the order of the header lines,
> **!**   delete header lines,
> **!**   or insert custom header lines,
> **!**   rearrange the column headers and the associated columns of data.

Data within individual header lines can be reordered, deleted, or highlighted.

Within the body of the report, data can be divided into column segments. The order of columns can be changed and individual columns can be deleted, blanked out, or highlighted.

The report and its distributions stay in the TRMS VSAM database for the length of time defined by the Administrator, according to the standards and resources of the site. Reports are kept for a specific number of days or for a specific number of cycles.

Archive Browse is a separately licensed optional component of TRMS that enables authorized users to directly Browse and demand bundle Archived Reports without restoring them to the TRMS data base. Reports can be viewed with this component that are archived to all types of tape, DASD and OPTICAL devices.

Maildrops (Where)

The general distribution category under which TRMS groups reports is the maildrop. Like a mail station in the company, a maildrop is made up of a group of recipients in one location. For example, a maildrop could be Building Three, The Management and Budget Office, or Program Development, etc.

Information about the maildrop can be placed on the separator pages, if desired. The maildrop definition can contain a Coordinator's name and telephone number (which can appear on the report distribution cover page), indicating a person who is generally responsible for receiving reports at a location.

An Inventory List of reports or manifest can be sent with each bundle of hardcopy reports to each maildrop. The Consolidated Inventory Report can be routed to TRMS, and is then available online.

The Maildrop Management menu allows the display of a directory of maildrops, and the ability to choose a target maildrop for display, update, or deletion.

Recipients (Who)

Recipients, or users, are the end-users of the reports. Each recipient is defined with a TRMS USERID, or short name, of up to eight characters. The recipient record contains a longer descriptive name of the user (up to 32 characters). When a recipient is defined, the authorization levels, security group, and administrative authority are specified.

Other information defined at the recipient level include the recipient password, maildrop ID, priority, and accounting data. There are also three 40-character fields for Recipient Comments/Description, which can appear on the distribution cover page.

At each maildrop an order of priority can be established for all recipients. Within each recipient, distributions can be designated with priority. Therefore, if a recipient is interested in receiving a certain distribution of a report before other distributions, it can be ordered to the top of the recipient's bundle.

TRMS has extensive built-in security features. Multiple levels of security are provided. Users are allowed to view reports for which they have authorization. Security levels are hierarchal and are defined at the recipient/user level by an authorized Administrator.

The different functions of Administration, Browse, Maildrops, Recipients, Reports, Triggers, Distributions, Internals, Calendars, Externals, Utilities, Actions Lists and Query Rules can be assigned to users depending on the specific needs of the user being defined. This allows users to define, view, update, or delete TRMS functions, as controlled by the Administrator.

TRMS can require a recipient to sign on with the Recipient ID and a password. An Administrator can change passwords. Customized sign-on procedures can be specified.

A Security Group is assigned to each recipient. TRMS automatically associates distributions to recipients using that Security Group. Recipients with the same security group name can browse the same reports.

Users with common security groups can access all distributions for other users that have common security groups. For example, a user with a Security Group AB** can browse all reports with security group assignments that are four characters long and begin with AB.

For **MVS**, TRMS also interfaces to external data security packages such as RACF, ACF2, and TOP-SECRET. This interface permits total access control of all TRMS resources using the installation's data security package. External security can be the only determination to permit or deny a user's access to a report or a resource.

The TRMS encryption option is available at the individual report level. Sensitive reports that are encrypted will be encrypted in the database and on the archive files. All TRMS TNET user passwords are encrypted in the database.

Report Definition   (What)

In order for TRMS to manage a particular report, that report must first be defined to TRMS. The Report Definition identifies the report ID to the system, and defines the database retention period for that report. There is also a feature which allows the option of encrypting a report in the database. A variety of system information is specified here for TRMS.

If an entry has been added, deleted, used as a model, or selected for display, the Report Directory Display will reflect this action with a message and a character in the action field, until the directory is exited.

The Distribute and Delete feature allows for the deletion of a report from the database after all distributions are completed without having to wait until the archive is run.

Triggers (When)

Triggers are the defined events which allow TRMS to automatically distribute and bundle reports. Trigger events can be:

- **!**   Time of day
- **!**   Date
- **!**   Days of the week
- **!**   Holiday calendar
- **!**   Elapsed time
- **!**   Other Reports accumulated that are defined as required
             to be contained in a specific bundle

When a specified trigger is satisfied, TRMS disburses the distributions associated with that trigger. For example, a manager gets a summary report every Monday at 9 a.m. On Monday at 9 a.m. this summary report is automatically bundled if it has been accumulated.

Distributions   (How)

A report can be distributed to a Recipient in six ways:

- **!**   As a printed copy
- **!**   On magnetic tape
- **!**   Made available online to browse in the TRMS database
- **!**   DASD
- **!**   Email
- **!**   Microfiche

Each report can be printed in its entirety for one or more users, or broken down by specific sections, pages, or occurrences of text. TRMS uses specific start and end criteria to define which portions of a report to distribute. Every page of a report does not have to be distributed or printed.

Distributions can be directed to a dataset in **MVS** or tape, bypassing the TRMS database. This allows for the offloading of a large report. For example, a voluminous report is required for the records. This report is rarely referred to and would use several boxes of paper if printed. With TRMS, this report can be distributed directly to tape.

Microfiche management is available at the Distribution Definition of a report.

Any report can be subdivided/distributed in many ways. The entire report as well as specific sections can be sent to any number of designated users. For example, a manager interested in only receiving a specific portion of a report can be defined as one who receives only that portion of the report.   Another user, however, who needs the complete report can be defined to receive the entire report, and so on.

The "Distribute When Collected" feature allows for the bundling of a distribution as soon as it is captured by TRMS. The bundle request is then submitted to JES/POWER. This is not recommended for the typical distribution of reports. This feature is intended for urgently needed reports, a very important portion of a report, or to appease a VIP.

Calendars

Calendars is the function which manages Event calendars. These calendars are used by triggers to control processing on a daily basis. The Calendars are used to exclude or not perform a process on the designated days within each of the 12 months of the year.

Externals (Special Values)

Externals is the function in TRMS that refers to all of these special values that are EXTERNAL to TRMS. This currently includes the following definitions:

SYSOUT parameters	- SYSOUT / SYSLST control parameters
DSN parameters	- Dataset definition parameters
DJDE insert parameters	- Xerox printer inserts
TRMS insert parameters	- Generic TRMS inserts
Job ID parameters	- **formerly** called extended ID's (In Reports)
	- Alias for report by JCL definition
External Address parameters	- URL and email information

Action List   (Limited To/By)

Action List is the TRMS function that refers to lists of items that TRMS will take some action on. It Limits/Controls the Distribution of your report. This currently includes the following definitions:

Distribution Lists	- **formerly** Paths (In distributions)
	- BOC arguments and associated recipients
Requirements Lists	- **formerly** Report Requirements (In Triggers)
	- All items required before the trigger acts
Alias Lists	- Reverse pointers for rename
Access Lists	- **formerly** limited definitions (In Reports)
	- lists of recipients allowed access to associated item

Query Rules   (Only If/When)

Query Rules is the TRMS function that refers to items that control processing in TRMS, by limiting the Distribution to Only/If a condition(s) is true or when a condition(s) occurs. This currently includes the following definitions:

BOC	- Break on change rules for a distribution
Partial	- **formerly** Standard,
	- selection rules for a distribution
Index	- **formerly** in reports, dynamic indices to report

TRMS Bundling

Reports are distributed or bundled according to defined events called **triggers**. When a trigger is satisfied, TRMS distributes the reports in the designated medium. This medium can be Fiche, Email, Sysout/Syslst, Tape, DASD, or Online. Where, to whom, and in what medium the report is distributed are all predefined and readily modified (by an authorized Administrator). Reports that are defined only to be viewed online can be accessed immediately after they are accumulated. TRMS Email requires a host level SMTP processor.

When all of the events which satisfy a trigger have occurred, TRMS is ready to distribute reports, bundling them by medium designation (hardcopy, tape, or microfiche).

Within each bundle, maildrops are processed in alphabetical order. Within each maildrop, recipients are ordered by Recipient priority. For each recipient, reports

are grouped in order of the distribution's priority. When the priorities are the same, the order is alphabetical for that entry.

The bundles are then printed at the designated destinations or sent to tape, DASD or e-mailed. For hardcopy, the bundled group of reports is printed.

TRMS creates an Inventory Report for each bundle, which can be sent to each **maildrop** and stored online for reference. TRMS creates separator and banner pages, which can display maildrop, recipient, report, and distribution information. Reports or sections of reports can be easily separated and distributed to the users. A consolidated Inventory Report can be created for all maildrops bundled, thus providing centralized monitoring of all bundles.

TRM$ Subsystem   (Supplemental Accumulator) MVS Only

The optional TRM$ Supplemental accumulator is supplied to assist MVS client sites. The use of a Pre-JES accumulator allows sites to realize significant reduction in processing. The recommended usage is:

- High Volume reports
- Peak Period Processing.

TRM$ intercepts reports before JES2 writes the reports to the spool file. This eliminates double spooling of Sysout data, and makes reports available for browsing or bundling as soon as their creating job has completed execution.

> **!**   TRM$ runs as an **MVS** subsystem and is controlled by operator commands.

> **!**   TRM$ has no permanent hooks into the Operating System and can be started and stopped at will. TRM$ does not introduce new SVC's, making installation very simple and allowing for complete removal of TRM$ from the system whenever required.

> **!**   The installation of TRM$ does not require an IPL.

> **!**   TRM$ intercepts Sysout datasets only. It does not interfere with non-sysout file opens.

> **!**   TRM$ is multi-threaded so it can accumulate many reports concurrently.

> **!**   TRM$ selectively accumulates reports from the Sysout class(es) that it is directed to monitor. If a report is routed to a TRM$ Sysout class, the report must be defined in the TRMS database for TRM$ to intercept it. If the report is not defined, it is not intercepted, but is allowed to continue to JES2.

> **!**   TRM$ supports multiple TRMS databases (one per class or set of classes).

> **!**   No application program modifications are necessary to run TRM$.

TRMS Batch Support

1. DBA Functions

Archive Capability
TRMS has extensive archival capabilities. An archival of reports is done easily
and automatically. Multiple archive levels enable reports to be archived for
varying amounts of time, based on installation needs. System control options tell
TRMS when to archive reports. An archive can be automatically initiated. Should
an installation desire, the archive can be scheduled by a scheduler other than
TRMS. A duplicate copy of archived files can be created if desired.

Additionally, an authorized Administrator can "force" archive any report that was
not set up to be archived. This "force" archiving is done from the Reports
Administration Database Report Directory screen. This same feature allows the
Administrator to re-archive any report that has already been archived.

TRMS simplifies the management of archive tape volumes, allowing an
installation to use its normal method of tape management control, tape expirations
and offsite storage. Reports can be archived to any of the following media: any
Tape device, any DASD, as a System Managed Storage (SMS) dataset, as a 3480
look-a-like OPTICAL dataset or to any device that the Object Access Method
(OAM) supports.

When necessary, archived reports can be easily restored from any archive file to
the TRMS database. The restore of an archived report can be accomplished with a
single keystroke from the TRMS Archive Administration interface.

TRMS provides archive management reports to identify which reports were
archived to particular dataset names and volumes.

2. Reports

TRMS provides its own reports which monitor the activity of the system. They
are briefly described below.

Inventory for Maildrops Report

The Inventory for Maildrops report can be likened to a packing slip for each bundle. The report is generated any time a bundle job is run to create report distributions. It contains information for all reports in the bundle and is produced for each 'Maildrop' that has distributions destined for it. Included in the Inventory for Maildrops Report are the Report ID name, the 'Recipient,' the Group ID, the number of pages in the distribution, the number of lines in the distribution, the JES/POWER destination, the Report Long Name, the Job Name, the Report Cycle Number and the type of output medium used.

Archive Summary Report

The Archive Summary Report lists the reports that were archived on an Archive run, with Report ID name, Number, Accumulation date and time, Archive dataset name, File number indicating output medium, 1st VOLSER, and whether or not the report was duplexed. It also shows the percentage of database usage.

Archive Recap Report

The Archive Recap Report lists all of the reports that were in the TRMS database at the time of an archive. The report contains Report ID name, Report ID Number, accumulation date and time, archive number, percentage of RRDS data file used by this report, page count, number of records in the report, Job Name, whether or not the report was restored, current database status indicating online or deleted, archive status, and the total number of undistributed distributions for the report.

Restore Summary Report

The Restore Summary Report informs the user of the status of Restore requests for reports that are selectively restored from a previous archive file.

Format Report

The Format Report describes the TRMS database after the completion of a format, listing information such as total control blocks, total data blocks formatted, total data blocks used, pages and lines loaded, number of different record types loaded, and it identifies errors that can occur during the format process.

TRMS Batch Jobs

SPECIAL NOTES:

TRMS FEATURE (VSE ONLY)

In this section all references to file names DTSFILE and TRMSLOC are found in the TRMSLBLS Proc.

For tapes TRMS assigns a random sys-number and uses a block size of (16000). Either or both of these specifications may be overridden for any tape file used by TRMS. This override is accomplished by the addition of a specific TLBL statement as explained below.

The filename of this TLBL statement must start with the prefix "TMS" and end with the suffix of the file you wish to supply a sys-number and/or block size for. The file-id for this TLBL can be anything. The new sys-number would be specified in the date field of the TLBL. The file-serial-number field is used to modify the block size. A sys-number supplied by this feature is assumed to be assigned, in which case TRMS <u>will not</u> make the assignment. Two examples of this type of change:

To modify SYSUT1 to a sys-number of '26' and a block size of '26624'(26K):
        // TLBL TMSUT1,'TRMSINFOLBL',26,26624

To modify SYSUT1 to a block size of '65536'(64K) and not change the sys-number and have TRMS make the assignment
        // TLBL TMSUTI' TRMSINFOLBL',,65536

NOTE: An invalid sys-number or zero is the same as omitting the specification from this TLBL. Thus, TRMS <u>will make</u> a random assignment.

VSE Support of File Stacking

Whenever a TLBL is required, the File Sequence Number must be supplied on the TLBL. This signals TRMS that File Stacking is wanted. The sequence should be depth of the stacking, such as "2" for file 2 or "3" for file 3. Failure to use a File Sequence Number will signal no stacking. Thus, the file already on the tape may be overlaid. Some jobs that require a TLBL are Archives, Reloads, etc. If the TLBL is not required, such as restores from an archive, TRMS will supply the File Sequence Number.

VSE Users That Have Cartridge and Non-Cartridge Tape Devices

TRMS uses VSE's assign facility. This facility assigns tape devices on a random basis. Thus, there is no way to guarantee what type of device you want used if you allow TRMS to make the assignment.

You can prevent TRMS from making the assignment by using the "TMS" information TLBL giving the Sys-number you have assigned as the retention period.

Remember, any time the retention period is supplied on a "TMS" TLBL, it states that the device has been assigned. TRMS will not make the assignment.

You can prevent TRMS from making the assignment by using the "TMS" information TLBL giving the Sys-number you have assigned as the retention period. Remember, any time the retention period is supplied on a "TMS" TLBL, it states that the device has been assigned. TRMS will not make the assignment.

Example 1:
An archive was done using a cartridge tape. It was copied to a non-cartridge tape. A report needs to be restored using the non-cartridge tape. Supply an assign of the sys-number to the tape device that will be used. Also supply the "TMS" TLBL with that sys-number as the retention period. Same thing if it was on a non-cartridge and is now on a cartridge.

Example 2:
The archive must be on a cartridge tape. Supply the assign and the "TMS" TLBL with the sys-number as the retention period.

Example 3:
Restore will use an Archive that was done on a cartridge tape. You can let TRMS do the assign.

TRMUTIL

The batch utility program, TRMUTIL, is used by a number of TRMS Jobs to perform the following functions:

- **!** DBAJARCH   - 1.2   Archive Reports,
- **!** TRMJBUND   - 1.3   Distribute Reports,
- **!** DBAJUNLD   - 3.3   Unload the TRMS Database,
- **!** RPTJXREF   - 4.2   Print Database Cross Reference Reports,
- **!** RPTJCONT   - 4.3   Produce Contents Reports.

This program can be executed with the TRMS accumulation task either active or inactive.

Control Statement Syntax - TRMUTIL

TRMUTIL Control Statements request a function and can have additional sub-parameters to control that function.

All TRMUTIL requested functions, except print requests, must be completed on a single control statement. Continued control statements should have a comma (,) immediately after the last parameter on the card. This comma should be followed by a blank, and must occur before card column 71. The parameters on the continuation card must start prior to column 16 of that card. Positions 72-80 are ignored and can have sequence numbers if desired.

The verb or function is a positional parameter and starts in column 1 to 16. Commas must be used to separate the selection sub-parameters. A blank terminates the scan for any additional sub-parameters on a control statement. Any number of control statements can be entered during an execution of TRMUTIL.

Control statements can be presented in any order. If a control statement is repeated, the requested function for that statement is repeated. An asterisk in position 1 of a control statement denotes this statement as a comment.

TRMS JOBs

TRMS Batch Jobs are all Jobs designed to Implement, Enhance and Support
the TRMS Application.

For your convenience, we have divided these jobs into the following categories:

TDB-S	TRMS Database Functions - Scheduled
TDB-R	TRMS Database Functions - Request
DBM-R	Database Management Functions - Request
TRPT	TRMS Report Functions.

TDB-S   TRMS Database Functions - Scheduled jobs used to support the TRMS application. They are used at an application level and MUST be run on a regular basis.

TDB-R   TRMS Database Functions - Request are jobs used to support the TRMS application. They are used at an application level and may be used AS NEEDED. It is possible that you may NEVER need some of these functions.

DBM-R   Database Management Functions are jobs used to support the TRMS application. They are used at a system level and may be used AS NEEDED. It is possible that you may NEVER need some of these functions.

TRPT   TRMS Report Functions are jobs used to supply report information for the TRMS application. They are used at an application level and may be used AS NEEDED.

TRMS Batch JOBs

	Auto Sub	JOBTYPE/Frequency	JOB Name	Description	Requisite
1	**No**	**TRMS Database Functions - Scheduled**			
1.1	Yes	TDB-S	TRMUGTLD	Global Table Load	
1.2	Yes	TDB-S	DBAJARCH	Archive Reports	
1.3	Yes	TDB-S	TRMJBUND	Bundle (Distribute) Reports	
2	**No**	**TRMS Database Functions - Requested**			
2.1	No	TDB-R	DBAJREST	Database Restore	
2.2	No	TDB-R	DBAJFMRG	Forward Merge	
2.3	No	TDB-R	TRMJRBRK	Batch Accumulation	
2.4	No	TDB-R	DBAJHLPL	Help Load	
2.5	No	TDB-R	DBAJNOTL	Note Load	
2.6	No	TDB-R	DBAJSPLT	Database Split	
2.7	No	TDB-R	DBAJMPRT	Import	
2.8	No	TDB-R	DBAJXPRT	Export	
2.9	No	TDB-R	DBAJDELE	Delete	
3	**No**	**TRMS Database Management Functions**			
3.1	No	DBM-R	DBAJFRMA	Format TRMS Database	DBAJDFIN
3.2	No	DBM-R	DBAJLCKE	Lock file Expansion	
3.3	No	DBM-R	DBAJUNLD	Database Unload	
3.4	No	DBM-R	DBAJMTRR	Empty One RRDS file	
3.5	No	DBM-R	DBAJRMVR	Remove empty RRDS	DBAJMTRR
3.6	No	DBM-R	DBAJRECO	Dead Block Recovery	
4	**No**	**TRMS Report Functions**			
4.1	No	TRPT-R	TRMJGPRT	Print TRMS Definitions	
4.2	No	TRPT-R	RPTJXREF	Definition Cross Reference	
4.3	No	TRPT-R	RPTJCONT	Archive/DB Report Content	
4.4	No	TRPT-R	RPTJRUSE	RRDS Utilization	

1 TRMS Database Functions - Selected (TDB-S)

TRMS Database Functions - Scheduled are jobs used to support the TRMS application. They are used at an application level and MUST be run on a regular bases. Each job is covered in this section.

	AutoSub	JobTYPE/FREQUENCY	JOB Name	Description	Requisite
1		**TRMS Database Functions - Scheduled**			
1.1	Yes	TDB-S	TRMUGTLD	Global Table load	
1.2	Yes	TDB-S	DBAJARCH	Archive Reports	
1.3	Yes	TDB-S	TRMJBUND	Bundle (Distribute) Reports	

1.1 TRMJGTLD - Global Table Load

		Description	Notes
1.1	Job Name	TRMUGTLD	
1.1.1	Title/Description	TRMS Global Table Load	
1.1.2	Job Components		
	JCL	TRMJGTLD	
	Procedure	TRMPGTLD	
	Primary Program	TRMUGTLD	
1.1.3	Controls and Parameters		
1.1.4	Options		
1.1.5	Samples		
1.1.6	Return Codes		
1.1.7	Requisites		
1.1.8	Reports		
1.1.9	Other Considerations		

1.1.1 Global Table Load

The batch utility program, TRMUGLTD, is executed as needed to load, delete, and display multiple tables of Help and Language modules. To support this, each global table is built in CSA, subpool 228 and is 616 bytes long. Each global table can hold one Help module and ten language modules. These tables can be created and deleted a the customer's discretion.

The minimum modules that a global table can contain is two: the Default Help and Language modules. These modules can be "Reload"ed but not deleted unless the associated global table is also deleted. The Help and Language modules are loaded into ECSA, subpool 241. Currently, the Help module uses less that 40K of storage while each language module uses less that 200K of storage.

Each global table is tracked by an Infotable and the "VIEW" command will display its contents. This Infotable is built in CSA, subpool 228 and is 360 bytes long. It can hold a total of twenty (20) global tables at one time. Once created, the Infotable exists for the life of the MVS System IPL.

The creation of the global tables reduces the memory requirements for the TSO User region and the VCSI region. Once loaded into ECSA, the Help and Language modules are available to all users; this allows quicker activation of the

TRMS application as well as centralized control over the usage of the Help and Language modules.

1.1.2 TRMS Job Components

1.1.2.1   Controlling Job DD's

The following DD names are required for the execution of TRMUGTLD using the MVS JCL.

DD Name	Explanation
STEPLIB	Assign the STEPLIB DD to the TRMS loadlib.
SYSPRINT	SYSPRINT is used for error and status messages. This output DD statement is required and must be included.
SYSUDUMP	SYSUDUMP is used only if a catastrophic error is detected, when the program cannot continue and the error cannot be expressed with a simple error message or two. This output DD statement is required and must be included. If the SYSUDUMP DD statement is not present and a catastrophic error is detected, you will need to rerun the job with either a SYSUDUMP, which should produce only as large a dump as required, or a SYSABEND DD statement, which will produce a dump significantly larger than a SYSUDUMP would.
ENCODED	Assign the ENCODED DD to the encoded template of the Default Language Table set. This dataset is supplied as part of the installation package and is located as member 'ENCODED' in the TRMSMISC' dataset. This input DD statement is required and must be included.
INPUT2	Assign the INPUT2 DD to the assembly listing of the English Language Table set. This DD statement is optional and may be included only if you have the English Language Table set installed and you want to verify that it is synchronized with the Default Language table (ENCODED).

INPUT3   Assign the INPUT3 DD to the assembly listing of the French Language Table set. This DD statement is optional and may be included only if you have the French Language Table set installed and you want to verify that it is synchronized with the Default Language table (ENCODED).

INPUT4   Assign the INPUT4 DD to the assembly listing of German Language Table set. This DD statement is optional and may be included only if you have the German Language Table set installed and you want to verify that it is synchronized with the Default Language table (ENCODED).

INPUT8   Assign the INPUT8 DD to the assembly listing of the Portuguese Language Table set. This DD statement is optional and may be included only if you have the Portuguese Language Table set installed and you want to verify that it is synchronized with the Default Language table (ENCODED).

INPUT9   Assign the INPUT9 DD to the assembly listing of the Spanish Language Table set. This DD statement is optional and may be included only if you have the Spanish Language Table set installed and you want to verify that it is synchronized with the Default Language table (ENCODED).

OUTPUT   Assign the OUTPUT DD to the Synchronization Report. This output DD statement is required and must be included.

SYSIN   Assign the SYSIN DD to the Program Control Statements. This input DD statement is required and must be included.

SORTMSG   Message file required for Sort.

1.1.3 Controls and Parameters

1.1.3.1 Controls - TRMUGTLD

All commands are placed within the OS parameter field and have the
form: Command(Variable)

The number of commands is limited to the size of the OS parameter: 100
bytes.

For commands that can have the "ALL" variable, this can be specified by
either : "Command", or "Command(A)".

Command	Explanation
DELETE	Selectively delete one or all of the non-default Language modules from the current global table. If all modules are removed from a global table, the global table is also deleted. **NOTE:** Help (variable H) and Language (variable L) default modules cannot be individually deleted because they are default modules.
LOAD	Selectively load one or more Help and Language modules to the current global table. If no modules are specified, the Help (variable H) and Language (variable L) modules are automatically loaded. If this command is used with an existing table, the modules currently in the table that match the load requests will be deleted before the LOAD command is allowed to proceed. In this regard, the LOAD command acts like the RELOAD command.
RELOAD	Selectively delete and reload one or more Help and/or Language modules to the current global table. If the selected module currently exists, it is deleted and reloaded. If the module is not currently loaded, it is initially loaded.
SHOW	Selectively display the contents of the current global table. Information about the table as well as its entries can be displayed: name, address, size, loaded date and time.

TABLE	Set the global table name to be used in later commands. This can be a new table or an existing table. If no table is specified, the default global table name is TRMSG60A. **NOTE:** To select a global table other than the default, use the parameter "TGTBL" when building the TRMS Environment Area module. **NOTE:** Care should be used in choosing the table name so that it does not conflict with any existing non-TRMS module.
VIEW	Display the contents of the Infotable, e.g. any loaded global tables. This command does a "SHOW" on every loaded global table. This command has no variable.

1.1.3.2 Parameters - TRMUGTLD

The TRMUGTLD variables are contained within parenthesis that follow the command name. These variables can be strung together or separated with commas, e.g. LOAD(H,L,2,4,6) or LOAD(HL246).

VARIABLE	Explanation
A	"ALL" Valid with commands: DELETE,RELOAD,SHOW
H	"HELP" Valid with commands: DELETE,RELOAD,LOAD,SHOW
L	"LANGUAGE" DEFAULT. Valid with commands: DELETE,RELOAD,LOAD,SHOW
T	"TABLE" Valid with command: SHOW
1-9	"LANGUAGE IDS 1-9" Valid with commands: DELETE,RELOAD,LOAD,SHOW
NAME	"TABLE NAME" valid with command: TABLE Maximum size: 8 bytes. Conforms with PDS member naming conventions.

The Language IDs are as follows:

ID	Language
L	Default (English)
1	Dutch
2	English
3	French
4	German
5	Italian
6	Other1
7	Other2
8	Portugese
9	Spanish

1.1.3.3 Typical Parameter Settings - TRMUGTLD

The following Execution Parameter settings illustrate a typical load of the
default global table (TRMSG60A) with the user-changeable English
Language module (#2).
```
//TRMUGTLD EXEC PGM=TRMUGTLD,REGION=1024K,
//  PARM='LOAD(H,L,2)'
```

A more explicit version of this is:
```
//TRMUGTLD EXEC PGM=TRMUGTLD,REGION=1024K,
//  PARM='TABLE(TRMSG60A),LOAD(H,0,2)'
```

The following Execution Parameter settings illustrate a typical display of
the default global table (TRMSG60A) and any user-changeable Language
module it may contain:
```
//TRMUGTLD EXEC PGM=TRMUGTLD,REGION=1024K,
//  PARM='SHOW(A)'
```

A more explicit version of this is:
```
//TRMUGTLD EXEC PGM=TRMUGTLD,REGION=1024K,
//  PARM='TABLE(TRMSG60A),SHOW(A)'
```

The following Execution Parameter settings illustrate a typical reload of
the user-changeable English Language module (#2) into the default global
table (TRMSG60A):
```
//TRMUGTLD EXEC PGM=TRMUGTLD,REGION=1024K,
//  PARM='RELOAD(2)'
```

A more explicit version of this is:
```
//TRMUGTLD EXEC PGM=TRMUGTLD,REGION=1024K,
//  PARM='TABLE(TRMSG60A),RELOAD(2)'
```

The following Execution Parameter settings illustrate a typical removal of the default global table (TRMSG60A) along with any user-changeable language modules:
//TRMUGTLD EXEC PGM=TRMUGTLD,REGION=1024K,
// PARM='DELETE(A)'

A more explicit version of this is:
//TRMUGTLD EXEC PGM=TRMUGTLD,REGION=1024K,
// PARM='TABLE(TRMSG60A),DELETE(A)'

1.1.3.4 Multiple Global Table Parameter Settings - TRMUGTLD

The following Execution Parameter settings illustrate loading both the default global table (TRMSG60A) with the user-changeable English Language module (#2) and a test global table (TESTG60A) with the user-changeable French Language module (#3) and the German Language module (#4).

//TRMUGTLD EXEC PGM=TRMUGTLD,REGION=1024K,
// PARM='LOAD(H,L,2), TABLE (TESTG60A),LOAD(H,L,3,4)'

A more explicit version of this is:
//TRMUGTLD EXEC PGM=TRMUGTLD,REGION=1024K,
// PARM='TABLE(TRMSG60A),LOAD(H,L,2),TABLE(TESTG60a),LOAD(H,L,3,4)

The following Execution Parameter settings illustrate the display of all known global tables and any user-changeable Language modules each table may contain:
//TRMUGTLD EXEC PGM=TRMUGTLD,REGION=1024K,
// PARM='VIEW'

The following Execution Parameter settings illustrate reloading the user-changeable French Language module (#3) and the German Language module (#4) into the test global table (TESTG60A):
//TRMUGTLD EXEC PGM=TRMUGTLD,REGION=1024K,
// PARM='TABLE(TESTG60A),RELOAD(3,4)'

The following Execution Parameter settings illustrate the removal of the test global table (TESTG60A) along with any user-changeable Language modules:
//TRMUGTLD EXEC PGM=TRMUGTLD,REGION=1024K,
// PARM='TABLE(TESTG60A),DELETE(A)'

1.1.3.5 Source Controls

The TRMS Global Language Tables are supplied in the form of assembler
macros and are located in the library represented by the following DD
statement in the TRMJINST job of the TRMS installation process:

```
//OUTLANG   DD DSNAME=&DSPREF..&REL#..LANGMAC,
    DISP=(NEW,CATLG),VOL=SER=&DVOL,
    UNIT=&DUNIT,SPACE=(CYL,(20,5,20))
```

Figure 5   Source of the Global Language Tables

Refer to the paragraph titled "Building TRMS Distribution Libraries/VSE
Panel Library" in Section 2 of the "System Programmer & Installation
Guide" manual supplied as part of the TRMS installation package).

The Global Language Tables (one for each language to be installed) are
each composed of 23 sub-tables.

The language code is represented by 'x' in the following discussion:

0 - Represents the default language table.
2 - Represents the English language table.
3 - Represents the French language table.
4 - Represents the German language table.
8 - Represents the Portugese language table.
9 - Represents the Spanish language table.

The sub-tables x00-x21 and x99 (where 'x' represents the language code),
are divided by function, environment, or use :

x00 - This is the TRMS master language table.
x01 - This is the TRMS Sub-Function language table #1 - ADMINISTRATION.
x02 - This is the TRMS Sub-Function language table #2 - BROWSE.
x03 - This is the TRMS Sub-Function language table #3 - MAILDROPS.
x04 - This is the TRMS Sub-Function language table #4 - RECIPIENTS.
x05 - This is the TRMS Sub-Function language table #5 - REPORTS.
x06 - This is the TRMS Sub-Function language table #6 - TRIGGERS.
x07 - This is the TRMS Sub-Function language table #7 - DISTRIBUTIONS.
x08 - This is the TRMS Sub-Function language table #8 - INTERNALS.
x09 - This is the TRMS Sub-Function language table #9 - ACTION LISTS.
x10 - This is the TRMS Sub-Function language table #10 - CALENDARS.
x11 - This is the TRMS Sub-Function language table #11 - EXTERNALS.
x12 - This is the TRMS Sub-Function language table #12 - UTILITIES.
x13 - This is the TRMS Sub-Function language table #13 - QUERY RULES.

x14 - This is the TRMS Sub-Function language table #14 - UNUSED.
x15 - This is the TRMS Sub-Function language table #15 - HELP.
x16 - This is the TRMS Sub-Function language table #16 - NOTES.
x17 - This is the TRMS Sub-Function language table #17 - GENERAL.
x18 - This is the TRMS Sub-Function language table #18 - BATCH.
x19 - This is the TRMS Sub-Function language table #19 - DIRECTORIES.
x20 - This is the TRMS Message Skeleton language table.
x21 - This table is used to convert/validate owner codes to owner type or panelid
     or vice versa.
x99 - This table is the language table trailer. **Do not move or change this sub-table.**

1.1.3.6 Controls for G/T Report TRMUGTS0

The following DD names are required to produce the ' Overall Language Table Set Synchronization Report '

DD Name	Explanation
STEPLIB	Assign the STEPLIB DD to the TRMS loadlib.
SYSPRINT	SYSPRINT is used for error and status messages. This output DD statement is required and must be included.
SYSUDUMP	SYSUDUMP is used for only if a catastrophic error is detected, when the program cannot continue and the error cannot be expressed with a simple error message or two. This output DD statement is required and must be included. If the SYSUDUMP DD statement is not present and a catastrophic error is detected, you will need to rerun the job with either a SYSUDUMP, which should produce only as large a dump as required, or a SYSABEND DD statement, which will produce a dump significantly larger than a SYSUDUMP would.
ENCODED	Assign the ENCODED DD to the encoded template of the Default Language Table set. This dataset is supplied as part of the installation package and is located as member 'ENCODED' in the TRMSMISC' dataset. This input DD statement is required and must be included.

INPUT2	Assign the INPUT2 DD to the assembly listing of the English Language Table set. This DD statement is optional and may be included only if you have the English Language Table set installed and you want to verify that it is synchronized with the Default Language table (ENCOCED).
INPUT3	Assign the INPUT3 DD to the assembly listing of the French Language Table set. This DD statement is optional and may be included only if you have the French Language Table set installed and you want to verify that it is synchronized with the Default Language table (ENCODED).
INPUT4	Assign the INPUT4 DD to the assembly listing of German Language Table set. This DD statement is optional and may be included only if you have the German Language Table set installed and you want to verify that it is synchronized with the Default Language table (ENCODED).
INPUT8	Assign the INPUT8 DD to the assembly listing of the Portuguese Language Table set. This DD statement is optional and may be included only if you have the Portuguese Language Table set installed and you want to verify that it is synchronized with the Default Language table (ENCODED).
INPUT9	Assign the INPUT9 DD to the assembly listing of the Spanish Language Table set. This DD statement is optional and may be included only if you have the Spanish Language Table set installed and you want to verify that it is synchronized with the Default Language table (ENCODED).
OUTPUT	Assign the OUTPUT DD to the Synchronization Report. This output DD statement is required and must be included.

1.1.3.7 Controls for G/T Report TRMUGTS1

The following DD names are required to produce the ' Synchronization of each Field in the User's Language Tables Report'.

DD Name	Explanation
STEPLIB	Assign the STEPLIB DD to the TRMS loadlib.
SYSPRINT	SYSPRINT is used for error and status messages. This output DD statement is required and must be included.
SYSUDUMP	SYSUDUMP is used for only if a catastrophic error is detected, when the program cannot continue and the error cannot be expressed with a simple error message or two. This output DD statement is required and must be included. If the SYSUDUMP DD statement is not present and a catastrophic error is detected, you will need to rerun the job with either a SYSUDUMP, which should produce only as large a dump as required, or a SYSABEND DD statement, which will produce a dump significantly larger than a SYSUDUMP would.
ENCODED	Assign the ENCODED DD to the encoded template of the Default Language Table set. This dataset is supplied as part of the installation package and is located as member 'ENCODED' in the TRMSMISC' dataset. This input DD statement is required and must be included.
INPUT2	Assign the INPUT2 DD to the assembly listing of the English Language Table set. This DD statement is optional and may be included only if you have the English Language Table set installed and you want to verify that it is synchronized with the Default Language table (ENCOCED).
INPUT3	Assign the INPUT3 DD to the assembly listing of the French Language Table set. This DD statement is optional and may be included only if you have the French Language Table set installed and you want to verify that it is synchronized with the Default Language table (ENCODED).

INPUT4   Assign the INPUT4 DD to the assembly listing of German Language Table set. This DD statement is optional and may be included only if you have the German Language Table set installed and you want to verify that it is synchronized with the Default Language table (ENCODED).

INPUT8   Assign the INPUT8 DD to the assembly listing of the Portuguese Language Table set. This DD statement is optional and may be included only if you have the Portuguese Language Table set installed and you want to verify that it is synchronized with the Default Language table (ENCODED).

INPUT9   Assign the INPUT9 DD to the assembly listing of the Spanish Language Table set. This DD statement is optional and may be included only if you have the Spanish Language Table set installed and you want to verify that it is synchronized with the Default Language table (ENCODED).

OUTPUT   Assign the OUTPUT DD to the Synchronization Report. This output DD statement is required and must be included.

SYSIN   Assign the SYSIN DD to the Program Control Statements. This input DD statement is required and must be included**.**

1.1.3.8 Program Control Statements

Only one control statement is allowed. It must contain "ALL" in columns 1 - 3, the rest of the record must be blank.

Examples of valid control statements:
Columns:

```
                        Columns:
1...5...10...15...20...25...30...35...40  - Explanation:
ALL                                       - Verify all language
                                            tables
```

General Rules for Changing the Global Language Tables.

These are rules, not merely guidelines. So please follow them. If you violate them, your Global Language tables will be out of synchronization with the common TRMS template, and you will have to either correct your changes or reload the tables from the installation tape.

1. Do NOT change or move ANY field with a value of "CHKn", where n is any numeric character. Some examples:

```
*           -------------------------------------------------------*
*           1st table location verifier, do not change or move
*           -------------------------------------------------------*
L00_CHK1 DS   0F
         DC    C'CHK1'                 DO NOT CHANGE OR MOVE
```
Figure 6 Examples of a 'CHK1' Field

```
*           -------------------------------------------------------*
*           2ND table location verifier, do not change or move
*           -------------------------------------------------------*
L00_CHK2 DS   0F
          DC    C'CHK2'                 DO NOT CHANGE OR MOVE
```
Figure 7 Examples of a "CHK2' Field

```
*           -------------------------------------------------------*
*           3RD table location verifier, do not change or move
*           -------------------------------------------------------*
L00_CHK3 DS   0F
          DC    C'CHK3'                 DO NOT CHANGE OR MOVE
```
Figure 8 Examples of a 'CHK3' Field

2. Do **NOT** change the contents of any field that has a numeric value enclosed in single quote ('), for example:

```
         DC    CL2'00'
```

3. Do **NOT** change the spelling of the label (name) of **ANY** field or it's length.

4. Do **NOT** change any macro coding or any other part of the heading or trailer portion of **ANY** table.

5. Change **ONLY** the value (the part enclosed in single quotes (')). You can change what is inside the quotes, making the value longer (up to the ending quote (')) or shorter (filling the value with blanks up to the ending quote (')). **But in NO case** moving the position of the ending quote (').

6. Do not delete or remove any fields. Th displacement of the data is critical.

And here is a **Guideline** : In general it would be a good idea to discuss any planned changes with TRMS support before making the changes.

1.1.4 Options

1.1.4.1 Changing Sub-Table x00 - The TRMS Master Language Table

Sub-table construction:

1   - 2 sets of 16 function pointers for the language tables. LLADRTB
          points to all tables in primary tables
2   - 2 sets of TRT tables (IBM naming std and open text)
3   - Primary menu fields and primary function table
4   - 3 sets of definition/command validation/display fields
5   - 7 sets of panel labels

1.1.4.2 Primary Tables Section - Function Pointers for Language Tables

Do NOT change or move anything in this section

Identified by:

```
LLADRTB   DS    0D
LLLVL01   DS    0CL64
```

1.1.4.3 Translate Tables Section

Identified by:

```
LLTRTTB  DS   0D
LLTRT    DS   0CL256
```

Two translate tables:

one for IBM Naming Standards, and
one for use with open text

Use extreme caution when changing either of the two translate tables in this section. Some parts of them require detailed knowledge of which IBM Code Page(s) you have installed on your computer.

If your language requires special characters, this is where they should be added.

1.1.4.4 Primary Menu Section

Identified by:

LLPRIM   DS   0CL256

These are the values seen on your Primary Menu.

Below is a sample of one portion of this section taken directly from the table. Please pay close attention to the parts in bold type, because they are the only things you are allowed to change:

```
L1ADMI   DC    CL08' 1 ADM '
L2ADMI   DC    CL15' ADMINISTRATION'
LLADMI   EQU   *-L1ADMI
L3ADMI   DC    CL50'Tracking-Functions---*-Reports-/-Archive------'
LLADMIL  EQU   *-L1ADMI
L3ADMIO  DC    CL50'Archive-History/Report-Restore----------------'
L3ADMIA  DC    CL02'15'
LLENTL   EQU   *-L1ADMI
```

Figure 9   Example of a Portion of The Primary Menu Section of the Master
Language Table

1.1.4.5 Generic Definition Table Section

Identified by:

LLDEFTB DS   0D
GEN_DEF_TAB DS 0D

Definition of each entry in this section:

01 - 30 : full display field
01 - 03 : match number
04 - 06 : match code
05 - 30 : entry description
31 - 32 : description length

These are the function codes and descriptions.

Below is a sample of one entry of this section taken directly from the table. Please pay close attention to the parts in bold type, because they are the only things you are allowed to change:

```
*
GD2_D     DS    0CL30
GD2_N     DC    C'2  '
          DC    C'DIR'
          DC    C'   '
GD2_S     DC    C'Directory-------------'
GD2_L     DC    C'20'
*
```

Figure 10   Example of Generic Definition Table Section

1.1.4.6 Text Label Area for Panels Section

Identified by:

LLF10TB   DS   0D
LPAB_LABELS DS   0D

These are various labels seen throughout the system.

Below is a sample of one portion of this section taken directly from the
table. Please pay close attention to the parts in bold type, because they are
the only things you are allowed to change:

```
*          ---------------------------------------------------------*
*          20 - 10 byte fields   (240 BYTES)
*          ---------------------------------------------------------*
LPPF_F10 DS 0D
LP_F1001  DC    CL10'COMMAND---'
LP_F1001L DC    CL02'00'
LP_F1002  DC    CL10'LANGUAGE--'
LP_F1002L DC    CL02'00'
LP_F1003  DC    CL10'PAGE------'
LP_F1003L DC    CL02'00'
LP_F1004  DC    CL10'Optional--'
LP_F1004L DC    CL02'00'
LP_F1005  DC    CL10'OWNER-TYPE'
LP_F1005L DC    CL02'00'
LP_F1006  DC    CL10'OWNER-ID--'
LP_F1006L DC    CL02'00'
LP_F1007  DC    CL10'Value-----'
LP_F1007L DC    CL02'00'
LP_F1008  DC    CL10'Include---'
LP_F1008L DC    CL02'00'
```

Figure 11   Example Portion of the 'Text Label Area' of the Master Language Table

1.1.4.7 Changing Sub-Tables x01-x17 - TRMS Sub-Function Language Tables #1-17.

Please adhere to the general rules above. If you have any questions please consult with TRMS support.

Below is a sample of one portion of one of these tables taken directly from the table. Please pay close attention to the parts in bold type, because they are the only things you are allowed to change (note that in this example you must change the 2-character numeric field to be the number of characters actually used in the preceding value field):

```
*          -------------------------------------------------------*
*          20 - 15 byte Panel labels (340 BYTES)
*          -------------------------------------------------------*
LS1F15TB   DS 0D
LS1_2PLABELS DS 0D
*      *       CL15'123456789012345'
LS1_PLB1  DC  CL15'Maildrop       '
LS1_PLB1L DC  CL02'08'
LS1_PLB2  DC  CL15'Administrator  '
LS1_PLB2L DC  CL02'13'
LS1_PLB3  DC  CL15'Administration '
LS1_PLB3L DC  CL02'14'
LS1_PLB4  DC  CL15'Phone          '
LS1_PLB4L DC  CL02'05'
LS1_PLB5  DC  CL15'Original       '
LS1_PLB5L DC  CL02'08'
```

Figure 12 Examples of Portion of 'TRMS Sub-Function' Language Tables

1.1.4.8 Changing Sub-Table x18 - TRMS Sub-Function Language Table #18 - BATCH

These are labels found on your TRMS Reports.

Do NOT change this sub-table without consulting TRMS support before changing anything.

Column headings, etc., for use by each specific batch programs.

1.1.4.9 Changing Sub-Table x19 - TRMS Sub-Function Language Table #19 - DIRECTORIES

These are the labels found on your Directory Headers and used for sorting and filtering.

Do NOT change this sub-table without consulting TRMS support before changing anything.

Column headings and alias names for data fields in the Directories for each of the TRMS Sub-functions.

1.1.4.10 Changing Sub-Table x20 - TRMS Message Skeleton Language Table

Do NOT change this sub-table without consulting TRMS support before changing anything.

This sub-table contains up to 1000 message entries. Each entry contains a standard TRMS message skeleton consisting of:

Annn	a 1 byte machine length of actual skeleton
AnnnF	a 1 byte flag indicating whether any @, ~, or ¬ plugs exist. The allowable values are 'NOPLUGS' if there are no plugs, or 'CHECK' which may be used whether or not there are any plugs in the message.
AnnnM	a dummy entry of length 120 bytes
AnnnM1	the first 50 bytes of the message text
AnnnM2	the next 50 bytes of the message text
AnnnM3	the last 20 bytes of the message text
AnnnL	an 'EQUATE' statement for the length of the message text (120 bytes)
TRMSFMGE	a common macro defining the message text

The message text may have one or more 'PLUGS' of the following types:

@0, @1, @2, ..., @9	indicating plug points of user values.
~N, ~NN, ~NNN, ...	indicating words/phrases from dictionary.
¬NNN	indicating a tab to column NNN in message.

In addition to a message skeleton, there may be some documentation examples of the message with the 'PLUGS' expanded, preceding the message skeleton.

Below is a sample of one TRMS message skeleton entry taken directly from the table. Please pay close attention to the parts in bold type, because they are the only things you are allowed to change:

```
     *--MESSAGE=022--------------------------------------------------------*
     *
     *              TRMS022C (module) PUT FAILED RC=X'xx' FDBK=X'xx'
     *              TRMS022C (module) OPEN FAILED RC=X'xx' FDBK=X'xx'
     *              TRMS022C (module) CLOSE FAILED RC=X'xx' FDBK=X'xx'
     *
     *--MESSAGE=022--------------------------------------------------------*
     *
     A022    DC    AL1(A022L)
     A022F   DC    AL1(CHECK)
     A022M   DS    0CL120
     A022M1  DC    CL50'@0 FAILED RC=@1 FDBK=@2                       '
     A022M2  DC    CL50'                                              '
     A022M3  DC    CL20'                   '
     A022L   EQU   *-(A022M+1)
             TRMSFMGE MSGL1=A022M1,MSGL2=A022M2,MSGL3=A022M3
     *
```

Figure 13   Example of TRMS Message Skeleton

Before changing any message skeleton, make sure you have the TRMS Messages and Codes manual handy and look up the message.

Do NOT change this sub-table without consulting TRMS support before changing anything.

1.1.4.11 Changing Sub-Table x21 - Table Used To Convert/Validate Owner Codes, etc.

Do NOT change this sub-table without consulting TRMS support before changing anything.

1.1.4.12 DO NOT CHANGE Sub-Table x99 - The Language Table Trailer

DO NOT MOVE OR CHANGE THIS TABLE!

1.1.4.13 After Changing The TRMS Global Language Table Macros

The Global Language Tables must be assembled into an Object library and a List library. The program(s) that need to be assembled is/are TRMSLGTx, where 'x' represents the language code:

2 - Represents the English language table.
3 - Represents the French language table.
4 - Represents the German language table.
8 - Represents the Portugese language table.
9 - Represents the Spanish language table.

After assembling the Global Language Table program(s) you should run the two TRMS Global Language Table Diagnostic Utilities, which use the assembler listing(s) in the List library as their input.   These are described in the following section of this manual, "Global Language Table Diagnostic Utilities".

After running the diagnostic utilities and verifying that the language table(s) are in synchronization with the default tables, you need to link edit the language table program(s) into the load library.

Once they are in the load library, they need to be loaded into memory, so they can be used by the TRMS system. Refer to the paragraph titled "Load Global Tables" in Section 2 of the "System Programmer & Installation Guide" manual supplied as part of the TRMS installation package.

1.1.5 JCL Samples

1.1.5.1 Sample MVS JCL - TRMJGTLD

Sample MVS JCL for the TRMJGTLD execution is shown below and is also provided in the TRMS INSTLIB as member TRMJGTLD.

```
//jobname JOB (accounting information),'TRMJGTLD 6.0A',CLASS=A,
//             MSGLEVEL=(1,1),MSGCLASS=A
//TRMJGTLD EXEC PGM=TRMJGTLD,REGION=1024K,
// PARM='Command(Variables)'
//STEPLIB    DD DSN=TRMS.T60A.LOADLIB,DISP=SHR
//SYSUDUMP   DD SYSOUT=*
//SORTMSG    DD SYSOUT=*
//
```

Figure 14 Sample MVS JCL - Member TRMJGTLD Executes TRMPGTLD

NOTE: The Global Table Load may also be run as a task   The procedure is member TRMPGTLD in the TRMS INSTLIB.

The Step EXEC parameter must not be blank or null.

1.1.5.2 Sample JCL For G/T Report 0

```
//TRMUGTS0 JOB (accounting info),'OVERALL LANG TABLE SET SYNC REPORT',
//              MSGLEVEL=1,CLASS=A,MSGCLASS=A,NOTIFY=&SYSUID
//**********************************************************************
//* PRODUCE THE UGTS0 LANGUAGE TABLE SYNCHRONIZATION REPORT          *
//*                                                                  *
//* THIS JOB VALIDATES THAT THE START ADDRESS OF EACH LANGUAGE TABLE *
//* IN A LANGUAGE TABLE SET (TRMSL#00 - TRMSL#99) MATCHES THE START  *
//* ADDRESS OF THE CORRESPONDING DEFAULT LANGUAGE TABLE SET (TRMSL000 *
//* - TRMSL099)                                                      *
//*                                                                  *
//* ANY DIFFERENCES ARE ERRORS, AND THEY WILL BE LISTED IN THE OUTPUT *
//* REPORT AND/OR IN THE OUTPUT 'SYSPRINT' DATASET.                  *
//*                                                                  *
//* NO INPUT PARAMETERS ARE REQUIRED SINCE THE PROGRAM USES THE      *
//* PRESENCE OF THE 'INPUT0' (THE DEFAULT LANGUAGE TABLE SET) DD     *
//* NAME, AND THE PRESENCE OF THE 'INPUT#' (WHERE THE '#' INDICATES  *
//* THE LANGUAGE CODE USED IN YOUR INSTALLATION) DD NAME.           *
//*                                                                  *
//* IF YOU USE MULTIPLE LANGUAGE TABLE SETS, YOU WILL NEED TO USE    *
//* MULTIPLE 'INPUT#' DD NAMES (ONE FOR EACH LANGUAGE TABLE SET YOU  *
//* WANT TO VERIFY).                                                 *
//*                                                                  *
//**********************************************************************
//*
//TRMUGTS0 EXEC PGM=TRMUGTS0,REGION=4M
//STEPLIB  DD  DSN=TRMS.rel#.LOADLIB,DISP=SHR     <====
//SYSPRINT DD  SYSOUT=*
//SYSUDUMP DD  SYSOUT=*
//ENCODED  DD  DSN=TRMS.rel#.ENCODED,DISP=SHR  DEFAULT     <====
//INPUT2   DD  DSN=TRMS.rel#.LIST(TRMSLGT2),DISP=SHR  ENGLISH    <====
//INPUT3   DD  DSN=TRMS.rel#.LIST(TRMSLGT3),DISP=SHR  FRENCH     <====
//INPUT4   DD  DSN=TRMS.rel#.LIST(TRMSLGT4),DISP=SHR  GERMAN     <====
//INPUT8   DD  DSN=TRMS.rel#.LIST(TRMSLGT8),DISP=SHR  PORTUGESE  <====
//INPUT9   DD  DSN=TRMS.rel#.LIST(TRMSLGT9),DISP=SHR  SPANISH    <====
//OUTPUT   DD  DSN=TRMS.UGTS0.REPORT,DISP=(,CATLG,DELETE),
//             DCB=(DSORG=PS,RECFM=FBA,LRECL=133,BLKSIZE=13300),
//             UNIT=SYSDA,SPACE=(TRK,(100,10),RLSE)
//
```

Figure 15   Overall Language Table Set Synchronization Report JCL

1.1.5.3 Sample JCL For G/T Report 1

```
//TRMUGTS1 JOB (ACCOUNTING INFO),'LANG TABLE FIELD SYNC REPORT',
//             MSGLEVEL=1,CLASS=A,MSGCLASS=A,NOTIFY=&SYSUID
//*********************************************************************
//* PRODUCE THE UGTS1 LANGUAGE TABLE FIELD SYNCRONIZATION REPORT    *
//*                                                                  *
//* THIS JOB VALIDATES THAT THE START ADDRESS OF EACH LANGUAGE TABLE *
//* IN A LANGUAGE TABLE SET (TRMSL#00 - TRMSL#99) MATCHES THE START  *
//* ADDRESS OF THE CORESPONDING DEFAULT LANGUAGE TABLE SET (TRMSL000 *
//* - TRMSL099)                                                      *
//*                                                                  *
//* ANY DIFFERENCES ARE ERRORS, AND THEY WILL BE LISTED IN THE OUTPUT *
//* REPORT AND/OR IN THE OUTPUT 'SYSPRINT' DATASET.                  *
//*                                                                  *
//* IF YOU USE MULTIPLE LANGUAGE TABLE SETS, YOU WILL NEED TO USE    *
//* MULTIPLE 'INPUT#' DD NAMES (ONE FOR EACH LANGUAGE TABLE SET YOU  *
//* WANT TO VERIFY).                                                 *
//*                                                                  *
//*********************************************************************
//*
//TRMUGTS1 EXEC PGM=TRMUGTS1,REGION=4M
//STEPLIB  DD  DSN=TRMS.rel#.LOADLIB,DISP=SHR    <====
//SYSPRINT DD  SYSOUT=*
//SYSUDUMP DD  SYSOUT=*
//ENCODED  DD  DSN=TRMS.rel#.ENCODED,DISP=SHR              DEFAULT   <====
//INPUT2   DD  DSN=TRMS.rel#.LIST(TRMSLGT2),DISP=SHR  ENGLISH   <====
//INPUT3   DD  DSN=TRMS.rel#.LIST(TRMSLGT3),DISP=SHR  FRENCH    <====
//INPUT4   DD  DSN=TRMS.rel#.LIST(TRMSLGT4),DISP=SHR  GERMAN    <====
//INPUT8   DD  DSN=TRMS.rel#.LIST(TRMSLGT8),DISP=SHR  PORTUGESE <====
//INPUT9   DD  DSN=TRMS.rel#.LIST(TRMSLGT9),DISP=SHR  SPANISH   <====
//OUTPUT   DD  DSN=TRMS.UGTS1.REPORT,DISP=(,CATLG,DELETE),
//             DCB=(DSORG=PS,RECFM=FBA,LRECL=133,BLKSIZE=13300),
//             UNIT=SYSDA,SPACE=(TRK,(100,10),RLSE)
//SYSIN    DD  *
ALL                                                         <====
  /*
```

Figure 16 Synchronization of Each Field in the User's Language Tables Report JCL

1.1.6 Typical Load Execution Messages - TRMUGTLD

The following Console message extract illustrate a typical load of the default global table (TRMSG60A) with the Help module and default Language module (L):

```
TRMS518I       (TRMUGTLD) REL=6.0A MAINTLVL = 00
TRMS510I       (TRMUGTLD) TABLE(TRMSG60A),LOAD(H,L)
TRMS538I       (TRMUGTLD) INFOTABLE=160FCE98 DATE/TIME=20020123/07353427
TRMS515I       (TRMUGTLD) TRMSG60A PROCESSING COMMAND=TABLE
TRMS550I       (TRMUGTLD) TRMSG60A COMMAND COMPLETE=TABLE
TRMS515I       (TRMUGTLD) TRMSG60A PROCESSING COMPLETE=LOAD
TRMS514I       (TRMUGTLD) TRMSG60A TRMSLGT0=16090618/0319E8  LOADED
TRMS513I       (TRMUGTLD) TRMSG60A TRMSHLT0=16086E70/009190  LOADED
TRMS538I       (TRMUGTLD) TRMSG60A 160FCC30 DATE/TIME=20020123/07353484

TRMS539I       (TRMUGTLD) DFLTHELP=16086E70/009190 DATE/TIME=20020123/07353484
TRMS540I       (TRMUGTLD) DFLTLANGTRMSLGT0=16090618/0319E8
               DATE/TIME=20020123/07353474 LANG=DEFAULT
TRMS536I       (TRMUGTLD) TRMSG60A LOADED SUCCESSFULLY
```

1.1.6.1 Program Return Codes For G/T Report 0

0 - No errors

4 - A minor error was detected: refer to the Status and Error messages displayed on all three of the:
 1) - SYSPRINT,
 2) - the output report, or
 3) - the system console.

8 - A serious error was detected and the job was terminated: refer to the Status and Error messages displayed on all three of the:
 1) - SYSPRINT,
 2) - the bottom of the output report, or
 3) - the system console.

NOTE: TRMUGTS0 determines which language table set to check for synchronization by scanning the TIOT for the following ddnames:

  INPUT2 (English)
  INPUT3 (French)
  INPUT4 (German)
  INPUT8 (Portuguese)
  INPUT9 (Spanish)

While ten concurrent language tables may be active, normally, an installation would have only one or possibly two of these installed.

1.1.6.2 Program Return Codes For G/T Report 1

0 - No errors

4 - A minor error was detected: refer to the Status and Error messages
   displayed on all three of the:
   1) - SYSPRINT,
   2) - the output report, or
   3) - the system console.

8 - A serious error was detected and the job was terminated: refer to the
   Status and Error messages displayed on all three of the:
   1) - SYSPRINT,
   2) - the bottom of the output report, or
   3) - the system console.

NOTE: Refer to TRMS Messages and Codes Manual for more
information.

1.1.7 Requisites

ENCODED dataset is installed from the TRMSMISC PDS. This is the master
table used to Synchronize all other tables.

1.1.8 Reports

There is no SYSPRINT output from the Global Table load program. Look in the
JESYSMSG file for processing messages.

There are two Report jobs which write TRMS reports on the state of the language
tables. They are TRMUGTS0 and TRMUGTS1, located in the INSTALL library.
These two programs and their functions are:

TRMUGTS0 - reports on the number, name, and length of each of the user's
individual language tables vs. the number, name, and length of each of the
corresponding default language tables.

TRMUGTS1 - reports on the number, name, and length of each data field in the
user's language tables vs. the number, name, and length of each of the
corresponding field in the default language tables. It is **NOT** concerned with the
contents of the data fields because in most cases, they should be different, since
they will be in a different language.

1.1.9 Other Considerations

1.1.9.1 Global Language Table Diagnostic Utilities

The Global Language Table utilities are two batch programs that are used to validate the Global Language Tables after the Global Language macros have been changed and the Global Language table program(s) have been assembled. Refer to the preceding section, "Changing the Global Language Tables", in this manual.

You should have no problems with the Global Language Tables, as installed, but once you have started making your changes to them, they may become corrupted inadvertently by your changes. The main cause of corruption is getting the changed language tables out of synchronization with the default language table set.

The Global Language Tables are synchronized when the following three conditions are true:

1) the number and length of each of the tables is the same as the number and length of each of the default tables, **and**

2) the name of each table is the same as the name of each corresponding default table, except for the 6th character, which must be the language code for the user's tables, **and**

3) the number, length, and name of each data field in each of the tables is the same as the number, length, and name of the corresponding data fields in the default tables.

The only thing that may be different between the user tables and the default tables is the contents of the various data fields, which are normally in different languages.

The user language table set must be kept synchronized with the default language table set because TRMS uses a single template (map of the tables) to address all of the tables and all of the individual data fields within them. This is part of what allows TRMS to be able to support multiple sets of language tables.

The Global Language Table diagnostic utilities are used to help isolate synchronization problems with the Global Language tables by ensuring that the user's language tables (TRMSLGT#) are synchronized with the default language table (TRMSLGT0). Neither of the programs use the loaded Global Language Tables. Both of them use an encoded representation of the template for the default tables and the assembler listing for the user table (output from when the table was assembled

(created)), since this is the only source that contains both the displacement and the field names of the language tables.

Both of the reports from these two programs should be run after any change to any of your Global Language Tables to verify that the tables are still synchronized with the default tables. The TRMUGTS0 program should be run first. If there are errors reported you will need to correct the changes and run the program again until no synchronization errors are reported. Once there are no errors reported by TRMUGTS0, you should run program TRMUGTS1, using the "ALL" option in the SYSIN dataset. Again, if there are errors reported you will need to correct the changes and run the program again until no synchronization errors are reported. Once there are no errors reported by TRMUGTS0 and TRMUGTS1, you may use the changed tables to run the TRMS system.

Do NOT attempt to change the default tables. If you ignore this warning and corrupt the default TRMS table, you must reload it from the TRMS Install tape.

If an attempt is made to run the TRMS system, either online or batch, with corrupted tables, TRMS may terminate with a user 922 abend code. If you need assistance, contact TRMS support.

1.2 TRMS Archive Reports - DBAJARCH

		Description	Notes
1.2	Job Name	DBAJARCH	
1.2.1	Title/Description	Report Archive	
1.2.2	DBAJARCH Job Components	Install Lib	
	JCL	DBAPARCH	
	Primary Program	TRMUTIL	
1.2.3	Controls and Parameters		
1.2.4	Options		
1.2.5	Samples		
1.2.6	Return Codes		
1.2.7	Requisites	Must be stored in TRMS library	
1.2.8	Reports		
1.2.9	Other Considerations		

1.2.1 TRMS Report Archive

Reports are periodically archived by the TRMSUTIL program. The job that performs the report archive is normally submitted automatically by TRMS. TRMS uses a specific calendar (named Archive) and an archive day of the week specification from the TRMS globals (Internal normally Primary Menu - Option 8, with a Group Value of A) to schedule the periodic report archives. The archive job can be submitted manually, if required.

The TRMS ARCHIVE function creates a copy of accumulated report data and control definitions external to the database. In order, the major categories of data placed on an archive file are: the user-defined elements or control definitions (Maildrops, Recipients, Reports, etc...), archive history and report tracking data and finally the accumulated reports and their associated distribution data.

Archive files are tracked by TRMS via Archive History. Each archived report in TRMS is associated with an Archive Level DDname. These names are then matched with the DDnames supplied in the Archive JCL and all reports having the same DDname are placed in the same archive file. All regular archive files are created this way. Special Archive Level DDnames are allowed in the Report Definition Panel as well; SMS, OPTIC, and APIOAM.

Special archive reports (SMS, OAM, OPTIC) require that the report definition record be in the database at the time of archive. If not, these reports are not archived and a message is generated on the archive log indicating the failure. Regular archive reports are matched to an archive DD/FILE name in the following order:

- Force re-archive DD/FILE name
- Current Report definition record DD/FILE name
- Report definition DD/FILE name in force at time of report accumulation.

If a regular reports' archive DD/FILE name is not in the archive JCL, the report will not be archived and a message will be created on the archive log that identifies the report ID and the missing DD/FILE name. The report will then be archived on the next archive if the DD/FILE name has been added to the archive JCL.

Reports originally scheduled to archive when they were accumulated may be skipped if the report definition record for that report is changed to "no archive" before the archive job executed. These reports are denoted in the "ARCHIVE SUMMARY REPORT" by the phrase "*ARCHIVE SKIPPED*) in the "ARCHIVE DSNAME" column. They are also noted by a special TRMS message in the subsequent "Database RECAP REPORT" from the archive job. This report also identifies those archives from a force re-archive by an asterisk (*) between the "STATUS" and "ARCHIVE" columns.

A report remains in the TRMS database until it is archived or until it is deleted by a user with proper authority to delete reports prior to their being archived.

If necessary, an archive file can be recreated to contain the same report data as the original except for reports that have been deleted from the database. If the archive job is manually submitted to correct an earlier archive failure, the archive control statement must supply the same archive cycle number as the one for the failing job. The archive cycle number is displayed on the operator console when the archive job is automatically submitted by TRMS and on the archive reports created on the Sysprint file.

1.2.2 DBAJARCH Job Components

1.2.2.1 Controlling Job DD's

The following DD names are required for TRMUTIL to perform an archive of the TRMS database using the **MVS** JCL.

DD Name	Explanation
SYSIN	Required for TRMUTIL to supply the control statement for the desired function. This DD must be in the JCL that is stored in the TRMSJOBS library.
SYSPRINT	Required for the archive reports created by the archive function. Normally a Sysout dataset, BLKSIZE(133), LRECL(133) RECFM(fa).
TRMSWORK TRMWRK2	Required work file for archive function. DCB information is supplied by program. A space amount of (CYL,(250,50)) should be adequate.
SORTIN	Required for the archive function. Must reference same dataset as TRMSWORK.
SORTOUT	Required for the archive function. Must reference same dataset as TRMSWORK.
SORTWK01 SORTWK02 SORTWK03	Required for the archive function.
TRMSLOCK	Required for the archive function. Defines the TRMS LOCK cluster.
TRMSUSP	Change the report definition for "TRMSUSPN" to Archive "YES" and specify the Archive DD name as "TRMSUSP" to have all of the "TRMSUSPN" Reports archived on a separate file if desired.
ARCHDEF	Is the DD name for the Definitions' File as defined in the GLOBALS.
ARCHDEF2	Is the DD name for the DUPLEX ARCDEF DEFINITIONS' FILE as defined in the GLOBALS.
SYSUDUMP ABNLIGNR	The error processing DDs for Archive.

SYSOUT   Required for the Archive Reports.

The following DD names are not required. They do serve to illustrate how DD names can be used to segregate archived reports for the different needs of a particular installation.

DD Name	Explanation
ARCH010	An example DD statement which contains the archived copies of the all the reports that defined ARCH010 as the DD name in their report definitions. Notice that the unit has the **defer** option specified. This option is inherited by all other DD names that use unit affinity to ARCH010. The DCB attributes for all TRMS archive files are RECFM(VB), and the minimum BLKSIZE is 4097.
ARCH030	An example DD statement that refers to a previous DD to avoid the excessive allocation of more than one tape device for the archive files. The DD names that are used in this example have no significance, the names that are actually needed depend on the report's definition in the TRMS database.
ARCH180	This DD uses a different expiration date and does file stacking of 9 files before requesting new volume.
ARCH0102	This is an example of how a duplex archive file is created. All archive files can be duplexed if a second DD is in the JCL with the duplicate DD name of the primary except for a suffix of a "2". The dataset names do not have to resemble the primary archive file.
	The first specification of a duplex file must define a device name, it <u>cannot</u> use unit affinity to the primary archive DD name because both files are created concurrently. The use of unit affinity for the other tape duplex files applies the same as for the primary files.
ARCH0302	Depicts how a duplex archive creation should refer to the first allocation defining the tape device that the duplex files are to use. There is no requirement that a report be archived in every cycle that uses the first allocation that supplies the device name inherited by the "UNIT=AFF=".

1.2.3 Controls and Parameters

1.2.3.1 Parameters

Parameter Sub-parameter	Explanation
ARCHIVE	Request an archive of the TRMS database and archive only the reports that have been assigned an archive control number that matches the cycle number when the control statement contains a cycle number. When an archive cycle number is not supplied, all reports in the database that have not been assigned a cycle number are archived.
,CYCLE=nnnnn	This value is from 1 to 7 numerics. The archive cycle number is supplied by TRMS for the archive when the job is automatically submitted. The cycle number would be supplied manually to facilitate a rerun. The archive cycle number is displayed on the operator console when the archive job is automatically submitted by TRMS and on the archive reports created on the Sysprint file.

These control statements are valid only if the archive job is submitted manually or through a job scheduler. If TRMS will be submitting the archive job, then the following comment card must immediately follow the TRMSUTIL.SYSIN DD statement:

For **MVS**

> //*TRMS.ARCHIVE.CONTROL

For **VSE**

> /* TRMS.ARCHIVE.CONTROL

No other control statements are valid when this comment card is present. The card tells TRMS to build the required control statements for this execution of the archive job.

1.2.4 Options

All control definitions for the TRMS database are also on each of these files, unless the archive job has been instructed to use the **ARCHDEF** file. Regular archive files may be duplexed by the addition of a DDname to the archive JCL that exactly matches the original, but is suffixed with a "2".

A duplex of this file may be created in the same manner as a regular archive file. Instead of having control definitions on all regular archive files, you may elect to have them written to the **ARCHDEF** file by setting the ARCHDEF Style Definitions value to YES on the Global Archive Defaults panel. Note that this only controls the placement of control definitions for regular archive files.

1.2.5 Archive Sample JCL

The following JCL is provided as an example of the JCL that would be placed into the TRMSJOBS library for the automatic submission of the periodic archival of reports.

The required DD/FILE names are defined in a PROC to minimize the chance of not having each DD/FILE name that would be needed to complete the archive of that report. When a new report definition contains an archive DD/FILE name that has not been previously defined, the archive procedure should be updated with the appropriate DD/FILE statement(s).

```
*********************************************************
*                                                       *
*       The first specification of a DUPLEX file        *
*       must define a device name, it cannot use        *
*       unit affinity to the primary archive DD         *
*       name because both files are created             *
*       concurrently.                                   *
*                                                       *
*********************************************************
```

1.2.5.1 Sample 1

Sample **MVS** JCL for ARCHIVE execution is shown below and is also provided in the TRMS INSTLIB as member DBAJARCH.

```
//DBAJARCH JOB (ACCOUNTING),'ARCHIVE        JOB',MSGCLASS=T,
//             CLASS=X,MSGLEVEL=1,NOTIFY=&SYSUID
//TRMSARCH EXEC DBAPARCH
//*
//*     THE "//*TRMS.ARCHIVE.CONTROL"  COMMENT STATEMENT
//*     IS USED TO IDENTIFY WHERE TRMS IS TO PLACE THE
//*     ARCHIVE CONTROL STATEMENT WHEN THE JOB IS
//*     SUBMITTED BY TRMS.  IT MUST IMMEDIATELY FOLLOW
//*     THE SYSIN DD STATEMENT.
//*
//TRMSUTIL.SYSIN  DD  *
//*TRMS.ARCHIVE.CONTROL
```

Figure 17 Sample MVS JCL - DBAJARCH Archive Execution

The JCL member DBAJARCH executes the PROC DBAPARCH (formerly TRMSARCP).

A sample **MVS** PROC for the TRMUTIL execution for ARCHIVE is shown below (and continued on the following page) and is also provided in the TRMS INSTLIB as member TRMSARCP.

```
 //DBAPARCH PROC OUT=A
 //TRMSUTIL EXEC PGM=TRMUTIL,REGION=0M
 //*
 //*       TRMS ARCHIVE PROC
 //*
 //STEPLIB DD    DSN=TRMS.REL#.LOADLIB,DISP=SHR
//*       ARCHIVE REPORTS
//*
//SYSPRINT DD   SYSOUT=&OUT
 //*         WORK FILE FOR ARCHIVE RUN
 //*
 //TRMSWORK DD   DSN=&&WORK,DISP=(,DELETE,DELETE),
 //              UNIT=SYSDA,SPACE=(CYL,(250,50))
 //*
//TRMSWRK2 DD   DSN=&&WRK2,DISP=(DELETE,DELETE),
//               UNIT =SYSDA,SPACE=(CYL,(250,50))
//*
 //*         SORT FILES FOR REPORTS
 //*         SORTIN AND SORTOUT MUST BE
 //*         THE SAME DATASET AS TRMSWORK
 //*
 //SORTIN   DD   DSN=*.TRMSWORK,DISP=SHR,
 //              VOL=REF=*.TRMSWORK
 //SORTOUT  DD   DSN=*.TRMSWORK,DISP=SHR,
 //              VOL=REF=*.TRMSWORK
 //SORTWK01 DD   UNIT=SYSDA,SPACE=(CYL,(75,50))
 //SORTWK02 DD   UNIT=SYSDA,SPACE=(CYL,(75,50))
 //SORTWK03 DD   UNIT=SYSDA,SPACE=(CYL,(75,50))
 //SYSOUT   DD   SYSOUT=&OUT
//*          TRMS VSAM FILES
 //*   THE TRMS LOCK DATASET CONTAINS THE NAMES OF THE KSDS
 //*   AND RRDS(S) DATASETS AND ARE DYNAMICALLY ALLOCATED.
 //TRMSLOCK DD DSN=TRMS.REL#.LOCK,DISP=SHR
 //*   NOTE: ALL BLKSIZE VALUES MUST BE AT LEAST 4100
//*
 //*         ARCHIVE'S PRIMARY ARCHIVE DDNAMES
 //ARCH010  DD   DSN=TRMS.ARCHIVE.ARCH010(+1),
 //              DISP=(,CATLG,DELETE),
 //              UNIT=(TAPE,,DEFER),
 //              DCB=(TRMS.DSCB,BLKSIZE=23476),
 //              LABEL=(1,SL,RETPD=10),VOL=(,,,20)
 //*
 //*   NOTE THAT ALL PRIMARY ARCHIVE DDNAMES NOW USE A UNIT
 //*              AFFINITY BACK TO ARCH010.
 //ARCH030  DD   DSN=TRMS.ARCHIVE.ARCH030(+1),
 //              DISP=(,CATLG,DELETE),
 //              UNIT=AFF=ARCH010,
 //              DCB=(TRMS.DSCB,BLKSIZE=23476),
 //              LABEL=(1,SL,RETPD=30),VOL-(,,,20)
 //ARCH180  DD   DSN=TRMS.ARCHIVE.ARCH180(+1),
 //              DISP=(,CATLG,DELETE),
 //              UNIT=AFF=ARCH010,
 //              DCB=(TRMS.DSCB,BLKSIZE=23476),
 //              LABEL=(9,SL,RETPD=180),VOL=(,,,20)
 //*   NOTE "LABEL=(9,SL)" INFORMS TRMS THAT 9 ARCHIVES ARE TO BE
 //*      CREATED BEFORE A NEW VOLUME IS REQUESTED. "VOL=(,,,20)" WILL
 //*      ENABLE THE USE OF UP TO 20 VOLUMES FOR A SINGLE ARCHIVE.   THE
 //*      VALUE FOR "LABEL" AND "VOL" ARE ARBITRARY AND MAY BE SUPPLIED
 //*       AS NEEDED FOR YOUR DATA CENTER.
```

Figure 18 Example MVS PROC for TRMS Archive, DBAPARCH

```
//*     CHANGE THE REPORT DEFINITION FOR "TRMSUSPN" TO ARCHIVE "YES" AND *
//*     SPECIFY THE ARCHIVE DDNAME AS "TRMSUSP" TO HAVE ALL OF THE       *
//*     "TRMSUSPN" REPORTS ARCHIVED ON A SEPARATE FILE IF DESIRED.       *
//*
//TRMSUSP  DD DSN=TRMS.ARCHIVE.SUSPENSE(+1),
//            DISP=(CATLG,DELETE),
//            UNIT=AFF=ARACH010,
//            DCB=(TRMS.DSCB,BLKSIZE=23476),
//            LABEL=(1,SL,RETPD=10),VOL=(,,,20)
//*
//*          ARCHIVE DUPLEX ARCHIVE DDNAMES
//ARCH0102 DD DSN=TRMS.DUPLEX.ARCH010(+1),
//             DISP=(,CATLG,DELETE),
//             UNIT=(TAPE,,DEFER),
//             DCB=(TRMS.DSCB,BLKSIZE=23476),
//             LABEL=(1,SL,RETPD=10),VOL=(,,,20)
//*
//*   NOTE THAT ALL DUPLEX ARCHIVE DDNAMES NOW USE A UNIT AFFINITY
//*       BACK TO ARCH0102. ALSO, FOR A DUPLEX TO BE CREATED THE
//*       DDNAME MUST BE EQUAL TO THE PRIMARY NAME SUFFIXED WITH A "2".
//*
//ARCH0302 DD DSN=TRMS.DUPLEX.ARCH030(+1),
//            DISP=(,CATLG,DELETE),
//            UNIT=AFF=ARCH0102,
//            DCB=(TRMS.DSCB,BLKSIZE=23476),
//            LABEL=(1,SL,RETPD=30),VOL=(,,,20)
//*
//*      "ARCHDEF" IS THE DDNAME FOR THE DEFINITIONS' FILE
//*       AS DEFINED IN THE GLOBALS.
//*ARCHDEF DD DSN=TRMS.ARCHIVE.ARCHDEF(+1),
//*            DISP=(,CATLG,DELETE),
//*            UNIT=AFF=ARCH010,
//*            DCB=(TRMS.DSCB,BLKSIZE=23476),
//*            LABEL=(1,SL,RETPD=90),VOL=(,,,20)
//*      TO DUPLEX THE DEFINITIONS' FILE, THE DD STATEMENT MUST
//*       HAVE THE SAME DDNAME AS THE PRIMARY WITH A "2" SUFFIX.
//*ARCHDEF2 DD DSN=TRMS.DUPLEX.ARCHDEF(+1),
//*             DISP=(,CATLG,DELETE),
//*             UNIT=AFF=ARCH0102,
//*             DCB=(TRMS.DSCB,BLKSIZE=23476),
//*             LABEL=(1,SL,RETPD=90),VOL=(,,,20)
//*
//*    TO DUPLEX THE DEFINITIONS' FILE, THE DD STATEMENT MUST HAVE
//*     THE SAME DDNAME AS THE PRIMARY WITH A "2" SUFFIX.
//*ARCHDEF2 DD DSN=TRMS.DUPLEX.ARCHDEF(+1)
//*             DISP=(,CATLG,DELETE),
//*              UNIT=AFF=ARCH0102,
//*              DCB=(TRMS.DSCB,BLKSIZE=23476),
//*              LABEL=(1,SL,RETPD=90),VOL=(,,,20)
//SYSDUMP  DD SYSOUT=&PIT
//ABNLIGNR DD DUMMY
//
```

Figure 19 Example MVS PROC for TRMS Archive, DBAPARCH - continued

1.2.5.2 Sample VSE JCL - Archive Execution

Sample **VSE** JCL for ARCHIVE execution is shown below and is also
provided in the TRMS INSTLIB as member TRMSARCH.JCL.

```
* $$ JOB JNM=TRMSARCH,FROM=TRMSR,CLASS=5,DISP=L
* * $$ JOB JNM=TRMSARCH
* * $$ LST CLASS=A
// JOB TRMSARCH
// OPTION PARTDUMP
// DLBL IJSYSUC,'VSAM.USER.CATALOG',,VSAM        <---- VSAM USER CATALOG
// DLBL TRMSLIB,'TRMS.LIBRARY',,VSAM             <---- TRMS LIBRARY
// LIBDEF *,SEARCH=TRMSLIB.REL#INST
// EXEC PROC=TRMSLBLS
* *** JOB=TRMSARCH (TRMUTIL)    STEP  1 OF 1
// EXEC PROC=TRMSARCP
/* TRMS.ARCHIVE.CONTROL
/*
/&
* * $$ EOJ
* $$ EOJ
```

Figure 20 Sample VSE JCL - Archive Execution

The following FILE names are required for TRMUTIL to perform an archive
of the TRMS database with the **VSE** JCL in the previous figure:

FILE Name	Explanation
TRMSLIB	The TRMS loablib.

A Sample **VSE** PROC for the TRMSUTIL execution for ARCHIVE follows
and is also provided in the TRMS INSTLIB as member TRMSARCP.

```
// DLBL TRMWORK,'SORTLIB',0,VSAM,RECORDS=10000,RECSIZE=4093
// EXTENT  ,XXXXXX     ---->FILL IN THE VOL-NUMBER<----
// DLBL SORTWK1,'SORTWK',0,VSAM,RECORDS=10000,RECSIZE=4093,          C
DISP=(,DELETE)
// EXTENT  ,XXXXXX     ---->FILL IN THE VOL-NUMBER<----
// TLBL ARCH10,'ARCH10 FILE'
/* TLBL ARCH102,'ARCH10 DUPLEXED'   OPTIONAL ONLY USED IF DUPLEXING
/* ************
/*
/* IF YOU WISH TO SPECIFY A BLOCKSIZE OR USE A SPECIFIC
/* SYS-NUMBER FOR A TAPE, READ ABOUT THE "TMS" FEATURE IN
/* SECTION 4.0 OF THE ADMIN GUIDE.
/*
/* ************
// PAUSE JOB=TRMSARCH MOUNT THE OUTPUT FILE
// ASSGN SYS006,SYSLST     SYSPRINT
// ASSGN SYS031,READER     SYSINP
// EXEC TRMUTIL,SIZE=70K
```

Figure 21 Example VSE PROC for TRMS Archive

The following FILE names are required for TRMUTIL to perform an archive
of the TRMS database with the **VSE** JCL in the previous figure:

FILE Name	Explanation
SYSIN	Required for TRMUTIL to supply the control statement for the desired displays. The SYSIN FILE can define any dataset with an LRECL of 80 or may define an instream dataset. If not in stream, the filename must be "SYSINP". Must be 80 byte unblocked records. If instream, SYS031 must be assigned. If on disk, the sys-number on the extent statements must be assigned. If not SYS031 will be used and must be assigned.
SYSPRINT	Required for the archive reports created by the archive function. Normally, a Syslst dataset, BLKSIZE (133), LRECL(133), RECFM(FA). Assign SYS006 to a Print Device.
TRMWORK	Required work file for archive function. DCB information is supplied by program. SYS032 used as Default Disk Device.

SORTWK01 SORTWK02 SORTWK03	Required for the archive function.
TRMSLOC	The TRMSLOC FILE must be assigned to the LOCK cluster to which the work is being restored.
ARCHIVE FILES	See JCL Example for Duplexing.

The following FILE names are not required, but illustrate how FILE names can be used to segregate archived reports for the different needs of a particular installation.

FILE Name	Explanation
ARCH10	An example FILE statement which will contain the archived copies of the all the reports that defined ARCH10 as the FILE name in their report definitions.
ARCH102	This is an example of how a duplex archive file is created. All archive files can be duplexed if a second FILE is in the JCL with the duplicate FILE name of the primary except for a suffix of a "2". The dataset names do not have to resemble the primary archive file.

1.2.6 Return Codes

Abend Code 899	is accompanied by a TRMS899E message when the TRMSWRK2 DD is missing or if TRMSWRK2 and TRMSWORK are using the same DSN.
Abend Code 17	is accompanied by a TRMS501E message when either TRMSWORK or TRMSWRK2 DD statements are missing from the PROC.
RC=16	TRMS594E is issued when the program TRMUCNTS is not loaded.
RC>4	TRMS420 is issued when Security check on database updates fails.
Abend Code 267	is accompanied by a TRMS267 message when an error was encountered while doing an emergency backup

Abend Code 10	is accompanied by TRMS010E when a close and open of TRMSWORK fails.
RC=4	TRMS604 message is issued when error were encountered processing active reports.
RC=1	TRMS603 message is issued when no reports were found to archive
RC=8	TRMS301 message is issued when ARCHDEF DD is missing.
TRMS272	message is issued when SMS module is missing.

NOTE: Refer to the TRMS Messages & Codes Manual for other errors.

1.2.7 Requisites

TRMSWORK and TRMSWRK2 are required DD statements and cannot point to the same DSN.

Distributions whose Report Definitions have an ARCHDD which matches a DDName in the Archive porc will be archived to that file when the Report Definition is also flagged as Archivable.

1.2.8 Archive Reports

Several reports are produced by the Archive process. The following sample reports are shown below:

1 - Control Statements and Error Rpt
2 - Archive Summary Report
3 - Database Recap Report - this report has two parts

     A) a list of work (only a short portion of this part is shown below)

     B) a statistics report that includes the total percentage of the database in use and a percentage for each RRDS file.

4 - Control Statements and Error Rpt
5 - Control Records Summary Report
6 - Control Summary Report

1.2.8.1 Archive Summary Report

This report is produced each time an archive is run. The Archive Summary
Report lists the reports that were archived on this Archive run. The following
is an explanation of the column headers that appear on the report.

Column Header	Explanation
REPORT	The report Short Name.
REPORTS #	The TRMS assigned report number.
ACCUMULATE DATE/TIME	The accumulation date and time for the report.
ARCHIVE DSNAME	The dataset name to which the report was archived.
FILE #	The file sequence number if the report was archived to tape, the word "DASD" if the archive was to disk, the word OAM if the archive was via APIOAM Ddname or "MSS" if archive as to a Mass Storage System.

1.2.8.2 Archive Recap Report

This report is produced each time an archive is run.

Archive Recap Report Description

The Archive Recap Report is a list of all of the reports that were in the
database at the time of archive. Following is an explanation of the column
headers that appear on the report.

Column Headers	Explanation
REPORT	The report Short Name.
REPORTS #	The TRMS assigned report number.
ACCUMULATE DATE/TIME	The accumulation date and time for the report.
ARCHIVE #	The number assigned by TRMS at the time of archive for this report.

DB %	The percentage of the RRDS data file used by this report.

PAGE CNT	The total number of pages contained in the report.

RECORD CNT	The total number of records contained in the report.

CREATE JOB	The jobname that created the report.

RESTORED	If the report was restored to the database with the TRMS selective restore facility, YES appears in this column.

STATUS	The current database status of the report, either ONLINE or DELETED appears in this column.

ARCHIVE	The current archive status of the report is one of the following:

COMPLETE	The archive has been done.

PENDING	The archive has been submitted but has not completed.

SUPPRESSED	This report was set to no archive.

#UNDIST	The total number of undistributed distributions for the report. The report remains in the online database as long as there are undistributed distributions even if the report has expired.

The database totals portion of the report shows all of the vital statistics about the database after archive has completed.

1.2.8.3 Sample of the Archive Report

TRMS240I - ARCHIVE CONTROL STATEMENT VALIDATED - ARCHIVE CYCLE=4
TRMS611I - ARCHIVE RUN CYCLE NUMBER IS: 4
                                        ** END OF UTILITY LOG REPORT **

REPORT   REPORT# ACCUMULATE DATE/TIME   ARCHIVE DSNAME   FILE# 1ST VOLSER DUPLEXED

C203TPRP   78 MONDAY,   24 FEB 2003.055, 14:35 C203.T60A.ARCH030.G0002V00   1   877839   NO
C203TPRP   79 THURSDAY, 06 MAR 2003.065, 16:38 C203.T60A.ARCH030.G0002V00   1   877839   NO
C203TPRP   80 WEDNESDAY, 19 MAR 2003.078, 13:24 C203.T60A.ARCH030.G0002V00   1   877839   NO
C203TPRP   90 TUESDAY, 01 APR 2003.091, 16:31 C203.T60A.ARCH030.G0002V00   1   877839   NO
                                        ** END OF ARCHIVE SUMMARY REPORT **
                                        ** END OF UTILITY LOG REPORT **

PRIMARY ARCHIVE DEFINITION DATASET   FILE# 1STVOL DUPLEX ARCHIVE DEFINITION DATASET   FILE# 1STVOL
C203.T60A.ARCHDEF.G0002V00   114 877838   N/A
                                        ** END OF ARCHIVE SUMMARY REPORT **

1.2.8.4 Sample of Archive Recap Report

REPORT REPORT # ACCUMULATE DATE / TIME   ARCHIVE# DB % PAGE CNT RECORD CNT CREATE JOB RESTORED STATUS ARCHIVE #UNDIST

REPORT	REPORT #	ACCUMULATE DATE / TIME	ARCHIVE#	DB %	PAGE CNT	RECORD CNT	CREATE JOB	RESTORED	STATUS	ARCHIVE #UNDIST
C203DOL	98	THURSDAY, 22 MAY 2003.142, 10:11		0.05	2	71	C203RPT		ONLINE SUPPRESSED	1
C203DOL	99	THURSDAY, 22 MAY 2003.142, 10:16		0.05	2	71	C203RPT		ONLINE SUPPRESSED	1
C203DOL	100	THURSDAY, 22 MAY 2003.142, 10:27		0.05	2	71	C203RPT		ONLINE SUPPRESSED	1
C203DOL	101	THURSDAY, 22 MAY 2003.142, 16:09		0.05	2	84	C203RPT		ONLINE SUPPRESSED	1
C203TPRP	78	MONDAY, 24 FEB 2003.055, 14:35	4	1.05	34	1473	C100RBRK		ONLINE	0
C203TPRP	79	THURSDAY, 06 MAR 2003.065, 16:38	4	0.83	32	1004	C100RBRK		ONLINE	0
C203TPRP	80	WEDNESDAY, 19 MAR 2003.078, 13:24	4	0.05	5	100	C100RBRK		ONLINE	0
C203TPRP	81	WEDNESDAY, 19 MAR 2003.078, 13:24	2	1.05	33	1340	C203BUND		ONLINE	0
C203TPRP	82	TUESDAY, 01 APR 2003.091, 16:30	2	0.05	1	24	C203RBRK		ONLINE	0
C203TPRP	83	TUESDAY, 01 APR 2003.091, 16:30	2	0.05	1	15	C203RBRK		ONLINE	0

```
TOTAL NUMBER OF REPORTS REMAINING IN THE DATABASE      102
TOTAL NUMBER OF REPORTS DELETED                          0
TOTAL NUMBER OF RECORDS REMAINING IN THE DATABASE    40278
TOTAL NUMBER OF RECORDS DELETED                         0
TOTAL NUMBER OF PAGES REMAINING IN THE DATABASE      1138
TOTAL NUMBER OF PAGES DELETED                           0
TOTAL NUMBER OF REPORT BLOCKS ACCOUNTED FOR           720
TOTAL NUMBER OF BLOCKS RETURNED FOR USE                 0
TOTAL FORMATTED BLOCKS IN DATA BASE                  1800
TOTAL NUMBER OF BLOCKS MARKED IN USE                  822
PERCENTAGE OF DATA BASE USED                         45.66
RRDS LIST - INDEX  =STATUS=  TOTAL BLOCKS  USED BLOCKS  %USED ------------ RRDS DATA SET NAME ------------
           0        ACTIVE       1,800         822       45.6  VFIL.C203.T60A.RRDS001
                                 ** END OF DATABASE RECAP REPORT **
```

UX26001I - ARCHDEL FUNCTION IS INACTIVE BY SITE REQUEST

```
         GLOBAL                                         ===>     2
         DSN/UNIT ASSOCIATION                           ===>     1
         MAILDROP                                       ===>    14
         RECIPIENT                                      ===>    14
         USER NAME                                      ===>    14
         REPORT                                         ===>    22
         REPORT NAME                                    ===>    23
         KEY INDEX RECORD                               ===>     7
         TRIGGER                                        ===>     7
         DISTRIBUTION                                   ===>    10
         DISTRIBUTION SUB DEFINITION                    ===>    10
         CALENDAR                                       ===>     3
         EXTERNAL: DJDE INSERT                          ===>     3
         EXTERNAL: TRMS INSERT                          ===>     2
         EXTERNAL: JOB INFO                             ===>     6
         EXTERNAL: SYSOUT                               ===>    11
         EXTERNAL: DSN                                  ===>     6
         EXTERNAL: EXTERNAL ADDRESS                     ===>     9
         ACTION LIST: DISTRIBUTION LIST                 ===>    11
         ACTION LIST: DEFINITION ALIAS                  ===>     1
         ACTION LIST: REQUIREMENTS LIST                 ===>     2
         ACTION LIST: ACCESS LIST                       ===>    12
```

```
QUERY RULE: INDEX                          ===>      1
QUERY RULE: BOC                            ===>      1
QUERY RULE: PARTIAL BREAKOUT               ===>      3
QUERY RULE: WINDOW                         ===>     10
HELP                                       ===>  3,173
HELP DATA DICTIONARY                       ===>      1
NOTES                                      ===>     30
UTILITIES: MASS CHANGE                     ===>      5
ACTIVE REPORT                              ===>    102
ACTIVE TRIGGER REQUIREMENT                 ===>      4
ACTIVE REPORT NAME                         ===>      0
ADMINISTRATOR TRIGGER MANIPULATION         ===>      0
BUNDLE CONTENT                             ===>      6
ACTIVE DISTRIBUTION                        ===>      4
ARCHIVE HISTORY                            ===>     21
ARCHIVE VOLUME TRACKING                    ===>      4
ARCHIVE VOLUME DESCRIPTION                 ===>      5
ARCHIVE VOLUME EXTENSION                   ===>      0
REPORT DISTRIBUTION TRACKING               ===>      2
SMF DATABASE                               ===>      0
TOTAL RECORDS                              ===>  3,562
```

** END OF CONTROL RECORD SUMMARY REPORT **

RPTID=TRMUTIL - TRMS UTILITY PROGRAM   CONTROL STATEMENTS AND ERROR RPT   TIME=14:40:31   DATE=29 MAY 2003.149   PAGE   1
KAYS T60A DATABASE   *** LICENSED BY ***   TRMS (C) 1987-2003, CSI INC.   RELEASE 6.0A-00
                                                            **** SEA INC. **** 1230 HEMPSTEAD TPK., FRANKLIN SQUARE, NY   11010

TRMS622I - ARCHIVE FUNCTION COMPLETED RC X'00000000'

RPTID=TRMUTIL2 -   TRMS UTILITY LOG   CONTROL SUMMARY REPORT   TIME=14:40:31   DATE=29 MAY 2003.149   PAGE   2
KAYS T60A DATABASE   *** LICENSED BY ***   TRMS (C) 1987-2002, CSI INC.   RELEASE 6.0A-00
                                                            **** SEA INC. ****   1230 HEMPSTEAD TPK., FRANKLIN SQUARE, NY   11010

TRMS242I - NUMBER OF CONTROL STATEMENTS READ: 1
TRMS243I - NUMBER OF ERRORS ENCOUNTERED: 0
                                        ** END OF UTILITY LOG REPORT **

1.2.9 Other Considerations

1.2.9.1 Regular Archive Files

As previously stated, regular archive files consist of reports that match their Archive Level DDname with a DDname in the archive job. All reports with a similar DD name are placed on the same file.

1.2.9.2 Archive Definition (ARCHDEF) File

Though only having the reports assigned to them, regular archive files contain data in the same format as unload files. This allows the recreation of a TRMS database, from a control definition standpoint, from any archive file.   This can also consume extra media and increase the execution time of the archive job. The Archive Definition File (ARCHDDEF) is a regular archive file that contains all database information **except** report data and associated distribution data. This file is written only once per archive run. The ARCHDEF file is identified by matching a DDname specified in the Global definition Archive Defaults panel. Special archive files (SMS, OPTIC and APIOAM) **always** use ARCHDEF. For **VSE**, only the inclusion of a label called "ARCHDEF" will signal this feature. Duplexing of the ARCHDEF file is **not** supported on **VSE** at this time.

1.2.9.3 Individual SMS Archive Files (SMS)

These archive files are dynamically allocated by the archive job. They contain 1 report per archive file. At allocation, they use the SMS Storage, Management and Data class attributes supplied at report definition. The **ARCHDEF file is required** in the archive job if any archives of this type are done. The SMS address space **must** be active when the archive job runs or all archives of this type will fail. The advantage of this type of archive is that it allows SMS to govern where and for how long TRMS archives are placed. TRMS will always use the installation's catalog structure when referencing these archives. TRMS does not support duplexing of this archive file type, but SMS can be used for additional availability requirements.

1.2.9.4 Individual OPTICAL (3480 look-a-like) Archive Files (OPTIC)

These archive files are for users who archive TRMS to optical devices that function similar to 3480 tape devices. Typically, these devices support the BSAM access method and allow the use of the POINT TYPE=ABS macro. Like the SMS style archive, these are dynamically allocated by the archive job and contain 1 report per archive file. The **ARCHDEF** file is required in the archive job if any archives of this type are done. TRMS does not support duplexing of this archive file type.

1.2.9.5 API Archive Files (API)

These archive files are produced via an Application Programming Interface (API) from the TRMS archive job. The actual API used is determined by the 4 byte suffix of the API prefixed DDname. Currently, the Optical Access Method (OAM) is supported. TRMS archive files of this type use the OSREQ macro. OAM requires both SMS and DB2 to be up and running at execution time of the archive job, therefore all requirements for the SMS archive type apply here as well. OAM archives consist of objects that are grouped into collections. The TRMS application considers objects to be volumes, and collections to be files. Each report archived to this DDname starts a new object. If it is large enough, it may span multiple objects. These archive files are dynamically accessed by the archive job. The **ARCHDEF** file is required in the archive job if any archives of this type are done. The advantage of this type of archive is the same as that for the SMS archives. Additionally, device independence is achieved as OAM archives do not use a Data class attribute.

NOTE: By definition in the OAM Application Programmer's Reference, IBM defines data types that do and do not work well with OAM as the difference between infrequent and frequent updates, respectively. If the data archived to an OAM archive file is expected to be used frequently, you should be prepared for an increase in execution and/or response times.

1.3 TRMJBUND - Distributing TRMS Managed Reports - BUNDLE

		Description	Notes
1.3	Job Name	TRMSJBUND	
1.3.1	Title/Description		
1.3.2	TRMJBUND Job Components		
	JCL	TRMJBUND	
	Procedure	TRMPBUND	
	Primary Program	TRMUTIL	
1.3.3	Controls and Parameters		
1.3.4	Options		
1.3.5	Samples		
1.3.6	Return Codes		
1.3.7	Requisites	Must be stored in TRMS library	
1.3.8	Reports		
1.3.9	Other Considerations		

1.3.1 TRMS Bundle Job

Reports are normally distributed automatically by TRMS. Groups of printed reports, called bundles, are automatically created at the completion of predefined events. The bundles of reports are produced in sequence according to the Recipient's priority and the reports are in sequence within Recipient by report priority.

For **VSE** the following reference to TRMSJOBS and TRMSCTRL Files (DD statements) refer to either the ICCF File or POWER RDR Queue as defined at TRMS installation.

The job(s) that perform the distribution functions are submitted by TRMS from the JCL library that is defined by the TRMSJOBS DD statement in the JCL for the TRMS accumulation task. These jobs are used to accommodate specific print characteristics that are unavailable by dynamic allocation techniques and to permit the installation to use existing accounting methods for the exact billing for the print services.

The report attributes for the distributions are retrieved from the TRMS database at the time TRMS distributes the printed output. The Sysout/Syslst attributes are defined for the report at the time the distributions are defined. These attributes can be changed, however, prior to distributing the report from the TRMS database. These attributes can also be overridden at print time by coding the override parameters on the print control cards. Reports that were defined to use tape for the distribution media can have their definitions changed to be produced as Sysout/Syslst datasets and vice versa. Both Sysout/Syslst and tape distributions can be produced by the same execution of the TRMUTIL program. The Sysout/Syslst distributions are created before the tape distributions (when both are created in the same bundling operation).

Bundle Inventory reports are created for each Maildrop that has a distribution that is routed to the respective Maildrop. The inventory report is created to indicate that there were report distributions defined for this Maildrop that were not created. Failure to create a report is due to the fact that the report content did not match the subdivision or "breakout" criteria. Inventory reports are not created for the demand printing of reports.

1.3.2 TRMJBUND Job Components

1.3.2.1 Controlling Job DD's

In the previous MVS Procedure JCL, the following DD names are used by TRMUTIL to perform the distribution of TRMS managed reports.

DD Name	Description
STEPLIB	Assign the STEPLIB DD to the TRMS loadlib.
SYSPRINT	Required for the control statement log for the distribution function. Normally a Sysout dataset, BLKSIZE(133), LRECL(133) RECFM(FA).
SYSOUT	Required file for INTERNAL SORT Message.
TRMSWORK	Required work file for TRMSUTIL. DCB information is supplied by program.
TRMSLOCK	Required for report distribution. This is the TRMS LOCK cluster.

PRTVRRDS	Optional for TRMS VTAM Print Facility. Remove the DD if you are not licensed for this product.
TRMSCTRL	Is assigned to the PDS that contains the control information that should precede the report. The member is defined to TRMS on the Direct Output Report Dataset Attributes Panel.
TRMSIRPT	Optional for the distribution function. TRMS creates a consolidated inventory report if this DD statement is provided to the TRMUTIL program when reports are bundled. The consolidated report is identical to the individual inventory reports that are produced for each Maildrop when bundles of reports are created. The dataset has the following attributes: RECFM(FA), LRECL(133) and BLKSIZE(133).
TRMSLABL	Optional for the distribution function. TRMS creates mailing labels for each address line marked with a Y in the Maildrop definition. Labels are only printed if this DD statement is provided to the TRMUTIL program when reports are bundled. This DD is normally a Sysout dataset that defines the specific class, forms ID, and other Sysout attributes.
SYSIN	Required for TRMUTIL, used to supply the control statement(s) for the desired function.
TRMSALLW	Optional for output of all distributions being Bundled or Printed. If this DD is present in the JCL, TRMS will write all distributions (regardless of the distributions media type) to this DD instead of allocating the output to the Defined Definition Specification. All DD information must be supplied including the DSN Disposition, Unit, DCB, Retention and Space for the output. All inventory reports are disabled except the output written to the TRMSIRPT DD.

NOTE: The Inventory Report is produced only for the "Bundle" Command and NOT for the "Print" Command.

SYSUDUMP and ABNLIGR are used for error processed.

1.3.2.2 Controlling Job DD's for VSE

In the previous VSE JCL, the following FILE names are used by
TRMUTIL to perform the distribution of TRMS managed reports.

FILE Name	Description
SYSPRINT	Required for the control statement log for the distribution function. Assign SYS006 to a printer device.
TRMWORK	Required work file for TRMSUTIL. DTF information is supplied by program.
TRMSLOC	Required for report distribution. Defines the TRMS LOCK cluster.
DTSFILE	Is assigned to the ICCF File that contains the control information that should precede the report. The member is defined to TRMS on the Direct Output Report Dataset Attributes Panel. If ICCF is not used, then the POWER RDR Queue is used in place of DTSFILE, and DTSFILE would not be coded.
TRMSIRPT	Optional for the distribution function. TRMS will create a consolidated inventory report if this FILE statement is provided to the TRMUTIL program when reports are bundled. The consolidated report is identical to the individual inventory reports that are produced for each Maildrop when bundles of reports are created. The dataset has the following attributes: RECFM(FA), LRECL(133) AND BLKSIZE(133).
TRMSLABL	Optional for the distribution function. TRMS creates mailing labels for each address line marked with a 'Y' in the Maildrop definition. Labels are only printed if this FILE statement is provided to the TRMUTIL program when reports are bundled. This FILE is normally a Syslst dataset that defines the specific class, forms ID, and other Syslst attributes.

SYSIN   Required for TRMUTIL to supply the
                               control statement for the desired displays.
                               The SYSIN FILE can define any dataset
                               with an LRECL of 80 or may define an
                               instream dataset. If not in stream, the
                               filename must be "SYSINP". Must be 80
                               byte unblocked records. If instream,
                               SYS031 must be assigned.   If on disk, the
                               sys-number on the extent statements must be
                               assigned. If not SYS031 will be used and
                               must be assigned.

TRMALLW   Optional for output of all distributions being
                               Bundled or Printed. If this is present in the
                               JCL, TRMS will write all distributions to it
                               instead of allocating the output to the
                               Defined definition Specification. All
                               information must be supplied including the
                               Disposition, Retention and Space for the
                               output. All inventory reports are disabled
                               except the output written to the TRMSIRPT
                               DD.

                               NOTE: The Inventory Report is produced
                               only for the "Bundle" Command and NOT
                               for the "Print" Command. This can be a
                               tape or disk. It has the following attributes:

                               RECFM(FM),LRECL(133) and
                               BLKSIZE(6650).

                               To have all output for distributions be
                               written to "POWER", use the following:
                               // DLBL
                               TRMALLW,"SPOOL.IT.TO.POWER'.

VSE NOTE: To invoke use of TRMSIRPT and/or TRMSLABL, do as
follows.

                     For TRMSIRPT
                     1) Insert a TLBL "TRMIRPT" statement with it's
                     retention period set to the sys-number of the print
                     device that is to be used. SYS007 will be used if
                     the retention period is omitted.

2) Assign SYSXXX to a print device. XXX is the retention period or 007.

For TRMSLABL
1) Insert a TLBL "TRMLABL" statement with it's retention period set to the sys-number of the print device that is to be used.   SYS008 will be used if the retention period is omitted.

2) Assign SYSXXX to a print device. XXX is the retention period or 008.

NOTE: An invalid sys-number or zero in the retention period is the same as omitting it.

1.3.3 Control Statements and Parameters

1.3.3.1 Parameters

Parameter Sub-parameter	Explanation
BUNDLE or PRINT	This is the verb or action parameter for the TRMUTIL control statement. The verb is a positional parameter and must be the first operand on the control statement. This parameter starts in position 1. Use the 'BUNDLE' verb when recreating an entire bundle job, or when an Inventory Report is desired. Use the 'PRINT' verb to simply bundle one or more distributions without an Inventory Report. The verbs 'PRINT' and 'BUNDLE' are mutually exclusive.
,BURST=	This sub-parameter is used to request the burst attribute for this report. A `Yes` value requests that the report be burst by a 3800 printer, if available. A value of `No` requests that the report not be burst. If this sub-parameter is omitted, the value entered when the distribution was defined is used.
,CHARS=	This sub-parameter is used to specify the name of one or more character arrangement tables for printing the report on a 3800 printer. Each name table entry is comprised

	of 1 to 4 alphanumeric characters. One to four names can be supplied. If this sub-parameter is omitted, the value entered when the distribution was defined is used.
,CLASS=	This sub-parameter defines the Sysout/Syslst class that is used to create the distribution of this report. If this sub-parameter is omitted, the value entered when the distribution was defined is used.
,CNTL#=	This value is a number that is assigned to each distribution of a report at the time of capture and is used as a limiting criterion for demand printing of a single distribution of a report. The value is 1 to 7 numerics.
,COPYS=	This sub-parameter specifies the number of copies to be generated for this report. If this sub-parameter is omitted, the value entered when the distribution was defined is used.
,CPGRP=	This sub-parameter defines the number of copies of each page to be printed (prior to generating the next consecutive page) when the report is printed on a 3800 printer. A group value is 1-255 for JES2/POWER and 1-254 for JES3. A maximum of eight group values can be specified. The sum of the group values must not exceed 255 or 254. If this sub-parameter is omitted, the value entered when the distribution was defined is used.
,CPMOD=	This sub-parameter defines the Copymod ID to be used by a 3800 printer for the report. A value from 1 to 4 characters can be supplied to request the Copymod ID for the distribution of this report. If this sub-parameter is omitted, the value entered when the distribution was defined is used.
,CTRLMEM=	This sub-parameter identifies a member in the TRMSCTRL library that can supply processing information to an offline printer, e.g. a DJDE for a XEROX 9700, or COM commands for a microfilm processing

system. All records in this member are written before the report is written to the output report dataset. The record length is adjusted to match the record length of the output file, if necessary. The member must exist in the PDS defined by the TRMSCTRL DD statement. For VSE, the member must exist in the ICCF Library or POWER RDR Queue as defined at TRMS installation. If this sub-parameter is omitted, the value entered when the distribution was defined is used.

,CYCLE=   This value is 1 to 7 numerics. The cycle number is assigned by TRMS and is displayed as the Distributions' Control # (CntL #) using the TRMS Administration Facility Report Distributions (1.3). This number is automatically provided by TRMS for bundle creation and for demand printing.

,DISTID=   This value is the ID that is defined for a distribution of a report and is used as a limiting criterion for demand printing of a single distribution of a report. This value is 1 to 8 characters.

,EPAGE=   The ending page number for this bundle request. This number can be 1 to 7 numerals long, or it can be the keyword ALL, or it can be in the format +nnn. If ALL is specified, the report is printed from the SPAGE specified until the end of the report. If the format +nnn is used, the report is printed from the SPAGE specified for +nnn pages. (Print Only)

,FCB=   This sub-parameter specifies which forms control buffer is to be used when the report is written. If this sub-parameter is omitted, the value entered when the distribution was defined is used.

,FLASH=	This sub-parameter defines the Flash ID and the Flash Count to be used by a 3800 printer. A value of 1 to 4 characters can be supplied to request the Flash ID, and the ID can be followed by a comma and a count value from 1 to 255. The count field defines the number of copies that are flashed with the flash overlay defined by the Flash ID. If this sub-parameter is omitted, the value entered when the distribution was defined is used.
,FORM=	This sub-parameter identifies the 1 to 4 character Forms ID for this report. If this sub-parameter is omitted, the value entered when the distribution was defined is used.
,LRECL=	This sub-parameter specifies the record length of the report. If this sub-parameter is omitted, the value entered when the distribution was defined is used.
,MAILDROP=	This sub-parameter identifies the distribution Maildrop for the distribution being bundled. If this sub-parameter is used, the Maildrop defined is used. If the specified Maildrop is not defined in the database, an error is given for the PRINT and further processing of this request is discontinued. If this sub-parameter is omitted, the Maildrop assigned to the Recipient of the distribution is used.
,MODRC=	This sub-parameter identifies which table name in the Chars sub-parameter is to be used. The table reference character is "0" for the first table-name specified, "1" for the second, "2" for the third, or "3" for the fourth. If this sub-parameter is omitted, the value entered when the distribution was defined is used.

,NOSEP= The values for this sub-parameter determine whether separator pages, or cover pages, are to be created when the report is distributed. The data that is used to create the cover page is gathered from the Maildrop, Recipient, Report Definitions and the cover page user exit. A value of N causes the separators to be suppressed. A value of Y requests the generation of separator pages. A value of 1st prevents the printing of a separator page between each portion of a distribution as long as the Recipient ID, Report ID, Group ID, and Distribution ID remain the same. When one of these four values change, a new separator page is printed. Use of 1st reduces the number of separator pages printed while still routing the work to the proper person. Since the PRINT control statements are handled individually, and a new allocation is performed for each new PRINT control statement, JES/POWER can cause the distributions from multiple PRINTs in the same execution of TRMSUTIL, that define NOSEP=1ST, to not come out behind the separator. The default value for this option is Y. However, if this sub-parameter is omitted, the value entered when the distribution was defined is used.

,OPJNM= This sub-parameter is used to specify the name of the output JCL statement supplied in the JCL of the bundling job. This feature is provided to enable the specification of Sysout attributes that are not available with dynamic allocation. If this sub-parameter is omitted, the value entered when the distribution was defined is used.

,OVRPDEST= Overriding primary destination for the distribution(s) being printed. The value of this field may be a valid JES destination or a "-" (dash). If the value is a "-", then no destination will be used for the Destination.

,OVRSDEST=	Overriding sub-destination for the distribution(s) being printed. The value of this field may be a valid JES sub-destination or a "-" (dash). If the value is a "-", then no sub-destination will be used for the destination/sub-destination. If a value for sub-destination is specified, then a valid destination must have been specified else "local" will be substituted for the blank destination value. Also, WTRMN= or a writer name specification are mutually exclusive for JES.
,RCYCLE=	This value is the report cycle number that is assigned to the report at the time of capture and is used as a limiting criterion for demand printing of a single distribution of a report. The report cycle is 1 to 7 numerics.
,RECFM=	This sub-parameter specifies what record format is required when the report is written. If this sub-parameter is omitted, the value entered when the distribution was defined is used.
,REPORT=	This value is the report's short name and is used as a limiting criterion for demand printing of a single distribution of a report. This field is 1 to 8 alphanumerics.
,SPAGE=	The starting page number for this bundle request. This number can be 1 to 7 numerals long, or it can be the keyword ALL. (Print Only)
,TRIGGER=	This value is supplied by TRMS and is the ID of the Trigger that is defined by the distribution definition for the reports.
,UCS=	This sub-parameter specifies which UCS ID is to be used when the report is written. If this sub-parameter is omitted, the value entered when the distribution was defined is used.

USERBANR=	Overriding BANNER USER (Overriding, Banner user, Printing User). The USERBANR= parameter s used to allow the change of the USER (recipient) ID that is printed on the USER and cover pages for a distribution. The printing user value is user by the bundling process only as documentation and SMF record information. If other than the 1st value is specified, the parameter must be enclosed in the parenthesis.
,USERID=	This value is the Recipient's ID that is defined for a report distribution and is used as a limiting criterion for demand printing of a single distribution of a report. This value is 1 to 8 characters.
,WTRNM=	This sub-parameter specifies the name of an external writer for the report. The name is comprised of 1 to 8 alphanumeric characters. OVRSDEST= or a sub-destination specification are mutually exclusive for JES. If this sub-parameter is omitted, the value entered when the distribution was defined is used.

These control statements are valid only if the bundle job is submitted manually or through a job scheduler. If TRMS is submitting the bundle job then the following comment card must immediately follow the SYSIN DD/File statement for MVS, the Exec Statement for VSE:

For MVS:
        //*TRMS.BUNDLES.CONTROL

For VSE:
        /* TRMS.BUNDLES.CONTROL

No other control statements are valid when this comment card is present. The comment card tells TRMS to build and where to insert the required control statement(s) for this execution of the bundle job.

1.3.4 Options

When TRMSALLW DD Statement is in the TRMSBUND PROC, all
distributions selected will be written to this DD regardless of media type.
Refer back to the controlling Job DDs' Section.

1.3.5 Sample MVS JCL - Report Distribution

Sample MVS JCL for the TRMUTIL Distribution Facility is shown below and
is also provided in the TRMS INSTLIB as member TRMJBUND.

```
 //TRMJBUND JOB (ACCOUNTING),'BUNDLE JOB', MSGCLASS=T,
 //           CLASS=A, MSGLEVEL=1, NOTIFY=&SYSUID
 //TRMSBUND EXEC TRMPBUND, RPTCLS=A, REGION=2048K
 //*
 //*    THE TRMSLABL DD IS USED TO DEFINE THE OUTPUT DEFINITION FOR
 //*    MAILDROP LABELS BEING PRODUCED.
 //TRMSUTIL.TRMSLABL DD SYSOUT=(*,,LABL)
 //*
 //*    THE "//*TRMS.BUNDLES.CONTROL"  COMMENT STATEMENT IS USED TO
 //*    IDENTIFY WHERE TRMS IS TO PLACE THE BUNDLING CONTROL STATEMENT
 //*    WHEN THE JOB IS SUBMITTED BY TRMS.  IT MUST IMMEDIATELY FOLLOW
 //*    THE SYSIN DD STATEMENT.
 //*
 //TRMSUTIL.SYSIN  DD  *
 //*TRMS.BUNDLES.CONTROL
```

Figure 22 Sample MVS JCL - Bundle Job, TRMJBUND

See the MVS PROC for the required DD Names for TRMS Bundle.

A sample MVS PROC for Bundle Function is shown below and is also
provided in the TRMS INSTLIB as member TRMPBUND.

```
//TRMPBUND  PROC RPTCLS='*'
//            LOADLIB='TRMS.REL#.LOADLIB',
//            LOCKDSN='TRMS.REL#.LOCK',
//            ALWDSN='TRMS.REL#.TRMSALLW(+1)', <------- TRMSALLW   DSN
//            ALWRECF=FBA,                <--------------------- TRMASLLW  RECFM
//            ALWLREC=133,                <--------------------- TRMSALLW L  RECL
//            ALWBLKS=13300,              <-------------------  TRMSALLW  BLKSIZE
//            DUNIT=SYSDA,                 <=== TRMSALLW O/P DISK UNIT
//            STYPE=CYL,                   <=== TRMSALLW O/P DISK SPACE TYPE
//            PSPACE=5,                    <=== TRMSALLW O/P DISK PRIMARY SPACE ALLOC
//            SSPACE=5,                    <=== TRMSALLW O/P DISK 2NDARY SPACE ALLOC
//            CTRLDSN='TRMS.REL#.INSTLIB'
//*
//TRMSUTIL    EXEC PGM=TRMUTIL,REGION=0M
//*
//STEPLIB     DD  DSN=&LOADLIB,DISP=SHR
//*               TRMUTIL CONTROL STATEMENT LOG
//SYSPRINT    DD  SYSOUT=&RPTCLS
//*
//SYSOUT      DD  SYSOUT*
//*              THE MEMBER IN YOUR PROCLIB THAT CONTAINS ALL DEFINED
//*              OUTPUT STATEMENTS FROM TRMS DISTRIBUTION DEFINITIONS
//* TRMSOUTS INCLUDE MEMBER=?????       (COMMENTED FOR NOW)
//*
//TRMSWORK   DD  DSN=&&WORK,DISP=(,DELETE,DELETE),
//                 UNIT=SYSDA,SPACE=(CYL,(10,5))
//*                 TRMS VSAM FILES
//*  THE TRMS LOCK DATASET CONTAINS THE NAMES OF THE KSDS AND
//*    RRDS(S) DATASETS AND ARE DYNAMICALLY ALLOCATED.
//TRMSLOCK   DD  DSN=&LOCKDSN,DISP=SHR
//*********************************************************
//NOTE:    OPTIONAL - FOR TRMS VTAM PRINT FACILITY -- REMOVE
//             THE PRTVRRDS DD STATEMENT IF YOU ARE NOT LICENSED
//             FOR THE TRMS VTAM PRINT FACILITY.
//*********************************************************
//PRTVRRDS    DD  DSN=PRTV.REL#.RRDS,DISP=SHR
//*     LIBRARY FOR CONTROL STATEMENTS OR DATA TO PRECEDE A DISTRIBUTION
//TRMSCTRL   DD  DSN=&CTRLDSN,DISP=SHR
//*     OPTIONAL - CONSOLIDATED INVENTORY REPORT
//TRMSIRPT    DD  SYSOUT=&RPTCLS
//*********************************************************
//* IF THE TRMSALLW DD STATEMENT IS COMMENTED IN,  *ALL WORK*
//* WILL BE BUNDLED TO THIS ONE DATASET. THIS DD STATEMENT ALLOWS
//* THE USER TO SPECIFY HOW MUCH SPACE TO ALLOCATE WHEN BUNDLING
//* TO A DISK DATASET. THE USER SHOULD BE AWARE THAT A L L  THE WORK
//* THAT IS BUNDLED WILL BE WRITTEN TO  THE DDNAME "TRMSALLW"
//* REGRDLESS OF THE DISTRIBUTION  MEDIA TYPE.
//TRMSALLW    DD DSN=&ALLWDSN,DISP=(,CATLG,DELETED),
//*              DCB=BLKSIZE=80,LRELC=80,RECFM=FB),
//*              UNIT=SYSDA,SPACE=(CYL,(10,5),RLSE)
//*SYSDUMP     DD SYSOUT=*,HOLD=YES
//*ABNLIGNR    DD DUMMY
//*   MAILDROP LABELS WILL BE PRODUCED ON TRMSLABL IF THE TRMSLABL DD
//*   IS NOT A DUMMY STATEMENT
//*=>TRMSLABL DD DUMMY
//*
//SYSIN          DD DUMMY
```

Figure 23 Example MVS PROC for TRMS Report Distribution,
Member TRMPBUND

1.3.5.1 Sample VSE JCL - Report Distribution

Sample VSE JCL for the TRMUTIL Distribution Facility is shown below and is also provided in the TRMS INSTLIB as member TRMSBUND.JCL.

```
    * $$ JOB JNM=TRMSBUND, FROM=TRMSR, CLASS=5, DISP=L
   * * $$ JOB JNM=TRMSBUND
   * * $$ LST CLASS=A
   // JOB TRMSBUND
 // OPTION PARTDUMP
  // DLBL IJSYSUC, 'VSAM.USER.CATALOG', , VSAM     <---VSAM USER CATALOG
  // DLBL TRMSLIB, 'TRMS.LIBRARY', , VSAM          <---TRMS LIBRARY
  // LIBDEF *, SEARACH=TRMSLIB. REL#INST
  // EXEC PROC=TRMSLBLS
  * *** JOB=TRMSBUND  (TRMUTIL)  STEP 1 OF 1
  // EXEC PROC=TRMSBUNP
  /* TRMS. BUNDLES. CONTROL
  * * $$ EOJ
  * $$ EOJ
```

Figure 24 Sample VSE JCL - Bundle Job

The following FILE name is used by TRMUTIL to perform the distribution of TRMS managed reports.

FILE Name   Description

TRMSLIB   The TRMS loadlib.

See the VSE PROC for the required DD Names for TRMS Bundle.

A sample VSE PROC for Bundle execution follows and is also provided in the TRMS INSTLIB as member TRMSBUNP.JCL.

```
    // DLBL TRMWORK, 'SORTLIB', 0, VSAM, RECORDS=8000, RECIZE=4093
    // EXTENT , XXXXXX                      <----FILL IN VOLUME
    // ASSIGN SYS007, SYSLST       TRMSIRPT  (Optional)
    // TLBL   TRMIRPT                        (Optional)
    // ASSIGN SYS008, SYSLST       TRMSLABL  (Optional)
    // TLBL   TRMLABL                        (Optional)
    // DLBL/TLBL TRMALLW                     (Optional)
    // ASSGN SYS006, SYSLST        SYSPRINT
    // ASSGN SYS031, READER        SYSINP
    // EXEC TRMUTIL, SIZE=70K
```

Figure 25 Example VSE PROC for TRMS Report Distribution

1.3.6 Return codes

RC=8   TRMS005 message is a getmain error.

RC=8   VSAM open error.

RC>4   TRMS349 message is a VSAM read error.

RC=256 TRMS258 message means no report keys were found for the trigger specified.

RC=8   TRMS003 message means Freemain error.

RC=16   TRMS003 message means Getmain error.

RC>8   TRMS360-364 TMRS Access Method error.

NOTE: Refer to the TRMS Message and Codes Manual for other errors.

1.3.7 Requisites

Reports must exist on the database for bundle and print to work.

1.3.8 Reports
1.3.8.1 Sample Bundle Print Reports

RPT ID	RECIP.	GROUP ID	DIST ID	CC	PAGES	LINES	DEST.	SUB-DEST	REPORT NAME	CR JOBNAME / #	RPT CYC	M
*PAYROLL	C101	DIVIS.-A	NON-UN	1	2	10			NON-UNION EMPLOYEES	C101PYRL(J00366)	3058	S
PAYROLL	C101	DIVIS.-A	SALARY	1	2	10			SALARIED EMPLOYEES	C101PYRL(J00366)	3058	S
PAYROLL	C101	DIVIS.-A	HOURLY	1	27	171			HOURLY WAGE EMPLOYEES	C101PYRL(J00366)	3058	S
PAYROLL	C101	DIVIS.-A	MANAGMT	1	2	10			SUPERVISOR AND ABOVE	C101PYRL(J00366)	3058	S
PAYROLL	C101	DIVIS.-A	NON-MNGT	1	3	15			BELOW SUPERVISOR	C101PYRL(J00366)	3058	S
PAYROLL	C101	DIVIS.-A	CURRENT	1	3	15			CURRENT PERIOD	C101PYRL(J00366)	3058	S
PAYROLL	C101	DIVIS.-A	QUARTLY	1	3	23			QUARTER-TO-DATE	C101PYRL(J00366)	3058	S
PAYROLL	C101	DIVIS.-A	YEARLY	1	11	85			YEAR-TO-DATE	C101PYRL(J00366)	3058	S
PAYROLL	C101	DIVIS.-A	SICK-CUR	1	11	85			SICK LEAVE CURRENT	C101PYRL(J00366)	3058	S
PAYROLL	C101	DIVIS.-A	SICK-QTD	1	2	10			SICK LEAVE QUARTER-TO-DATE	C101PYRL(J00366)	3058	S
PAYROLL	C101	DIVIS.-A	SICK-YTD	1	3	15			SICK LEAVE YEAR-TO-DATE	C101PYRL(J00366)	3058	S
PAYROLL	C101	DIVIS.-B	UNION	1	2	10			UNION EMPLOYEES	C101PYRL(J00366)	3058	S
*PAYROLL	C101	DIVIS.-B	NON-UN	1	2	10			NON-UNION EMPLOYEES	C101PYRL(J00366)	3058	S
PAYROLL	C101	DIVIS.-B	SALARY	1	1	8			SALARIED EMPLOYEES	C101PYRL(J00366)	3058	S
PAYROLL	C101	DIVIS.-B	HOURLY	1	3	15			HOURLY WAGE EMPLOYEES	C101PYRL(J00366)	3058	S
PAYROLL	C101	DIVIS.-B	MANAGMT	1	27	171			SUPERVISOR AND ABOVE	C101PYRL(J00366)	3058	S
PAYROLL	C101	DIVIS.-B	NON-MNGT	1	2	10			BELOW SUPERVISOR	C101PYRL(J00366)	3058	S
PAYROLL	C101	DIVIS.-B	CURRENT	1	3	15			CURRENT PERIOD	C101PYRL(J00366)	3058	S
PAYROLL	C101	DIVIS.-B	QUARTLY	1	3	15			QUARTER-TO-DATE	C101PYRL(J00366)	3058	S
PAYROLL	C101	DIVIS.-B	YEARLY	1	3	23			YEAR-TO-DATE	C101PYRL(J00366)	3058	S
PAYROLL	C101	DIVIS.-B	SICK-CUR	1	11	85			SICK LEAVE CURRENT	C101PYRL(J00366)	3058	S
PAYROLL	C101	DIVIS.-B	SICK-QTD	1	11	85			SICK LEAVE QUARTER-TO-DATE	C101PYRL(J00366)	3058	S
PAYROLL	C101	DIVIS.-B	SICK-YTD	1	1	7			SICK LEAVE YEAR-TO-DATE	C101PYRL(J00366)	3058	S
PAYROLL	C101	DIVIS.-C	UNION	1	4	31			UNION EMPLOYEES	C101PYRL(J00366)	3058	S
PAYROLL	C101	DIVIS.-C	NON-UN	1	5	40			NON-UNION EMPLOYEES	C101PYRL(J00366)	3058	S
PAYROLL	C101	DIVIS.-C	SALARY	1	2	10			SALARIED EMPLOYEES	C101PYRL(J00366)	3058	S
PAYROLL	C101	DIVIS.-C	HOURLY	1	27	171			HOURLY WAGE EMPLOYEES	C101PYRL(J00366)	3058	S
PAYROLL	C101	DIVIS.-C	MANAGMT	1	2	10			SUPERVISOR AND ABOVE	C101PYRL(J00366)	3058	S
PAYROLL	C101	DIVIS.-C	NON-MNGT	1	3	15			BELOW SUPERVISOR	C101PYRL(J00366)	3058	S
PAYROLL	C101	DIVIS.-C	CURRENT	1	3	15			CURRENT PERIOD	C101PYRL(J00366)	3058	S
PAYROLL	C101	DIVIS.-C	QUARTLY	1	3	23			QUARTER-TO-DATE	C101PYRL(J00366)	3058	S
PAYROLL	C101	DIVIS.-C	YEARLY	1	11	85			YEAR-TO-DATE	C101PYRL(J00366)	3058	S
PAYROLL	C101	DIVIS.-C	SICK-CUR	1	11	85			SICK LEAVE CURRENT	C101PYRL(J00366)	3058	S
PAYROLL	C101	DIVIS.-C	SICK-QTD	1	2	10			SICK LEAVE QUARTER-TO-DATE	C101PYRL(J00366)	3058	S
PAYROLL	C101	DIVIS.-C	SICK-YTD	1	3	15			SICK LEAVE YEAR-TO-DATE	C101PYRL(J00366)	3058	S

NOTE: "*" AT START OF ANY SYSOUT DISTRIBUTION INDICATES A NEW ALLOCATION

** END OF BUNDLE INVENTORY REPORT **

```
RPT ID  RECIP. GROUP ID DIST ID  CC  PAGES LINES DEST.SUB-DEST   REPORT NAME      CR JOBNAME / #  RPT CYC M
LINEST  C101   PAGE2TAP SELECT45   2    10   QUARTERLY PROFIT & LOSS DEPT 1  C101TASD(J1436)  92 T
DSN=S600.X2XX.GDG.G0014V00             VOL(S)=507268  FILESEQ=1

LINEST  C101   PAGE2TAP SELECT45  13    64   QUARTERLY PROFIT & LOSS DEPT 2  C101TASD(J1436)  92 T
DSN=S600.X2XX.GDG.G0014V00             VOL(S)=507268  FILESEQ=1

LINEST  C101   PAGE2TAP SELECT45  13    64   QUARTERLY PROFIT & LOSS DEPT 3  C101TASD(J1436)  92 T
DSN=S600.X2XX.GDG.G0014V00             VOL(S)=507268  FILESEQ=1

LINEST  C101   PAGE2TAP SELECT45   1    56   QUARTERLY PROFIT & LOSS TOTAL   C101TASD(J1436)  94 T
DSN=S600.X2XX.GDG.G0014V00             VOL(S)=563824  FILESEQ=1

LINEST  C101   PAGE2TAP SELECT45   1    56   YEARLY PROFIT & LOSS TOTAL      C101TASD(J1436)  94 T
DSN=S600.X2XX.GDG.G0014V00             VOL(S)=563824  FILESEQ=1

                        ** END OF BUNDLE INVENTORY REPORT **
```

```
RPTID=TRMSIN01 - BUNDLE CYCLE# 78  INVENTORY FOR MAILDROP TRMSUSPN  TIME=14:55:11  DATE=25 FEB 03.056  PAGE 1
WIDGET CORPORATION, ABC DIVISION          *** LICENSED BY ***  TRMS (C) 1987-1998, CSI INC.       RELEASE 6.0A
                                          **** SEA INC. ****  1230 HEMPSTEAD TPK., FRANKLIN SQUARE, NY 11010


RPT ID     RECIP. GROUP ID DIST ID  CC   PAGES   LINES DEST.SUB-DEST   REPORT NAME   CR JOBNAME / # RPT CYC M

TRMS336I - MEMBER "ZXYWUTS" PERMANENT I/O ERROR - TRMSCTRL PDS FOR MAILDROP=ACCTDESK
TRMS336I - MEMBER "ZXYWUTS" PERMANENT I/O ERROR - TRMSCTRL PDS FOR MAILDROP=ACCTDESK
TRMS336I - MEMBER "ZXYWUTS" PERMANENT I/O ERROR - TRMSCTRL PDS FOR MAILDROP=ACCTDESK
TRMS336I - MEMBER "ZXYWUTS" PERMANENT I/O ERROR - TRMSCTRL PDS FOR MAILDROP=ACCTDESK
TRMS336I - MEMBER "ZXYWUTS" PERMANENT I/O ERROR - TRMSCTRL PDS FOR MAILDROP=ACCTDESK


THIS MESSAGE IS REPEATED 44 TIMES BY TRMS SO THAT IT WILL NOT BE OVERLOOKED WITH A CURSORY GLANCE


RPTID=TRMSIN01 - BUNDLE CYCLE# 78 INVENTORY FOR MAILDROP TRMSUSPN  TIME=14:55:11  DATE=25 FEB 03.056  PAGE 1
WIDGET CORPORATION, ABC DIVISION          *** LICENSED BY ***  TRMS (C) 1987-1998, CSI INC.       RELEASE 6.0A
                                          **** SEA INC. ****  1230 HEMPSTEAD TPK., FRANKLIN SQUARE, NY 11010

RPT ID  RECIP.GROUP ID DIST ID  CC PAGES   LINES DEST.SUB-DEST  REPORT NAME           CR JOBNAME /# RPT CYC M
LINES   C102  LINETEST ALL-ALL     12  672              ENTIRE PROFIT & LOSS  C101ACCT(J1736)     95 S
LINES   C102  LINETEST SUBSET       1   50              ONE PAGE PROFIT & LOSS C101ACCT(J1736)    95 S
LINES   C102  LINETESS C101ALL      2  112              ENTIRE PROFIT & LOSS  C101C101ACCT(J1736)95 S

                         ** END OF BUNDLE INVENTORY REPORT **
```

2 TRMS Database Function - Request

	AutoSub	JobTYPE/FREQUENCY	JOB Name	Description	Requisite
2		**TRMS Database Functions - Request**			
2.1	No	TDB-R	DBAJREST	Database Restore	
2.2	No	TDB-R	DBAJFMRG	Forward Merge	
2.3	No	TDB-R	TRMJRBRK	Batch Accumulation	
2.4	No	TDB-R	DBAJHLPL	Help Load	
2.5	No	TDB-R	DBAJNOTL	Note Load	
2.6	No	TDB-R	DBAJSPLT	Database Split	
2.7	No	TDB-R	DBAJMPRT	Import	
2.8	No	TDB-R	DBAJXPRT	Export	
2.9	No	TDB-R	DBAJDELE	Delete	

2.1 DBAJREST/DBAPREST - Restore Work Program, TRMRESTR (formerly TRMSREST and TRMSRESP)

		Description	Notes
2.1	Job Name	DBAJREST	Uses proc DBAPREST Replaces TRMSREST/TRMSRESP
2.1.1	Title/Description		
2.1.2	DBAJREST Job Components		
	JCL	DBAJREST	
	Procedure	DBAPREST	
	Primary Program		
2.1.3	Controls and Parameters		
2.1.4	Options		
2.1.5	Samples		
2.1.6	Return Codes		
2.1.7	Requisites		
2.1.8	Reports		
2.1.9	Other Considerations		

2.1.1 TRMS Restore

The TRMRESTR program is used to restore work from the Archive or Unload files to the online database. Selections of the work to be restored are requested by control statements read from the SYSIN DD (VSE: DLBL) file. Processing messages and Error messages are written to the SYSPRINT DD (VSE: SYSLST) file.   Restored reports remain on the database until the next archive or until the expiration of the value in the control statement RETPD. (See Section 2.4.1 Control Statements, for the exact statement format.)

NOTE: The JCL PROC, DBAPREST, must be updated with your LOADLIB, KSDS file, and LOCK file names.

Restores are normally initiated from the online interface panel, selection 1.5 TRMS Archive Administration, using the line command **R** next to the report to be restored.

Some devices (such as 3480 look-a-like optical devices) use different unit names for input and output operations. The Unit Name for a Restore can be overridden from the online interface panel, Section 8.2D, "TRMS Restore DSNAME/Unit Association". Restores that have access to the Archive History records can determine Report output type for SMS, OPTIC, or API/OAM Reports. OPTIC archived reports should not have to be overridden, and SMS and API/OAM Restores use the Catalog to locate the input.

The Archive information on Reports to be restored are located in three possible input files. In order of priority:

SYSUT1 (VSE: DLBL)	When this file is present in the JCL, TRMSHIST is ignored. This DD statement will contain Archive history and report information for Reports to be restored. Multiple files can be concatenated.
COLLECTION=	When this keyword is present in the Control Card statements, TRMSHIST is ignored. This Control Card will indicate the OAM collection name where Archive and Report data resides. Multiple 'COLLECTION=' control statements are allowed, and are searched in entry order. When both a SYSUT1 statement and 'COLLECTION=' Control cards are present, SYSUT1 is searched first.
TRMSHIST	This file when present in the JCL, is the TRMS KSDS file where the Archive History records are located, if they are still on the database. If Archive history records are not longer on the database, SYSUT1 or 'COLLECTION=' should be used.

2.1.2 DBAJREST Job Components

2.1.2.1 Controlling Job DD's

The following DD names are required for the execution of TRMRESTR when using the **MVS** PROC.

DD Name	Explanation
DBA[REST	Restore PROC
STEPLIB	Assign the STEPLIB DD to the TRMS loadlib.
SYSPRINT	The SYSPRINT DD is used by TRMRESTR to report the status of the requested restores.

SYSIN	The SYSIN DD is used by TRMRESTR to input RESTORE requests from the user.
TRMSLOCK	The TRMS LOCK dataset contains the names of the KSDS and RRDS(S) datasets and are dynamically allocated.
TRMSHIST	TRMSHIST DD is allocated to the KSDS file containing the Archive History records of the work being restored.
SYSUT1	If the SYSUT1 DD is defined in the JCL, TRMRESTR uses it as the input DD for all restore requests. The TRMSHIST DD is ignored. SYSUT1 DD is for all non-APIOAM archive and unload files. Files may be concatenated to this DDname.

The SYSUDUMP and ABLIGNR DDs are used for error processing.

The following FILE names are required for the execution of TRMRESTR using the **VSE** JCL.

FILE Name	Explanation
TRMSLIB	The TRMS loadlib.
SYSPRINT	The SYSPRINT FILE is used by TRMRESTR to report status of the requested restores. Assign SYS006 to a printer device.
SYSIN	Required for TRMRESTR to supply the control statement for the desired displays. The SYSIN FILE can define any dataset with an LRECL of 80 or may define an instream dataset. If not in stream, the filename must be "SYSINP". Must be 80 byte unblocked records. If instream, SYS031 must be assigned. If on disk, the sys-number on the extent statements must be assigned. If not SYS031 will be used and must be assigned.
TRMSLOC	The TRMSLOC FILE must be assigned to the LOCK cluster to which the work is being restored.
TRMHIST	TRMHIST FILE must be assigned to the TRMS KSDS VSAM cluster that contains the Archive History records of the work being restored.

SYSUT1	If the SYSUT1 is defined in the JCL, TRMSREST will use it as the input for all restore requests. TRMRESTR will not use the TRMHIST to determine from which archive the requested restores reside. This feature is used mainly when the Archive History records no longer reside in a database. The SYSUDUMP and ABLIGNR DDs are used for error processing. Normally, restore processing would not have the name SYSUT1 in the JCL.

2.1.3 Controls and Parameters

2.1.3.1 Control Statements - TRMRESTR/DBAJREST

The verb or function is a positional parameter and starts in column 1 - 16. Commas must be used to separate selection parameters.

Parameter Sub-parameter	Explanation
RESTORE	Required. The verb indicates a restore request.
REPORT=rpt id	Required. The is the Report ID of the report to be restored. NOTE: All reports in the input file can be restored by entering a single dash (-) in the report name. The SYSUT1 statement is required in the JCL for this option to work.
,CYCLE=#####	Required. This is the Report CYCLE Number assigned by TRMS when the report was accumulated.
,RETPD=##	Optional. This can be a value from 0 - 99 days. The default value of 0 indicates the report will be deleted when the next Archive is run.

,DUPLEX=YES		Optional. Indicates to use the duplex archive file to restore the report.
,COLLECTION=		Optional. This is the OAM collection name or a TRMS Archive file. It is the MVS catalog entry name for the Collection.

EXAMPLE:

RESTORE REPORT=[report id],CYCLE=[cycle#],COLLECTION=[collection]

NOTE: Substitute real names for values in square brackets.
        (i.e. REPORT=REPORT01)

2.1.4 Options

If SYSUT1 is defined in the JCL, the TRMSHIST DD will not be used to determine where the work to be restored is located. Only work read from the SYSUT1 DD statement will be searched and matched against the requests form SYSIN.

2.1.5 Sample MVS JCL Member DBAJREST (formerly TRMSREST)

Sample MVS JCL for the TRMSRESTR batch execution is shown below and is also provided in the TRMS.INSTLIB as member DBAJREST.

```
//DBAJREST  JOB (YOUR,ACCT),'RETORE JOB',MSGCLASS=T
//             CLASS=A,MESGLEVEL=1,NOTIFY=&SYSUID
//*
//TRMSREST EXEC DBAPREST
//*
//*    DO NOT COMBINE THIS JOB JCL WITH THE RESTORE PROC SUPPLIED AS MEMBER
//*    DBAJREST. TRMS USES ONLY THE PROC WHEN SUBMITTING A RESTORE REQUEST FROM
//*    THE ONLINE INTERFACE.
//*
//*    THIS MEMBER IS ONLY VALID FOR MANUALLY SUBMITTED RESTORE REQUESTS.
//*
//*    PLEASE REFER TO THE ADMINISTRATOR'S GUIDE - BATCH PROGAM SUPPORT FOR A
//     DETAILED EXPLANATION OF EACH PARAMETER ON THE CONTROL STATEMENT.
//SYSIN    DD   *
RESTORE REPORT=reportid,CYCLE=#####
                           -
                                                  -
```

Figure 26 Sample MVS (BATCH ONLY) RESTORE JCL - Member DBAJREST

> **NOTE:** <u>This JCL is only to be used for batch restores</u>. You must provide the sysin selection criteria. Online restores use DBAPREST and the sysin criteria is supplied from your online selections.

2.1.5.1 Sample MVS PROC - Member DBAPREST (formerly TRMS RESP)

Sample **MVS** PROC for the TRMRESTR execution is shown below and is also provided in the TRMS INSTLIB as member DBAPREST.

```
//DBAPREST PROC RPTCLS='*',DUMPCLS='*',
//TRMSHST='TRMS.rel#.KSDS'
//*
//**SAMPLE PROC USED TO RESTORE REPORTS TO THE TRMS DATABASE.
//**THIS PROC CAN BE EXECUTED BOTH FROM THE ONLINE INTERFACE,
//**AS WELL AS FROM THE BATCH JOB TRMSREST.
//*
//TRMRESTR EXEC PGM=TRMRESTR,REGION=0M
//*
//STEPLIB  DD   DSN=TRMS.REL#.LOADLIB,DISP=SHR
//*
//SYSUDUMP DD   SYSOUT=&DUMPCLS
//*
//ABNLIGNR DD   DUMMY
//*
//SYSPRINT DD SYSOUT=&RPTCLS
//*
//*  IF SYSUT1 IS DEFINED IN THE JCL, THE TRMSHIST DD WILL
//*  NOT BE USED TO DETERMINE WHERE THE WORK TO BE RESTORED
//*  IS LOCATED. ONLY WORK READ FROM THE SYSUT1 DD STATEMENT
//*  WILL BE SEARCHED AND MATCHED AGAINST THE REQUESTS
//*  FROM SYSIN.
//*
//*  TRMSHIST DD IS ALLOCATED TO THE KSDS FILE CONTAINING THE
//*  ARCHIVE HISTORY RECORDS FOR THE WORK BEING RESTORED
 //*
//TRMSHIST DD DSN=&TRMSHST,DISP=SHR
//*
//* THE TRMS LOCK DATASET CONTAINS THE NAMES OF THE KSDS
//* AND RRDS(S) DATASETS AND ARE DYNAMICALLY ALLOCATED.
//*
//TRMSLOCK DD DSN=TRMS.REL#.LOCK,DISP=SHR
//*
```

Figure 27 Sample MVS PROC - Member DBAPREST (Restore Procedure)

2.1.5.2 Sample VSE JCL - TRMRESTR

Sample **VSE** JCL for the TRMRESTR execution is shown below and is also provided in the TRMS INSTLIB as member TRMRESTR.JCL.

```
    * $$ JOB JNM=TRMSRSTR
    // JOB TRMSRSTR
    * $$ LST CLASS=&RPTCLS
    // OPTION PARTDUMP
    // DLBL IJSYSUC,'VSAM.USER.CATALOG',,VSAM  <---- VSAM USER CATALOG
    // DLBL TRMSLIB,'TRMS.LIBRARY',,VSAM       <---- TRMS LIBRARY
    // TLBL SYSUT1,'TRMS BKUP'
    /* ************
    /*
    /* IF YOU WISH TO SPECIFY A BLOCKSIZE OR USE A SPECIFIC
    /* SYS-NUMBER FOR A TAPE, READ ABOUT THE "RMS" FEATURE IN
    /* SECTION 4.0 OF THE ADMIN GUIDE
    /* ************
    /* IF SYSUT1 IS DEFINED IN THE JCL, THE TRMHIST LABEL WILL NOT BE
    /* USED TO DETERMINE WHERE THE WORK TO BE RESTORED IS LOCATED.
    /* ONLY WORK READ FROM THE SYSUT1 LABEL STATEMENT WILL BE SEARCHED
    /* AND MATCHED AGAINST THE REQUESTS FROM SYSIN.
    /* TRMHIST IS THE KSDS FILE CONTAINING THE ARCHIVE HISTORY RECORDS
    /* FOR THE WORK BEING RESTORED.
    /*
    /* DLBL TRMHIST,'&TRMSHST',,VSAM
    /* ************
    // PAUSE JOB=TRMSRSTR  MOUNT THE INPUT FILE
    // ASSGN SYS006,SYSLST            SYSPRINT
    // ASSGN SYS031,READER            SYSINP
    // LIBDEF *,SEARCH=TRMSLIB.REL#INST
    // EXEC PROC=TRMSLBLS
    * *** JOB=TRMSRSTR    (TRMRESTR)   STEP 1 OF 1
    // EXEC TRMRESTR,SIZE=80K
    RESTORE
    /*
    /&
    * $$ EOJ
```

Figure 28 Sample VSE JCL - TRMRESTR (Restore Procedure)

2.1.6 Return Codes

Abend 3   TRMS003e (TRMREST9) FAILRE AT OFFSET BLDCELLS

Abend 309   TRMS309E, TRMS database allocation error.

RC=8   TRMS315 message means the Lock file is allocated to some other
               task.

Abend 360   TRMS database open/read error.

Abend 10   TRMS010 message, unable to open a file in the JCL.

NOTE: Refer to the TRMS Message and Codes Manual for more information.

2.1.7 Requisites

There must be Archive reports in SYSUT1 or TRMSHIST.

2.1.8 TRMSREST Reports

A sample Control Summary Report and Restore Summary Report is provided
below. The Control Summary shows the control statement(s). The statements are
validated and any errors are shown.   The Restore Summary shows what was
restored to the database and any errors.

2.1.8.1 Sample of the TRMRESTR Report

```
RPTID=TRMRESTR - TRMS RESTORE LOG  CONTROL SUMMARY REPORT  TIME=16:04:38  DATE=02 JUN 2003.153    PAGE 1
TRMS T60A DATABASE                    *** LICENSED BY ***   TRMS (C) 1987-2003, CSI INC. RELEASE 6.0A-00
                                      **** SEA  INC. ****   1230 HEMPSTEAD TPK.,FRANKLIN SQUARE,NY 11010



TRMS237I - RESTORE CONTROL STATEMENT VALIDATED - RESTORE REPORT=C203RPT,CYCLE=78

                                **** E N D  O F  R E P O R T ****




RPTID=TRMREST2 - TRMS RESTORE LOG    RESTORE SUMMARY REPORT  TIME=16:04:38  DATE=02 JUN 2003.153  PAGE  1
TRMS T60A DATABASE                    *** LICENSED BY ***   TRMS (C) 1987-2002, CSI INC. RELEASE 6.0A-00
                                      **** SEA  INC. ****   1230 HEMPSTEAD TPK.,FRANKLIN SQUARE,NY 11010



TRMS619I - RESTORE COMPLETE FOR REPORT C203RPT CYCLE 78

                                **** E N D  O F  R E P O R T ****
```

2.2 DBAJFMRG - Forward Merge TRMSFMRG

		Description	Notes
2.2	Job Name	DBAJFMRG	
2.2.1	Title/Description		
2.2.2	DBAJFMRG Job Components		
	JCL	DBAJFRMG	
	Procedure	TRMSFMRG	
	Primary Program		
2.2.3	Controls and Parameters		
2.2.4	Options		
2.2.5	Samples		
2.2.6	Return Codes		
2.2.7	Requisites		
2.2.8	Reports		
2.2.9	Other Considerations		

2.2.1 TRMS Forward Merge

The TRMS Forward Merge program (TRMSFMRG) is an archive *moving* and *creation* tool. The primary purpose of this program is to move archive data to less expensive media, and to allow more efficient use of archive media, such as tape consolidation. The program allows:

- Moving an archive report from one file to another.
- Changing the type of TRMS archive from one to another.
- Creating TRMS archive data from an unload file.
- Deleting archive history.

Reports may be specifically INCLUDED or EXCLUDED from a merge operation. The processing order for selection is: (1) specific exclude, (2)specific include, (3)program default. **NOTE:** Program default is determined by the include/exclude setting (or default) of the first selection record encountered in the SYSIN stream. It is always the opposite of the selection record.

Report selection may be done by Short Name, Cycle Number and Accumulation Date/Time. The Short Name may be masked and selection records allow for both Start and End Date/Time fields.

Created archive files may be the SMS, OPTIC or normal types as specified by the selection record. A merged report can have its Archive History retention amount changed. A merged report can have its Archive History retention amount changed as well as the Start Date of the retention period.

Forward Merge may get input from a SYSUT1 DD or from dynamically allocated files located by the TRMS database. There are two types of merge runs; AUDIT and LOAD. An AUDIT run moves data to the new file(s) and writes database updates in the SORTOUT DD. A LOAD run applies the updates to the database. For convenience, a run type of BOTH combines the AUDIT and LOAD processes, however this is not recommended since the updates to the TRMS database cannot easily be reversed..

Forward Merge updates to the database occur after the merge (LOAD) operation. A database rebuild will lose these updates unless:

1. The "LOAD" operation is rerun or,
2. The rebuild operation uses definition input created after the merge.

A single execution of forward merge can produce any number of OPTIC or SMS archive files, plus one (1) normal archive file on the SYSUT2 DD. The normal archive may be duplexed via the SYSUT22 DD. The Forward Merge Program does not support duplexing of SMS or OPTIC files.

As in backup, a merge run that produces any SMS or OPTIC archives requires the ARCHDEF DD to be present in the merge JCL. You can avoid copying the definitions to the SYSUT2/22 DD's by using the ARCHDEF DD and setting the appropriate fields in the TRMS Globals (INTERNALS Option 8, 2 for Update, and a Group of O) to always use the ARCHDEF DD. There is a difference in the timing of the ARCHDEF data from backup, however. Backup creates it after additions of new archive information, but before any deletions. In merge, ARCHDEF data is created before any changes to the database.

TRMS archive formats underwent a significant change as of release 5.xx. Archives changed from QSAM to BSAM to allow for faster restores and gave users archive browse capability. Merge can be used on input from any release of TRMS, however it can not convert data from prior 5.xx releases to the new format. It can not accept mixed input of 5.xx releases and prior releases. It can create old style archives and new style archives, but not in the same execution.

Non-SYSUT1 runs of forward merge can utilize the TRMS dataset/unit association table, (INTERNAL Option 8, 2 for Update and a Group of D) as backup and restore do, for its input files. By default, TRMS keeps track of the device type, unit and volume serial numbers of its archive files and does not rely on the system catalog for restores (except for SMS archives). The dataset/unit association table can override this by forcing the catalog to be used or by supplying an overriding unit name for a dataset.

TRMS Forward Merge does not support OAM at this time.

TRMS Forward Merge can not merge files from different device types at this time.

2.2.2 DBAJFMRG Job Components

2.2.2.1 Controlling Job DD's

The following DD names are required for the execution of TRMSFMRG when using the MVS JCL in the previous figure.

DD Name	Explanation
STEPLIB	Assign the STEPLIB DD to the TRMS loadlib.
SYSPRINT	The SYSPRINT DD is used by TRMSFMRG to report various aspects of the program and the merged status of reports.
SYSOUT	Output message file.
SYSIN	The SYSIN DD is used to input MERGE requests from the user.
TRMSLOCK	The TRMSLOCK DD must be assigned to the LOCK cluster where the newly merged reports archive history will reside.
SORTIN	A temporary file used for work purposes. This file must NOT be the same file as the SORTOUT DD.
SORTOUT	File where database updates are stored from merge runs. The disposition of this file must be reviewed with the current value of the TYPRUN parameter to ensure data is not lost.

SYSUT1　　　If the SYSUT1 DD is defined in the JCL, TRMSFMRG uses it as the input DD for all merge requests. Files may be concatenated to this DD, but they <u>canno</u>t be spread over different device types. Files must be all tape or all disk.

SYSUT2　　　DD where all "normal" style merged reports are written. When no reports are merged with this type, this is an optional DD.

SYSUT22　　Duplex DD of SYSUT2. This is always an optional DD. The Forward Merge Program does not support the SYSUT22DD for duplexing SMS or OPTIC files.

NOTE: The system ARCHDEF DD may also be required by TRMSFMRG if the TRMS Globals is set to always use it or if any SMS / OPTIC merge files are created.

SYSUDUMP
　And ABLIGNR　　　Used for error processing.

2.2.3 Controls and Parameters

2.2.3.1 SYSIN Statements - TRMSFMRG

The verb or function is a positional parameter and starts in column 1 to 16. Commas must be used to separate sub-parameters. Sub-parameters are divided into types: Program Control, Selection and Selection Control. The presence of a Program Control sub-parameter constitutes a Program Control statement and will ignore any selection or selection control parameters on the same statement. Continuations may be done by ending a statement with a comma and starting the next statement in CC 2 - 16.

Some fields may be masked. A masked value is defined as a string of alpha-numeric or national characters used to override normal checking. Any position within a field may have its significance overridden by using the character "*". When no additional significant characters are needed to compose a name mask, a "-" may be used in lieu of filling the remaining positions with asterisks. A "." (period) in the mask denotes an absolute name. That is if the name field is filled with trailing blanks. The mask character, "." prevents a value shorter than the field length from being generic.

Any mask field given is considered generic unless it is completely specified for its entire length or if masking characters are used to compose

---

it. All work matching that type of request will be selected if all other selection criteria is met.

2.2.3.2 Program Control - Selection/Selection Control

There are two types of merge control statements:
 * The Program Control Statement
 * The Selection/Selection Control Statements

Program Control has three different main functions:

Audit function	audits the selections that need to be changed before the changes are made
Load function	takes the selections criteria from the audit and applies it to the system.
Both	the both option performs both the audit and the load.

NOTE: This option (Both) is not recommended

Parameter Sub-parameter	Explanation
MERGE	The verb is written as stated to indicate a merge is requested.

Program Control Statements

,TYPRUN=AUDIT |
        LOAD |
        BOTH
	The type of merge run to perform.
	
	AUDIT moves data to the new file(s) and stores the database updates in the SORTOUT DD, but <u>does not apply</u> them to the database.
	
	LOAD <u>applies</u> the updates from the SORTOUT DD to the database. The LOADTOKEN parameter must be used with the correct value for this type to be successful.
	
	BOTH does both an AUDIT and LOAD process in a single operation.
	Abbreviation: TY=
	Default: AUDIT
	Type: Program Control

DELHISTORY= YES | NO	Governs whether Archive History present in the input that is not merged is either deleted or retained at its original setting. YES deletes the Archive History in the database for non-merged reports found on the input files. SYSUT1 runs do not use this parameter. **Abbreviation:** DELH= **Default:** NO **Type:** Program Control
DELFILE= YES | NO	Governs the deletion of the input file. YES deletes the input file after a successful merge operation during LOAD processing. SYSUT1 runs do not use this parameter. **Abbreviation:** DELF= **Default:** NO **Type:** Program Control
,LOADTOKEN=	A 13 byte numeric token used to confirm that updates are to be applied to the database from a previous merge run. The data for this field is located as the last print line from the SYSPRINT DD from a previous TYPRUN=AUDIT run. **Abbreviation:** LO= **Default**: None **Type:** Program Control
PRINT= SUMMARY | DETAIL	Governs the level of printing. DETAIL prints a line for each report encountered during input. SUMMARY prints the program totals only. **Abbreviation:** PRI= **Default:** DETAIL **Type:** Program Control

The Selection/Selection Control are parameters used to set up the criteria for the selection of the merge.

Selection and Selection Control Statements

Parameter Sub-parameter	Explanation
MERGE	The verb is written as stated to indicate a merge is requested.
,REPORT=rpt id	The report ID of the selection. This field may be masked. **Abbreviation:** REP= **Default:** None **Type:** Selection
,CYCLE=#####	The report's CYCLE number assigned by TRMS at the accumulation time of the report. **Abbreviation:** CY= **Default:** None **Type:** Selection

,SDATE=
    YYYYDDD
    YYDDD
        *
    -#####
	Start date. All archive accumulation dates greater or equal to this are selected. "*" means today and "-####" is today minus #### days.
	Abbreviation: SD=
	Default: Lowest possible date
	Type: Selection

,EDATE=YYYYDDD
      YYDDD
        *
    - #####
	End date. All archive accumulation dates less or equal to this are selected. "*" meanstoday. And "-#####" is today minus ##### days.
	Abbreviation: ED=
	Default: Highest possible date
	Type: Selection

,STIME=HHMM
        HH:MM
          *
	Start time. All archive accumulation times greater or equal to this are selected. "*" means now
	Abbreviation: ST=
	Default: Midnight (00:00)
	Type: Selection

,ETIME=HHMM HH:MM *	End time. All archive accumulation times less or equal to this are selected. "*" means now. **Abbreviation:** ET= **Default:** 23:59 (11:59 p.m.) **Type:** Selection
,INCLUDE | EXCLUDE	The processing mode for all reports selected by the statement. INCLUDE puts the report on the output merge file, EXCLUDE does not. If there is an overlap between selection statements, EXCLUDES override INCLUDES. **NOTE:** The first selection statement determines the program default processing as the opposite of this sub-parameter value. **Abbreviation:** IN | EXC **Default:** Based on first selection parameter. **Type:** Selection Control
,OUTDD=NORMAL SMS OPTIC	Merge archive type for this INCLUDED selection. SMS creates a SMS style archive, OPTIC creates a TRMS OPTIC style archive. Normal is a regular style TRMS archive. **Abbreviation:** OUTD= **Default:** NORMAL **Type:** Selection Control
,ARCHDATE= TODAY | ORIGINAL	Date that Archive History retention will start for INCLUDED reports. ORIGINAL uses the date from the original archive history. TODAY replaces the date with today's date. Executions that include the SYSUT1DD will **always** use TODAY. **Abbreviation:** AR= **Default:** TODAY **Type:** Selection Control

,RETAMT=#####	Retention amount (in days) to keep archive history for INCLUDED reports. This value is always used for executions that include the SYSUT1DD. Non-SYSUT1 runs use this as a default if CRETAMT is not specified. **Abbreviation:** RET= **Default:** None **Type:** Selection Control
,CRETAMT= DEFINITION |	Source to copy an archive history retention amount for INCLUDED reports. DEFINITION uses the HISTORY retention value from the report definition record. HISTORY uses the retention amount from the Previous archive history record for this report. SYSUT1 executions ignore this parameter and always use RETAMT. Omitting this parameter uses the RETAMT parameter. **Abbreviation:** CR= **Default:** None **Type:** Selection Control
,OUTHLQ=	The output file high level qualifier for INCLUDED reports in an SMS or OPTIC archive. **Abbreviation:** OUTH= **Default:** None **Type:** Selection Control
,EXPDT= YYYY.DDD YY.DDD YYYYDDD YYDDD	Expiration date or retention period for INCLUDED reports in an SMS or OPTIC archive. 4 digits (or less) are treated as a retention period. 5 or 7 digit values are used as expiration 0-9999 dates. **Abbreviation:** EXP= **Default:** None **Type:** Selection Control

,OPTIUNIT=	The input unit name used to access an OPTIC archive for INCLUDED reports. This field is used to access the output OPTIC archive from this merge in future operations. This field is required for all OPTIC archives. **Abbreviation:** OPTI= **Default:** None **Type:** Selection Control
,OPTOUNIT=	The output unit name used to create an OPTIC archive for INCLUDED reports. This field is used by merge to create the OPTIC archive file. This field is required for all OPTIC archives. **Abbreviation:** OPTO= **Default:** None **Type:** Selection Control
,SMSSTOR=	The name of the SMS storage class to use to allocate an SMS archive for INCLUDED reports. **Abbreviation:** SMSS= **Default:** None **Type:** Selection Control
,SMSMNGT=	The name of the SMS management class to use to allocate an SMS archive for INCLUDED reports. **Abbreviation**: SMSM= **Default:** None **Type:** Selection Control
,SMSDATA=	The name of the SMS data class to use to allocate an SMS archive for INCLUDED reports. **Abbreviation**: SMSD= **Default:** None **Type:** Selection Control

2.2.4 Options

None

2.2.5 Sample JCL

2.2.5.1 Sample MVS JCL - DBAJFMRG

Sample MVS JCL for the TRMSFMRG execution is shown below and is also provided in the TRMS INSTLIB as member DBAJFMRG.

```
//DBAJFMRG JOB (ACCOUNTING),'FORWARD MERGE',MSGCLASS=T,
//         CLASS=A,MSGLEVEL=1,NOTIFY=&SYSUID
//TRMSFMRG EXEC PGM=TRMSFMRG,REGION=0M
//
//      SAMPLE OF THE FORWARD MERGE JCL
//STEPLIB    DD  DSN=TRMS.REL#.LOADLIB,DISP=SHR
//SYSPRINT   DD  SYSOUT=*
//SYSOUT     DD  SYSOUT=*
//SYSUDUMP   DD  SYSOUT=*
//*
//ABNLIGNR   DD  DUMMY
//*
//* THE SORTIN AND SORTOUT FILES CAN N O T BE THE SAME FILE.
//*                 -----
//SORTIN     DD  DISP=(,PASS),UNIT=SYSDA,SPACE=(CYL,(5,5))
//*
//* SAMPLE SORTOUT FOR "AUDIT" RUNS
//*                 -----
//SORTOUT    DD  DSN=TRMS.REL#.MERGE,DISP=(,CATLG,DELETE),
//               UNIT=SYSDA,SPACE=(CYL,(10,1),RLSE),
//               DCB=(RECFM=VB,LRECL=4093,BLKSIZE=27998)
//*
//* SAMPLE SORTOUT FOR "LOAD" RUNS
//*                 -----
//*SORTOUT   DD  DSN=TRMS.REL#.MERGE,DISP=(OLD,DELETE,KEEP)
//*
//*  THE TRMS LOCK DATASET CONTAINS THE NAMES OF THE KSDS
//*  AND RRDS(S) DATASETS AND ARE DYNAMICALLY ALLOCATED.
//*
//TRMSLOCK   DD  DSN=TRMS.REL#.LOCK,DISP=SHR
//*
//*SYSUT1     DD  DISP=SHR,DSN=YOUR.INPUT.UNLOAD.OR.ARCHIVE.FILE
//*
//*        MERGE FILE NAMES
//*
//* N O T E !! ALL MERGE BLKSIZES MUST BE AT LEAST 4100
///*SYSUT2    DD  DSN=TRMS.MERGE.PRIMARY(+1),
//*             DISP=(,CATLG,DELETE),
//*             UNIT=(TAPE,,DEFER),
//*              DCB=(TRMS.DSCB,BLKSIZE=23476),
//*             LABEL=(1,SL,RETPD=35)
//*SYSUT22   DD  DSN=TRMS.MERGE.DUPLEX(+1),
//*             DISP=(,CATLG,DELETE),
//*             UNIT=(TAPE,,DEFER),
//*             DCB=(TRMS.DSCB,BLKSIZE=23476),
//*             LABEL=(1,SL,RETPD=35)
//SYSIN      DD  *
MERGE TYPRUN=AUDIT
MERGE REPORT=-,INCLUDE
/*
//
```

Figure 29 Sample MVS JCL Member DBAJFMRG - TRMSFMRG (Forward Merge)

2.2.6 Return Codes

RC=12   Required files missing from JCL/PROC.

Abend 3   TRMS003, Get/Freemain error.

Abend 360   TRMS Database error.

NOTE: Refer to TRMS Message and Codes Manual for more information.

2.2.7 Requisites

ARCHDEF DD is required in the Jcl if any SMS or OPTIC ARCHIVES are present.

2.2.8 Reports

2.2.8.1 Sample TRMSFMRG Report

The Reports below are produced from an "Audit" run of TRMSFMRG. There is a parameter validation report, a statistical report by record type, a report for all the merged data, and a summary report of totals for data on the input file. The summary report also contains the loadtoken, if this is an Audit run.

2.2.8.2 Forward Merge Report Description

The Forward Merge report list the reports encountered during a merge
operation. The following is an explanation of the column headers that
appear on the report.

Column	Description
Report Name and Cycle	The short name of the report and its accumulation cycle number.
Accumulation, JOBNAME Date and Time	The JOBNAME that produced the report and the date and time it was accumulated by TRMS
Line Count	Number of lines the report contains.
Page Count	Number of pages the report contains.
Block Count	Number of blocks the report would use if it were in the database.
Dist. Count	Number of distributions for the report at the time the report was originally accumulated.
Status	Status of the reports after the merge operation: MERGED, DELETED or SKIPPED. MERGED means the report was copied to a new archive file and that database update records were created for the new report archive. DELETED means the report was not copied and that any existing archive history records in the database will be deleted. SKIPPED means the status of the report and its archive records are unchanged.

The last page of the Forward merge report contains totals for the number
of Merged, Deleted and Skipped reports during the entire merge run. The
final line;

> Update token for this run is : 9999999999999
> contains the value needed by the LOADTOKEN= parameter to
> actually update the database with the changes from Forward
> Merge.

        MERGE TYPRUN=AUDIT
        MERGE REPORT=C203,INCLUDE

GLOBAL/CONTROL RECORDS   2
RESTORE DATASET/UNIT ASSOCIATION RECORDS   1
MAILDROP RECORDS   14
USER PROFILE RECORDS   14
REAL NAME RECORDS   14
DISTRIBUTION PATH RECORDS   0
REPORT DESCRIPTION RECORDS   23
REPORT NAME RECORDS   24
REPORT ATTRIBUTES RECORDS   0
RESTRICTED DISTRIBUTION RECORDS   0
REPORT WINDOW DEFINITION RECORDS   0
EXPANDED REPORT ID DEFINITION RECORDS   7
REPORT INDEX DEFINITION RECORDS   0
TRIGGER REQUIREMENT RECORDS   7
RPTNAME REQUIREMENT RECORDS   0
REPORT DISTRIBUTION RECORDS   10
DISTRIBUTION BREAKOUT RECORDS   10
DISTRIBUTION BREAKOUT EXTENSION RECORDS   0
EXTENDED BREAKOUT CRITERIA RECORDS   0
DJDE RECORDS   0
INSERTION RECORDS   0
CALENDAR RECORDS   3
ACTIVE TRIGGER REQUIREMENT RECORDS   6
ACTIVE RPTNAME REQUIREMENT RECORDS   0
ADMINISTRATOR TRIGGER MANIPULATION RECORDS   0
BUNDLE CONTENT RECORDS   7
ARCHIVE HISTORY RECORDS   21
ARCHIVE HISTORY VOLUME RECORDS   5
ARCHIVE/VOLUME DESCRIPTOR RECORDS   4
ARCHIVE/VOLUME EXTENSION RECORDS   0
REPORT DISTRIBUTION TRACKING RECORDS   6
                ** END OF CONTROL RECORD SUMMARY REPORT **

---- REPORT NAME	CYCLE	---- -------- JOBNAME	ACCUMULATION -------- DATE AND TIME	LINE COUNT	PAGE COUNT	BLOCK COUNT	DIST. COUNT	STATUS
C203RPT	78	C203RBRK	24 FEB 2003.055 14:35	1473	34	20	1	MERGED
C203RPT	79	C203RBRK	06 MAR 2003.065 16:38	1004	32	16	1	MERGED
C203RPT	80	C203BUNP	19 MAR 2003.078 13:24	100	5	2	1	MERGED
C203RPT	81	C203BUND	19 MAR 2003.078 13:24	1340	33	20	1	MERGED
C203RPT	82	C203RBRK	01 APR 2003.091 16:30	24	1	2	1	MERGED
C203RPT	83	C203RBRK	01 APR 2003.091 16:30	15	1	2	1	MERGED
C203RPT	84	C203RBRK	01 APR 2003.091 16:30	52	1	2	1	MERGED
C203RPT	85	C203RBRK	01 APR 2003.091 16:30	27	1	2	1	MERGED
C203RPT	86	C203RBRK	01 APR 2003.091 16:30	75	2	2	1	MERGED
C203RPT	87	C203RBRK	01 APR 2003.091 16:30	39	1	2	1	MERGED
C203RPT	88	C203RBRK	01 APR 2003.091 16:31	119	1	3	1	MERGED
C203RPT	89	C203RBRK	01 APR 2003.091 16:31	67	1	2	1	MERGED
C203RPT	90	C203RBRK	01 APR 2003.091 16:31	11905	436	177	1	MERGED
C203RPT	91	C203RBRK	01 APR 2003.091 16:34	36	1	2	1	MERGED
C203RPT	92	C203RBRK	01 APR 2003.091 16:34	137	1	3	1	MERGED
C203RPT	93	C203RBRK	01 APR 2003.091 16:34	45	1	2	1	MERGED
C203RPT	94	C203BUND	04 APR 2003.094 11:58	1340	33	20	1	MERGED

                                    ** END OF REPORT **

REPORTS MERGED   17
REPORTS DELETED   0
REPORTS SKIPPED   0
UPDATE TOKEN FOR THIS RUN IS: 2003161161112

2.2.9 Other Considerations

None.

2.3 TRMJRBRK - TRMS Batch Accumulation and Report REBREAK

		Description	Notes
2.3	Job Name	TRMJRBRK	
2.3.1	Title/Description		
2.3.2	TRMJRBRK Job Components		
	JCL	TRMJRBRK	
	Procedure		
	Primary Program		
2.3.3	Controls and Parameters		
2.3.4	Options		
2.3.5	Samples		
2.3.6	Return Codes		
2.3.7	Requisites		
2.3.8	Reports		
2.3.9	Other Considerations		

2.3.1 TRMS Batch Accumulator

The TRMURBRK Module is designed to do two different functions: the BREAK function and the REBREAK function.

The BREAK function is used to add a new report to the TRMS database using a source other than JES. Whereas, the REBREAK function is used to redistribute a report that resides on the TRMS database using the modified distribution criteria.

The BREAK function, like the REBREAK function is designed to accumulate a report to the TRMS database with or without the TRMS accumulator being active The Difference is:

1). The BREAK function is used to add a new report to the TRMS database using source other than JES. The BREAK function requires an input file that is defined by the DDNAME= subparameter. This input file must be a valid report file created from a report program. The file can not be a TRMS archive or unload file. If this is a new report that is being broken, the report definition must be defined in the TRMS database before the TRMURBRK

Module is executed. You may have multiple control statements for more than one report that is being broken.

2). The REBREAK function is used to redistribute a report that resides on the TRMS database using the modified distribution criteria. If the report is not on the database, but resides on a TRMS Archive File, the report must be restored <u>before</u> the REBREAK is done.

2.3.2 TRMJRBRK Job Components

2.3.2.1 Controlling Job DD's

In the previous MVS JCL Member TRMJRBRK, the following DD names are used by the TRMURBRK BREAK/REBREAK Program:

<u>DD Name</u>	<u>Explanation</u>
STEPLIB	Assign the STEPLIB DD to the TRMS loadlib.
SYSPRINT	TRMURBRK message/log output file.
TRMSWORK	Required work file for the TRMURBRK BREAK/REBREAK functions. A space amount of (CYL,(5,5)) should be adequate.
TRMSWRK2	Required work file for the TRMURBRK BREAK/REBREAK functions. A space amount of (CYL,(5,5)) should be adequate.
TRMSLOCK	Required for TRMURBRK. Defines the TRMS LOCK Cluster.
TRMSRBRK	Required for TRMURBRK REBREAK. The report being rebroken from the TRMS database to this file. File allocation must be large enough to accommodate the records for the largest report to be rebroken. The blocksize is determined by the largest record in a report. If the largest record is less than 27995, a blocksize of 27998 will be used otherwise the blocksize will be 32760. The RECFM is always set to VB with the correct carriage control type.

ANYDDN	Required for TRMURBRK BREAK. Used to input a NON-JES report file into TRMS, it can be any valid DDNAME. The name is specified in the BREAK Control Statement as the value assigned to the DDNAME=Subparameter to be read as input.
SORTIN	Required work file for BREAK/REBREAK functions. This file must backwards reference the TRMSWORK dataset.
SORTOUT	Required work file for BREAK/REBREAK functions. This file must backwards reference the TRMSWRK2 dataset.
SORTWK##	SORTWK01-03 work files for sorting a space amount of (cyl,(5,5)) should be adequate.
SYSIN	SYSIN is used to read the TRMURBRK Program's Control Statements.
SORTMSG	Sort message file
SYSOUT	Sort message file.
SYSUDUMP	Required for error processing.

2.3.3 Controls and Parameters

2.3.3.1 Control Statements - TRMURBRK

The TRMSHMAP and TRMSUX25 Module are not called during BREAK of a new report or REBREAK of an existing database report.

For <u>REBREAK</u> it is important to note that all distributions are altered TO VIEW ONLY type and NO TRIGGERING will be created.

For <u>BREAK</u>, all normal accumulation processes except for TRMSHMAP and TRMSUX25 calls will be done. The Triggering process (Bundle job Submission) is accomplished from the TRMS master accumulation task as normal. The BREAK input file as defined by the DDNAME= ANYDDN sub-parameter must contain valid DCB information.

The verb or action parameter can start in col 1 or greater and end at least in col 70, and is followed by a blank or comma. All sub-

parameters must be separated by commas. Control statements can be continued by completing a sub-parameter and its' value on one statement followed by a comma, blank and continuing the statement on the next control input statement. There must be at least one blank following the last value of the last sub-parameter. Statements with an asterisk (*) in position one (1) of the statement are considered comments. Triggering can be overridden for BREAK action parameter by using the TRIGGER=NO Sub-parameter on the Control Statement.

2.3.3.2 BREAK Parameters

Parameter	Explanation
Sub-Parameter	
BREAK	This is a verb or action parameter for the TRMURBRK Control Statement to initiate an accumulation of a NON-JES dataset. All accumulation functions will be done except the call to the modules TRMSHMAP and TRMSUX25. The input file is determined from the DDNAME= Subparameter value. The report name is defined using the REPORT= sub-parameter. The executing JOBNAME, STEPNAME, PROC STEPNAME, and JOB NUMBER are used for the report unless overridden with optional sub-parameters. Today's date and time are used unless overridden by RPTDATE= and RPTTIME= sub-parameters.
,REPORT=	The REPORT= Subparameter is required to break a report. This subparameter names the TRMS report to be processed - 8 character max. *REQUIRED
DDNAME=	The DDNAME= subparameter is required to read the report. This subparameter value names the DDNAME in the JCL (noted as ANYDDN) from which the report

is to be read. The dataset must have valid DCB dataset information including LRECL, BLKSIZE and RECFM including the correct carriage control. *REQUIRED

,JOB#=

This optional subparameter is used to set the accumulation JOB NUMBER for the report. If this subparameter is not specified, the JOB NUMBER of this executing job will be used as the JOB NUMBER. The JOB#= value format is JOB##### or J####### TSU#### or T#######, and STC#### or S#######.
NOTE: 1 to 5 digits can be specified using the 3 character prefix. 1 to 7 digits can be specified using the single character prefix. *OPTIONAL

,JOBNM=

This optional subparameter is used to set the accumulation JOBNAME for the report. This name will be used when processing Report Alias Names. If this subparameter is not specified, the JOBNAME of the executing job will be used as the JOBNAME - 8 character max. *OPTIONAL

,JSTEP=

This optional subparameter is used to set the accumulation JCL STEPNAME for the report. This name will be used when processing Report Alias Names. If this subparameter is not specified, the JCL STEPNAME of this executing job will be used as the JCL STEPNAME, if it is present - 8 character max. *OPTIONAL

,PSTEP=	This optional subparameter is used to set the accumulation PROC STEPNAME for the report. This name will be used when processing Report Alias Names. If this subparameter is not specified, the PROC STEPNAME of the executing job will be used as the PROC STEPNAME if it is present - 8 character max. *OPTIONAL
,RPTDATE=	This optional subparameter is used to assign a accumulation date to the report. If this subparameter is not specified, today's date is assigned. If the subparameter is specified, the RPTTIME= subparameter must also be specified. The RPTDATE= value format is YYDDD or YYYYDDD. The value must be greater than or equal to 1972001 and can not exceed the CPU date. *OPTIONAL
,RPTTIME=	This optional subparameter is used to assign an accumulation time to the report. If this subparameter is not specified, today's time is assigned. If this subparameter is specified the RPTDATE= subparameter must also be specified. The RPTTIME= value format is HHMM or HHMMSS in a 24 hour clock format. HH can be from 00-23, MM can be from 00-59 and SS can be from 00-59. *OPTIONAL
,TRIGGER=YES/NO	This optional subparameter is used to set whether the distributions are to be triggered. If "NO" is specified, all distributions are set to VIEW ONLY status. The default is "YES" if not specified. * The DEFAULT is YES.

2.3.3.3 REBREAK Parameters

Parameter   Explanation
       Sub-Parameter

REBREAK   This is a verb or action parameter for the
TRMURBRK Control Statement to
initiate a REBREAK of a previously
accumulated report. The report will go
through the distribution break process but
all distributions will be marked for VIEW
ONLY. The subparameter REPORT= and
CYCLE= must be specified and indicate
which TRMS Report and Cycle Number is
to be rebroken. There will be no
TRIGGERS produced for any
distributions during REBREAK. The
Original JOBNAME, JOB NUMBER,
JCL STEPNAME, PROC STEPNAME
and DDNAME are left on the Rebroken
Report unless overridden by JOBNM=,
JOB#=, JSTEP=, PSTEP=, DDNAME= or
EXECNAMES= subparameters. The old
distributions and history records will be
deleted and the report will be marked for
archive if required.

       ,REPORT=   The REPORT= subparameter is used to
name the report to be REBROKEN. This
subparameter is required and must be a
valid report ID - 8 character max.
*REQUIRED

       ,CYCLE=   The report CYCLE number of the report
to be REBROKEN. This subparameter is
required to REBREAK a report and must
be a valid cycle number for the report to
be REBROKEN. *REQUIRED

       ,DDNAME=   This optional subparameter is used to set
the accumulation DDNAME for the
report. This name is used for display
purposes only. If this subparameter or the
EXECNAMES= subparameter are not
specified, the original DDNAME will
remain on the report.   8 Characters max.
*OPTIONAL

,EXECNAMES=   This optional subparameter is used to replace the JOBNAME, JOB NUMBER, JCL STEPNAME, PROC STEPNAME of the report. The specification of JOBNM=, JSTEP= or PSTEP= override their respective names. If this parameter is not specified, the original JOBNAME, JOB NUMBER, JCL STEP NAME and PROC STEPNAME. Will remain on the report unless overridden by the specific overridden subparameter. *The DEFAULT is NO

,JOB#=   This optional subparameter is used to set a JOB NUMBER for this report. This number is used for display purposes only. If this subparameter on the EXECNAMES= subparameter is not specified, the original JOB NUMBER will remain on the report. The JOB#= value format is JOB##### or J#######, TSU##### or T#######, and STC##### or S#######. **NOTE:** 1 to 5 digits can be specified using the 3 character prefix. 1 to 7 digits can be specified using the single character prefix. *OPTIONAL

,JOBNM=   This optional subparameter is used to set the accumulation JOBNAME for the report. This name will be used when processing Report Alias Names. If this subparameter is not specified, the JOBNAME of the executing job will be used as the JOBNAME - 8 characters max. *OPTIONAL

,JSTEP=   This optional subparameter is used to set the accumulation JCL STEPNAME for the report. This name is used for display purposes only. If this subparameter or the EXECNAMES= are not specified, the original subparameter JCL STEPNAME will remain on the report. 8 Character max. *OPTIONAL

,NEWRPT=	This optional subparameter is used to name a New Report ID (Short Name) to be assigned to the REBROKEN report. The name assigned to this subparameter will be used for the REBREAK of the report. The retention and archive values will be used from the NEWRPT ID Definition. JOBNAME, JOBNUMBER, STEP NAME, PROCSTEP NAME, DDNAME ACCM DATE/TIME will be from the original report unless overridden. The Original Report ID and Archive History will be deleted after successful completion of adding the New Report. 8 Character max *OPTIONAL
,PSTEP=	This optional subparameter is used to set the accumulation PROC STEPNAME for the report. This name is used for display purposes only. If this subparameter or the EXECNAMES= subparameters are not specified, the original PROC STEPNAME will remain on the report. 8 Character max *OPTIONAL

2.3.3.4 Example Control Statement Parameters

REBREAK   REPORT=PAYROLL,CYCLE=96500,DDNAME=REBROKEN

The previous Control Statement will rebreak a report called "Payroll" with a report cycle number of 96500 that resides in a TRMS database. The DDNAME on the report after the rebreak is complete will be "REBROKEN". The original JOBNAME, JOB NUMBER, JCL STEPNAME, and PROC STEPNAME will remain on the reports.

BREAK   REPORT=ACCTRPT,DDNAME=ACCTIN,JOBNM=ACCTJOB,JOB#=J5665

The previous Control Statement will break a report called "ACCTRPT" that is read from DDNAME "ACCTIN" that resides in the TRMURBRK JOBS JCL. A JOB NAME of "ACCTJOB" and a JOB NUMBER of "5665" will be assigned to the report in the TRMS database. The JOBNAME "ACCTJOB", executing STEP, PROCSTEP, and DDNAMES will be used for extended report ID search. If the Extended Report ID is found, the Short Report ID Name will be assigned to the report.

Also see INSTLIB member TRMDRBCT for examples and explanations of the parameters.

2.3.4 Options

The BREAK function is used to add a new report to the TRMS database using a source other than JES. Whereas, the REBREAK function is used to redistribute a report that resides on the TRMS database using the modified distribution criteria.

The BREAK function, like the REBREAK function is designed to accumulate a report to the TRMS database with or without the TRMS accumulator being active.

2.3.5 Sample MVS JCL To Execute TRMURBRK, Member TRMJRBRK

```
//TRMJRBRK JOB (YOUR ACCT),'BREAK/REBREAK',MSGCLASS=A,
//           CLASS=A,NOTIFY=&SYSUID
//TRMURBRK EXEC PGM=TRMURBRK,REGION=OM
//STEPLIB   DD  DSN=TRMS.REL#.LOADLIB,DISP=SHR
//SYSPRINT  DD SYSOUT=*
//SYSUDUMP  DD SYSOUT=*
//SYSOUT    DD SYSOUT=*
//SORTMSG   DD SYSOUT=*
//* LOCK FILE FOR THE DATABASE THAT THE REPORT IS TO RESIDE
//TRMSLOCK  DD DSN=TRMS.LOCK,DISP=SHR
//* TRMSRBRK -WORK FILE TO HOLD REORT WHEN REBREAK COMMAND IS USED
//TRMSRBRK  DD UNIT=SYSDA,SPACE=(CYL,(20,10)),
//            DISP=(,DELETE,DELETE)
//* ANYDDN - ANY SEQ. INPUT FILE. SPECIFY DDNAME= IN CONTROL STMT
//ANYDDN    DD DSN=A.REPORT.DATASET,DISP=SHR
//TRMSWORK  DD UNIT=SYSDA,SPACE=(CYL,(5,5)),
//            DISP=,(DELETE,DELETE)
//TRMSWRK2  DD UNIT=SYSDA,SPACE=(CYL,(5,5)),
//            DISP=(,DELETE,DELETE)
//SORTIN    DD DSN=*.TRMSWORK,VOL=REF=*.TRSMWORK,DISP=(SHR,PASS)
//SORTOUT   DD DSN=*.TRMSWRK2,VOL=REF=*.TRMSWRK2,DISP=(SHR,PASS)
//SORTWK01  DD UNIT=SYSDA,SPACE=(CYL,(5,5))
//SORTWK02  DD UNIT=SYSDA,SPACE=(CYL,(5,5))
//SORTWKO3  DD UNIT=SYSDA,SPACE=(CYL,(5,5))
//* CONTROL CARD FORMAT:
//*TRMS.REL#.DISTINST(TRMDRBCT)MORE EXAMPLES
//*  ALL STATEMENTS MUST CAN BE ENTERED FROM COLUMN 1 - 71 AND EACH
//*  PARAMETER MUST BE COMPLETED ON THE SAME CARD. TO CONTINUE A
//*  CONTROL STATEMENT, END THE STATEMENT TO BE CONTINUED WITH A COMMA
//*  AND THEN CONTINUE WITH THE NEXT PARAMETER ON THE NEXT CARD.
//****** TO REBREAK A REPORT ALREADY IN THE DATABASE
//*   REBREAK    ACTION TYPE                        - ACTION
//*   REPORT=  THE COMPLETE REPORT ID               - REQUIRED
//*    ,CYCLE=##### THE REPORTS CYCLE NUMBER        - REQUIRED
//*    ,NEWRPT= THE NEWRPT= SUB-PARAMETER IS        - OPTIONAL
//*   USED TO NAME A NEW REPORT ID
//*    ,DDNAME=  THE DDNAME                         - OPTIONAL
//*    ,JOBNM=   THE JOB NAME                       - OPTIONAL
//*    ,JOB#=    THE JOB NUMBER TO ASSIGN TO THE    - OPTIONAL
//*            REPORT BEING ACCUMULATED.
//*    ,JSTEP=   THE STEP NAME VALUE                - OPTIONAL
//*    ,PSTEP=   THE STEP NAME IN A PROC            - OPTIONAL
//*    ,EXECNAMES= YES/NO    DEFAULT=NO             - OPTIONAL
//*            YES - REPLACE DISPLAY JOBNAME, STEPNAME, PROCSTEP
//*                    NAME AND JOB # WITH THE INFORMATION FROM
//*                    THE REBREAK JOB.
//*             NO - LEAVE THE ORIGINAL NAMES IN THE REPORT RECORD.
//*                    JOBNM=, JOB#=, JSTEP=, PSTEP= AND DDNAME= VALUES
//*                    WILL REPLACE THEIR RESPECTIVE VALUE IF THE
//*                    PARAMETER IS SPECIFIED.
//****** TO BREAK A REPORT FROM AN INPUT FILE OTHER THAN JES
//*   BREAK              ACTION TYPE                     - ACTION
//*      REPORT=         THE COMPLETE REPORT ID       - REQUIRED
//*      ,DDNAME=        THE DDNAME TO READ THE REPORT - REQUIRED
//*      ,JOBNM=         THE JOB NAME TO ASSIGN TO THE  - OPTIONAL
//*                      REPORT BEING ACCUMULATED.
//*      ,JOB#=          THE JOB NUMBER TO ASSIGN TO THE - OPTIONAL
```

Figure 30 Sample MVS JCL Member TRMJRBRK Executes - TRMURBRK

```
//*                              REPORT BEING ACCUMULATED.
//*        ,JSTEP=               THE STEP NAME IN THE JCL OR THE  - OPTIONAL
//*                              STEP NAME EXECUTING A PROC.
//*        ,PSTEP=               THE STEP NAME IN A PROC THAT     - OPTIONAL
//*                              EXECUTES A PROGRAM.
//*        ,RPTDATE=             THE REPORT DATE WILL SET THE     - OPTIONAL
//*                              REPORTS ACCUMULATION DATE.
//*
//*        ,RPTTIME=             THE REPORT TIME WILL SET THE     - OPTIONAL
//*                              REPORTS ACCUMULATION TIME.
//*
//*        ,TRIGGER=             THE TRIGGER= PARAMETER           - OPTIONAL
//*                              DETERMINES WHETHER TRIGGERS ARE
//*                              TO BE CREATED FOR THE REPORT.
//*                              THE VALUES ARE YES OR NO.
//SYSIN    DD  *
BREAK REPORT=XXXXXXX,DDNAME=ANYDDN,JSTEP=XXXINJCL,PSTEP=XXXINPRC
 *  REBREAK REPORT=PAY1,CYCLE=14672,DDNAME=PAYROLL1,EXECNAMES=YES
 *
```

Figure 31 Sample MVS JCL Member TRMJRBRK Executes - TRMURBRK
(Con't)

2.3.6 TRMURBRK Return Codes

RC=0   All Functions completed successfully.

RC=4   Some error(s) occurred but function completed. See
                            message for reason.

RC=8   A requested function did not complete successfully. See
                            message for reason.

Any Other RC   Fatal error occurred. See corresponding message for
                            reason.

NOTE: Refer to TRMS Messages and Codes Manual for more information

2.3.7 Requisites

The BREAK function is used to add a new report to the TRMS database using
source other than JES. The BREAK function requires an input file that is
defined by the DDNAME= subparameter. This input file must be a valid
report file created from a report program. The file can not be a TRMS
archive or unload file. If this is a new report that is being broken, the report
definition must be defined in the TRMS database before the TRMURBRK
Module is executed. You may have multiple control statements for more than
one report that is being broken.

The REBREAK function is used to redistribute a report that resides on the
TRMS database using the modified distribution criteria. If the report is not on
the database, but resides on a TRMS Archive File, the report must be restored
before the REBREAK is done.

2.3.8 Sample TRMURBRK Report

TRMS238I - BREAK CONTROL STATEMENT VALIDATED - BREAK
REPORT=XXXXXXX,DDNAME=ANYDDN,JSTEP=XXXINJCL,PSTEP=XXXINPRC
TRMS622I - BREAK FUNCTION COMPLETED RC X'00000000'
TRMS242I - NUMBER OF CONTROL STATEMENTS READ: 1   .
TRMS243I - NUMBER OF ERRORS ENCOUNTERED: 0
                         **** E N D O F R E P O R T ****

2.3.9 Other Considerations

If the report is not on the database, but resided on a TRMS Archive File, the report must be restored <u>before</u> the REBREAK is done.

2.4 DBAJHLPL - HELP LOAD Program - TRMUHPLD

		Description	**Notes**
2.4	Job Name	DBAJHLPL	
2.4.1	Title/Description		
2.4.2	DBAJHLPL Job Components		
	JCL	DBAJHLPL	
	Procedure	DBAJHLPL	
	Primary Program		
2.4.3	Controls and Parameters		
2.4.4	Options		
2.4.5	Samples		
2.4.6	Return Codes		
2.4.7	Requisites		
2.4.8	Reports		
2.4.9	Other Considerations		

2.4.1 TRMS Help Load

The TRMUHPLD program will load HELP records to a TRMS database. TRMS
HELP can be in many languages and may be loaded in one processing run. Each
TRMS HELP record represents one HELP display panel and can contain up to 14
lines per panel. There are 2 types of HELP, "SITE" and "DEFAULT". The
normal load should be DEFAULT - help records for a language.

Normally, the DEFAULT Help is loaded during the format of a new database by
adding the DDNAME TRMHLPV and assigning the
DSN=TRMS.rel#.LANGMAC (TRMHLPV).

The HELP members supplied in the Distribution Library TRMS.rel#.LANGMAC
are:

```
MEMBER            TYPE                      DD TO READ FILE
TRMHLPV           DEFAULT(English)          TRMHLPV
TRMHLPE           ENGLISH                   TRMHLPE
```

2.4.2 DBAJHLPL Job Components

2.4.2.1 Controlling Job DD's

The following DDNAMES are used by TRMUHPLD

DD Name	Explanation
STEPLIB	Assign the STEPLIB DD to the TRMS loadlib.
SYSPRINT	HELP ERROR AND SUMMARY REPORT. Normally a sysout dataset, BLKSIZE(133), LRECL (133), RECFM(FBA).
TRMSKSDS	Assigned to the KSDS File where you are loading the HELP records.
TRMHLP?	The input file that contains the HELP LOAD Records. The suffix character represented by the"?" is the language code that the file is to represent. The valid codes are:

CODES "?"	Language
V	Default
E	English
D	Dutch
G	German
I	Italian
F	French
O	Other
P	Portugese
S	Spanish
F	French

One or more DDNAMES may be supplied in the JCL for one execution. See TRMHLP? Format of HELP Input File statements for more information below.

| SYSUDUMP | Required error processing file. |

2.4.3 Controls and Parameters

2.4.3.1 PARM Values

The PARM Values that can be specified are:

LANG(?)   The language table to use for messages. Default is "V".

DELETEOLD   When specified, DELETEOLD will DELETE any old help keys in the database matching the keys generated by the current HELP file being loaded.

2.4.3.2   TRMUHPLD - Format of HELP Input File Statements

The TRMUHPL? DDNAMES read 80 character input files with a HELP File Control Statement starting with ./ in column 1-2 to identify the start of each set of new HELP information. Columns 73-80 must be blank in all statements.

Control statements separating the HELP panel information is in the following format:
   ./D ADM-DIR1 PANEL   General

Columns	Value	Description
01-02	./	Panel separator
03	Type	D=Default HELP for Language
		S=Site HELP for Language
		*=Comment Statement
04	Blank	Blank Column
05-12	Panel Code	The Activity Code Identifier from the TRMSL021 table for the language being loaded.
13	Blank	Blank Column
14-21	Field Name	The Field name on the panel that the HELP is defining.
22	Blank	Blank Column
23-62	Title	The title for this HELP panel.

All data following a ./ HELP File Control Statement will be loaded into14 line HELP panel records and written to the TRMSKSDS until the next ./ HELP File Control Statement is encountered, then a new HELP panel series is started.

2.4.4 Options

CODES "?"	Language
V	Default
E	English
D	Dutch
G	German
I	Italian
F	French
O	Other
P	Portugese
S	Spanish
F	French

One or more DDNAMES may be supplied in the JCL for one execution. See
TRMHLP? Format of HELP Input File statements for more information below.

2.4.5 Sample MVS JCL - TRMUHPLD

Sample MVS JCL for TRMUHPLD is shown below and is in the Distribution Library as TRMS.rel#.INSTLIB(DBAJHLPL).

```
//DBAJHLPL JOB (ACCOUNTING),'HELP LOAD',MSGCLASS=T,
//            CLASS=X,NOTIFY=&SYSUID
//*     TRMS REL# HELP FILE LOAD
//*------------------------------------------------------------*
//*      PARM VALUE "LANG(E)    IS THE LANGUAGE FOR THE TRMUHPLD
//*                             PROGRAM IS TO USE FOR MESSAGES.
//*
//*     PARM VALUE "DELETEOLD" INDICATES THAT THE OLD HELP RECORD
//*                             KEYS THAT MATCH THE NEW RECORD KEYS
//*                             ARE TO BE DELETED PRIOR TO ADDING
//*                             THE NEW HELP RECORDS.
//* -----------------------------------------------------------*
//TRMUHPLD EXEC PGM=TRMUHPLD,REGION=0M,PARM='LAN(E),DELETEOLD' SDS
//STEPLIB  DD DSN=TRMS.REL#.LOADLIB,DISP=SHR
//SYSUDUMP DD  SYSOUT=*
//SYSPRINT DD  SYSOUT=*
//*------------------------------------------------------------*
//*     TRMS KSDS FILE WHERE RECORDS ARE LOADED TO
//*------------------------------------------------------------*
//TRMSKSDS DD  DSN=TRMS.REL#.KSDS,DISP=SHR
//*------------------------------------------------------------*
//*     TRMS HELP FILE WHERE RECORDS ARE LOADED FROM
//*------------------------------------------------------------*
//*     TRMHLP? DD NAMES TO LOAD HELP SUPPLIED ARE:
//*
//*     DDNAME               ASSOCIATED LANGUAGE
//*     --------             -------------------
//*     TRMSHLPD             DUTCH
//*     TRMSHLPE             ENGLISH
//*     TRMSHLPF             FRENCH
//*     TRMSHLPG             GERMAN
//*     TRMSHLPI             ITALIAN
//*     TRMSHLPO             OTHER
//*     TRMSHLPP             PORTUGEESE
//*     TRMSHLPS             SPANISH
//*     TRMSHLPV             DEFAULT
//*------------------------------------------------------------*
//TRMHLP? DD  DSN=TRMS.REL#.LANGMAC(TRMSHLP?),DISP=SHR
/*
```

Figure 32 Sample MVS JCL Member DBAJHLPL Executes - TRMUHPLD

2.4.6 TRMUHPLD Return Codes

RC=0 X'00'   TRMUHPLD completed with no errors.

RC=4 X'04'   Warning errors (W) are printed to the SYSPRINT DDNAME.

RC=8 X'08'   Error messages (E) are printed to the SYSPRINT DDNAME
and some HELP Files were not loaded.

NOTE: Refer to TRMS Messages and Codes Manual for more information

2.4.7 Requisites

The Default Help Tables should always be available when Help Load is
submitted.

2.4.8 Sample TRMUHPLD Reports

Two reports are produced from the HELP LOAD program:
1) The TRMS LOAD HELP RECORDS report
2) The TRMS LOAD HELP - *language type* report.

The TRMS LOAD HELP - *language type* report has three parts :

A) the comment records loaded - indicated in the TRMS404I message by
a " ./* " at the beginning and a " *COMMENT STATEMENT " at
the end

B) the names and descriptions of the help panels loaded are indicated in
the TRM404I message by a " ./D " at the beginning and an
" PROCESSING ./ STATEMENT " at the end

C) the summary at the end of the report shows the number of total help
lines and total panels that were loaded. The return code is also noted.

NOTE: Only a portion of part A and B of The TRMS LOAD HELP - *language
type* report is shown in the second figure below.

```
RPTID=TRMUHPLD -TRMS LOAD HELP RECORDS ERROR & SUMMARY REPORT TIME=16:56:08 DATE=10 JUN 2003.161 PAGE 1
                              *** LICENSED BY ***   TRMS (C) 1987-2003, CSI INC.         RELEASE 6.0A-00
                              *** SEA  INC.  ***  1230 HEMPSTEAD TPK., FRANKLIN SQUARE, NY        11010




TRMS622I - HELP LOAD HOUSEKEEPING ENDED FUNCTION COMPLETED RC X'00000000'

The TRMS LOAD HELP RECORDS Report


RPTID=TRMUHPLD-TRMS LOAD HELP-DEFAULT ERROR & SUMMARY REPORT TIME=16:56:08  DATE=10 JUN 2003.161 PAGE 2
                              *** LICENSED BY ***         TRMS (C) 1987-2003, CSI INC.        RELEASE 6.0A-00
                              **** SEA  INC. ****       1230 HEMPSTEAD TPK., FRANKLIN SQUARE, NY     11010
TRMS404I - ./*-------------------------------------------------------------------* *COMMENT STATEMENT
TRMS404I - ./*                                                                    *COMMENT STATEMENT
TRMS404I - ./*   TRMUHPLD program is used to load help information into the TRMS   *COMMENT STATEMENT
TRMS404I - ./*  database.  The TRMUHPLD program reads from DDNAMES in the          *COMMENT STATEMENT
TRMS404I - ./*  JCL that start with "TRMSHLP" and have a suffix character          *COMMENT STATEMENT
TRMS404I - ./*  identifying the language being loaded e.g.: "TRMHLPV" the valid    *COMMENT STATEMENT
TRMS404I - ./*  suffix characters follow:                                         *COMMENT STATEMENT
TRMS404I - ./*                                                                     *COMMENT STATEMENT
TRMS404I - ./*-------------------------------------------------------------------* *COMMENT STATEMENT
TRMS404I - ./*                 *--------------------------------------------* *COMMENT STATEMENT
TRMS404I - ./* ADMDIR1                                                       *COMMENT STATEMENT
TRMS404I - ./*                 *--------------------------------------------* *COMMENT STATEMENT
TRMS404I - ./D ADM-DIR1 PANEL    General Panel Information
*PROCESSING./STATEMENT
TRMS404I - ./*                 *--------------------------------------------* *COMMENT STATEMENT
TRMS404I - ./D ADM-DIR1 INDEX    Help Directory
*PROCESSING./STATEMENT
TRMS404I - ./*                 *--------------------------------------------* *COMMENT STATEMENT
TRMS404I - ./D ADM-DIR1 DESCRIPT Directory Description
*PROCESSING./STATEMENT
TRMS404I - ./*                 *--------------------------------------------**COMMENT STATEMENT
TRMS404I - ./D ADM-DIR1 ACOMMAND Available Line Commands
*PROCESSING./STATEMENT
TRMS213I - COUNT OF HELP LINES FOR * DEFAULT * LOADED TO DATABASE         25320
TRMS213I - COUNT OF HELP PANELS FOR * DEFAULT * LOADED TO DATABASE         1911
TRMS622I - LOAD FOR TRMHLPV (DEFAULT) FUNCTION COMPLETED RC X'00000000'
                                        **** END OF HELP LOAD REPORT ****
```

The TRMS LOAD HELP - *language type* Report (3 portions)

2.4.9 Other Considerations

Language Tables do not need to be reloaded.

2.5 DBAJNOTL - TRMS NOTES LOAD Program, TRMUNTLD

		Description	Notes
2.5	Job Name	DBAJNOTL	
2.5.1	Title/Description		
2.5.2	DBAJNOTL Job Components		
2.5.3	Controls and Parameters		
	JCL	DBAJNOTL	
	Procedure	TRMUNTLD	
	Primary Program		
2.5.4	Options		
2.5.5	Samples		
2.5.6	Return Codes		
2.5.7	Requisites		
2.5.8	Reports		
2.5.9	Other Considerations		

2.5.1 TRMS Note Load

The TRMUNTLD program will load NOTES records to a TRMS database. The NOTES may also be loaded by the TRMFORMA program as it formats the TRMS database. TRMS NOTES can be in many languages and may be loaded in one processing run. Each TRMS NOTES record represents one NOTES display panel and can contain up to 12 lines per panel. There are 2 types of NOTES loaded by TRMUNTLD, "SITE" and "DEFAULT". The normal load should be DEFAULT - NOTE records for a language. Normally, the DEFAULT NOTE is loaded during the format of a new database by the DDNAME TRMNOT? and assigning the DSN=TRMS.REL#.LANGMAC(TRMNOT?). Replace the '?' with the language suffix character. The default suffix character is "V" for English.

2.5.2 DBAJNOTL Job Components

2.5.2.1 Controlling Job DD's

The following DDNAMES are used by TRMUNTLD

<u>DD Name</u>	<u>Explanation</u>
STEPLIB	Assign the STEPLIB DD to the TRMS loadlib.
SYSPRINT	NOTE ERROR AND SUMMARY REPORT. Normally a sysout dataset, BLKSIZE(133), LRECL (133), RECFM(FBA).
TRMSKSDS	Assigned to the KSDS File where you are loading the NOTE records.
TRMNOT?	The input file that contains the NOTE LOAD Records. The suffix character represented by the"?" is the language code that the file is to represent. The valid codes are:

<u>CODES "?"</u>	<u>Language</u>
V	Default
E	English
D	Dutch
G	German
I	Italian
F	French
O	Other
P	Portugese
S	Spanish

One or more DDNAMES may be supplied in the JCL for one execution. See TRMNOT? Format of NOTE Input File statements for more information below.

SYSUDUMP	Error processing file.

2.5.3 Controls and Parameters

2.5.3.1 PARM Values

The PARM Values that can be specified are:

LANG(?)   The language table to use for messages. Default
          is "V".

DELETEOLD   When specified, DELETEOLD will DELETE
          any old NOTE keys in the database matching the
          keys generated by the current NOTE file being
          loaded.

2.5.3.2 TRMNOT? - Format of NOTE Input File Statements

The TRMNOT? DDNAMES read 80 character input files with a
NOTE File Control Statement starting with ./ in column 1-2 to identify
the start of each set of new NOTE information. Columns 73-80 must
be blank in all statements.

Control statements separating the NOTE panel information is in the
following format:
       ./D ADM-DIR1 PANEL General

Columns	Value	Description
01-02	./	Panel separator
03	Type	D=Default NOTE for Language
		S=Site NOTE for Language
		*=Comment Statement
04	Blank	Blank Column
05-12	Panel Code	The Activity Code Identifier from
		the TRMSL021 table for the
		language being loaded.
13	Blank	Blank Column
14-21	Field Name	The Field name on the panel that
		the NOTE is defining.
22	Blank	Blank Column
23-62	Title	The title for this NOTE panel.

All data following a ./ NOTE File Control Statement will be loaded
into 12 line NOTE panel records and written to the TRMSKSDS until
the next ./ NOTE File Control Statement is encountered, then a new
NOTE panel series is started.

2.5.4 Options

The input file that contains the NOTE LOAD Records. The suffix character represented by the"?" is the language code that the file is to represent. The valid codes are:

CODES "?"	Language
V	Default
E	English
D	Dutch
G	German
I	Italian
F	French
O	Other
P	Portugese
S	Spanish

2.5.5 Sample MVS JCL - DBAJNOTL

Sample MVS JCL for TRMUNTLD is shown below and is in the Distribution Library as TRMS.REL#.INSTLIB(DBAJNOTL).

```
//DBAJNOTL JOB (ACCOUNTING), 'NOTE LOAD', MSGCLASS=T
//         CLASS=X, NOTIFY=&SYSUID
//*       --------------------------------------------------------------*
//*       TRMS REL# NOTE FILE LOAD
//*       --------------------------------------------------------------*
//*       PARM VALUE "LANG(E)"        IS THE LANGUAGE FOR THE TRMUNTLD.
//*                                   PROGRAM IS USED FOR MESSAGES.
//*       PARM VALUE "DELETEOLD"      INDICATES THAT THE OLD NOTE RECORD
//*                                   KEYS THAT MATCH THE NEW RECORD KEYS
//*                                   ARE TO BE DELETED PRIOR TO ADDING
//*                                   THE NEW NOTE RECORDS.
//*       --------------------------------------------------------------*
//TRMUNTLD EXEC PGM=TRMUNTLD, REGION=0M, PARM='LANG(E), DELETEOLD'
//STEPLIB  DD DSN=TRMS.REL#.LOADLIB, DISP=SHR
//SYSUDUMP DD SYSOUT=*
//SYSPRINT DD SYSOUT=*
//*       --------------------------------------------------------------*
//*       TRMS KSDS FILE WHERE RECORDS ARE LOADED TO
//*       --------------------------------------------------------------*
//TRMSKSDS DD DSN=TRMS.REL#.KSDS, DISP=SHR
//*       --------------------------------------------------------------*
//*       TRMS NOTE FILE WHERE RECORDS ARE LOADED FROM
//*       --------------------------------------------------------------*
//*       TRMNOT? DD NAMES TO LOAD NOTE SUPPLIED ARE:
//*       --------------------------------------------------------------*
//TRMNOT? DD DSN=TRMS.REL#.LANGMAC(TRMNOT?), DISP=SHR
/*
```

Figure 33 Sample MVS JCL - Member DBAJNOTL, To Load NOTES Executes TRMUNTLD

2.5.6 TRMUNTLD Return Codes

RC=0   X'00'   TRMUNTLD completed with no errors.

RC=4   X'04'   Warning errors (W) are printed to the SYSPRINT DDNAME.

RC=8   X'08'   Error messages (E) are printed to the SYSPRINT DDNAME and some NOTE Files were not loaded.

NOTE: Refer to TRMS Messages and Codes Manual for more information

2.5.7 Requisites

Default Notes should always be available

2.5.8 Reports

None

2.5.9 Other Considerations

Language Tables do not need to be reloaded

2.6 DBAJSPLT - LOGICAL SPLIT Program, TRMUSPLT

		Description	Notes
2.6	Job Name	DBAJSPLT	
2.6.1	Title/Description		
2.6.2	DBAJSPLT Job Components		
	JCL	DBAJSPLT	
	Procedure	TRMUSLPT	
	Primary Program		
2.6.3	Controls and Parameters		
2.6.4	Options		
2.6.5	Samples		
2.6.6	Return Codes		
2.6.7	Requisites		
2.6.8	Reports		
2.6.9	Other Considerations		

2.6.1 TRMS Logical Database Split

This program will copy a portion of a 5.1A database into a 5.1A newly formatted (empty) database or into an existing 5.1A database. The purpose of this program is to create a test database from a larger production database using full or generic report names as the split criteria. This program can be used to create a small test 5.1A database to be used during conversion testing for 6.0A. TRUMSPLT has the capability of suppressing the copy of the physical report records (RRDS) from the LOGICAL SPLIT process, copying only the requested report definitions from the KSDS file.   The original 5.1A database remains unchanged.

Several types of messages can be issued from this program:

Processing messages are sent to the SYSPRINT file and processing continues. Processing messages include writing the SYSIN records. The program will have a completion code of ZERO.

Warning messages are informational messages that are more severe than processing messages and are sent to the SYSPRINT file and processing continues. When warning messages exist, the program will have a completion code of

FOUR. The TRMS messages should be reviewed for their impact on the LOGICAL SPLIT.

Critical error messages are sent to the SYSPRINT file and processing is terminated with a completion code of EIGHT or higher. Review the messages, correct the problem, and rerun the program.

Statistical messages include the record count by type and the total records processed.

2.6.2 DBAJSPLT Job Components

2.6.2.1 Controlling Job DD's

The following DD names are required to perform the LOGICAL SPLIT in STEP0100.

DD Name	Explanation
STEPLIB	Assigns the correct TRMS loadlib
TRMSLOCK	The LOCK file of the input /source TRMS database. It contains the associated input KSDS and RRDS(s) file names.
UNLDLOCK	The LOCK file of the output/target TRMS database. It contains the associated output KSDS and RRDS(s) file names.
SYSIN	The control statements for this execution of the TRMUSPLT program, member DBASSPLT.
TRMISSIN	A file that may contain information about missing TRMS components
SYSPRINT	A file containing processing and error messages
R50LIST	A work file for the distribution keys list
SORTIN	A sort work file
TRMSWORK	Temporary work file for the distribution keys list
SORTOUT	A work file for the sorted KSDS record keys
SORTWK##	Three sort work files

SYSOUT	A file that contains the Control Statements Report and the Action and Error Report.
SYSUDUMP	System dump file, if needed.
ABLIGNR	A statement to suppress the Abend-Aid dump, if a dump is needed.

2.6.3 Controls and Parameters

2.6.3.1 Control Statements

The SYSIN DD, member DBASSPLT, contains the LOGICAL SPLIT control statements. An asterisk in column one indicates a comment. The control statements must start in column one.

Parameter	Explanation
+EXCLUDE RRDS	NO RRDS data is copied to the target RRDS for the selected reports. This statement can be inserted anywhere in the statements. Unless this parameter is defined the default is to copy the specified RRDS report data. DEFAULT: INCLUDE
+EXCLUDE REPORTS	Use "REPORT=report name" parameters as exclude list for KSDS processing. Mutually exclusive with "+INCLUDE ALL REPORTS". Unless defined the default is to include the reports. DEFAULT: INCLUDE
+INCLUDE ALL REPORTS	Ignore the "REPORT=report name" parameter list and include all KSDS report records. Mutually exclusive with "+EXCLUDE REPORTS". DEFAULT: INCLUDE specified reports
+REPLACE	Replace all the definitions in the database. This control statement may be used only with +INCLUDE ALL REPORTS. The "REPORT=report name" parameter list is ignored and all KSDS report records are replaced. This statement should be after an +INCLUDE or +EXCLUDE statement. Mutually exclusive with "+EXCLUDE

| | REPORTS" and "REPORT=". Unless this parameter is defined the default is NO replacement of definitions. |
| | DEFAULT: NO replacement |

REPORT='report name'	'report name" is the eight character report name to be used in the split. If it is proceeded by the "+INCLUDE" statement, it is the list of report names to be included in the split. If it is proceeded by the "+EXCLUDE" statement, it is the list of report names to be excluded from the split. Valid characters for a report name are: 0 through 9; A through Z ; Ampersand (@); pound sign (#); dollar sign ($); and exclamation point (!). The following wildcard characters are also valid: Asterisk (*); dash (-); and period (.) . The asterisk can be used as a placeholder anywhere in the report name field. The dash indicates the end of significant characters in the report name field. The period can be used at the end of the report name field to indicate a complete report name that is less than 8 characters.
	NOTE: REPORT='report name' is the only control statement that can be used multiple times.
	DEFAULT: none

2.6.3.2 Examples of Control Statements

The following are examples of control statements and an explanation of the expected results.

Example #1:
```
      *TRMS DATABASE SPLIT
      +EXCLUDE RRDS
      +INCLUDE ALL REPORTS
```

The first statement is a comment and has no affect. The second statement specifies that the RRDS data will not be copied to the Target databases RRDS file(s). The third statement states that all report names are to included in the split. If the target database was empty, after the split it will contain all the TRMS report definitions and no RRDS data.

Example #2
        +INCLUDE REPORTS
        REPORT=TRMSPROD
        REPORT= TRMST

The first statement specifies that the 'REPORT=" statements are to be
considered for inclusion on the Target split database. The second
statement gives an exact report name to consider (8 characters). The
third statement specifies that all reports starting with TRMST are
considered (less than 8 characters). Any RRDS data for these reports
is also to be moved to the Target database by default. INCLUDE
REPORTS is the default.

Example #3
        +EXCLUDE REPORTS
        REPORT=TRMSACCT
        REPORT= TRM*T

The first statement specifies that the 'REPORT=" statements are to be
excluded from the Target split database. The second statement gives an
exact report name to exclude. The third statement specifies that all
reports starting with TRM and having a T in the fifth position are to be
excluded. The resulting KSDS will contain all BUT the excluded
report information. Any RRDS data from non excluded reports is also
to be moved to the Target database by default.

2.6.4 Options

2.6.4.1 LOGICAL SPLIT Steps

STEP0000   counts records in Target 5.1A database before split occurrs.

STEP0010   can use to clean up the work files created in a previous run.

STEP0100   copies and sorts the selected 5.1A KSDS keys from the
                KSDS file name stored in the 5.1A TRMSLOCK DD
                database based on your split controls statements. It then
                writes them to the 5.1A KSDS file name stored in the 5.1A
                UNLDLOCK DD database. If the "EXCLUDE RRDS"
                control statements is NOT used, the RRDS   data for the
                selected reports is written to the Target RRDS file(s).

STEP0200   counts the records in the Target 5.1A database after the
                split has occurred. This step will provide the post-split
                record counts to compare to the STEP0000 pre-split record
                counts.

2.6.5 Sample JCL

2.6.5.1 Sample MVS LOGICAL SPLIT JCL

The following is a sample of MVS LOGICAL Split JCL.

```
* *** WARNING *** WARNING *** WARNING *** *
*     THIS WORKS ONLY ON T51A DATABASES    *
*     THE T51A LOADLIB MUST BE FIRST IN    *
*     THE STEPLIB OF STEP0100.   MAKE SURE *
*     THE BLOCKSIZE OF THE T51A PDS IS     *
*     GREATER THAN OR EQUAL TO LIBRARIES   *
*     THAT FOLLOW IT IN THE CONCATENATION  *
* *** WARNING *** WARNING *** WARNING *** *
*
//DBAJSPLT JOB  (ACCOUNTING),'DATABASE SPLIT',MSGCLASS=T,
//          CLASS=A,NOTIFY=&SYSUID
//*------------------------
//*                        COUNT RECORDS IN TARGET KSDS
//*                        BEFORE THE SPLIT
//STEP0000 EXEC PGM=T51ACNTS,REGION=3M
* *** WARNING *** WARNING *** WARNING *** *
*     T51A LOADLIB MUST BE FIRST,          *
*     FOLLOWED BY T60A LOADLIB.            *
* *** WARNING *** WARNING *** WARNING *** *
//STEPLIB  DD DSN=TRMS.T51A.TEST.LOADLIB,DISP=SHR
//         DD DSN=TRMS.T51A.LOADLIB,DISP=SHR
//         DD DSN=TRMS.T60A.LOADLIB,DISP=SHR
//TRMSKSDS DD DSN=TRMS.T51A.NEW.KSDS,DISP=SHR
//SYSPRINT DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//ABNLIGNR DD DUMMY
//*----------------------------*
//*         CLEAN UP WORK FILES
//STEP0010 EXEC PGM=IDCAMS
//SYSPRINT DD SYSOUT=*
//SYSIN    DD *
 DELETE (REL#.TRMUSPLT.R50LIST)
 DELETE (REL#.TRMUSPLT.RECSOUT)
 DELETE (REL#.TRMUSPLT.RECSOUT.SORT)
//*  -------------------------*
//*     LOGICAL SPLIT STEP0100
//STEP0100 EXEC PGM=TRMUSPLT,REGION=0M
* *** WARNING *** WARNING *** WARNING *** *
*     T51A LOADLIB MUST BE FIRST,          *
*     FOLLOWED BY T60A LOADLIB.            *
* *** WARNING *** WARNING *** WARNING *** *
//STEPLIB  DD DSN=TRMS.T51A.TEST.LOADLIB,DISP=SHR
//         DD DSN=TRMS.T60A.LOADLIB,DISP=SHR
//*      ----------------------------*
//*                 INPUT DATABASE (SOURCE)
//TRMSLOCK DD DSN=TRMS.T51A.LOCK,DISP=SHR
//*        ----------------------------*
```

Figure 34 Member DBAJSPLT in the Install Library

```
   //*                      OUTPUT DATABASE (TARGET)
   //UNLDLOCK DD DSN=TRMS.T51A.NEW.LOCK,DISP=SHR
   //*                   -----------------------------*
   //*                      CONTROL STATEMENTS
   //SYSIN     DD DSN=TRMS.T60A.INSTALL(DBASSPLT),DISP=SHR
   //*        ----------------------------*
   //*              MISSING RECORDS REPORT
   //TRMISSIN DD SYSOUT=*
   //*        -----------------------------*
   //*              STEP LOG
   //SYSPRINT DD SYSOUT=*
   //*        ---------------------------*
   //*              DISTRIBUTION KEY LIST
   //R50LIST  DD DSN=REL#.TRMUSPLT.R50LIST,DISP=(,CATLG,DELETE),
   //              DCB=(BLKSIZE=23000,LRECL=46,RECFM=FB),
   //              UNIT=SYSDA,SPACE=(CYL,(5,2),RLSE)
   //*        ----------------------------*
   //*              UNLOADED KSDS RECORD KEYS
   //SORTIN    DD DSN=REL#.TRMUSPLT.RECSOUT,DISP=(,CATLG,DELETE),
   //              DCB=(BLKSIZE=23000,LRECL=46,RECFM=FB),
   //              UNIT=SYSDA,SPACE=(CYL,(10,3),RLSE)
   //*              UNIT=3390,VOL=SER=510CAT,SPACE=(CYL,(100,25),RLSE)
   //*              UNIT=CART,LABEL=(1,SL,RETPD=3)
   //*        ----------------------------*
   //*              DISTRIBUTION KEY LIST
   //TRMSWORK DD DCB=(BLKSIZE=23000,RECFM=VB),
   //              UNIT=SYSALLDA,SPACE=(CYL,(5,2),RLSE)
   //*        ----------------------------*
   //*              SORTED KSDS RECORD KEYS
   //*        ----------------------------*
   //SORTOUT   DD DSN=REL#.TRMUSPLT.RECSOUT.SORT,DISP=(,CATLG,DELETE),
   //              DCB=(BLKSIZE=23000,LRECL=46,RECFM=FB),
   //              UNIT=SYSDA,SPACE=(CYL,(4,3),RLSE)
   //SORTWK01 DD SPACE=(CYL,10),UNIT=SYSALLDA
   //SORTWK02 DD SPACE=(CYL,10),UNIT=SYSALLDA
   //SORTWK03 DD SPACE=(CYL,10),UNIT=SYSALLDA
   //SYSUDUMP DD SYSOUT=*
   //ABNLIGNR DD DUMMY
   //*        ----------------------------*
   //*              COUNT RECORDS IN TARGET KSDS
   //STEP0200 EXEC PGM=T51ACNTS,REGION=3M
 * *** WARNING *** WARNING *** WARNING *** *
 *      T51A LOADLIB MUST BE FIRST,         *
 *      FOLLOWED BY T60A LOADLIB.           *
 * *** WARNING *** WARNING *** WARNING *** *
   //STEPLIB   DD DSN=TRMS.T51A.TEST.LOADLIB,DISP=SHR
   //           DD DSN=TRMS.T51A.LOADLIB,DISP=SHR
   //           DD DSN=TRMS.T60A.LOADLIB,DISP=SHR
   //TRMSKSDS DD DSN=TRMS.T51A.NEW.KSDS,DISP=SHR
   //SYSPRINT DD SYSOUT=*
   //SYSUDUMP DD SYSOUT=*
   //ABNLIGNR DD DUMMY
   //*
```

Figure 35 Member DBAJSPLT in the Install Library (Continued)

2.6.5.2 DBASSPLT - The Sample Control Statement Member

The following is the example for the LOGICAL SPLIT JCL sysin control statements. This member, <u>DBASSPLT, MUST be modified before it is used. Some of the parameters in this example member are mutually exclusive.</u>

```
*   TRMS DATABASE SPLIT        COMMENT
*
+INCLUDE ALL REPORTS          PROCESS ENTIRE DATABASE

+INCLUDE REPORTS              REPORT= IS INCLUDE LIST
REPORT=L                      REPORTS STARTING WITH  L

+REPLACE                      REPLACE DEFINITIONS IN
                               TARGET
*
+EXCLUDE RRDS                 DO NOT PROCESS PHYSICAL
                              REPORTS
+EXCLUDE REPORTS              REPORT= IS EXCLUDE LIST
REPORT=CO                     REPORTS STARTING WITH  CO
```

2.6.6 Return Codes

RC=0   No Problems

RC=4   Look for informational messages in the Job.

RC=7   Errors have occurred.

NOTE: Refer to TRMS Messages and Codes Manual for more information

2.6.7 Requisites

In order for a database that has been split to function under T60A, it must be converted from T5 to T6 database format.

2.6.8 TRMUSPLT Reports

The following reports would be produced by the suggested steps from the DBAJSPLT member. The T51ACNTS program in STEP000 would produce the following report if executed against a newly formatted empty database. Only the 25 default records would be in the database.

```
        RPTID=TRMSGPRT - GLOBAL OPTIONS
        LICENSEE COMPANY NAME


        GLOBAL                                 -          1
        DSN                                    -          0
        MAILDROP                               -          2
        RECIPIENT                              -          3
        RECIPIENT LONG NAME                    -          3
        DISTRIBUTION PATH                      -          0
        REPORT                                 -          2
        REPORT LONG NAME                       -          2
        REPORT ATTRIBUTES                      -          0
        REPORT RESTRICTED DISTRIBUTION         -          0
        REPORT WINDOW                          -          0
        EXPANDED REPORT ID                     -          0
        REPORT INDEX                           -          0
        TRIGGER                                -          3
        TRIGGER REQUIREMENTS                   -          1
        DISTRIBUTION                           -          2
        DISTRIBUTION BREAKOUT                  -          2
        DISTRIBUTION BREAKOUT EXTENSION        -          0
        DISTRIBUTION EXTENDED BREAKOUT         -          0
        DJDE INSERTION                         -          1
        TRMS INSERTION                         -          1
        CALENDAR                               -          2
        ACTIVE REPORT                          -          0
        ACTIVE TRIGGER REQUIREMENT             -          0
        ACTIVE REPORT NAME REQUIREMENT         -          0
        ADMINISTRATOR TRIGGER MANIPULATION     -          0
        BUNDLE CONTENT                         -          0
        ACTIVE DISTRIBUTION                    -          0
        ARCHIVE HISTORY                        -          0
        ARCHIVE VOLUME TRACKING                -          0
        ARCHIVE VOLUME DESCRIPTOR              -          0
        ARCHIVE VOLUME EXTENSION               -          0
        REPORT DISTRIBUTION TRACKING           -          0
        TOTAL TRMS RECORDS                     -         25
```

Figure 36 The Report From The T51ACNTS Program

The following reports are created by the program TRMUSPLT in STEP0100:

     *   Missing Records
     *   Control Statements
     *   Action and Error Report

The Missing Records report below shows the missing component and it current value in the 5.1A database. Using the supplied report, user, and group information the record could be manually added to the new 5.1A database. The records could also be manually corrected in the old 5.1A database.

```
 RPTID=TRMUSPLT   TRMS SPLIT UTILITY                 MISSING RECORDS

    REPORT     USER      GROUP        MISSING COMPONENT, VALUE
    DDSN       C200      OMITTEST     REPORT          DDSN
    DJDE       C200      DJDEDJDE     REPORT          DJDE
    REPORT1A   C222      GROUP011     REPORT          REPORT1A
    Z1AKAK08   BL#N030   Z1AK         RECIPIENT       BL#N030
    Z1AKAK08   BL#N030   Z1AK         REPORT          Z1AKAK08
```

Figure 37 A Missing Records Report From TRMUSPLT (Partial)

The Control Statements report below shows the sysin statements used during the execution of TRMUSPLT.   The TRMS236I message below indicates the comments and keyword control statements used were all correct. Definitions for Reports starting with D, R, and Z were moved or updated (+REPLACE) on the database and the reports themselves were copied.

```
 RPTID=TRMUSPLT -                 CONTROL STATEMENTS


 TRMS236I -         CONTROL STATEMENT:        - *    TRMS DATABASE SPLIT
 TRMS236I -         CONTROL STATEMENT:        - *
 TRMS236I -         CONTROL STATEMENT:        - +REPLACE
 TRMS236I -         CONTROL STATEMENT:        - *
 TRMS236I -         CONTROL STATEMENT:        - +INCLUDE REPORTS
 TRMS236I -         CONTROL STATEMENT:        - REPORT=D
 TRMS236I -         CONTROL STATEMENT:        - REPORT=R
 TRMS236I -         CONTROL STATEMENT:        - REPORT=Z
                                      ** END OF REPORT **
```

Figure 38 A Control Statements Parse Report From TRMUSPLT (Partial)

The Action And Error Report is empty indicating no exceptions were found.

```
RPTID=TRMUSPLT -                        ACTION AND ERROR REPORT



                                        ** END OF REPORT **
```

Figure 39 Action and Error Report From TRMUSPLT (partial)

The T51ACNTS programs is executed again in STEP0200. This report can be compared to the one from STEP000 to determine how many records and which types were moved by the TRMUSPLT program.

```
RPTID=TRMSGPRT - GLOBAL OPTIONS

  GLOBAL                              -           2
  DSN                                -           0
  MAILDROP                           -           4
  RECIPIENT                          -           5
  RECIPIENT LONG NAME                -           5
  DISTRIBUTION PATH                  -           0
  REPORT                             -          65
  REPORT LONG NAME                   -          65
  REPORT ATTRIBUTES                  -           0
  REPORT RESTRICTED DISTRIBUTION     -           0
  REPORT WINDOW                      -           0
  EXPANDED REPORT ID                 -           0
  REPORT INDEX                       -           1
  TRIGGER                            -          10
  TRIGGER REQUIREMENTS               -           7
  DISTRIBUTION                       -         109
  DISTRIBUTION BREAKOUT              -         109
  DISTRIBUTION BREAKOUT EXTENSION    -         111
  DISTRIBUTION EXTENDED BREAKOUT     -           5
  DJDE INSERTION                     -           1
  TRMS INSERTION                     -           1
  CALENDAR                           -           2
  ACTIVE REPORT                      -          13
  ACTIVE TRIGGER REQUIREMENT         -           0
  ACTIVE REPORT NAME REQUIREMENT     -           0
  ADMINISTRATOR TRIGGER MANIPULATION -           0
  BUNDLE CONTENT                     -           0
  ACTIVE DISTRIBUTION                -          13
  ARCHIVE HISTORY                    -           0
  ARCHIVE VOLUME TRACKING            -           0
  ARCHIVE VOLUME DESCRIPTOR          -           0
  ARCHIVE VOLUME EXTENSION           -           0
  REPORT DISTRIBUTION TRACKING       -           0
  TOTAL TRMS RECORDS                 -         528
```

Figure 40 The T51ACNTS Report After The Split (Partial)

2.6.9 Other Considerations

In order for a database that has been split to function under T60A, it must be converted from T5 to T6 database format.

2.7 Import

		Description	Notes
2.7	Job Name	DBAJMPRT	
2.7.1	Title/Description		
2.7.2	IMPORT Job Components		
	JCL	DBAJMPRT	
	Procedure		
	Primary Program		
2.7.3	Controls and Parameters		
2.7.4	Options		
2.7.5	Samples		
2.7.6	Return Codes		
2.7.7	Requisites		
2.7.8	Reports		
2.7.9	Other Considerations		

2.7.1 TRMS Import

The TRMS IMPORT function is a batch process that enables TRMS users to insert definitions into the TRMS database from a character (human-readable) file. It can also be used to convert from another Report Management System to TRMS.

For updating records, the record to be updated is read from the TRMS database and non-blank values from the IMPORT record are inserted, overlaying the current values and creating the updated TRMS definition.

The IMPORT records can be created by hand using the record layouts in **APPENDIX A**, by opening the file EXAMPLES in the TRMSMISC PDS, or by using EXPORT, a separately licensed utility.

The IMPORT records are 132 bytes in length and consist of character data. The general format of each record is a 44 byte key header followed by 88 bytes of data. Each TRMS definition consists of one or more IMPORT records in a

required sequence. APPENDIX A contains the record layouts and other important information.

NOTE: Some records have shorter Key headers to accommodate large data strings.

Using EXPORT

EXPORT is a sub-function of the GLOBAL PRINT function, and is a separately licensed utility. See the **TRMS Administrator's Batch Support Manual** in the section called **TRMS Programs**; sub-section **TRMGBPRT** for information on how to run the EXPORT JOB.

EXPORT will create an IMPORT file based on the definitions existing on the TRMS database. These records will be in the proper format for IMPORT, and can be edited.

NOTE: When using mainframe-editing tools like ISPF, make sure automatic numbering is turned off to avoid overlaying the end of the record with sequence numbers. It will also be easier to edit the file in 132-column mode.

2.7.2 Import Job Components

2.7.2.1 The IMPORT JOB (DBAJMPRT in the DISTINST Library)

The optional steps in the IMPORT JOB described below are used when an IMPORT file contains both primary component and sub-component records. The IMPORT JOB processes the IMPORT file as follows:

STEP0010 is an optional step that deletes work files used in the following steps.

STEP0020 is an optional step that extracts IMPORT primary component records from an Import file that contains both primary component and sub-component records into a separate file.

STEP0030 is an optional step that extracts IMPORT sub-component records from an Import file that contains both primary component and sub-component records into a separate file.

STEP0040 is the IMPORT step that reads the IMPORT records from SYSIN and creates or updates records on the TRMS 6.0A database.

STEP0050 is an optional step that copies all records not included in the IMPORT file back into the TRMS 6.0A KSDS. This includes Windows, Help, Notes, and Mass Change definition records and all Active records

that existed at the time the EXPORT job was run. The input file for this step is created by the EXPORT job only, which is a separately licensed function. The sub-component records must be processed first. The reason is that primary component definitions have references to sub-components that are validated as part of the IMPORT process. If the sub-component is not already in the TRMS database, the primary component's add or update will fail with an error message. The SYSIN in the sample JCL has the sub-component file concatenated before the primary component file. This arrangement of files will eliminate the TRMS634 error message when the sub-component definition is being added at the same time as the primary component that refers to it.

2.7.3 Controls and Parameters

None

2.7.4 Import Record Layouts, Samples, and Import Order

2.7.4.1 Import Order

Record sets with a record key greater than 60 must be imported first. Records 60 through 73 are sub-component records.

Record sets with a record key less than 60 are primary component records that may have references to sub-component records. Sub-component references are validated during IMPORT. These records will not be added or updated if the sub-component record referenced in the primary component record is not already on the TRMS database.

2.7.4.2 Record Layouts

Naming Conventions

CC=Character column where the field begins in the IMPORT record.
CH = alphanumeric character,
N = numeric,
(nn) = length of the CH or N field,
In a True/False field, 'Y'=True and ' ' (blank)=n/a
In a multiple-choice field, options will be listed in the line comment or in the IMPORT record glossary under the field title.

2.7.4.3 The Record key (44 characters)

There is a record key segment on every IMPORT record.

```
CC
01      TYPE        CH (2)      Record Type
03      STYPE       CH (8)      Record Subtype (not on all records)
11      RECID01     CH (8)      Record Id (all records have one)
19      RECID02     CH (8)      Record Id (not on all records)
27      RECID03     CH (8)      Record Id (not on all records)
35      RECID04     CH (8)      Record Id (not on all records)
43      EXSEQID     CH (2)      Recordset sequence (i.e. A, B, C)
```

The sequence letter in EXSEQID is followed by a blank. Some records
have a different recordset sequence.

2.7.4.4 Sub-Component Records

61   **DJDE Insert**, Key segment

```
CC
01          TYPE        CH(2)       '61'    Required
03                      CH(8)       ' '     blanks
11          Record Id   CH(8)
19                      CH(24)      ' '     blanks
```

```
1- - - 5- - - - 10- - - +- - - - 20- - - +- - - - 30- - - +- - - - 40-
61            TRMSDFLT
```

Figure 41   Sample DJDE Key Segment

61   **DJDE Insert,** Record 'A '

CC

43	Record A	CH(2)	'A '	EXSEQID
45		CH(2)	' '	reserved
47	Description	CH(36)		Insertion description
83	Prefix	CH(8)		DJDE IDEN PREFIX= value
91	Prefix length	N(3)		Length of Prefix (1 – 8)
94	Offset value	N(3)		DJDE IDEN OFFSET= value
97	Skip value	N(3)		DJDE IDEN SKIP= value
100	Long name	CH(32)		Reserved, conversion name
132		CH(1)	' '	blank

43+- - - - 50- - - +- - - - 60- - - +- - - - 70- - - +- - - - 80- - - +- - - - 90- - - +- - - - 100- - +- - - - 110- - +- - - - 120- - +- - - - 130
*A DJDE - MODEL INSERTION DEFINITION *DJDE* 006000007*

Figure 42   Sample DJDE Data Segment 'A'

61   **DJDE Insert**, Record 'B '   One for each line in ascending line# order.

CC

43	Record B	CH(2)	'B'	EXSEQID
45	Line number	N(2)		01,02, etc. Line number
47	Line value	CH(72)		72 character statement
119		CH(14)	' '	blanks

43+- - - - 50- - - +- - - - 60- - - +- - - - 70- - - +- - - - 80- - - +- - - - 90- - - +- - - - 100- - +- - - - 110- - +- - - - 120- - +- - - - 130
*B 01*DJDE* COPIES=1, END*

Figure 43   Sample DJDE Data Segment 'B'

62   **TRMS Insert**, Key segment

CC

01	TYPE	CH(2)	'62'	Required
03	sub-type	CH(8)	'0'	zero + 7 blanks
11	Record Id	CH(8)		Record Id
19		CH(24)	' '	blanks

1- - - 5- - - - 10- - - +- - - - 20- - - +- - - - 30- - - +- - - - 40-
620   TRMSDFLT

Figure 44   Sample TRMS Insert Key Segment

62   **TRMS Insert**, Record 'A '
CC
43	Record A	CH(2)	'A '	EXSEQID
45		CH(2)	' '	reserved
47	Description	CH(36)		Insertion Description
83	Long name	CH(32)		Reserved, Conversion name
115		CH(18)	' '	blanks

```
43+----50---+----60---+----70---+----80---+----90---+----100--+----110--+----120--+----130
A    TRMS - MODEL INSERTION DEFINITION
```

Figure 45   Sample TRMS Insert, Segment 'A'

62   **TRMS Insert**, Record 'B '   One for each line in ascending line# order.
CC
43	Record B	CH(2)	'B '	EXSEQID
45	Line number	N(2)		01,02,etc. Line number
47	Line value	CH(72)		72 character statement
119		CH(14)	' '	blanks

```
43+----50---+----60---+----70---+----80---+----90---+----100--+----110--+----120--+----130
B 011TRMS - MODEL INSERTION DEFINITION
```

Figure 46   Sample TRMS Insert, Segment 'B'

63   **Job List**, Key segment
CC
01	TYPE	CH(2)	'63'	Required
03	Sub Type	CH(8)	'0R'	'0R' + 6 blanks
11	Record Id	CH(8)		Record Id
19	Sequence	N(8)		sequence#
27		CH(16)	' '	blanks

```
1---5----10---+----20---+----30---+----40-
630R       TRMSDFLT00000000
```

Figure 47   Sample Job List Key Segment

63   **Job List**, Record 'A '

CC

43	Record A	CH(2)	'A '	EXSEQID
45		CH(1)	' '	Reserved
46		N(8)		Reserved
54		CH(1)	' '	blank
55		CH(1)	' '	blank
56	Job name	CH(8)		JOB Name
64	Step name	CH(8)		Step Name
72	Proc step	CH(8)		PROC Step Name
80	DD Name	CH(8)		DDName
88	Forms id	CH(8)		Forms Id (VSE)
96	Capture class	CH(1)		Capture Class (VSE)
97		CH(8)	' '	blanks
105		CH(28)		blanks

```
43+----50---+----60---+----70---+----80---+----90---+----100--+----110--+----120--+----130
A ROOOOOOOO TRMSDFLTTRMSDFLTTRMSDFLTTRMSDFLT    JOB - MODEL DEFINITION
```

Figure 48   Sample Job List Segment 'A'

64   **SYSOUT Attributes**, Key segment

CC

01	TYPE	CH(2)	'64'	Required
03		CH(8)	' '	blanks
11	Record Id	CH(8)		Record Id
19		CH(24)	' '	blanks

```
1---5----10---+----20---+----30---+----40-
640       TRMSDFLT
```

Figure 49   Sample SYSOUT, Key Segment

64   **SYSOUT Attributes**, Record 'A'
CC

43	Record A	CH(2)	'A'	EXSEQID
45		CH(1)	blank	Reserved
46	Burst	CH(1)	Y/blank	Burst this report
47	Sep first	CH(1)	Y/blank	Separator on 1st Dist.
48	No Sep	CH(1)	Y/blank	No separator pages
49		CH(1)	blank	Reserved
50		CH(3)	' '	blank
53		N(6)	' '	Blank
59	Lrecl	N(6)		Lrecl (leading zeros)
65	Rec f or v	CH(1)		'F' fixed or 'V' variable
66	Rec b	CH(1)		'B' blocked or ' ' (blank)
67	Rec a, m, blnk	CH(1)		'A', 'M', or blank
68	Class	CH(1)		Output class
69		N(4)		Reserved
73	Forms id	CH(8)		Form Id
81	Fcb	CH(8)		FCB
89	Ucs	CH(8)		UCS
97	Modtrc	N(4)		Modify table character
100	Writer name	CH(8)		Writer Name
108	Flash id	CH(4)		3800 Flash Id
112	Flash count	N(2)		3800 Flash count
114	Copymod	CH(4)		3800 Copy modification Id
118		CH(13)	' '	blanks

```
43+----50---+----60---+----70---+----80---+----90---+----100--+----110--+----120--+----130
A         000133000133FBAA    DFLT     DFLT     DFLT     001TRMSDFLTDFLT12DFLT
```

Figure 50   Sample SYSOUT Segment 'A'

64	**SYSOUT Attributes**, Record 'B'				
CC					
43	Record B	CH(2)	'B '	EXSEQID
45	Char set	CH(20)		3800 character sets
65	Member	CH(8)		Member Inventory List
73		CH(8)		Reserved
81		CH(8)		Reserved
89	Job name	CH(8)		Output Job Name
97	Copies	N(4)		Copies
101	Group1#	N(4)		Number of copies in Copy Group 1
105	Group 2#	N(4)		Number of copies in Copy Group 2
109	Group 3#	N(4)		Number of copies in Copy Group 3
113	Group 4#	N(4)		Number of copies in Copy Group 4
117	Group 5#	N(4)		Number of copies in Copy Group 5
121	Group 6#	N(4)		Number of copies in Copy Group 6
125	Group 7#	N(4)		Number of copies in Copy Group 7
129	Group 8#	N(4)		Number of copies in Copy Group 8

```
43+----50---+----60---+----70---+----80---+----90---+----100--+----110--+----120--+----130
B A    B    C    D                                         000100001
```

Figure 51   Sample SYSOUT Segment 'B'

64	**SYSOUT Attributes**, Record 'C'				
CC					
43	Record C	CH(2)	'C '	EXSEQID
45	Long name	CH(32)		Conversion Longname
77		CH(56)	' '	blanks

```
43+----50---+----60---+----70---+----80---+----90---+----100--+----110--+----120--+----130
C SYSOUT - MODEL DEFINITION
```

Figure 52   Sample SYSOUT Segment 'C'

65   **DSN Attributes**, Key segment

CC

01	TYPE	CH(2)	'65'	Required
03		CH(8)	' '	blanks
11	Record Id	CH(8)		Record Id
19		CH(24)	' '	blanks

1- - - 5- - - - 10- - - +- - - - 20- - - +- - - - 30- - - +- - - - 40-
650   TRMSDFLT

Figure 53   Sample DSN Key Segment

65   **DSN Attributes**, Record 'A '

CC

43	Record A	CH(2)	'A '	EXSEQID
45	Catalog	CH(1)		Y/blank Catalog the file
46	No header	CH(1)		Y/blank No TRMS control
47	Release	CH(1)		Y/blank Release Space parm
48	GDG	CH(1)		Y/blank GDG
49	Compress	CH(1)		Y/blank 3480 Tape with comp
50	No compress	CH(1)		Y/blank 3480 Tape, no comp
51	Tape	CH(1)		Y/blank Tape dataset
52	Dasd	CH(1)		Y/blank Disk dataset
53	Api	CH(1)		Y/blank API dataset
54	Optical	CH(1)		Y/blank OPTICAL dataset
55	Sms	CH(1)		Y/blank SMS dataset
56	Page one sep	CH(1)		Y/blank Sep on page one only
57	Separators	CH(1)		Y/blank Separator pages
58	New tape	CH(1)		Y/blank Independent tape vol
59		CH(4)	' '	Always blank
63	Blocksize	N(6)		Output Blocksize
69	Lrecl	N(6)		Output Logical record size
75	Device	CH(8)		Device type
83	Dataset name	CH(44)		Dataset Name
127	Rec f or v	CH(1)		RECFM=F or V
128	rec b	CH(1)		RECFM=B or blank
129	rec a,m,blank	CH(1)		RECFM=A or M
130		CH(3)	' '	blanks

43+- - - - 50- - - +- - - - 60- - - +- - - - 70- - - +- - - - 80- - - +- - - - 90- - - +- - - - 100- - +- - - - 110- - +- - - - 120- - +- - - - 130
```
A YY Y  Y       Y  027930008133TAPE    TRMS.DEFAULT.GDG(+1)                         FBA
```

Figure 54   Sample DSN Segment 'A'

65   **DSN Attributes**, Record 'B '

CC

43	Record B	CH(2)	'B '	EXSEQID
45	Expdt/Retpd	N(8)		Exp. Date/ Retention Pd
53	Label	CH(2)		Tape label=SL or NL
55	Density	CH(4)		Tape Density
59	Msvgp	CH(8)		MSS MSVGP parameter
67	Primary space	N(3)		DASD Primary Space
70	Secondary spc	N(3)		DASD Secondary Space
73	Dasd type	CH(3)		DASD type=TRK or CYL
76	Member	CH(8)		Member to precede report
84	Ddname	CH(8)		DDname
92	Dataset hlq	CH(8)		SMS dataset hlq
100	Storage class	CH(8)		SMS storage class
108	Mgmt. class	CH(8)		SMS management class
116	Data class	CH(8)		SMS data class
124		CH(9)	' '	blanks

```
43+----50---+----60---+----70---+----80---+----90---+----100--+----110--+----120--+----130
B        SL             DFLTCNTLDDNAME
```

Figure 55   Sample DSN Segment 'B'

65   **DSN Attributes**, Record 'C '

CC

43	Record C	CH(2)	'C '	EXSEQID
45	Expdt/Retpd	N(7)		SMS expdt/retpd
52	Input unit	CH(8)		Optical Input Unit name
60	Output unit	CH(8)		Optical Output Unit name
68	Long name	CH(32)		Conversion long name
100		CH(33)	' '	blanks

```
43+----50---+----60---+----70---+----80---+----90---+----100--+----110--+----120--+----130
C 0000000           DSN – MODEL DEFINITION
```

Figure 56   Sample DSN Segment 'C'

66   Action Lists

The Action List record type is a flat record that contains arrays of related values. It has three different forms; 'BU' – Distribution List, 'NRJ' – Requirements List, and 'NU' – Access List. (Refer to <u>TRMS Administrator's Guide</u> for more information.)   The record form identifier is located in the 'Rec type' field of the Key Segment.

NOTE: When Action Lists are IMPORTed, they are replaced in their entirety. If the recordset exists on the database at the time of IMPORT, it is deleted from the database and the recordset from the IMPORT file is added to the database. **All record sections for Action Lists are required, and the whole record must exist in the IMPORT file.**

66   Action List, Distribution List (BU)

66   Action List, Key Segment (BU)

CC

01	TYPE	CH(2)	'66'	Required
03	Sub type	CH(8)	'0 '	0 + 7 blanks
11	Rec type	CH(8)	' '	BU
19	Record Id	CH(8)		Record Id
27	Sequence	N(8)	'1'	Seq# starts at one
35		CH(8)	' '	blanks

```
1---5----10---+----20---+----30---+----40-
660        BU      TRMSDFLT00000001
```

Figure 57 Sample Action Key List Segment

66   Action List, Base Section, Record 'A', Rec Types (BU)

CC

43	Record A	CH(2)	'A '	Required
45		CH(23)		Reserved
68	Long Name	CH(32)		blanks/ Conversion reference
100		CH(33)		blanks/ Reserved

```
43+----50---+----60---+----70---+----80---+----90---+----100--+----110--+----120--+----130
A                   01DISTRIBUTION LIST - MODEL DEFINI
```

Figure 58   Sample Action List Segment 'A'

The Distribution List has three sets of group records in a set. This record can have multiple sets of group records. All Group Records have a 'B' in column 43.

Group Header

The Group Header is the base for a set, and there is only one per set.
The Grp Hdr seq# is a number between 00 and 99. This number keeps all the
records in a set together when the IMPORT file is sorted..

The List # field contains the number of entries in theUser Values List record.
The maximum value for this field is about 240.   See the NOTE in the User
Values List record below.

The Value # field contains the number of 8-character values in each Group List
entry. For the Distribution list (BU) record this is always '001'.

66   **Action List**, Group Header (BU)

CC				
43	Record B	CH(1)	'B'	Required, EXSEQID
44	Grp Hdr seq#	N(2)		Sequence number
46		CH(3)	' '	Always blanks
49	List #	N(3)		Number of entries in list
52	Value #	N(3)	'001'	# 8 byte values in list entry
55		N(3)	'001'	Always one
58		CH(75)	' '	Always blanks

```
43+----50---+----60---+----70---+----80---+----90---+----100--+----110--+----120--+----130
B00   001001001
```

Figure 59   Sample Action List Group Header Segment 'B'

Group Values

The Group Values record contains one BOC value or optional Security token per
record.

The Grp Hdr seq# is the number of the Group Header record that this Group
Values record belongs to.

The Grp Val seq# can be a number from 1 – 3, and 5. Numbers 1, 2, 3 are BOC
values. Number 4 is unused. Number 5 is an optional security token, and number
6 is unused.

When creating this record, if you have fewer than three BOC values, put the first
one in Grp Val seq# = 1, the second one in 2, etc. For instance, if you have one
BOC value and a security token, you would have a Grp Val seq# 1 record for the
BOC value and a Grp Val seq# 5 record for the security token.

Value length is the count of significant characters in the Group Value field. Maximum value is 40.

66	**Action List**, Group Values ('BU')			
CC				
43	Record B	CH(1)	'B'	Required, EXSEQID
44	Grp Hdr seq#	N(2)		Group Header Seq. No.
46	Grp Val seq#	N(1)		Value Sequence
47		CH(2)	' '	Always blanks
49	Value length	N(2)		Value length
51	Value	CH(40)		Group Value
91		CH(42)	' '	blanks

```
43+----50---+----60---+----70---+----80---+----90---+----100--+----110--+----120--+----130
B001  04TEST
B005  04TEST
```

Figure 60   Sample Action List Group Values Segment 'B'

User List Values

The User List Values record contains a list of User Ids that are associated with the Group Value records.

The Grp Hdr seq# is the number of the Group Header record that this User List Values record belongs to.

The Grp Val seq# is the number of the last Group Value record that this User List Values record belongs to.

Grp User seq# is a number from 00 – 99, beginning with 00. Number sets is a value from 1 – 10, and is the count of User Ids in this User List Values record.

No. Entries for Distribution List(BU) is always '1', and is the number of 8-byte fields in each entry. Entries contains the number of User Ids specified in the Number sets field.

NOTE: Although the Grp User seq# goes all the way to 99, a single physical Distribution list record in TRMS can only hold about 240 User Ids. When the Grp User seq# gets to 24, create an new record set with the A record, the B Group Header, the B Group Value, and more B User List Value records. Increase the Sequence number in the Key segment on the new record by one.

66   **Action List**, User List Values (BU)

CC

43	Record B	CH(1)	'B'	Required, EXSEQID
44	Grp Hdr seq#	N(2)		Group Header Seq. No.
46	Grp Val seq#	N(1)	' '	blank or last Grp. Val ('BU')
47	Grp User seq#	N(2)		List Sequence Number
49	Number sets	N(2)		# value sets in this segment
51	No. Entries	N(2)	'001'	# 8byte entries per value set
53	Entries	CH(80)		Up to 10 8-char. values

```
43+----50---+----60---+----70---+----80---+----90---+----100--+----110--+----120--+----130
B005000101TRMSDFLT
```

Figure 61   Sample Action List User List Values Segment 'B'

66   **Action List, Requirements List (NRJ)**

66   **Action List**, Key Segment (NRJ)

CC

01	TYPE	CH(2)	'66'	Required
03	Sub type	CH(8)	'0 '	0 + 7 blanks
11	Rec type	CH(8)	' '	NRJ
19	Record Id	CH(8)		Record Id
27	Sequence	N(8)	'1'	Seq# starts at one
35		CH(8)	' '	blanks

```
1---5----10---+----20---+----30---+----40-
660       NRJ     TRMSDFLT00000001
```

Figure 62   Sample Action List Key Segment

66   **Action List**, Base section, Record 'A', Rec Types (NRJ)

CC

43	Record A	CH(2)	'A '	Required, EXSEQID
45		CH(23)	blanks	Reserved for future use
68	Long Name	CH(32)		Conversion reference
100		CH(33)	' '	blanks

```
43+----50---+----60---+----70---+----80---+----90---+----100--+----110--+----120--+----130
A                 01REQUIREMENTS LIST - MODEL DEFINIT
```

Figure 63   Sample Action List Segment 'A'

The Requirements list has two sets of group records in a set. This record can have multiple sets of group records. All Group Records have a 'B' in column 43.

Group Header
The Group Header is the base for a set, and there is only one per set. The Grp Hdr seq# is a number between 00 and 99. This number keeps all the records in a set together when the IMPORT file is sorted.

The List # field contains the number of entries in the User Values List record. The maximum value for this field is about 120. See the NOTE in the User Values List record below.

The Value # field contains the number of 8-character values in each Group List entry. For the Requirements list (NRJ) record this is always '002'. The first 8-byte value is the Report Id and the second 8-byte value is the Jobname.

66	**Action List**, Group Header (NRJ)				
CC					
43	Record B	CH(1)	'B'	Required, EXSEQID
44	Grp Hdr seq#	N(2)		Sequence number
46		CH(3)	' '	Always blanks
49	List #	N(3)		Number of entries in list
52	Value #	N(3)	'002'	# 8 byte values in list entry
55		N(3)	'001'	Always one
58		CH(75)	' '	Always blanks

```
43+----50---+----60---+----70---+----80---+----90---+----100--+----110--+----120--+----130
B00   001002001
```

Figure 64   Sample Action List Group Header Segment 'B'

List Values
The User List Values record contains a list of Report/Jobname pairs that are associated with the Group Value records. The Grp Hdr seq# is the number of the Group Header record that this User List Values record belongs to.

The Grp Val seq# is always blank. Grp User seq# is a number from 00 – 99, beginning with 00. Number sets is a value from 1 – 5, and is the count of Report/Jobname pairs in this User List Values record.

No. Entries for Requirements List(NRJ) is always '2', and is the number of 8-byte fields in each entry. Each entry in this record is 16-bytes long. The Entries field contains the number of 16-byte Report/Jobname pairs specified in the Number sets field.

NOTE: Although the Grp User seq# goes all the way to 99, a single physical Requirements list record in TRMS can only hold about 120 Report/Jobname pairs. When the Grp User seq# gets to 24, create an new record set with the A record, the B Group Header, and more B User List Value records. Increase the Sequence number in the Key segment of the new record by one.

66 **Action List,** User List Values (NRJ)

CC

43	Record B	CH(1)	'B'	Required, EXSEQID
44	Grp Hdr seq#	N(2)		Group Header Seq. No.
46	Grp Val seq#	N(1)	' '	always blank
47	Grp User seq#	N(2)		List Sequence Number
49	Number sets	N(2)		# value sets in this segment
51	No. Entries	N(2)	'002'	# 8byte entries per value set
53	Entries	CH(80)		Up to 5 16-char. values

```
43+----50---+----60---+----70---+----80---+----90---+----100--+----110--+----120--+----130
B00 000102TRMSDFLTTRMSDFLT
```

Figure 65 Sample Action List User List Values Segment 'B'

66 **Action List, Access List (NU)**

66 **Action List**, Key Segment (NU)

CC

01	TYPE	CH(2)	'66'	Required
03	Sub type	CH(8)	'0 '	0 + 7 blanks
11	Rec type	CH(8)	' '	BU, NRJ, NU
19	Record Id	CH(8)		Record Id
27	Sequence	N(8)	'1'	Seq# starts at one
35		CH(8)	' '	blanks

```
1---5----10---+----20---+----30---+----40-
660      NU      TRMSDFLT00000001
```

Figure 66 Sample Action List Key Segment

66   **Action List, Base Section**, Record 'A', Rec Types (NU)
CC
43   Record A   CH(2)   'A '   Required, EXSEQID
45   CH(23)   blanks Reserved for future use
68   Long Name   CH(32)   Conversion reference
100   CH(33)   ' '   blanks

```
43+----50---+----60---+----70---+----80---+----90---+----100--+----110--+----120--+----130
A                 01ACCESS LIST - MODEL DEFINITION
```

Figure 67   Sample Action List Segment 'A'

The Access list has two sets of group records in a set. This record can have multiple sets of group records. All Group Records have a 'B' in column 43.

Group Header
The Group Header is the base for a set, and there is only one per set. The Grp Hdr seq# is a number between 00 and 99. This number keeps all the records in a set together when the IMPORT file is sorted.

The List # field contains the number of entries in theUser Values List record. The maximum value for this field is about 240.   See the NOTE in the User Values List record below.

The Value # field contains the number of 8-character values in each Group List entry. For the Access list (NU) record this is always '001'. The 8-byte value is the User Id.

66   **Action List**, Group Header (NU)
CC
43   Record B   CH(1)   'B'   Required, EXSEQID
44   Grp Hdr seq#   N(2)   Sequence number
46   CH(3)   ' '   Always blanks
49   List #   N(3)   Number of entries in list
52   Value #   N(3)   '001'   # 8 byte values in list entry
55   N(3)   '001'   Always one
58   CH(75)   ' '   Always blanks

```
43+----50---+----60---+----70---+----80---+----90---+----100--+----110--+----120--+----130
B00    002001001
```

Figure 68   Sample Action List Group Header Segment 'B'

User List Values

The User List Values record contains a list of User Ids pairs that are associated with the Group Value records. The Grp Hdr seq# is the number of the Group Header record that this User List Values record belongs to.

The Grp Val seq# is always blank. Grp User seq# is a number from 00 – 99, beginning with 00. Number sets is a value from 1 – 10, and is the count of User Ids in this User List Values record.

No. Entries for Access List(NU) is always '1', and is the number of 8-byte fields in each entry. The Entries field contains the number of 8-byte User Ids specified in the Number sets field.

NOTE: Although the Grp User seq# goes all the way to 99, a single physical Access list record in TRMS can only hold about240 User Ids. When the Grp User seq# gets to 24, create an new record set with the A record, the B Group Header, and more B User List Value records. Increase the Sequence number in the Key segment of the new record by one.

66   **Action List**, User List Values (NU)
CC
43   Record B   CH(1)   'B'   Required, EXSEQID
44   Grp Hdr seq# N(2)   Group Header Seq. No.
46   Grp Val seq#   N(1)   ' '   always blank
47   Grp User seq# N(2)   List Sequence Number
49   Number sets   N(2)   # value sets in this segment
51   No. Entries   N(2)   '001'   # 8byte entries per value set
53   Entries   CH(80)   Up to 10 8-char. values

```
43+----50---+----60---+----70---+----80---+----90---+----100--+----110--+----120--+----130
B00 000201NEWUSER TRMSDFLT
```

Figure 69 Sample Action List User List Values Segment 'B'

69   **External Address**, Key Segment

CC

01	TYPE	CH(2)	'69'	Required
03		CH(8)	blanks	
11	Address Type	CH(8)	E/T	E-mail or TRMSWEB
19	Record Id	CH(8)		Record Id
27		CH(16)	' '	blanks

```
1- - - 5- - - - 10- - - +- - - - 20- - - +- - - - 30- - - +- - - - 40-
69              E          TRMSDFLT
```

Figure 70   Sample External Address Key Segment

69   **External Address**, Record A

CC

43	Record A	CH(2)	'A '	EXSEQID
45		CH(3)	' '	blanks
48	Server id	CH(64)		See note.
112		CH(21)	' '	blanks

```
43+- - - - 50- - - +- - - - 60- - - +- - - - 70- - - +- - - - 80- - - +- - - - 90- - - +- - - - 100- - +- - - - 110- - +- - - - 120- - +- - - - 130
A     EMAIL@SERVER.COM
```

Figure 71   Sample External Address Segment 'A'

NOTE: The Server Id field contains keyword parameters based on record type or record name. See the following section.

69   **External Address**, Record 'B'

CC

43	Record B	CH(2)	'B '	EXSEQID
45	Separator	CH(1)	'|'	TRMS WEB separator
46	Keywords	CH(64)		See Note below
110		CH(23)	' '	blanks

```
43+- - - - 50- - - +- - - - 60- - - +- - - - 70- - - +- - - - 80- - - +- - - - 90- - - +- - - - 100- - +- - - - 110- - +- - - - 120- - +- - - - 130
B  |
```

Figure 72   Sample External Address Segment 'B'

NOTE: Keywords contains keyword parameters based on record type or record name. See the following section.

69   **External Address**, Record 'C'

CC

43	Record C	CH(2)	'C '	EXSEQID
45	DB name	CH(36)		TRMSNET database name
81	Long name	CH(32)		Conversion long name
113		CH(20)	' '	blanks

```
43+----50---+----60---+----70---+----80---+----90---+----100--+----110--+----120--+----130
C EXTERNAL ADDR - MODEL DEFINITION
```

Figure 73   Sample External Address Segment 'C'

70   **Query List**, Index, Key Segment

CC

01	TYPE	CH(2)	'70'	Required save
03	External Type	CH(8)	'2'	'2'
11	Record Id	CH(8)		Record Id
19		CH(24)	' '	blanks

```
1---5----10---+----20---+----30---+----40-
702       TRMSDFLT
```

Figure 74   Sample Query List Key Segment

70   **Query List,** Index, Record 'A'

CC

43	Record A	CH(2)	'A '	EXSEQID
45	Index 1	CH(1)		Y/blank Index 1 def. in use
46	Index 2	CH(1)		Y/blank Index 2 def. in use
47	Index 3	CH(1)		Y/blank Index 3 def. in use
48	Description 1	CH(1)		Y/blank Index 1 description supplied
49	Description 2	CH(1)		Y/blank Index 2 description supplied
50	Description 3	CH(1)		Y/blank Index 3 description supplied
51		CH(2)	' '	Always blank
53	Index 1 rec	N(3)		Index 1 record
56	Index 1 col	N(3)		Index 1 column
59	Index 1 len	N(3)		Index 1 length
62	Index 1 val	CH(40)		Index 1 description
102		CH(32)		

```
43+----50---+----60---+----70---+----80---+----90---+----100--+----110--+----120--+----130
A Y  Y    001001005INDEX
```

Figure 75   Sample Query List Index Segment 'A'

70	**Query List**, Index, Record 'B'				
CC					
43	Record B	CH(2)	'B '	EXSEQID
45	Index 2 rec	N(3)		Index 2 record
48	Index 2 col	N(3)		Index 2 column
51	Index 2 len	N(3)		Index 2 length
54	Index 2 val	CH(40)		Index 2 description
94		CH(39)	' '	blanks

```
43+----50---+----60---+----70---+----80---+----90---+----100--+----110--+----120--+----130
B 000000000
```

Figure 76 Sample Query List Index Segment 'B'

70	**Query List**, Index, Record 'C'				
CC					
43	Record C	CH(2)	'C '	EXSEQID
45	Index 3 rec	N(3)		Index 3 record
48	Index 3 col	N(3)		Index 3 column
51	Index 3 len	N(3)		Index 3 length
54	Index 3 val	CH(40)		Index 3 description
94	Max indexes	N(5)		Max Indexes, 0=no limit
99	Long name	CH(32)		Conversion long name
131		CH(2)	' '	blanks

```
43+----50---+----60---+----70---+----80---+----90---+----100--+----110--+----120--+----130
C 000000000                              0000000INDEX - MODEL DEFINITION
```

Figure 77 Sample Query List Index Segment 'C'

71	**Query List, BOC**, Key Segment				
CC					
01	TYPE	CH(2)	'71'	Required
03	External Type	CH(8)	'2'	'2' + 7 blanks
11	Record Id	CH(8)		Record Id
19		CH(24)	' '	blanks

```
1---5----10---+----20---+----30---+----40-
712       TRMSDFLT
```

Figure 78 Sample BOC Key Segment

71   **Query List**, BOC, Record 'A '
CC

43	Record A	CH(2)	'A '	EXSEQID
45	Boc 1	CH(1)	Y/blank BOC def. 1 in use	
46	Boc 2	CH(1)	Y/ blank BOC def. 2 in use	
47	Boc 3	CH(1)	Y/ blank BOC def. 3 in use	
48	When 1	CH(1)	Y/ blank WHEN def. 1 in use	
49	When 2	CH(1)	Y/ blank WHEN def. 2 in use	
50	When 3	CH(1)	Y/ blank WHEN def. 3 in use	
51	Description 1	CH(1)	Y/ blank WHEN desc. 1 suppplied	
52	Description 2	CH(1)	Y/ blank WHEN desc. 2 suppplied	
53	Description 3	CH(1)	Y/ blank WHEN desc. 3 suppplied	
54		CH(2)	' ' Always blank	
56	Ignore case	CH(1)	Y/ blank Ignore uppercase	
57	Boc 1 rec	N(3)	BOC 1 record	
60	Boc 1 col	N(3)	BOC 1 column	
63	Boc 1 len	N(3)	BOC 1 length	
66	Boc 2 rec	N(3)	BOC 2 record	
69	Boc 2 col	N(3)	BOC 2 column	
72	Boc 2 len	N(3)	BOC 2 length	
75	Boc 3 rec	N(3)	BOC 3 record	
78	Boc 3 col	N(3)	BOC 3 column	
81	Boc 3 len	N(3)	BOC 3 length	
84	Long Name	N(32)	Description/Conversion Name	
116		CH(17)		

43+- - - - 50- - - +- - - - 60- - - +- - - - 70- - - +- - - - 80- - - +- - - - 90- - - +- - - - 100- - +- - - - 110- - +- - - - 120- - +- - - - 130
A Y   Y   Y   001001010   BOC - MODEL DEFINITION002045007

Figure 79   Sample Query List BOC Segment 'A'

71   **Query List**, BOC, Record 'B '
CC
43   Record B   CH(2)   'B '   EXSEQID
45   When 2 rec   N(3)   WHEN 2 record
48   When 2 col   N(3)   WHEN 2 column
51   When 2 len   N(3)   WHEN 2 length
54   When 2 value   CH(40)   WHEN 2 description
84   CH(39)   ' '   blanks

43+- - - - 50- - - +- - - - 60- - - +- - - - 70- - - +- - - - 80- - - +- - - - 90- - - +- - - - 100- - +- - - - 110- - +- - - - 120- - +- - - - 130
B 001001010WHEN VALUE

Figure 80   Sample Query List BOC Segment 'B'

71   **Query List**, BOC, Record 'C '
CC
43   Record C   CH(2)   'C '   EXSEQID
45   When 2 rec   N(3)   WHEN 2 record
48   When 2 col   N(3)   WHEN 2 column
51   When 2 len   N(3)   WHEN 2 length
54   When 2 value   CH(40)   WHEN 2 description
94   CH(39)
95

43+- - - - 50- - - +- - - - 60- - - +- - - - 70- - - +- - - - 80- - - +- - - - 90- - - +- - - - 100- - +- - - - 110- - +- - - - 120- - +- - - - 130
C 001001010WHEN VALUE

Figure 81   Sample Query List BOC Segment 'C'

71   **Query List**, BOC, Record 'D '
CC
43   Record C   CH(2)   'D '   EXSEQID
45   When 3 rec   N(3)   WHEN 3 record
48   When 3 col   N(3)   WHEN 3 column
51   When 3 len   N(3)   WHEN 3 length
54   When 3 value   CH(40)   WHEN 3 description
94   CH(39)

43+- - - - 50- - - +- - - - 60- - - +- - - - 70- - - +- - - - 80- - - +- - - - 90- - - +- - - - 100- - +- - - - 110- - +- - - - 120- - +- - - - 130
D 001001010WHEN VALUE   Long Name

Figure 82   Sample Query List BOC Segment 'D'

72 **Query List**, Partial Breakout, Key Segment
CC
01   TYPE   CH(2)   '72'   **Required**
03   STYPE   CH(8)   '2'   '2' + 7 blanks
11   RECID01   CH(8)   Record Id
19   CH(24)   ' '   blanks

1- - - 5- - - - 10- - - +- - - - 20- - - +- - - - 30- - - +- - - - 40-
722   TRMSDFLT

Figure 83 Sample Partial Breakout Key Segment

72 **Query List**, Partial Breakout, Record 'A '
CC
43   Record A   CH(2)   'A '   EXSEQID, **Required**
45   Ignore case CH(6)   'Ignore, Yes, No' Ignore uppercase
51   Ignore blank CH(3)   'Yes, No'   Ignore blank lines
54   AND arg   CH(1)   Argument AND designator
55   OR arg   CH(1)   Argument OR designator
56   Long name   CH(32)   Conversion long name
88   CH(45)   blanks

43+- - - - 50- - - +- - - - 60- - - +- - - - 70- - - +- - - - 80- - - +- - - - 90- - - +- - - - 100- - +- - - - 110- - +- - - - 120- - +- - - - 130
A YES   NO & | PARTIAL BREAK – MODEL DEFINITION

Figure 84   Sample Query List Partial Breakout Segment 'A'

72   **Query List**, Partial Breakout, Record 'B '
CC

43	Record B	CH(2)	'B '	EXSEQID
45	Record line#	N(2)		Record line number
47	Start Type	CH(3)		Line Type
50	Num Pages	N(1)		Number of Start prev pages
51	Beg Line#	N(3)		Beginning line number
54	Beg Line rng	N(3)		Beginning line range
57	Beg Line col	N(3)		Beginning line column
60	Beg Col rng	N(3)		Beginning column range
63		CH(3)		N/A
66	Operator	CH(3)		Line Conditional Operator
69	Beg Arg val	CH(40)		Beginning search argument
119		CH(24)	' '	blanks

```
43+----50---+----60---+----70---+----80---+----90---+----100--+----110--+----120--+----130
B 01S    001001001001004EQ TEST
```

Figure 85   Sample Query List Partial Breakout Segment 'B'

Primary Component Records

05   DSN/Unit Association, Key Segment
CC
01   TYPE   CH(2)   '05'   Required
03   STYPE   CH   (40)   Unique Descriptive Name

1- - - 5- - - - 10- - - +- - - - 20- - - +- - - - 30- - - +- - - - 40-
05TRMS. TRNSDFLT. ARCHI VE

Figure 86   Sample DSN Key Segment

05   DSN/Unit Association, Record 'A '
CC
43   Record A   CH(2)   'A '   EXSEQID
45   DSN   CH(44)   Dataset name
89   DSN Len   N(3)   Dataset name length
92   UNIT   CH(8)   Unit name for DSN
100   GDG   CH(1)   Y/ blank DSN is a GDG
101   Use Catlg   CH(1)   Y/ blank Use Catalog for Unit
102   CH(31)   ' '   blanks

43+- - - - 50- - - +- - - - 60- - - +- - - - 70- - - +- - - - 80- - - +- - - - 90- - - +- - - - 100- - +- - - - 110- - +- - - - 120- - +- - - - 130
A TRMS. TRMSDFLT. ARCHI VE   021SYSDA

Figure 87   Sample DSN Segment 'A'

10   Maildrop, Key Segment
CC
01   TYPE   CH(2)   '10'   Required
03   STYPE   CH(8)   ' '   blanks
11   RECID01   CH(8)   Record Id
19   CH(24)   ' '   blanks
1- - - 5- - - - 10- - - +- - - - 20- - - +- - - - 30- - - +- - - - 40-
10   TRMSDFLT

Figure 88   Sample Maildrop Key Segment

10   **Maildrop**, Record 'A '
CC

43	Record A	CH(2)	'A '	EXSEQID
45	DEST	CH(8)		JES destination
53	Sub DEST	CH(8)		JES sub-destination
61	External	CH(8)		External reference
69	External Type	CH(1)		External ref. Type=A/L/J/U
70	Coordinator	CH(32)		Coordinator name
102		CH(31)	' '	blanks

```
43+----50---+----60---+----70---+----80---+----90---+----100--+----110--+----120--+----130
A LOCAL             JTRMS CO-ORDINATOR
```

Figure 89   Sample Maildrop Segment 'A'

10   **Maildrop**, Record 'B '
CC

43	Record B	CH(2)	'B'	EXSEQID
45	Phone	CH(20)		Coordinator phone number
65	ADDR1	CH(40)		Address line 1
105	Addr1 label	CH(1)		Y/blank Incl. Address line 1 on label
106		CH(27)	' '	blanks

```
43+----50---+----60---+----70---+----80---+----90---+----100--+----110--+----120--+----130
B (###) ###-#### X####RECEIVING MAILDROP NAME OR PLACE
```

Figure 90   Sample Maildrop Segment 'B'

10   **Maildrop**, Record 'C '
CC

43	Record C	CH(2)	'C '	EXSEQID
45	ADDR2	CH(40)		Address line 2
85	Addr2 label	CH(1)		Y/ blank Incl. Address line 2 on label
86		CH(47)		blanks

```
43+----50---+----60---+----70---+----80---+----90---+----100--+----110--+----120--+----130
C LINE 2 <--------
```

Figure 91   Sample Maildrop Segment 'C'

10   **Maildrop**, Record 'D '
CC
43   Record D   CH(2)   'D '   EXSEQID
45   ADDR3   CH(40)   Address line 3
85   Addr3 label CH(1)   Y/ blank Incl. Address line 3 on label
86   CH(47)   ' '   blanks
43+- - - - 50- - - +- - - - 60- - +- - - - 70- - - +- - - - 80- - - +- - - - 90- - - +- - - - 100- - +- - - - 110- - +- - - - 120- - +- - - - 130
D RECEIVING MAILDROP STREET ADDRESS

Figure 92   Sample Maildrop Segment 'D'

10   **Maildrop**, Record 'E '
CC
43   Record E   CH(2)   'E '   EXSEQID
45   ADDR4   CH(40)   Address line 4
85   Addr4 label CH(1)   Y/ blank Incl. Address line 4 on label
86   CH(47)   ' '   blanks

43+- - - - 50- - - +- - - - 60- - - +- - - - 70- - - +- - - - 80- - - +- - - - 90- - - +- - - - 100- - +- - - - 110- - +- - - - 120- - +- - - - 130
E LINE 4 <- - - - - - - -

Figure 93   Sample Maildrop Segment 'E'

10   **Maildrop**, Record 'F '
CC
43   Record F   CH(2)   'F '   EXSEQID
45   ADDR5   CH(40)   Address line 5
85   Addr5 label CH(1)   Y/ blank Incl. Address line 5 on label
86   CH(47)   ' '   blanks
43+- - - - 50- - - +- - - - 60- - - +- - - - 70- - - +- - - - 80- - - +- - - - 90- - - +- - - - 100- - +- - - - 110- - +- - - - 120- - +- - - - 130
F RECEIVING MAILDROP CITY, STATE ZIP

Figure 94   Sample Maildrop Segment 'F'

10   **Maildrop**, Record 'G '
CC
43   Record G   CH(2)   'G '   EXSEQID
45   ADDR6   CH(40)   Address line 6
85   Addr6 label CH(1)   Y/ blank Incl. Address line 6 on label
86   CH(47)   ' '   blanks

43+- - - - 50- - - +- - - - 60- - + - - - - 70- - - +- - - - 80- - - +- - - - 90- - - +- - - - 100- - +- - - - 110- - +- - - - 120- - +- - - - 130
G LINE 6 <- - - - - - - -

Figure 95   Sample Maildrop Segment 'G'

10	**Maildrop,** Record 'H '				
CC					
43	Record H	CH(2)	'H '	EXSEQID
45	ADDR7	CH(40)		Address line 7
85	Addr7 label	CH(1)		Incl. Address line 7 on label
86		CH(47)	' '	blanks

43+- - - - 50- - - +- - - - 60- - - +- - - - 70- - - +- - - - 80- - - +- - - - 90- - - +- - - - 100- - +- - - - 110- - +- - - - 120- - +- - - - 130
H RECEIVING ATTENTION TO WHOM

Figure 96   Sample Maildrop Segment 'H'

10	**Maildrop**, Record 'I '				
CC					
43	Record I	CH(2)	'I '	EXSEQID
45	Comment 1	CH(40)		Comment line 1
85		CH(48)	' '	blanks

43+- - - - 50- - - +- - - - 60- - - +- - - - 70- - - +- - - - 80- - - +- - - - 90- - - +- - - - 100- - +- - - - 110- - +- - - - 120- - +- - - - 130
I MAILDROP COMMENT LINE NUMBER ONE

Figure 97   Sample Maildrop Segment 'I'

10	**Maildrop**, Record 'J '				
CC					
43	Record J	CH(2)	'J '	EXSEQID
45	Comment 2	CH(40)		Comment line 2
85		CH(48)	' '	blanks

43+- - - - 50- - - +- - - - 60- - - +- - - - 70- - - +- - - - 80- - - +- - - - 90- - - +- - - - 100- - +- - - - 110- - +- - - - 120- - +- - - - 130
J MAILDROP COMMENT LINE NUMBER TWO

Figure 98   Sample Maildrop Segment 'J'

10   Maildrop, Record 'L '
CC

43	Record L	CH(2)	'L '	EXSEQID
45	Member	CH(8)		Mbr to precede Inventory list
53	Dest	CH(8)		Inventory list output dest
61	Sub Dest	CH(8)		Inventory list output sub-dest
69	External	CH(8)		External reference
77	External type	CH(1)		Ext. reference type=A/L/J/U
78		CH(8)	' '	blanks
86	Packets	CH(1)		Y/ blank Use mail packets
87		CH(46)	' '	blanks (future use)

```
43+----50---+----60---+----70---+----80---+----90---+----100--+----110--+----120--+----130
L  DFLTCNTLLOCAL          TRMSDFLTJ
```

Figure 99   Sample Maildrop Segment 'L'

20   Recipient, Key Segment
CC

01	TYPE	CH(2)	'20'	Required
03	STYPE	CH(8)	' '	blanks
11	RECID01	CH(8)		Record Id
19		CH(24)	' '	blanks

```
1---5----10---+----20---+----30---+----40-
20        TRMSDFLT
```

Figure 100   Sample Recipient Key Segment

20	**Recipient**, Record 'A '			
CC				
43	Record A	CH(2)	'A '	EXSEQID
45	Signon panel	CH(1)	Y/ blank	User gets Signon panel
46	No job panel	CH(1)	Y/ blank	No display JOB panel
47	No restore pan	CH(1)	Y/ blank	No RESTORE JOB panel
48	No demand prt	CH(1)	Y/ blank	No Demand Print JOB panel
49		CH(2)	' '	Always blank
51	Email defined	CH(1)	Y/ blank	User has an Email defined
52		CH(1)	' '	Always blank
53	User priority	N(3)		User Priority within Bundle
56	Name	CH(32)		User name
88	Phone	CH(20)		User Phone
108	Maildrop	CH(8)		Maildrop
116	Password	CH(8)		Password (See Note)
124	Print maildrop	CH(8)		Demand Print Maildrop
132		CH(1)	' '	blank

43+ - - - 50- - - + - - - - 60- - - + - - - - 70- - - + - - - - 80- - - + - - - - 90- - - + - - - - 100- - + - - - - 110- - + - - - - 120- - + - - - - 130
A   128TRMSDFLTADMINISTRATOR KEY   (###) ###- #### X####TRMSDFLTTRMSUSPN

Figure 101 Sample Recipient Segment 'A'

NOTE: An IMPORT record created by EXPORT will have binary data in the Password field.

20	**Recipient**, Record 'B '			
CC				
43	Record B	CH(2)	'B '	EXSEQID
45	Security grp	CH(8)		Security Group
53	Accounting	CH(32)		JOB Accounting
101		CH(48)	' '	blanks

43+ - - - 50- - - + - - - - 60- - + - - - - 70- - - + - - - - 80- - - + - - - - 90- - - + - - - - 100- - + - - - - 110- - + - - - - 120- - + - - - - 130
*B ********SUSPENSE REPORT ACCOUNT NUMBER*

Figure 102 Sample Recipient Segment 'B'

20   Recipient, Record 'C '
CC

CC	Field	Type	Value
43	Record C	CH(2)	'C ' EXSEQID
45	Browse	CH(1)	Y/ blank AUTH - Browse
46	Admin	CH(1)	Y/ blank AUTH - Admin
47	Browse Updt	CH(1)	Y/ blank AUTH - Browse Update
48	Admin Updt	CH(1)	Y/ blank AUTH - Admin update
49	Define Win	CH(1)	Y/ blank AUTH - Define Windows
50	Archive rest	CH(1)	Y/ blank AUTH – Archive Restore
51	No Win def	CH(1)	Y/ blank AUTH – No Window
52	Rpt/Arch hist	CH(1)	Y/ blank AUTH – Rpt/Arch History
53	View Maildrop	CH(1)	Y/ blank AUTH – View Maildrops
54	Updt maildrop	CH(1)	Y/ blank AUTH – Update Maildrops
55	View Users	CH(1)	Y/ blank AUTH – View Recipients
56	Updt Users	CH(1)	Y/ blank AUTH – Update Recipients
57	View Reports	CH(1)	Y/ blank AUTH – View Reports
58	Updt Reports	CH(1)	Y/ blank AUTH – Update Reports
59	View Triggers	CH(1)	Y/ blank AUTH – View Triggers
60	Updt Triggers	CH(1)	Y/ blank AUTH – Update Triggers
61	View Dists	CH(1)	Y/ blank AUTH – View Dist
62	Updt Dists	CH(1)	Y/ blank AUTH - Update Dist
63	View Internals	CH(1)	Y/ blank AUTH – View Internals
64	Updt Internals	CH(1)	Y/ blank AUTH – Update Internals
65	Updt Pswd	CH(1)	Y/ blank AUTH – Update Passwords
66	Arch. Browse	CH(1)	Y/ blank AUTH – Archive Browse
67	No Arch Bro	CH(1)	Y/ blank AUTH – No Archive Bro
68	View Act lst	CH(1)	Y/ blank AUTH – View Action Lists
69	Updt Act lst	CH(1)	Y/ blank AUTH – Update Action Lst
70	View Calndr	CH(1)	Y/ blank AUTH – View Calendars
71	Updt Calndr	CH(1)	Y/ blank AUTH – Update Calendars
72	View External	CH(1)	Y/ blank AUTH – View Externals
73	Updt External	CH(1)	Y/ blank AUTH – Update Externals
74	View Utils	CH(1)	Y/ blank AUTH – View Utilities
75	Updt Utils	CH(1)	Y/ blank AUTH – Update Utilities
76	View Qry lst	CH(1)	Y/ blank AUTH – View Query Lists
77	Updt Qry lst	CH(1)	Y/ blank AUTH – Update Query List
78	View Help	CH(1)	Y/ blank AUTH – View Help
79	Updt Help	CH(1)	Y/ blank AUTH – Update Site Help
80		CH(1)	' ' blank
81	View Notes	CH(1)	Y/ blank AUTH – View Notes
82	Updt Notes	CH(1)	Y/ blank AUTH – Update Site Notes
83		CH(50)	' ' blanks

```
43+- - - - 50- - - +- - - - 60- - - +- - - - 70- - - +- - - - 80- - - +- - - - 90- - - +- - - - 100- - +- - - - 110- - +- - - - 120- - +- - - - 130
C  YYYYYY   YYYYYYYYYYYYYY  YYYYYY    YYYY  YY
```

Figure 103   Sample Recipient Segment 'C'

20	**Recipient**, Record 'D '			
CC				
43	Record D	CH(2)	'D '	EXSEQID
45		CH(2)	' '	Always blank
47	Comment 1	CH(40)		Recipient description line 1
87		CH(46)	' '	blanks

```
43+- - - - 50- - - + - - - - 60- - - + - - - - 70- - - + - - - - 80- - - + - - - - 90- - - + - - - - 100- - + - - - - 110- - + - - - - 120- - + - - - - 130
D    USER RECORD COMMENT LINE NUMBER ONE
```

Figure 104   Sample Recipient Segment 'D'

20	**Recipient**, Record 'E '			
CC				
43	Record E	CH(2)	'E '	EXSEQID
45	Comment 2	CH(40)		Recipient description line 2
85		CH(48)	' '	blanks

```
43+- - - - 50- - - + - - - - 60- - - + - - - - 70- - - + - - - - 80- - - + - - - - 90- - - + - - - - 100- - + - - - - 110- - + - - - - 120- - + - - - - 130
E    USER RECORD COMMENT LINE NUMBER TWO
```

Figure 105   Sample Recipient Segment 'E'

20	**Recipient**, Record 'F '			
CC				
43	Record F	CH(2)	'F '	EXSEQID
45	Comment 3	CH(40)		Recipient description line 3
85		CH(8)		Blanks, reserved
93		CH(8)		Blanks, reserved
101	Trmsnet id	CH(24)		TRMSNET Id, future use
124	Trmsnet pswd	CH(8)		TRMSNET pswd, future use

```
43+- - - - 50- - - + - - - - 60- - - + - - - - 70- - - + - - - - 80- - - + - - - - 90- - - + - - - - 100- - + - - - - 110- - + - - - - 120- - + - - - - 130
F USER RECORD COMMENT LINE NUMBER THREE    NEWUSER NEWUSER
```

Figure 106   Sample Recipient Segment 'F'

30 **Report**, Key Segment
CC

01	TYPE	CH(2)	'30'	Required
03	STYPE	CH(8)	' '	blanks
11	RECID01	CH(8)		Record Id
19		CH(24)	' '	blanks

```
1- - - 5- - - - 10- - - +- - - - 20- - - +- - - - 30- - - +- - - - 40-
30          TRMSDFLT
```

Figure 107 Sample Report Key Segment

30 **Report**, Record 'A '
CC

43	Record A	CH(2)	'A '	EXSEQID
45	Report name	CH(32)		Report long name
77	Dir to DSN	CH(1)		Y/ blank Direct to dataset
78	No archive	CH(1)		Y/ blank Do not Archive
79	Dist and Del	CH(1)		Y/ blank Distribute and delete
80	Cycle#	CH(1)		Y/ blank RETPD is a Cycle number
81	INDEX	CH(1)		Y/ blank Report has an Index
82	BKER recip	CH(1)		Y/ blank Breakout Err Recip exists
83	No null	CH(1)		Y/ blank Don't write Null Dist.
84	Write BKER	CH(1)		Y/ blank Write Breakout Errors
85	MERGE Dist	CH(1)		Y/ blank Merge Distributions
86	SMS	CH(1)		Y/ blank SMS report
87		CH(2)	' '	Always blank
89	Days	CH(1)		Y/ blank Arch. History is days
90	Cycles	CH(1)		Y/ blank Arch. Hist. is cycles
91	Cycle days	CH(1)		Y/ blank Arch. Hist. is cycle days
92	Chged to days	CH(1)		Y/ blank Arch. Hist changed fr cycles
93	Encrypt rpt	CH(1)		Y/ blank Encrypt report
94	Hold	CH(1)		Y/ blank Hold until released
95	Public	CH(1)		Y/ blank Public report
96	MF Accum	CH(1)		Y/ blank Report from MF Accum.
97	Lines/Page	N(3)		Lines per page
100	Accounting	CH(32)		Report accounting info
132		CH(1)	' '	blanks

```
43+- - - - 50- - - +- - - - 60- - - +- - - - 70- - - +- - - - 80- - - +- - - - 90- - - +- - - - 100- - +- - - - 110- - +- - - - 120- - +- - - - 130
A TRMSDFLT REPORT LONG NAME           YY         Y  000SUSPENSE REPORT ACCOUNT NUMBER
```

Figure 108 Sample Report Segment 'A'

	30	**Report**, Record 'B '			
	CC				
	43	Record B	CH(2)	'B '	EXSEQID
	45	RETPD	N(3)		Retention period
	48	Arch Hst days	N(5)		Arch Hist days retention
	53	Arch Hst cycl	N(5)		Archive History cycles
	58	Breakout exit	CH(8)		Report Breakout exit
	66	Bkout Recip	CH(8)		Breakout error recipient
	74	Index	CH(8)		External Ref. - Index
	82	Alias	CH(8)		External Ref. - Alias
	90	Access list	CH(8)		External Ref. – Access List
	98	DSN	CH(8)		External Ref. - DSN
	106	Arch ddname	CH(8)		External Ref. – Arch DDN
	114	Window	CH(8)		External Ref. - Window

```
43+----50---+----60---+----70---+----80---+----90---+----100--+----110--+----120--+----130
B 000    00188      TRMSUSPNTRMSDFLTYES      TRMSDFLT        TRMSDFLT           TRMS
```

Figure 109 Sample Report Segment 'B'

	40	**Trigger**, Key Segment			
	CC				
	01	TYPE	CH(2)	'40'	Required
	03	STYPE	CH(8)	' '	blanks
	11	RECID01	CH(8)		Record Id
	19		CH(24)	' '	blanks

```
1---5----10---+----20---+----30---+----40-
40       TRMSDFLT
```

Figure 110 Sample Trigger Key Segment

40	**Trigger**, Record 'A '			
CC				
43	Record A	CH(2)	'A '	EXSEQID
45	Time trigger	CH(1)	Y/ blank	Using Time field
46	Date trigger	CH(1)	Y/ blank	Using Date field
47	Day trigger	CH(1)	Y/ blank	Using Day field
48	Use Calendar	CH(1)	Y/ blank	Using a Calendar
49	Use Report id	CH(1)	Y/ blank	Using Report name
50	Manual trigger	CH(1)	Y/ blank	Manual trigger
51	Julian date	CH(1)	Y/ blank	Julian date entered on Panel
52	Elapsed time	CH(1)	Y/ blank	Using elapsed time
53		CH(2)	' '	Always blank
55	DATE	N(7)		Date
62	TIME	N(7)		Time
69	DAY	N(7)		Days
76	Triggered job	CH(8)		Bundle job to submit
84	Calendar	CH(8)		Calendar name
92	Elapsed time	N(7)		Elapsed time
99	Report Req.	CH(8)		External Ref. – Report Req.
107		CH(26)	' '	blanks

```
43+- - - - 50- - - +- - - - 60- - - +- - - - 70- - - +- - - - 80- - - +- - - - 90- - - +- - - - 100- - +- - - - 110- - +- - - - 120- - +- - - - 130
A  YY  Y    Y    20040011200000        TRMSUSPNTRMSDFLT
```

Figure 111   Sample Trigger Segment 'A'

50	**Distribution** Key Segment			
CC				
01	TYPE	CH(2)	'50'	
03		CH(8)	' '	blanks
11	Report Id	CH(8)		Report Id
19	User Id	CH(8)		Recipient Id
27	Group	CH(8)		Group Name
35	DSDID	CH(8)		Dist. Sub-Def

```
1- - - 5- - - - 10- - - +- - - - 20- - - +- - - - 30- - - +- - - - 40-
50            TRMSDFLTTRMSDFLTTRMSDFLT
50            TRMSDFLTTRMSDFLTTRMSDFLTTRMSDFLT
```

Figure 112   Sample Distribution Key Segment

NOTE: DSDID is Blanks on the A and C records. A set of A & C records can have one or more sets of G, H,'I', J, and K records.

50	**Distribution**, Record 'A '			
CC				
43	Record A	CH(2)	'A '	EXSEQID, **Required**
45	OutputMedia	CH(1)	V/S/T/E/N	
46		CH(1)	blank reserved	
47	Change Win	CH(1)	Y/ blank User can change Windows	
48		CH(3)	' '	blank
51	Days Active	CH(7)	SU-SA, period or blank. (See Note)	
58		CH(2)	' '	Always blank
60	Email Notify	CH(1)	Y/ blank Notify by Email	
61	TSO Notify	CH(1)	Y/ blank Notify by TSO	
62	Public/Private	CH(3)	PUB/PRV	
65	Self Trigger	CH(1)	Y/ blank Distribute when collected	
68		CH(10)	blank reserved	
76	Trigger	CH(8)	Trigger name	
84	Jobname	CH(8)	Jobname	
92		CH(4)	blank reserved	
97	View Window	CH(8)	Default view Window	
105	Print Window	CH(8)	Default print Window	
113		CH(22)	' '	blanks

```
43+----50---+----60---+----70---+----80---+----90---+----100--+-----110--+----120--+-----130
A V YYY SMTWTFS        0002000200ONLINE     TRMSDFLT0000 WINDOOOWINDO000
```

Figure 113 Sample Distribution Segment 'A'

NOTE: Days Active indicates Distribution Active days of the week. An active day is indicated by a period. Position one of this field is Sunday and position seven is Saturday.

50	**Distribution**, Record 'C '			
CC				
43	Record C	CH(2)	'C '	EXSEQID
45	Writer name	CH(8)	SYSOUT program name	
53	External	CH(8)	External Reference	
61	Output JCL	CH(8)	Output JCL name	
69		CH(64)	' '	blanks

```
43+----50---+----60---+----70---+----80---+----90---+----100--+-----110--+----120--+-----130
C        TRMSDFLT
```

Figure 114 Sample Distribution Record 'C'

50   **Distribution Sub-Def.**, Record 'G '
CC

43	Record G	CH(2)	'G ' EXSEQID
45	All report	CH(1)	Y/ blank Distribution type All
46	Confidential	CH(1)	Y/ blank Confidential report
47		CH(5)	blank reserved
52	Priority	N(3)	Priority within User
55	Ovr maildrop	CH(8)	Overriding Maildrop
63	Printer	CH(1)	Y/ blank Ovr. Maildrop is a printer
64	Line limit	N(6)	Ovr. Maildrop line limit
70		CH(8)	blanks reserved
78	Tracking cycle	N(8)	Tracking cycle number
86		CH(49)	' ' blanks

```
43+----50---+----60---+----70---+----80---+----90---+----100--+----110--+----120--+----130
G YYYY   128TRMSDFLTN*                    00000001
```

Figure 115   Sample Distribution Segment 'G'

50   **Distribution Sub-Def**, Record 'H '
CC

43	Record H	CH(2)	'H ' EXSEQID
45	Window#	CH(8)	Window number
53	Print Window#	CH(8)	Print Window number
61	Alt name	CH(32)	Alt. Report name
93	Comment 1	CH(32)	Comment for Dist. cover
125		CH(8)	' ' blanks

```
43+----50---+----60---+----70---+----80---+----90---+----100--+----110--+----120--+----130
H WINDOOOOWINDOOOODISTRIBUTION CMNT OR ALTRPT NAMEDISTRIBUTION COMMENT LINE TWO
```

Figure 116   Sample Distribution Segment 'H'

50	**Distribution Sub-Def**, Record 'I '			
CC				
43	Record I	CH(2)	'I '	EXSEQID
45	Control	CH(8)		Control Dist. member name
53	Pre Dist	CH(8)		Pre-Dist. Member name
61	Post Dist	CH(8)		Post-Dist. Member name
69	Message	CH(8)		Dist. Message member
77	External	CH(8)		External Reference
85	External Type	CH(1)		Ext. Ref. V/S/T/E/N
86		CH(47)	' '	blanks

43+ - - - - 50- - - + - - - 60- - - + - - - 70- - - + - - - 80- - - + - - - 90- - - + - - - 100- - + - - - 110- - + - - - 120- - + - - - 130
I

Figure 117 Sample Distribution Segment 'I'

50	**Distribution Sub-Def**, Record 'J '			
CC				
43	Record J	CH(2)	'J '	EXSEQID
45	BOC	CH(8)		Ext. Ref. - BOC
53	Partial	CH(8)		Ext. Ref. – Partial Breakout
61	Archive	CH(8)		Ext. Ref. - Archive
69	Dynamic Dist	CH(8)		Ext. Ref. – Dynamic Dist.
77	DJDE control	CH(8)		DJDE Insert - Control
85	DJDE pre	CH(8)		DJDE Insert – Pre report
93	DJDE post	CH(8)		DJDE Insert – Post report
101	TRMS control	CH(8)		TRMS Insert - Control
109	TRMS pre	CH(8)		TRMS Insert – Pre report
117	TRMS post	CH(8)		TRMS Insert – Post report
125		CH(8)	' '	blanks

43+ - - - - 50- - - + - - - 60- - - + - - - 70- - - + - - - 80- - - + - - - 90- - - + - - - 100- - + - - - 110- - + - - - 120- - + - - - 130
J

Figure 118 Sample Distribution Segment 'J'

50   **Distribution Sub-Def**, Record 'K '
CC
43   Record K   CH(2)   'K '   EXSEQID
45   Copy group 1 CH(8)   Copy group 1
53   Copy group 2 CH(8)   Copy group 2
61   Copy group 3 CH(8)   Copy group 3
69   Page format 1 CH(8)   Page format 1
77   Page format 2 CH(8)   Page format 2
85   Page format 3 CH(8)   Page format 3
93   Print Window CH(8)   Overriding Print Window
101   View Window   CH(8)   Overriding View Window
109   CH(24)   ' '   blanks

43+- - - - 50- - - +- - - - 60- - - +- - - - 70- - - +- - - - 80- - - +- - - - 90- - - +- - - - 100- - +- - - - 110- - +- - - - 120- - +- - - - 130
K

Figure 119   Sample Distribution Segment 'K'

60   **Calendar**, Key Segment
CC
01   TYPE   CH(2)   '60'   Required
03   STYPE   CH(8)   ' '   blanks
11   RECID01   CH(8)   Record Id
19   CH(24)   ' '   blanks

1- - - 5- - - - 10- - - +- - - - 20- - - +- - - - 30- - - +- - - - 40-

60   CALENDAR

Figure 120   Sample Calendar Key Segment

60	**Calendar**, Record 'A '				
CC					
43	Record A	CH(2)	'A '	Required, EXSEQID
45	Month	N(2)		MONTH 01-12
47	Days	CH(31)		Period ('.') or 'H'
78		CH(55)	' '	blanks

```
43+----50---+----60---+----70---+----80---+----90---+----100--+----110--+----120--+----130
A 01...............................
A 02..............................
A 03.............................
A 04............................
A 05...........................
A 06..........................
A 07...H.........................
A 08........................
A 09.......................
A 10......................
A 11.....................
A 12....................H....H
```

Figure 121 Sample Calendar Segment 'A'

NOTE: There is a separate 'A' record for each month. 'Days' has room for 31 days.
A period means that day is active. An 'H' means that day is a holiday.

60	**Calendar**, Record 'B '				
CC					
43	Record B	CH(2)	'B '	EXSEQID
45		CH(2)	' '	blanks
47	Comment	CH(32)		Optional comment
79		CH(54)	' '	blanks

```
43+----50---+----60---+----70---+----80---+----90---+----100--+----110--+----120--+----130
B
```

Figure 122 Sample Calendar Segment 'B'

2.7.5 Samples JCL

2.7.5.1 Member DBAJMPRT in the Install Library

```
//DBAJMPRT JOB (ACCOUNTING),'IMPORT V6 KSDS RECS',CLASS=X,
//           MSGCLASS=R,MSGLEVEL=1,NOTIFY=&SYSUID
/*JOBPARM L=200000
//*---------------------------------- OPTIONAL
//*---------------------------------- CLEAN UP WORK FILES
//STEP0010 EXEC PGM=IDCAMS
//SYSPRINT DD SYSOUT=*
//SYSIN    DD *
// DELETE ('TRMS.REL#.EXTRACT.BASERECS')
// DELETE ('TRMS.REL#.EXTRACT.EXTERNAL')
//*---------------------------------- OPTIONAL
//*---------------------------------- SORT OUT PRIMARY COMPONENTS FROM EXPORT FILE
//STEP0020 EXEC PGM=SORT,REGION=4096K
//SYSPRINT DD SYSOUT=*
//SORTMSG  DD SYSOUT=*
//SYSOUT   DD SYSOUT=*
//SORTIN   DD DSN=TRMS.REL#.EXTRACT,DISP=SHR
//SORTOUT  DD DSN=TRMS.REL#.EXTRACT.BASERECS,DISP=SHR
//SORTWK01 DD SPACE=(CYL,2),UNIT=SYSALLDA
//SORTWK02 DD SPACE=(CYL,2),UNIT=SYSALLDA
//SORTWK03 DD SPACE=(CYL,2),UNIT=SYSALLDA
//SYSIN    DD *
 SORT FIELDS=(1,44,BI,A)
 INCLUDE COND=(1,2,CH,LT,C'61')
//*---------------------------------- OPTIONAL
//*---------------------------------- SORT OUT SUB-COMPONENTS
//STEP0030 EXEC PGM=SORT,REGION=4096K
//SYSPRINT DD SYSOUT=*
//SORTMSG  DD SYSOUT=*
//SYSOUT   DD SYSOUT=*
//SORTIN   DD DSN=TRMS.REL#.EXTRACT,DISP=SHR
//SORTOUT  DD DSN=TRMS.REL#.EXTRACT.EXTERNAL,DISP=SHR
//SORTWK01 DD SPACE=(CYL,2),UNIT=SYSALLDA
//SORTWK02 DD SPACE=(CYL,2),UNIT=SYSALLDA
//SORTWK03 DD SPACE=(CYL,2),UNIT=SYSALLDA
//SYSIN    DD *
 SORT FIELDS=(1,44,BI,A)
 INCLUDE COND=(1,2,CH,GE,C'61')
//*---------------------------------- IMPORT TRMS DEFINITIONS
//*---------------------------------- SUB-COMPONENTS FIRST
//STEP0040 EXEC PGM=TRMGBRLD,REGION=0M
//STEPLIB  DD DSN=TRMS.REL#LOADLIB,DISP=SHR
//TRMSKSDS DD DSN=TRMS.T6.0A.KSDS,DISP=OLD
//SYSPRINT DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//ABNLIGNR DD DUMMY
//SYSIN    DD DSN=TRMS.REL#.EXTRACT.EXTERNAL,DSP=OLD
//         DD DSN=TRMS.REL#.EXTRACT.BASERECS,DISP=OLD
//SORTWK03 DD SPACE=(CYL,2),UNIT=SYSALLDA
//SYSIN    DD  *
//*---------------------------------- OPTIONAL JOB STEP
//*---------------------------------- REPRO THE REST OF THE TRMS KSDS RECORDS,
//*---------------------------------- ACTIVE, WINDOWS, HELP, NOTES, ETC.
//*STEP0050 EXEC PGM=IDCAMS,REGION=0M
```

Figure 123 Member DBAJMPRT In the Install Library

2.7.5.2 Sample JCL - DBAJMPRT

```
//DBAJMPRT JOB (ACCOUNTING),'IMPORT V6 KSDS RECS',CLASS=X,
//             MSGCLASS=R,MSGLEVEL=1,NOTIFY=&SYSUID
/*JOBPARM L=200000
//*
//*----------------------------------- OPTIONAL
//*----------------------------------- CLEAN UP WORK FILES
//STEP0010 EXEC PGM=IDCAMS
//SYSPRINT DD SYSOUT=*
//SYSIN    DD *
// DELETE ('TRMS.REL#.EXTRACT.BASERECS')
// DELETE ('TRMS.REL#.EXTRACT.EXTERNAL')
//*
//*----------------------------------- OPTIONAL
//*----------------------------------- SORT OUT PRIMARY COMPONENTS FROM
//*----------------------------------- EXPORT FILE.
//STEP0020 EXEC PGM=SORT,REGION=4096K
//SYSPRINT DD  SYSOUT=*
//SORTMSG  DD  SYSOUT=*
//SYSOUT   DD  SYSOUT=*
//SORTIN   DD  DSN=TRMS.REL#.EXTRACT,DISP=SHR
//SORTOUT  DD  DSN=TRMS.REL#.EXTRACT.BASERECS,DISP=SHR
//SORTWK01 DD  SPACE=(CYL,2),UNIT=SYSALLDA
//SORTWK02 DD  SPACE=(CYL,2),UNIT=SYSALLDA
//SORTWK03 DD  SPACE=(CYL,2),UNIT=SYSALLDA
//SYSIN    DD  *
 SORT FIELDS=(1,44,BI,A)
 INCLUDE COND=(1,2,CH,LT,C'61')
//*
//*----------------------------------- OPTIONAL
//*----------------------------------- SORT OUT SUB-COMPONENTS
//STEP0030 EXEC PGM=SORT,REGION=4096K
//SYSPRINT DD  SYSOUT=*
//SORTMSG  DD  SYSOUT=*
//SYSOUT   DD  SYSOUT=*
//SORTIN   DD  DSN=TRMS.REL#.EXTRACT,DISP=SHR
//SORTOUT  DD  DSN=TRMS.REL#.EXTRACT.EXTERNAL,DISP=SHR
//SORTWK01 DD  SPACE=(CYL,2),UNIT=SYSALLDA
//SORTWK02 DD  SPACE=(CYL,2),UNIT=SYSALLDA
//SORTWK03 DD  SPACE=(CYL,2),UNIT=SYSALLDA
//SYSIN    DD  *
 SORT FIELDS=(1,44,BI,A)
 INCLUDE COND=(1,2,CH,GE,C'61')
//*
//*----------------------------------- IMPORT TRMS DEFINITIONS,
//*----------------------------------- SUB-COMPONENTS FIRST.
//STEP0040 EXEC PGM=TRMGBRLD,REGION=0M
//STEPLIB  DD  DSN=TRMS.REL#.LOADLIB,DISP=SHR
//TRMSKSDS DD  DSN=VFIL.TRMS.REL#.KSDS,DISP=OLD
//SYSPRINT DD  SYSOUT=*
//SYSUDUMP DD  SYSOUT=*
//ABNLIGNR DD  DUMMY
//SYSIN    DD  DSN=TRMS.REL#.EXTRACT.EXTERNAL,DISP=OLD
//         DD  DSN=TRMS.REL#.EXTRACT.BASERECS,DISP=OLD
//*
//*----------------------------------- OPTIONAL JOB STEP
//*----------------------------------- REPRO THE REST OF THE TRMS
//*----------------------------------- KSDS RECORDS, ACTIVE,
//*----------------------------------- WINDOWS, HELP, NOTES, ETC.
//*STEP0050 EXEC PGM=IDCAMS,REGION=0M
//*KSDSCLUS DD  DSN=TRMS.REL#.KSDS,DISP=SHR         YOUR TRMS KSDS NAME
//*INFILE       DD  DSN=TRMS.REL#.EXTRACT.ALL,DISP=SHR  FROM DBAJXPRT
```

Figure 123 Sample JCL - DBAJMPRT

2.7.6 Return Codes

RC>=8   Errors Occurred Processing Stopped. Read Error Messages.

RC=0   No Problems

RC=4   Look for informational messages in Job output.

NOTE: Refer to TRMS Messages and Codes Manual for more information

2.7.6.1 SYSPRINT Messages

NOTE: 'TRMS632 Info' follows other messages and supplies additional information.

TRMS637	"Record already exists	[Record Id]"
TRMS636	"Invalid record id	[Field Name]"
TRMS630	"Invalid Numeric	[Field Name]"
TRMS631	"Invalid Characters	[Field Name]"
TRMS633	"Invalid Value	[Field Name]"
TRMS635	"Required Value	[Field Name]"
TRMS634	"External not Defined	[Field Name]"
TRMS629	"Invalid dataset name	[Field Name]"
TRMS158	"Invalid writer name	[Field Name]"
TRMS003	Getmain/Freemain error	[Program Offset]
TRMS925	Globals Release# doesn't match database.	
TRMS309	DDname not specified	VSE Only
TRMS922	Error in Language Table	
TRMS553I	"...EXTERNAL "[Id]" IS MISSING "[message]""	

      The 533 message is from the Email Program.

U003 Abend   Occurs after TRMS003 error
U360 Abend   I/O or Open/Close error on TRMS KSDS

TRMGBRLD CLOSKSDS - No SYSIN Records
TRMGBRLD PROCESS2, Unknown Input Record

TRMS632	"Processing:	[Record Id]"
TRMS632	"[Information]	[Additional Info]"

2.7.7 Requisites

A TRMS database must exist as either a newly defined and formatted database or a pre-existing TRMS 6.0A database. (Section 2.1 TRMFORMA)

2.7.8 Reports

None

2.7.9 Other Considerations

To validate Import, logon to TRMS and review Imported Definitions.

2.8 Glossary – EXPORT Field Descriptions by Record

		Description	Notes
2.8	Job Name	DBAJXPRT	
2.8.1	Title/Description		
2.8.2	EXPORT Job Components		
	JCL		
	Procedure		
	Primary Program		
2.8.3	Controls and Parameters		
2.8.4	Options		
2.8.5	Samples		
2.8.6	Return Codes		
2.8.7	Requisites		
2.8.8	Reports		
2.8.9	Other Considerations		

2.8.1 EXPORT

When the EXPORT parameter is used, this Batch Utility Program is executed to Export the definitions to all character sequential files. (Refer to the **TRMS IMPORT** Section of this manual for detailed information about the records created by EXPORT.

NOTE: EXPORT is a separately licensed TRMS utility.

2.8.2 EXPORT Job Components

2.8.2.1 Controlling Job DD's

The following DD names are required for the execution of TRMGBPRT using the **MVS** JCL in the previous figure:

DD Name	Explanation
STEPLIB	The STEPLIB DD is used to define the TRMS loadlib.
TRMSKSDS	Required for the TRMGBPRT program. Defines the TRMS KSDS Cluster of the TRMS database.
SYSPRINT	Required for the display of the requested definitions from the TRMS database. Normally a Sysout dataset, BLKSIZE(133), LRECL(133) RECFM(FA).
TRMSWORK	Required for "EXPORT" parameter specification. This file contains the exported definitions generated from export.
TRMSWRK2	Required for "EXPORT" parameter specifications. This field contains record delete the exported definitions that are SYSIN to the "TRMGBDEL" Program Install member 'DBAJDELE'.
SYSIN	Required for TRMGBPRT to supply the control statement for the desired displays. The SYSIN DD can define any dataset with an LRECL of 80 or can define an instream dataset.

TRMERROR, SYSUDUMP and ABNLIGNR are error processing DD statements.

2.8.3 Controls and Parameters

2.8.3.1 Control Statements - TRMGBPRT

The Control statements can begin in any column from 1 - 72. Columns 73-80 are ignored and can have sequence numbers if desired.

The format of a control statement is:

PARAMETER TYPE=[value],SUB-PARAMETER=[value]

Examples:
PRINT   TYPE=ALL
EXPORT   TYPE=RECIPIENT,ID=USER0100

Each control statement consists of one Parameter, one TYPE=[value], and optional TYPE specific sub-parameters. Any number of control statements can be included in the SYSIN. If a control statement is repeated, the function is repeated. An asterisk in position 1 of a control statement denotes a comment line.

The sub-parameters, NAME=, ID=, and GROUP=, normally specify generic values. When any of the sub-parameters are given a value with fewer than eight characters, the program returns all records that match the value when applied as a prefix. For example, if ID=C10 is supplied, all IDs that begin with C10 will be contained in the output. A period at the end of a value of less than eight characters limits the value to the number of characters before the period. For example, if "ID=C100." is specified, only the ID'C100' will be contained in the output.

Parameters	Explanation
PRINT	Print a detailed report of the definitions contained in the TRMS database.
EXPORT	Extract TRMS definitions into character format export records. (Refer to the **TRMS IMPORT** Section of this Manual for information on the records created by EXPORT). TYPE=GOLBAL is not Exportable. All other TYPE= values are allowed.

Parameter		
Sub-parameter		**Explanation**
TYPE=ALL		Processes all of the current definitions for the TRMS database. There are no sub-parameters.
TYPE=GLOBAL		Print the current Global definitions for the TRMS database. This TYPE is only valid for the PRINT Function Parameter. Global records can not be EXPORTed. There are no sub-parameters.
TYPE=MAILDROP		Processes the current Maildrop definitions in the TRMS database.
	,NAME=	This sub-parameter limits the Maildrop definitions that are processed to those that match the value supplied. The "NAME=" value can be from 1-8 characters.
TYPE=RECIPIENT or TYPE=USERID		Processes all current Recipient definitions for the TRMS Recipients.
	,ID=	This sub-parameter limits the Recipient definitions processed to those that match the value supplied. The "ID=" value can be from 1-8 characters.
TYPE=REPORTS		Processes all of the current Report definitions in the TRMS database.
	,NAME=	This sub-parameter limits the Report definitions processed to those that match the value supplied. The "NAME=" value can be from 1-8 characters.
TYPE=TRIGGERS		Processes all of the current Trigger definitions for the TRMS database.
	,NAME=	This sub-parameter limits the Trigger definitions processed to those that match the values supplied. The "NAME=" value can be from 1-8 characters.
TYPE=CALENDARS		Processes all of the current Calendar definitions for the TRMS database.
	,NAME=	This sub-parameter limits the Calendar definitions processed to those that match the value supplied. The "NAME=" value can be from 1-8 characters.

TYPE=DISTRIBUTION		Processes all of the current Distribution definitions for the TRMS database.
	,NAME=	This sub-parameter limits the Distribution definitions processed to those that match the value supplied. The "NAME=" value can be from 1-8 characters.
	,ID=	This sub-parameter limits the Distribution definitions processed to those that match the Recipient value supplied. The "ID=" value can be from 1-8 characters.
	,GROUP=	This sub-parameter limits the Distribution definitions processed to those that match the Group value supplied. The "GROUP=" value can be from 1-8 characters.
TYPE=RESTDSN		Processes all of the current Archive DSN/Volume association Definitions in the TRMS database.
	,DSN=	This sub-parameter limits the DSN/Volume definitions processed to those that match the value supplied. The "DSN=" value can be up to 44 characters.
TYPE=ACTDIS		Processes all of the current Action List, TYPE=DISTLST (Distribution List) definitions in the TRMS database.
	,NAME=	This sub-parameter limits the DISTLST definitions processed to those that match the value supplied. The "NAME=" value can be from 1-8 characters.
TYPE=ACTACC		Processes all of the current Action List TYPE=ACCLST (Access List) definitions in the TRMS database.
	,NAME=	This sub-parameter limits the Access List definitions processed to those that match the value supplied. The "NAME=" value can be from 1-8 characters.

TYPE=ACTALI	Processes all of the current Action List, TYPE=DEFALIAS (Alias definitions) in the TRMS database.
,COMPONENT=	This sub-parameter is the three character component id. They are:
	MLD Maildrop
	RCP Recipient
	RPT Report
	TRG Trigger
	DST Distribution
	ACL Action List
	CAL Calendar
	EXC External
	QRL Query List
,NAME=	This sub-parameter limits the Alias definitions processed to those that match the value supplied. **COMPONENT is required when using NAME**. The "NAME=" value can be from 1-8 characters.
TYPE=ACTREQ	Processes all of the current Action List, TYPE=REQSLST (Requirement List) definitions in the TRMS database.
,NAME=	This sub-parameter limits the Requirement List definitions processed to those that match the value supplied. The "NAME=" value can be from 1-8 characters.
TYPE=EXTDJDE	Processes all of the current EXTERNAL,TYPE=DJDE (DJDE) definitions for the TRMS database.
,NAME=	This sub-parameter limits the DJDE definitions processed to those that match the values supplied. The "NAME=" value can be from 1-8 characters.
TYPE=EXTTRMS	Processes all of the current EXTERNAL,TYPE=TRMS (TRMS Insertion) definitions for the TRMS database.
,NAME=	This sub-parameter limits the TRMS Insertion definitions processed to those that match the value supplied. The "NAME=" value can be from 1-8 characters.

TYPE=EXTDSN	Processes all of the current EXTRENAL,TYPE=DSN (DSN Distribution) definitions for the TRMS database.
,NAME=	This sub-parameter limits the DSN definitions processed to those that match the value supplied. The "NAME=" value can be from 1-8 characters.
TYPE=EXTJOB	Processes all of the current EXTERNAL,TYPE=JOB (JOB) Definitions in the TRMS database.
,NAME=	This sub-parameter limits the JOB INFO definitions processed to those that match the value supplied. The "NAME=" value can be from 1 - 8 characters.
TYPE=EXTSYSO	Processes all of the current EXTERNAL,TYPE=SYSO (SYSOUT) definitions in the TRMS database.
,NAME=	This sub-parameter limits the SYSOUT definitions processed to those that match the value supplied. The "NAME=" value can be from 1-8 characters.
TYPE=EXTXTN	Processes all of the current EXTERNAL,TYPE=XTRN (External Address) definitions in the TRMS database.
,NAME=	This sub-parameter limits the External Address definitions processed to those that match the value supplied. The "NAME=" value can be from 1-8 characters.
TYPE=QRYIDX	Processes all of the current QUERY RULE,TYPE=INDEX (Report Index) definitions in the TRMS database.
,NAME=	This sub-parameter limits the Report Index definitions processed to those that match the value supplied. The "NAME=" value can be from 1-8 characters.
TYPE=QRYBOC	Processes all of the current QUERY RULE,TYPE=BOC (Break On Change) definitions in the TRMS database.
,NAME=	This sub-parameter limits the Break On Change definitions processed to those that match the value supplied. The "NAME=" value can be from 1-8 characters.

TYPE=QRYPAR	Processes all of the current QUERY RULE,TYPE=PARTIAL (Partial Breakout) definitions for the TRMS database.
,NAME=	This sub-parameter limits the Partial Breakout definitions processed to those that match the values supplied. The "NAME=" value can be from 1-8 characters.
TYPE=QRYWIN	Processes all of the current View/Print Window definitions for the TRMS database.
,NAME=	This sub-parameter limits the View/Print Window definitions processed to those that match the value supplied. The "NAME=" value can be from 1-8 characters.
TYPE=HELPDE	Processes all of the current Default Help definitions for the TRMS database.
,NAME=	This sub-parameter limits the Default Help definitions processed to those that match the value supplied. The "NAME=" value can be from 1-8 characters.
TYPE=HELPSI	Processes all of the current Site Help definitions in the TRMS database.
,NAME=	This sub-parameter limits the Site Help definitions processed to those that match the value supplied. The "NAME=" value can be from 1 - 8 characters.
TYPE=NOTESI	Processes all of the current Default Note definitions in the TRMS database.
,NAME=	This sub-parameter limits the Default Note definitions processed to those that match the value supplied. The "NAME=" value can be from 1-8 characters.
TYPE=NOTEAC	Processes all of the current Active Note definitions in the TRMS database.
,NAME=	This sub-parameter limits the Active Note definitions processed to those that match the value supplied. The "NAME=" value can be from 1-8 characters.
TYPE=MASSCHG	Processes all of the current Utilities - Mass Change definitions in the TRMS database.
,NAME=	This sub-parameter limits the Mass Change definitions processed to those that match the

value supplied. The "NAME=" value can be from 1-8 characters.

TRMERROR, SYSUDUMP and ABNLIGNR are error processing DD statements.

2.8.4 Options

None

2.8.5 Sample JCL

2.8.5.1 Sample JCL - DBAJXPRT

Sample **MVS** JCL for the EXPORT execution is shown below and is also provided in the TRMS INSTLIB as member DBAJXPRT.

```
//DBAJXPRT JOB ('ACCOUNTING INFORMATION),'TRMS EXPORT'
//            MSGCLASS=T,CLASS=A,MSGLEVEL=1,
//            NOTIFY=&SYSUID
//* ***************************************************
//           SAMPLE OF TRMS EXPORT
//* ***************************************************
//STEP1    EXEC PGM=TRMGBPRT,REGION=OM
//STEPLIB  DD  DSN=TRMS.REL#.LOADLIB,DISP=SHR    YOUR TRMS LOADLIB
//TRMSKSDS DD  DSN=TRMS.REL#.KSDS,DISP=SHR       YOUR TRMS KSDS NAME
//           THIS JCL WILL EXPORT SELECTED TRMS DEFINITIONS
//           FROM THE FILE SPECIFIED IN THE TRMSKSDS DD
//           STATEMENT TO TRMSWORK.
//TRMSWORK DD DSN=TRMS.REL#.EXTRACT,DSP=(,CATLG,DELETE),
//           DCB=(BLKSIZE=13200,LRECL=132,RECFM=FB),
//           UNIT=SYSDA,SPACE=(CYL,(1,1),RLSE)
//TRMSWRK2 DD DSN=TRMS.REL#.DELETE,DISP=(,DELETE,DELETE),
//           DCB=(BLKSIZE=5000,LRECL=50,RECFM=FB),
//           UNIT=SYSDA,SPACE=(CYL,(1,1),RLSE)
//SYSPRINT DD  SYSOUT=*
//TRMERROR DD  SYSOUT=*
//SYSUDUMP DD  SYSOUT=*
//ABNLIGNR DD  DUMMY
//SYSIN    DD  *
EXPORT TYPE=ALL
//*EXPORT TYPE=MAILDROP
//*EXPORT TYPE=USERID=TRMSUSPN
//*EXPORT TYPE=REPORTS
//*EXPORT TYPE=TRIGGERS
//*EXPORT TYPE=DISTRIBUTION                   ALL DISTRIBUTION DEFS.
//*EXPORT TYPE=DISTRIBUTION,NAME=TRMSUSPN     ONE DIST. NAME
//*EXPORT TYPE=CALENDAR,NAME=ARCHIVE          ONE CALENDAR NAME
```

Figure 124 Sample MVS JCL - Member DBAJXPRT (EXPORT)

2.8.6 Return Codes

NOTE: Refer to TRMS Messages and Codes Manual for more information

2.8.7 Requisites

None

2.8.8 Reports

SYSPRINT

2.8.9 Other Considerations

05	DSN/Unit Association, Record 'A ' EXSEQID	
	DSN	Dataset Name
	DSN Len	Number of characters in the DSN field.
	Unit	Storage Unit name
	GDG	Value; Y or blank. If yes, DSN is a GDG.
	Use Catlg	Value; Y or blank. If yes, use catalog to get Unit name.

10	Maildrop, Record 'A ' EXSEQID	
	Dest	JES destination id
	Sub-Dest	JES sub-destination id
	External	External Reference)Foreign Key) of a record that contains output attributes or a printer id.
	External Type	Type of External reference named above. Values are;
		A ADL Dataset
		L Line printer. External is a printer id.
		J JES (default)
		U URL web address or Email
	Coordinator	Maildrop Coordinator name
	Printer	Values; Y or blank. If yes, maildrop is a line printer ADLValues; Y or blank. If yes, maildrop is an automated download.
	Print Inv Rpt	Values; Y or blank. If yes, Inventory report goes to a printer.
	ADL Inv Rpt	Values; Y or blank. If yes, Inventory report goes to an automated download.

10	Maildrop, Record 'B '	EXSEQID
	Phone	Maildrop Coordinator phone number
	Addr1	Address line 1
	Addr1 label	Values; Y or blank. If yes, Addr1 is included on printed label.

10	Maildrop, Record 'C '	EXSEQID
	Addr2	Address line 2
	Addr2 label	Values; Y or blank. If yes, Addr2 is included on printed label.

10	Maildrop, Record 'D '	EXSEQID
	Addr3	Address line3
	Addr3 label	Values; Y or blank. If yes, Addr3 is included on printed label.

10	Maildrop, Record 'E '	EXSEQID
	Addr4	Address line 4
	Addr4 label	Values; Y or blank. If yes, Addr4 is included on printed label.

10	Maildrop, Record 'F '	EXSEQID
	Addr5	Address line5
	Addr5 label	Values; Y or blank. If yes, Addr5 is included on printed label.

10	Maildrop, Record 'G '	EXSEQID
	Addr6	Address line 6
	Addr6 label	Values; Y or blank. If yes, Addr6 is included on printed label.

10	Maildrop, Record 'H '	EXSEQID
	Addr7	Address line 7
	Addr7 label	Values; Y or blank. If yes, Addr7 is included on printed label.

10	Maildrop, Record 'I '	EXSEQID
	Comment 1	Maildrop comment line 1

10	Maildrop, Record 'J '	EXSEQID
	Comment 2	Maildrop comment line 2

10	Maildrop, Record 'L '	EXSEQID
	Member	PDS member to precede Inventory list
	Dest	Inventory report JES Dest
	Sub Dest	Inventory report JES Sub Dest
	External	External Reference (Foreign Key) of a record that contains output attributes or a printer id.

	External Type	Type of External reference named above. Values are;
		A ADL Dataset
		L Line printer. External is a printer id.
		J JES (default)
		U URL web address or Email
	Mode	Delivery mode
	Packets	Values are; Y or blank. If yes, output will be divided into packets.
	Packet#	Number of pages per packet.
20	Recipient, Record 'A '	EXSEQID
	Signon Panel	Values are Y or blank. If yes, User gets a Signon Panel when TRMS Online is invoked.
	No Job panel	Values are Y or blank. If yes, the job submission panel is suppressed in TRMS Online.
	No Restore panel	Values are Y or blank. If yes, the job submission Panel for Restore is suppressed in TRMS Online.
	No Demand Print	Values are Y or blank. If yes, the job submission Panel for Demand Print is suppressed in TRMS Online.
	Email defined	Values are Y or blank. If yes, an External address record with the User's Email address is defined.
	User Priority	Value range is 0 – 128. Default value is 128. This value sets a User's priority in Bundles within a Maildrop, allowing Distributions to be arranged in a certain order during the Bundle process.
	Name	User's real name.
	Phone	User's phone number
	Maildrop	The maildrop this User is assigned to.
	Password	User's password. This field is encrypted in the Database. An IMPORT record created by EXPORT will have binary data in this field.
	Print Maildrop	Demand Print Maildrop.
20	Recipient, Record 'B '	EXSEQID
	Security grp	User's security group
	Accounting	JOB card accounting information
	Logon pswd	Password entered on Logon screen
	New password	New password entered on Logon screen

This record contains the security flags that control access to the Components and functions of TRMS Online. Values are Y or blank for each entry. If yes, the component or Function is available to the User.

Browse	View Reports.
Admin	View TRMS Administration.
Browse Updt	Updates allowed in Browse.
Admin Updt	Update TRMS Administration.
Define Win	Report Window views can be defined in Browse.
Archive rest	Restore from Archives allowed.
No Win def	Report Window views can't be defined in Browse.
Rpt/Arch hist	Archive History and Reports allowed in Admin.
View Maildrop	View Maildrop definitions
Updt Maildrop	Update Maildrop definitions
View Users	View Recipient definitions
Update Users	Update Recipient definitions
View Reports	View Report definitions
Updt Reports	Update Report definitions
View Triggers	View Trigger definitions
Updt Triggers	Update Trigger definitions
View Dists	View Distribution definitions
Updt Dists	Update Distribution definitions
View Internals	View Internal Global definitions
Updt Internals	Update Internal Global definitions
Updt Pswd	Update TRMS paswod
Arch. Browse	Browse Archive Reports
No Arch Bro	No Archive Browse of reports
View Act lst	View Action List definitions
Updt Act lst	Update Action List definitions
View Calndr	View Calendar definitions
Updt Calndr	Update Calendar definitions
View External	View External Address definitions
Updt External	Update External Address definitions
View Utils	View Utility functions
Updt Utils	Updates allowed in Utility functions
View Qry lst	View Query List definitions
Updt Query lst	Update Query List definitions
View Help	View Help records
Updt Help	Create and Update Site Help records
View Notes	View Note records
Updt Notes	Create and Update Site Note records

20	Recipient, Record 'D '	EXSEQID
	Comment 1	Recipient description line 1
20	Recipient, Record 'E '	EXSEQID
	Comment 2	Recipient description line 2
20	Recipient, Record 'F '	EXSEQID
	Comment 3	Recipient description line 3
	Old Userid	Old Userid field
	New Userid	New Userid field
	Trmsnet id	TRMSNET Id
	Trmsnet pswd	TRMSNET password
30	Report, Record 'A '	EXSEQID
	Report Name	Report long name
	Dir to DSN	Values; Y or blank. If yes, Report goes directly to a dataset, by passing TRMS.
	No Archive	Values; Y or blank. If yes, Report does not get Archived.
	Dist and Del	Values; Y or blank. If yes, Report is Distributed and not saved in TRMS.
	Cycle#	Values; Y or blank. If yes, 'Retpd' on Report Record 'B ' is a cycle number.
	Index	Values; Y or blank. If yes, Report has an Index.
	BKER recip	Values; Y or blank. If yes, 'Bkout Recip' on Report Record 'B ' is the TRMSBKER Recipient Id.
	No null	Values; Y or blank. If yes, do not write null Distributions of this Report.
	Write BKER	Write breakout errors.
	Merge Dist	Values; Y or blank. If yes, merge Distributions.
	SMS	Values; Y or blank. If yes, this is an SMS Report.
	Days	Values; Y or blank. If yes, Archive History is days.
	Cycles	Values; Y or blank. If yes, Archive History is Cycles.
	Cycle days	Values; Y or blank. If yes, Archive History is Cycle Days.
	Chged to days	Values; Y or blank. If yes, Archive History is Changed from Cycles to Days.
	Encrypt rpt	Values; Y or blank. If yes, Report is encrypted.
	Hold	Values; Y or blank. If yes, hold report until Released.

	Public	Values; Y or blank. If yes, Report is public.
	MF Accum	Values; Y or blank. If yes, Report id from MF Accumulator.
	Lines/Page	Lines per page.
	Accounting	Report accounting information.
30	Report, Record 'B '	EXSEQID
	Retpd	Retention period
	Arch Hst days	Archive History Days retention
	Arch Hst cycl	Archive History Cycles retention
	Breakout exit	Report's breakout exit
	Bkout Recip	Breakout error Distribution Recipient.
	Index	External reference to an Index definition
	Alias	External reference to a Report Alias definition.
	Access List	External reference to an Access List definition.
	DSN	External reference to a Dataset definition.
	Arch ddname	Archive Ddname
	Window	External reference to a Window view definition.
	Mime Type	Document extension of this Report.
40	Trigger, Record 'A '	EXSEQID
	Time trigger	Values; Y or blank. If yes, Trigger is using the Time field.
	Date trigger	Values; Y or blank. If yes, Trigger is using the Date field.
	Day trigger	Values; Y or blank. If yes, Trigger is using the Day field.
	Use Calendar	Values; Y or blank. If yes, Trigger is using a Calendar.
	Use Report id	Values; Y or blank. If yes, Trigger is using a Report name.
	Manual Trigger	Values; Y or blank. If yes, Trigger is Manual.
	Julian date	Values; Y or blank. If yes, Date entered on the TRMS Online panel is Julian format.
	Elapsed time	Values; Y or blank. If yes, Trigger is elapsed time.
	Date	Format is YYYYDDD, Julian.
	Time	Format is HHMM000.
	Day	Day of the week that Trigger is active. The seven positions of this field are the seven days of the week, starting with

		Sunday. A 'T' in a day position means the day is active for the Trigger.
		EX: TxxxxxT means that this Trigger can be Activated only on Sunday and Saturday.
	Triggered job	Bundle job to submit when Trigger is active.
	Calendar	Calendar name.
	Elapsed time	Elapsed time.
	Report Req.	External reference to a Report Requirements List Definition.
50	Distribution, Record 'A '	EXSEQID
	Output Media	Values;
		V View only
		S Sysout
		T Tape
		E Email
		N TRMSNET
		F Micro-fiche
		D Dasd
		The 'External' in Distribution Record 'C ' will have an External reference appropriate to the Output Media type. V and S will be a Sysout, T and D will be a DSN, E will be an External Address, N will be a TRMWEBnn External Address. Microfiche is handled via an Exit.
	GDG	Values; Y or blank. If yes, dataset is a GDG.
	Change Win	Values; Y or blank. If yes, User is allowed to Change Window views.
	Days Active	Values; period or blank. If period, day is active. A Distribution is active on days indicated by a period. Position one of this field represents Sunday, position seven represents Saturday.
		EX: " ….. " Blanks in the first and seventh positions and periods in the second through sixth positions means this Distribution can be accumulated Monday through Friday but not on the weekend.
	Email Notify	Values; Y or blank. If yes, notify Recipient by email when Report is accumulated or Bundled.

TSO Notify	Values; Y or blank. If yes, notify Recipient by TSO message when Report is Accumulated or bundled.
Public/Private	Values PUB or PRV. Distribution is public/private.
Self Trigger	Values; Y or blank. If yes, distribute when collected.
Trigger flag	Trigger flag 1 and Trigger flag 2 may have values if the IMPORT record was created by EXPORT. When creating new records using IMPORT, these Fields will be blanks.
Trigger	Trigger name.
Jobname	Jobname this Distribution is for. This field is used to associate a Distribution definition to only one job.
High Count	Highest ascending number. This field may have values if the IMPORT record was created by EXPORT. When creating new records using IMPORT, these fields will be blanks.
View Window	Default External reference to a Window view definition.
Print Window	Default External reference to a Window view definition.

NOTE: There is no 'B ' record for 50 Distribution.

50	Distribution, Record 'C '	EXSEQID
	Writer name	SYSOUT program name
	External	External reference to a definition record of a type indicated by Output Media in Distribution Record 'A '.
	Output JCL	Output JCL name
	Print Window	External reference to a Window view.
	View Window	External reference to a Window view.

NOTE: There are no D, E, or F records for 50 Distribution.

50	Distribution, Record 'G '	EXSEQID
	All report	Values; Y or blank. If yes, the whole report is Distributed without Breaks.
	Confidential	Values; Y or blank. If yes, the Report is Confidential.
	Window updt	Values; Y or blank. This field may have a Value if created by EXPORT. When creating New records, this field is blank.

	Window chng		Values; Y or blank. This field may have a Value if created by EXPORT. When creating new records, this field is blank.
	BOC		Values; Y or blank. If yes, Break on Change For this Distribution exists.
	Priority		Values; 0 through 128. Distribution priority within User.
	Ovr maildrop		Overriding Maildrop. Printer and Line Limit (below) are valid only if there is a value in this field.
	Printer		Values; Y or blank. If yes, Ovr maildrop is a Printer. Overriding Maildrop must be typed=L.
	Line limit		Ovr maildrop line limit. Values: '*' unlimited, or number of lines.
	Member		Member to precede Distribution.
	Tracking cycle		Tracking cycle number.

50	Distribution, Record 'H '	EXSEQID
	Window#	External reference to a Window view definition.
		This Window overrides the Window on the Distribution Record 'C '
	Print Window#	External reference to a Window view definition.
		This Window overrides the Window on the Distribution Record 'C '
	Alt name	Alternate Report name
	Comment 1	Comment for Distribution cover page.

50	Distribution, Record 'I '	EXSEQID
	Control	Control member
	Pre Dist	Pre-Distribution member
	Post Dist	Post-Distribution member
	Message	Message member
	External	This 'External' has an External reference appropriate to the External Type below. These values override the values on the Distribution Records 'A ' and 'C '. V and S will be a Sysout, T and D will be a DSN, E will be an External Address, N will be a TRMWEBnn External Address. Microfiche is handled via an Exit.

		External Type	Values;	V	View only
				S	Sysout
				T	Tape
				E	Email
				N	TRMSNET
				F	Micro-fiche
				D	Dasd

50	Distribution, Record 'J '	EXSEQID
	BOC	External reference to Break on Change definition.
	Partial	External reference to Partial Breakout definition.
	Archive	Archive Ddname
	Dynamic Dist	External reference to Distribution list definition.
	DJDE Control	External reference to DJDE insert definition, control.
	DJDE Pre	External reference to DJDE insert definition, Pre-report.
	DJDE Post	External reference to DJDE insert definition, Post-report.
	TRMS Control	External reference to TRMS insert definition, control.
	TRMS Pre	External reference to TRMS insert definition, Pre-report.
	TRMS Post	External reference to TRMS insert definition, Post-report.

50	Distribution, Record 'K '	EXSEQID
	Copy group 1	Copy group 1
	Copy group 2	Copy group 2
	Copy group 3	Copy group 3
	Page format 1	Page format 1
	Page format 2	Page format 2
	Page format 3	Page format 3
	Print Window	External reference to a Window view definition.
	View Window	External reference to a Window view definition.

60	Calendar, Record 'A '	EXSEQID

There is a separate 'A ' record for each month. A calendar is sometimes used by Triggers to determine when to Bundle Distributions.

	Month	Values; 01 through 12. 01 = January.
	Days	Values; period or 'H'. Period is the default value. H' is a holiday or inactive day.
60	Calendar, Record 'B '	EXSEQID
	Comment	Optional Comment
61	DJDE Insert, Record 'A '	EXSEQID
	Description	Insert Description
	Prefix	DJDE prefix
	Prefix length	Number of significant characters in the Prefix field.
	Offset value	DJDE offset
	Skip value	DJDE skip
	Long name	Conversion long name
61	DJDE Insert, Record 'B '	EXSEQID
	Line number	Values; 01, 02,…,99. This field keeps the insert Records in the correct order.
	Line value	72 character insert line
62	TRMS Insert, Record 'A '	EXSEQID
	Description	Insert description
	Long Name	Conversion long name, no user input required. Used to identify where this record is converted from.
62	TRMS Insert, Record 'B '	EXSEQID
	Line number	Values; 01, 02,…,99. This field keeps the insert records in the correct order.
	Line value	72 character insert line
63	Report Alias, Record 'A '	EXSEQID
	Owner	Value R. R = report.
	Sequence	The IMPORT program calculates this value to create an unique key. A value will be in this field If this record was created by EXPORT.
	Job Name	JOB name
	Step Name	STEP name
	Proc Step	PROC step name
	DD Name	DDNAME
	Forms Id	FormsId (VSE)
	Capture Class	Capture Class (VSE)

64	SYSOUT Attributes, Record 'A '	EXSEQID
	Catalog	Values; Y or blank. If yes, catalog the file.
	Burst	Values; Y or blank. If yes, burst this report.
	Sep first	Values; Y or blank. If yes, insert a separator page on the first Distribution.
	No sep	Values; Y or blank. If yes, no separator pages.
	Fiche	Values; Y or blank. If yes, microfiche.
	Blocksize	File blocksize.
	Lrecl	Logical record length.
	Rec f or v	Values; 'F' fixed, 'V' variable. Record format Fixed or Variable.
	Rec b	Values; 'B' blocked or blank. Record format blocked.
	Rec a or m	Values; 'A' print attributes, 'M' machine attributes, blank.
	Class	Output class
	Copies	Number of copies.
	Forms Id	Forms Id
	Fcb	Forms control block id.
	Ucs	Universal character-set id.
	Modrc	Modify table reference character.
	Writer name	Sysout program name.
	Flash Id	3800 flash id.
	Flash count	3800 flash count.
	Copymod	3800 copy modification id.

64	SYSOUT Attributes, Record 'B '	EXSEQID
	Char set	3800 character sets.
	Member	Member to precede Inventory List.
	Dest	Output destination.
	Sub-dest	Output sub-destination.
	Job name	Output Jobname.
	Copy group#	Number of copy groups.
	Group 1#	number of copies in group 1
	Group 2#	number of copies in group 2
	Group 3#	number of copies in group 3
	Group 4#	number of copies in group 4
	Group 5#	number of copies in group 5
	Group 6#	number of copies in group 6
	Group 7#	number of copies in group 7
	Group 8#	number of copies in group 8

64	SYSOUT Attributes, Record 'C '	EXSEQID
	Long name	Conversion long name.

65	DSN Attributes, Record 'A '	EXSEQID
	Catalog	Values; Y or blank. If yes, catalog the file.
	No header	Values; Y or blank. If yes, do not write TRMS Control information.
	Release	Values; Y or blank. If yes, release space parm.
	GDG	Values; Y or blank. If yes, file is a GDG dataset.
	Compress	Values; Y or blank. If yes, 3480 tape with compression.
	No compress	Values; Y or blank. If yes, 3480 tape without Compression.
	Tape	Values; Y or blank. If yes, tape dataset.
	Dasd	Values; Y or blank. If yes, disk dataset.
	Api	Values; Y or blank. If yes, API dataset.
	Optical	Values; Y or blank. If yes, OPTICAL dataset.
	Sms	Values; Y or blank. If yes, SMS dataset.
65	DSN Attributes, Record 'B '	EXSEQID
	Expdt/Retpd	Expiration date or Retention period. Formats: Expdt = YYYYDDD, Retpd = 000DDDD.
	Label	Tape labels. Values: 'SL' standard labels, 'NL' no tape labels.
	Density	Tape density.
	Msvgp	MSS MSVGP parameter.
	Primary space	Disk primary space.
	Secondary space	Disk secondary space.
	Dasd type	Space units. Values; 'TRK' tracks, CYL' cylinders.
	Member	Member to precede report.
	Ddname	DDName
	Dataset hlq	SMS high level qualifier
	Storage class	SMS storage class
	Mgmt. class	SMS management class
	Data class	SMS data class
65	DSN Attributes, Record 'C '	EXSEQID
	Expdt/Retpd	SMS expiration date or retention period. Formats: Expdt = YYYYDDD, Retpd = 000DDDD

		Input unit	Optical input unit name.
		Output unit	Optical output unit name.
		Long name	Conversion long name.
	66	Action List, Record 'A '	EXSEQID
		BOC val2	Values; Y or blank. If yes, BOC value 2 is present.
		BOC val3	Values; Y or blank. If yes, BOC value 3 is present.
		No-dist	Values; Y or blank. If yes, NO-DIST userid is in the User list.
		AD owner	Values; Y or blank. If yes, owner is Admin.
		BR owner	Values; Y or blank. If yes, owner is Browse.
		ML owner	Values; Y or blank. If yes, owner is Maildrop.
		RC owner	Values; Y or blank. If yes, owner is User.
		RP owner	Values; Y or blank. If yes, owner is Report.
		DS owner	Values; Y or blank. If yes, owner is Distribution.
		TR owner	Values; Y or blank. If yes, owner is Trigger.
		IN owner	Values; Y or blank. If yes, owner is Internal.
		CL owner	Values; Y or blank. If yes, owner is Calendar.
		EX owner	Values; Y or blank. If yes, owner is External.
		AL owner	Values; Y or blank. If yes, owner is Action list.
		QL owner	Values; Y or blank. If yes, owner is Query list.
		UT owner	Values; Y or blank. If yes, owner is Utility.
		MC owner	Values; Y or blank. If yes, owner is Mass change.
		HL owner	Values; Y or blank. If yes, owner is Help.
		NT owner	Values; Y or blank. If yes, owner is Notes.
		Group count	Number of groups in this record.
		Long name	Conversion long name.
		Owner key	Owner Id.
		Owner cnt	Number of owners.

66	Action List, Record 'B ', Group Header		EXSEQID
	Grp Hdr Seq#	Group header sequence number.	
	List#	Number of entries in the User list.	
	Value#	Number of 8-byte values in each User list entry.	

66	Action List, Record 'B ', Group Values		EXSEQID
	Grp Hdr Seq#	Group header sequence number.	
	Grp Val seq#	Group value sequence number.	
	Value length	Number of characters in this Value field.	
	Value	BOC or Security token value. Group values are used in BOC definitions. The first three values are used for BOC values, the fifth value is used for a security token for external security.	

66	Action List, Record 'B ', User list values		EXSEQID
	Grp Hdr Seq#	Group header sequence number.	
	Grp Val Seq#	Group Value sequence number.	
	Grp User Seq#	List values sequence number.	
	Number sets	Number of value sets in this segment.	
	No. Entries	Number of 8-character entries per value set.	
	Entries	Up to ten 8-character values.	

69	External Address, Record 'A '		EXSEQID
	Server Id	If the Record Id is a UserId, this field will contain a full or partial Email address. For example: UserId@server.com or UserId. If only the Email prefix is entered, the TRMS system will take UserId and append '@' and the DOMAIN value from the TRMSDOMN record to create a fully qualified Email address when this definition is used.	
		If the Record Id is 'TRMSDOMN', this field will contain the keyword "DOMAIN=" followed by the mail server URL such as "server.com". (Ex. DOMAIN=server.com)	
		If the Record Id is "TRMSSMTP", this field will contain the following keywords:	

SERVER=[SERVERID], FROMID=[ID] where [SERVERID] is a server URL such as "server.com" and [ID] is the default value "TRMS" or the ID of the SMTP service.

If the Record Id is "TRMWEBnn" (where nn = a number from 01 through 99), this field will contain a server id, a colon, and a port number in the format [serverid]:[port]. Examples: '192.168.1.10:8080' or 'server.com:8080'

69	External Address, Record 'B '	EXSEQID
	Separator	TRMSNET working directory separator character.
	Keywords	If the Record Id is a UserId or 'TRMSDOMN', this field is blank.

If the RecordId is 'TRMSSMTP', the keywords are HOST=MVS, CLASS=[class], WRITER=[dest], and DEST=[dest].

HOST is the name of the mainframe SMTP host and defaults to "MVS", CLASS is the Class assigned to Email output, WRITER is the Writer Name used by the accumulator for Email, DEST is the JES Destination used in combination with CLASS to Send Email Distributions and Notifications.

If the RecordId is 'TRMWEBnn' (where nn = 01, 02, 03,,,99), the value in this field is the TRMSNET working directory. Example: TrmsWeb/servlet/TrmsWeb.TrmsBrowseFrame

69	External Address, Record 'C '	EXSEQID
	DB name	TRMSNET database name
	Long name	Conversion long name

70	Query List, Index, Record 'A '	EXSEQID
	Index 1	Values; Y or blank. If yes, Index 1 in use
	Index 2	Values; Y or blank. If yes, Index 2 in use
	Index 3	Values; Y or blank. If yes, Index 3 in use
	Description 1	Values; Y or blank. If yes,Description 1 in use
	Description 2	Values; Y or blank. If yes,Description 2 in use
	Description 3	Values; Y or blank. If yes,Description 3 in use
	Index 1 rec	Index 1 record number
	Index 1 col	Index 1 column
	Index 1 len	Index 1 length
	Index 1 val	Index 1 value
70	Query List, Index, Record 'B '	EXSEQID
	Index 2 rec	Index 2 record number
	Index 2 col	Index 2 column
	Index 2 len	Index 2 length
	Index 2 val	Index 2 value
70	Query List, Index, Record 'C '	EXSEQID
	Index 3 rec	Index 3 record number
	Index 3 col	Index 3 column
	Index 3 len	Index 3 length
	Index 3 val	Index 3 value
	Max indexes	Maximum number of Indexes, 0 = no limit
	Long name	Conversion long name
71	Query List, BOC, Record 'A '	EXSEQID
	Boc 1	Values; Y or blank. If yes, BOC 1 in use.
	Boc 2	Values; Y or blank. If yes, BOC 2 in use.
	Boc 3	Values; Y or blank. If yes, BOC 3 in use.
	When 1	Values; Y or blank. If yes, WHEN 1 in use.
	When 2	Values; Y or blank. If yes, WHEN 2 in use.
	When 3	Values; Y or blank. If yes, WHEN 3 in use.
	Description 1	Values; Y or blank. If yes, Description 1 in use.

	Description 2	Values; Y or blank. If yes, Description 2 in use.
	Description 3	Values; Y or blank. If yes, Description 3 in use.
	Ignore case	Values; Y or blank. If yes, ignore uppercase
	BOC 1 rec	BOC 1 record.
	BOC 1 col	BOC 1 column.
	BOC 1 len	BOC 1 length.
	BOC 2 rec	BOC 2 record.
	BOC 2 col	BOC 2 column.
	BOC 2 len	BOC 2 length.
	BOC 3 rec	BOC 3 record.
	BOC 3 col	BOC 3 column.
	BOC 3 len	BOC 3 length.
	WHEN 1 rec	WHEN 1 record.
	WHEN 1 col	WHEN 1 column.
	WHEN 1 len	WHEN 1 length.
	WHEN 1 value	WHEN 1 value.
71	Query List, BOC, Record 'B ' EXSEQID	
	WHEN 2 rec	WHEN 2 record.
	WHEN 2 col	WHEN 2 column.
	WHEN 2 len	WHEN 2 length.
	WHEN 2 value	WHEN 2 value.
71	Query List, BOC, Record 'C ' EXSEQID	
	WHEN 3 rec	WHEN 3 record.
	WHEN 3 col	WHEN 3 column.
	WHEN 3 len	WHEN 3 length.
	WHEN 3 value	WHEN 3 value.
	Long name	Conversion long name
72	Query List, Partial Breakout, Record 'A ' EXSEQID	
	Ignore case	Values; Y or blank. If yes, Ignore upper case.
	Accept case	Values; Y or blank. If yes, Accept uppercase.
	Ignore blank	Values; Y or blank. If yes, Ignore blank lines.
	AND arg	Argument logical AND character.
	OR arg	Argument logical OR character.
	Line count	Number of lines in this record.
	Long name	Conversion long name.
72	Query List, Partial Breakout, Record 'B ' EXSEQID	
	Record line#	Line number
	First AND	Values; Y or blank. If yes, TPE is first in AND group.

Wild cards	Values; Y or blank. If yes, Argument has wild cards.
Double quote	Values; Y or blank. If yes, Argument is in double quotes.
Single quote	Values; Y or blank. If yes, Argument is in single quotes.
Last AND	Values; Y or blank. If yes, TPE is last in AND group.
AND group	Values; Y or blank. If yes, Argument is an AND group.
OR group	Values; Y or blank. If yes, Argument is an OR group.
S	Values; Y or blank. If yes, TPE switch - S
SA	Values; Y or blank. If yes, TPE switch - SA
P	Values; Y or blank. If yes, TPE switch - P
PA	Values; Y or blank. If yes, TPE switch - PA
E	Values; Y or blank. If yes, TPE switch - E
EN	Values; Y or blank. If yes, TPE switch - EN
EP	Values; Y or blank. If yes, TPE switch - EP
EA	Values; Y or blank. If yes, TPE switch - EA
Num Pages	Values; 1-9 or blank. In S-n where 'n' is the Number of pages previous to where the condition Occurs to start the breakout.
Beg line#	Beginning line number.
Beg line rng	Beginning line range.
Beg line col	Beginning line column.
Beg col rng	Beginning column range.
Beg arg len	Beginning argument length.
EQ	Beginning condition, Equal
NE	Beginning condition, Not Equal
LT	Beginning condition, Less Than
GT	Beginning condition, Greater Than
GE	Beginning condition, Greater Than or Equal
LE	Beginning condition, Less Than or Equal
Beg arg val	Beginning argument value.

2.9 TRMS Delete

		Description	Notes
2.9	Job Name	DBAJDELE	
2.9.1	Title/Description		
2.9.2	DELETE Job Components		
	JCL		
	Procedure		
	Primary Program		
2.9.3	Controls and Parameters		
2.9.4	Options		
2.9.5	Samples		
2.9.6	Return Codes		
2.9.7	Requisites		
2.9.8	Reports		
2.9.9	Other Considerations		

2.9.1 TRMS Delete

This function uses the EXPORT utility which is separately licensed from TRMS. See the **TRMS Adminstrator's Batch Support Manual** in the section called **TRMS Programs**; sub-section **TRMGBPRT** for information on how to run the EXPORT job.

The TRMS EXPORT function creates a file of binary record keys of records that were EXPORTed. EXPORT does not move records, it just copies them. If definitions are to be EXPORTed and moved somewhere else like to another TRMS database, DELETE will remove the definitions from the TRMS database they were EXPORTed from.

NOTE: DELETE will not remove default definitions like TRMSBKER, TRMSUSPN, TRMSDFLT, and other Required definitions.

Also Note that in TRMS 6.0A the Delete process does not check dependencies. For instance, if a Maildrop is EXPORTed and DELETE is run, the Maildrop will be deleted even if other definitions are using it.

Also, because EXPORT/IMPORT do not process Windows, Help, Notes, Mass Change, or Active records, these record keys are not in the Delete file.

2.9.2 Delete Job Components

STEPLIB   TRMS.T60Z.LOADLIB

TRMSKSDS   TRMS KSDS to delete from.

SYSPRINT   Report output.

SYSIN   Delete Key File created by export.

2.9.3 File Description

The DELETE records are 50 bytes in length and consist of binary data. The general format of each record is a 2 byte character header followed by 48 bytes of binary key data.

There are two record types;

C-[EXPORT KSDS]	The 'C-' record contains the dataset name of the TRMS KSDS used to create the EXPORT and DELETE files. When the Delete job is run, the Delete program matches on the dataset name of the KSDS in the job. If they do not match, the job fails.
D-[Binary Key]	The 'D-' record contains the actual binary key of the record Exported. There will be a Delete Record in this file for every Recordset in the Export file.

2.9.4 Options

None

2.9.5 Sample EXPORT JCL

EXPORT is a sub-function of the GLOBAL PRINT function, and is a separately licensed utility. See the **TRMS Administrator's Guide Volume II, Batch Support Manual** in the section called **TRMS Programs**; sub-section **TRMGBPRT** for information on how to run the EXPORT JOB.

EXPORT will create an IMPORT file and a corresponding DELETE file based on the definitions existing on the TRMS database. The EXPORT records will be in the proper format for IMPORT, and can be edited. **The DELETE file is not meant to be edited.**

The DELETE JOB (DBAJDELE in the DISTINST library)

NOTE: If DELETE is run against a KSDS other than the one it was created from, the target TRMS database can be damaged.

```
//DBAJDELE JOB ('ACCOUNTNG INFORMATION'),'TRMS GLOBAL DELETE',
//             MSGCLASS=T,CLASS=A,MSGLEVEL=1,
//             NOTIFY=&SYSUID
//*
//STEP1     EXEC PGM=TRMGBDEL,REGION=0M
//STEPLIB  DD  DSN=TRMS.REL#.LOADLIB,DISP=SHR   YOUR TRMS LOADLIB
//*
//TRMSKSDS DD  DSN=TRMS.REL#.KSDS,DISP=SHR      YOUR TRMS KSDS NAME
//*
//*           THIS JCL WILL DELETE RECORDS FROM THE TRMS KSDS
//*           FILE USING THE KEYS IN THE SYSIN DATASET.
//*           THIS JOB WILL FAIL ON A LICENSE CHECK OR WHEN THE
//*           CONTROL RECORD IN SYSIN DOES NOT MATCH THE DATASET
//*           NAME OF THE TRMSKSDS DD STATEMENT.
//*
//*           THE SYSIN DATASET IS CREATED BY EXPORT.
//*
//SYSPRINT DD  SYSOUT=*
//TRMERROR DD  SYSOUT=*
//SYSUDUMP DD  SYSOUT=*
//ABNLIGNR DD  DUMMY
//SYSIN    DD  DSN=TRMS.REL#.KSDS.DELETE,DISP=SHR
```

Figure 125   Sample JCL - DBAJDELE

2.9.6 Return Codes

RC=0, No errors.

RC=4 Read informational messages.

RC=8, Errors, Job stopped. Read SYSPRINT for error messages.

NOTE: Refer to TRMS Messages and Codes Manual for more information

2.9.7 Requisites

A TRMS database must exist as either a newly defined and formatted database or a pre-existing TRMS 6.0A database. (Section 2.1 TRMFORMA)

The DELETE file is created by EXPORT. EXPORT must be run successfully in order to create a DELETE file. Make sure a current backup has been completed before running this DELETE Job.

2.9.8 SYSPRINT Messages

TRMS925 "Globals Release #: [rel#] does not match the database release# (T00REL#): [rel#]"
TRMS331 "[ ] ENQ failed for the following datasets:"
TRMS332 "KSDS/RRDS/LOCK DSN=[dsn]"
TRMS243 "Number of errors encountered: [#errors]"
TRMS922 "Terminated at: [address] with user completion code:[rc], due to error in table:[tbl]-[tbl], Lang: [lang]"
TRMS238 "[ ] Control statement validated – [ctl stmt]"
TRMS404 "[condition], Reason=[reason]"
TRMS622 "[function] Function completed RC [rc]"
TRMS420 "Access denied by security module"
TRMS025 "No record found for [key1] [key2] [key3] [key4]"
TRMS113 "This reserved name is ineligible for [function]"

2.9.9 Other Considerations

NOTE: DELETE will not remove default definitions like TRMSBKER, TRMSUSPN, TRMSDFLT, and other Required definitions.

Also Note that in TRMS 6.0A the Delete process does not check dependencies. For instance, if a Maildrop is EXPORTed and DELETE is run, the Maildrop will be deleted even if other definitions are using it.

Also, because EXPORT/IMPORT do not process Windows, Help, Notes, Mass Change, or Active records, these record keys are not in the Delete file.

3 Database Management Functions

	AutoSub	JobTYPE/FREQUENCY	JOB Name	Description	Requisite
3		**Database Management Functions**			
3.1	No	DBM-R	DBAJFRMA	Format TRMS Database	DBAJDFIN
3.2	No	DBM-R	DBAJLCKE	Lock file expansion	
3.3	No	DBM-R	DBAJUNLD	Database Unload	
3.4	No	DBM-R	DBAJMTRR	Empty one RRDS file	
3.5	No	DBM-R	DBAJRMVR	Remove empty RRDS	DBAJMTRR
3.6	No	DBM-R	DBAJRECO	Dead Block Recovery	

3.1 DBAJFRMA - Initial Format of the TRMS Database
(Formerly FORMATDB)

		Description	Notes
3.1	Job Name	DBAJFRMA	
3.1.1	Title/Description		
3.1.2	DBAJFRMA Job Components		
	JCL		
	Procedure		
	Primary Program		
3.1.3	Controls and Parameters		
3.1.4	Options		
3.1.5	Samples		
3.1.6	Return Codes		
3.1.7	Requisites		
3.1.8	Reports		
3.1.9	Other Considerations		

3.1.1 TRMS Database Format

The TRMFORMA Program is required to format the TRMS database before the accumulation task or online interface can be initiated. The format program has several execution options:

1) Format/New   - Formats a new TRMS database in preparation for accumulation of reports and adding of help and note records.

2) Format/Reload   - Formats a new TRMS database and loads input file(s) from a previous Archive Reloading of TRMS definitions and reports to create a database containing reports from another database. During the redefine of the TRMS VSAM files you may change the size, volumes, etc.

3) Format/Add   - Adds additional RRDS data files to the TRMs database after initial format.

The RRDS DATA FILE record size must be equal to 4089 bytes. A safeguard has been built into TRMFORMA that prevents an existing database from being

formatted, i.e. the clusters must be newly defined for TRMFORMA's execution. The creation of a new database is accomplished by using the IDCAMS' delete and define process.

The DD/TLBL name SYSUT1 is used for loading input data when a TRMS database is being formatted. To create a database without input data, assign SYSUT1 to DUMMY for MVS, for VSE do not include a SYSUT1 TLBL. To create a new database and load old data, assign SYSUT1 (for VSE include the SYSUT1 TLBL) to any file(s) created with the TRMUTIL archive or unload functions. The database is formatted and then the input files are opened and loaded to the newly formatted database. If files are to be loaded, they are concatenated to SYSUT1.

NOTE: If a reload of old data is done, the first input file must contain the control information or the reload operation will terminate. The control information from the first input file is loaded to the database if there are multiple SYSUT1 datasets.

Control information consists of the define records for the database; for example, Globals, Maildrop, Recipient, Report, Trigger, Distribution and Calendar definition records, Active Trigger, Archive History, Tracking and Help Records.

The Active Report and Active Distribution records are restored from the first input to the last input and if a duplicate report occurs only the first report is kept. Reports are compared for duplicates using the report name and the report cycle number.

In addition to the SYSUT1 DD statement, input data residing on OAM/API archive files may be used via the COLLECTION= SYSIN statement. Only one OAM collection may be specified per statement, but you may have an unlimited number of these statements.

NOTE: The TRMS formatting process always produces an IEC0701 message. This message is produced for the RRDS cluster(s) due to the way TRMS maps the RRDS file(s). This is normal and will not affect the operation of TRMS.

3.1.2 DBAJFRMA Job Components

3.1.2.1 Controlling Job DD's

The following DD names are required to perform a format of a TRMS database using the MVS JCL in the previous figure.

The Exec Parm is used to assign a database ID when the initial format is done for a TRMS database. The database ID is from 1-8 characters. All EBCDIC chars are valid.

DD Name	Explanation
STEPLIB	Assign the STEPLIB DD to the TRMS loadlib.
SYSPRINT	The SYSPRINT DD is used by TRMFORMA to report the status of the format run.
TRMERROR	The Future error message file.
TRMSKSDS	The TRMSKSDS DD must be assigned to the KSDS cluster being formatted.
TRMSR###	Each RRDS data cluster being formatted is assigned a unique DDname in the format TRMSR### where ### **ranges from** 001 to 256.
TRMSLOCK	The TRMSLOCK DD must be assigned to the LOCK cluster being formatted.
SYSUT1	The SYSUT1 DD is assigned to a previous archive or unload file if the newly created database is to be built with an initial input. If there is no input to the format, then SYSUT1 DD should be assigned to DUMMY. Archive files created via the !APIOAM Archive Level DDname of the TRMS archive job may not be input through SYSUT1. Use the SYSIN DD statement below for these files.
SYSIN	This file is not required unless a re-load operation is being performed after the database format. When used, the SYSUT1 DD must be present and not dummied in the same execution of TRMFORMA. Control statements that specify OAM collection name(s) for input to the reload operation are input through this.

TRMHLP?	These DD Names define the help files to be loaded when formatting is completed if any are present during TRMSFORMA Execution. A HELP may be loaded during format using the DDNAME(s) in the JCL and assigning the respective HELP File to it, or may be loaded after format using the TRMUHLPD program (member DBAJHLPL).
TRMNOT?	These DD Names define the NOTES files to be loaded when formatting is completed if any are present during TRMFORMA Execution. A NOTES file may be loaded during format using the DDNAME (from the Distribution Language PDS file) in the JCL and assigning the respective NOTE File to it, or may be loaded after format using the TRMUNTLD program (see the Batch Support Manual and the JCL member DBAJNOTL in the INSTLIB).

3.1.2.2 Controlling Job DD's

The following DD names are required to perform a format of an additional RRDS file(s).

DD Name	Explanation
STEPLIB	Assign the STEPLIB DD to the TRMS loadlib.
SYSPRINT	The SYSPRINT DD is used by TRMFORMA to report the status of the format run.
TRMSR###	Each additional RRDS data cluster being formatted is assigned a unique DDname in the format TRMSR### where ### ranges from 001 to 256.
TRMSLOCK	The TRMSLOCK DD must be assigned to the previously formatted LOCK cluster.

NOTE: The TRMS formatting process always produces an IECO701 message. This message is produced for the RRDS clusters due to the way TRMS maps the RRDS files. This is normal and will not affect the operation of TRMS.

3.1.3 Controls and Parameters

3.1.3.1 Program Execution Parameters

In provided JCL examples, see 'Parm=' for use of following parameters.

DB (DBIDNAME)	Name assigned to TRMS database (8 byte max). This parm value is optionally used to assign a database ID to the database. This value is used internally by TRMS. The value may only be changed during a format. If a SYSUT1 input file is used, the ID is copied from the Globals and the Parm value is ignored.
LANG(V)	One character language indicator.
ADD	ADD an RRDS Data file to TRMS database*.
ADDACTIVE	ADD an RRDS Data file to TRMS database and put it in active status*.

*See the following topic for the use of ADD and ADDACTIVE.

3.1.4 Options

3.1.4.1 Control Statements

The SYSIN DD statement is an optional file for the TRMFORMA module. SYSUT1 must be present if SYSIN is to be used.

The verb or function is a positional parameter and starts in column 1 to 16. Commas must be used to separate selection sub-parameters.

Parameter **Sub-Parameter**	**Explanation**
FORMAT	The verb is written as stated to indicate a format is required.
,COLLECTION=	The OAM Collection name of a TRMS Archive file. This name is the MVS catalog entry name created for the collection.

3.1.5 Sample Format/New MVS JCL

Sample MVS JCL for the initial format execution is shown on the following page and is also provided in the TRMS INSTLIB as member DBAJFRMA.

```
//DBAJFRMA JOB (ACCOUNTING,INFO),'FORMAT THE TRMS D/B',
//              MSGLEVEL=1,CLASS=A,MSGCLASS=T
//FORMAT   EXEC PGM=TRMFORMA,REGION=1280K,TIME=120,
//              PARM='DB(DBIDNAME),LANG(E)'
//STEPLIB  DD  DSN=TRMS.REL#.LOADLIB,DISP=SHR    *** TRMS LOADLIB ***
//SYSPRINT DD  SYSOUT=*
//TRMERROR DD  SYSOUT=*
//SYSUDUMP DD  SYSOUT=*
//ABNLIGNR DD  DUMMY
//TRMSKSDS DD  DSN=TRMS.REL#.KSDS,DISP=OLD            <===== KSDS ===
//*        TRMSKSDS DD DEFINES THE TRMS KSDS VSAM FILE
//TRMSR001 DD  DSN=TRMS.REL#.RRDS001,DISP=OLD,       <===== RRDS ===
//              AMP=('BUFND=20')
//TRMSR002 DD  DSN=TRMS.REL#.RRDS002,DISP=OLD,       <===== RRDS ===
//              AMP=('BUFND=20')
//*        TRMSR### DD DEFINES THE TRMS RRDS DATA VSAM FILE(S).  YOU MAY SPECIFY
//*        FROM 1 - 255 RRDS CLUSTERS TO BE FORMATTED AS PART OF THIS DATABASE.
//*        EACH RRDS CLUSTER BEING FORMATTED SHOULD HAVE A DD NAME STARTING WITH
//*        'TRMSR001', AND PROCEED THROUGH 'TRMSR255'
//TRMSLOCK DD  DSN=TRMS.REL#.LOCK,DISP=OLD           <===== LOCK ===
//*        TRMSLOCK DD DEFINES THE TRMS LOCK VSAM FILE
//*        TRMSHLP? DD LOCATES THE INPUT HELP FILE MEMBER
//*        FROM THE DISTRIBUTION LANGUAGE PDS.
//*        REPLACE THE '?' WITH A LANGUAGE SUFFIX CHARACTER.
//*        DEFAULT HELP SUFFIX IS "V"
//TRMHLP?  DD  DSN=TRMS.REL#.LANG(TRMSHLP?),DISP=OLD <== HELP ===
//*        TRMSNOT? DD LOCATES THE INPUT NOTE FILE MEMBER
//*        FROM THE DISTRIBUTION LANGUAGE PDS.
//*        REPLACE THE '?' WITH A LANGUAGE SUFFIX CHARACTER
//*        DEFAULT HELP SUFFIX IS "V"
//TRMNOT?  DD  DSN=TRMS.REL#.LANG(TRMSNOT?),DISP=OLD <== NOTES===
//SYSUT1   DD  DUMMY
//* SYSUT1 IS "DUMMY" IF DATABASE IS FORMATTED WITHOUT ANY OLD WORK BEING RELOADED.
//SYSOUT   DD  SYSOUT=*
//SORTLIB  DD  DSN=SYS1.SORTLIB,DISP=SHR
//SORTIN   DD  DSN=TRMS.REL#.KEYS,
//              DISP=(,DELETE,CATLG),
//              UNIT=SYSDA,
//              SPACE=(CYL,(10,5))
//* IF THE FORMAT PROGRAM ABENDS AFTER THE COMPLETION OF THE LOAD TO THE RRDS (ANYTIME
//* AFTER THE SORT BEGINS) THE TRMS.REL#.KEYS DATASET MAY BE USED TO BUILD THE KEY FILE
//* WITHOUT RERUNNING THE LOAD OF THE RRDS. THIS FILE MUST BE SORTED PRIOR TO LOADING
//* THE KEY FILE. IDCAMS MAY BE USED TO REPRO THE SORTED OUTPUT INTO THE KSDS FILE. THE
//* SORT FIELDS ARE:
//*              SORT FIELDS=(5,46,BI,A),SIZE=E60000
//*              RECORD TYPE=V,LENGTH=(4093,,,,240)
//* DO  N O T  EVEN THINK ABOUT USING THE RELEASE SUBPARAMETER FOR THE SPACE DEFINITION
//* SINCE THE FILE IS OPENED AND CLOSED TO ESTABLISH VALID DCB ATTRIBUTES BEFORE THE
//* SORT IS INITIATED.
//SORTOUT  DD  UNIT=SYSDA,SPACE=(CYL,(10,5)),
//              DCB=BLKSIZE=6233
//SORTWK01 DD  UNIT=SYSDA,SPACE=(CYL,5)
//SORTWK02 DD  UNIT=SYSDA,SPACE=(CYL,5)
//SORTWK03 DD  UNIT=SYSDA,SPACE=(CYL,5)
//* THE OPTIONAL SYSIN DD STATEMENT IS ONLY USED FOR RE-LOAD OPERATIONS. WHEN USED, IT
//* SPECIFIES THE NAME(S) OF ANY TRMS ARCHIVE OAM COLLECTION TO BE USED AS INPUT. THE
//* SYSUT1 DD STATEMENT MUST BE PRESENT AND NOT DUMMIED IF THE SYSIN DD IS USED.
//* SYSIN DD  *
//* FORMAT,COLLECTION=CATALOG.OAM.COLLECT.NAME
//*
```

Figure 126 'Format/New' Sample MVS JCL (Member DBAJFRMA)

3.1.5.1 Sample VSE JCL

Sample VSE JCL for the TRMFORMA execution is shown below and is also provided in the TRMS INSTLIB as member TRMFORMA.

---

*EXTREMELY IMPORTANT NOTE FOR **VSE** USERS*
DO <u>NOT</u> IGNORE
During the course of normal processing, the TRMS system will issue certain commands (ENQUEUE/DEQUEUE and/or RESERVE) to insure it has exclusive use of certain TRMS files. These commands are issued with names that must be unique for each and every TRMS file. TRMS creates these names by using positions 6 through 17 of the file id for the file against which the command will be issued. Therefore, it is imperative that each TRMS file id used have a unique character string in positions 6 through 17. The file ids in examples A and B below are not unique in positions 6 through 17. The file ids in examples C and D are unique in those positions.

Example A	*TRMS.TXYZ.TESTING.KSDS*
Example B	*TRMS.TXYZ.TESTING.LOCK*
Example C	*TRMS.TXYZ.KSDS.TESTING*
Example D	*TRMS.TXYZ.LOCK.TESTING*

```
* $$ JOB JNM=TRMSFMDB
* $$ LST CLASS=A
// JOB TRMSFMDB
* *************************************************************************
*          THIS JOB WILL FORMAT THE TRMS DATABASE                        *
* *************************************************************************
// OPTION PARTDUMP
// DLBL IJSYSUC,'VSAM.USER.CATALOG',,VSAM      <---- VSAM USER CATALOG
// DLBL TRMSLIB,'TRMS.LIBRARY',,VSAM        <---- TRMS LIBRARY
// ASSIGN SYS006,SYSLST    SYSPRINT
/* * * * *
/* *     ONLY INCLUDE A SYSUT1 IF THE DATABASE IS TO
/* *       BE FORMATED FROM A PREVIOUS BACKUP.
/* *       ALSO INCLUDE THE SORTIN/OUT/WORK IF SYSUT1 IS INCLUDED
/* * * * *
/* PAUSE MOUNT YOUR INPUT FILE
/* TLBL SYSUT1
/* DLBL SORTIN,'SORTLIB',0,VSAM,RECORDS=23000,RECSIZE=4093
/* EXTENT ,XXXXXX              <---- FILL IN VOLUME
/* DLBL SORTOUT,'SORTOUT',0,VSAM,RECORDS=23000,RECSIZE=4093
/* EXTENT ,XXXXXX              <---- FILL IN VOLUME
// DLBL TRMWRK1,'SORTWK',0,VSAM,RECORDS+25000,
                          RECSIZE=2504,DISP=(NEW,DELETE)
 // EXTENT ,XXXXXX              <---- FILL IN VOLUME
/* *
/* *                   IF THE FORMAT PROGRAM ABENDS AFTER THE COMPLETION OF
/* *                   THE LOAD TO THE RRDS (ANYTIME AFTER THE SORT BEGINS)
/* *                   THE SORTIN DATASET MAY BE USED TO BUILD A NEW
/* *                   KEY FILE WITHOUT RUNNING THE LOAD OF THE RRDS.
/* *                   THIS FILE MUST BE SORTED PRIOR TO LOADING THE KEY
/* *                   FILE.  IDCAMS MAY BE USED TO REPRO THE SORTED OUTPUT
/* *                   INTO THE KSDS FILE.  THE SORT FIELDS ARE:
/* *
/* *                   SORT FIELDS=(5,46,81,A)
/* *                   RECORD TYPE=V,LENGTH=(4093,,,,255)
/* *
// LIBDEF *,SEARCH=TRMSLIB.REL#.INST
// DLBL TRMSKSD,'TRMS.REL#.KSDS',,VSAM
// DLBL TRMSLOC,'TRMS.REL#.LOCK',,VSAM
// DLBL TRMROO1,'TRMS.REL#.RRDS001',,VSAM                  <----REQUIRED
// DLBL TRMR###,'TRMS.REL#.RRDS###',,VSAM                  <----OPTIONAL
// DLBL TRMR256,'TRMS.REL#.RRDS256',,VSAM                  <----OPTIONAL
* *** JOB=TRMSFMDB (TRMSFORMA)   STEP  1 OF 1
// EXEC TRMSFORMA,SIZE=100K
/*
/&
* $$ EOJ
```

Figure 127 Sample 'Format/New' VSE JCL - TRMFORMA (Database Format)

The following FILE names are required to perform a format of a TRMS database using the VSE JCL in the previous figure.

FILE Name	Explanation
TRMSLIB	The TRMS loadlib.
SYSPRINT	The SYSPRINT is used by TRMFORMA to report the status of the format run. Assign SYS006 to a print device.
TRMSKSD	The KSDS cluster being formatted.
TRMR###	Each RRDS data cluster being formatted. ### ranges from 001 to 256.
TRMSLOC	The LOCK cluster being formatted.
SYSUT1	The SYSUT1 is assigned to a previous archive or unload file if the newly created database is to be built with an initial input. If there is no input to the format, then SYSUT1 should be omitted.

3.1.5.2 TRMFORMA - Adding RRDS Data Files After Initial Format

The TRMFORMA Program can be used to add RRDS data files after the
TRMS database has been initially formatted, thereby increasing the report
accumulation capacity of the database without performing a complex backup,
initial format and reload.

The RRDS DATA FILE record size must be equal to 4089 bytes. A
safeguard has been built into TRMFORMA that prevents an existing RRDS
data file from being formatted, i.e. the clusters must be newly defined for
TRMFORMA's execution. The definition of new RRDS Data files is
accomplished by using the IDCAMS' delete and define process.

Only the specified RRDS data files are added to the existing TRMS database.
TRMS definitions cannot be restored to the KSDS file nor can backed up or
archived reports be restored during a TRMFORMA run that adds RRDS data
files.

The PARM field value passed to TRMFORMA allows the program to
distinguish between the initial format of the TRMS database and adding
RRDS data files to an existing database.

ADD   -   The file or files added to the TRMS database in
                           a reserved state. It cannot be written to until it
                           is activated.

ADDACTIVE   -   The file or files added to the TRMS database
                           and is eligible for immediate use.

As many RRDS data files as desired can be added after initial format in this
manner provided that the total number of RRDS data files does not exceed
256. In addition, the DSName of each RRDS data file must be unique.
Duplications with RRDS data files already in the database or with other data
files to be added will be ignored.

NOTE: Running TRMFORMA to add RRDS data files can <u>not</u> be run in
conjunction with the TRMS accumulation task and the TRM$ subsystem.
The accumulator and subsystem must both be stopped.

3.1.5.3 Sample MVS JCL - DBAJFRMR

The sample MVS JCL used to add more RRDS Data files is DBAJFRMR. A
parameter of ADD or ADDACTIVE must be used to format the new RRDS
Data files.

```
//DBAJFRMA JOB (accounting,info),'FORMAT THE TRMS D/B',
//               MSGLEVEL=1,CLASS=A,MSGCLASS=A,NOTIFY=&SYSUID
//**********************************************************
************
   //* ADD ONE OR MORE RRDS DATA FILES TO AN EXISTING TRMS
DATABASE
//*

//* THE RRDS(ES) IDENTIFIED WITH THE "TRMSR###" DDNAMES MUST
HAVE
     //* BEEN DEFINED WITH IDCAMS BEFORE THIS JOB IS
     SUBMITTED.   MULTIPLE
//* RRDSES CAN BE FORMATTED BY INCREMENTING ONE OF THE "###"
SUFFIX
//* ON THE DDNAME(S) AND MATCHING THE DSNAME(S) TO THE RRDS
CLUSTER(S)
//* NAMES THAT WERE DEFINED TO BE ADDED.
   //*

//* ANY OTHER PARM=VALUES WILL CAUSE TRMS TO FORMAT THE RRDS
FOR A
   //* NEWLY DEFINED DATABASE (KSDS AND LOCK FILES, TOO), AND
WILL
//* RECEIVE A TRMS203I MESSAGE AND THE JOB WILL TERMINATE.

//*
```

Figure 128 Format Additional RRDS Data Files (Member DBAJFRMR)

```
//ADDACT    EXEC
PGM=TRMFORMA,REGION=0K,TIME=120,PARM=ADDACTIVE
//*ADDINACT EXEC PGM=TRMFORMA,REGION=0K,TIME=120,PARM=ADD
//STEPLIB  DD  DSN=TRMS.REL#LOADLIB,DISP=SHR <=== TRMS
LOADLIB                 //SYSPRINT DD  SYSOUT=*

//SYSUDUMP DD  SYSOUT=*
//TRMSR### DD DSN=TRMS.REL#.RRDS###,DISP=OLD <=== REQUIRED
RRDS ==
   //*
//*              === OPTIONAL RRDSES (SEE NOTE ABOVE)
```

```
   //*
//*TRMSR### DD DSN=TRMS.REL#RRDS###,DISP,=OLD <=== OPTIONAL
RRDS ==
//*
//* EACH TRMSR### DD DEFINES A TRMS RRDS DATA VSAM FILE TO BE
//* ADDED TO THE EXISTING TRMS DATA BASE CONTROLLED BY THE
LOCK
//* FILE DEFINED BY THE TRMSLOCK DD.
//*
//TRMSLOCK DD DSN=TRMS.REL#.LOCK,DISP=OLD      <=== LOCK ===
//*
//* TRMSLOCK DD DEFINES THE TRMS LOCK VSAM FILE

//*
```

3.1.5.4 Sample VSE JCL - TRMFORMA To Add RRDS Data Files

Sample JCL to add RRDS data files during FORMATRR execution is shown below and is also provided in the TRMS INSTLIB as FORMATRR.

*EXTREMELY IMPORTANT NOTE FOR **VSE** USERS*
DO <u>NOT</u> IGNORE
SEE VSE NOTE IN SECTION

The following FILE names are required to add RRDS data file(s) to an existing TRMS database.

FILE Name	Explanation
TRMSLIB	The TRMS loadlib.
SYSPRINT	The SYSPRINT is used by TRMFORMA to report the status of the format run. Assign SYS006 to a print device.
TRMR###	Each RRDS data cluster being added is assigned to unique DLBL name in the format TRM###, where ### ranges from 001 to 256.
TRMSLOC	The TRMSLOC DLBL must be assigned to the LOCK cluster that controls the TRMS database.

3.1.6 RETURN CODES from TRMFORMA

The Return Code from TRMUHPLD is returned via the TRMFORMA COND CODE.

NOTE: Refer to TRMS Messages and Codes Manual for more information

3.1.7 Requisite

Database files must be newly defined and empty.

3.1.8 Reports

SYSPRINT

3.1.9 Other Considerations

Format/Reload is a term used to refer to this Format Job when the SYSUT1 D
Statement contains the DSN of a backup or Archive dataset. (See Job
Components for more information.

3.2 DBAJLCKE - LOCK File Expansion Program, TRMULOCK

		Description	Notes
3.2	Job Name	DBAJLCKE	
3.2.1	Title/Description		
3.2.2	DBAJLCKE Job Components		
	JCL		
	Procedure		
	Primary Program		
3.2.3	Controls and Parameters		
3.2.4	Options		
3.2.5	Samples		
3.2.6	Return Codes		
3.2.7	Requisites		
3.2.8	Reports		
3.2.9	Other Considerations		

3.2.1 TRMULOCK Program

The TRMULOCK program is used to expand a LOCK File for a TRMS database. When the message TRMS257W is issued by TRMFORMA Program during RRDS addition, the TRMULOCK Program can be run to expand the LOCK file so that the RRDS can be added. This program can only be run when there are no enque/allocations to the current TRMS LOCK File. All batch jobs, online access and accumulators (TRMS and TRM$) must be stopped before running TRUMLOCK.

3.2.2 DBAJLCKE Job Components

3.2.2.1 Summary of the DBAJLCKE Job

In the MVS JCL, the following Step information and DDNAMES are used by the TRMULOCK Job.

1. Step DEFINE uses program IDCAMS to Allocate a new larger LOCK File that will be formatted.

2. The old updated LOCK File information will be written to the New LOCK File by the TRMULOCK step.
3. If all condition codes are zero (0) the Step RENAME will rename the old LOCK Cluster and Data to the save names and the new name LOCK Cluster and Data will be renamed to the old LOCK names. If any step ends with a condition code other than zero (0), the new LOCK File is bad and will not be renamed.

3.2.2.2 Controlling Job DD's

Step TRMULOCK is used to format and copy the altered old LOCK File information into the Newly allocated New TRMS LOCK File.

DD Name	Explanation
STEPLIB	Assign the STEPLIB DD is used to define the TRMS loadlib.
SYSPRINT	TRMULOCK message/log output file.
SYSUDUMP	An error processing file.
TRMSLOCK	Assign this DD to the Old/Original LOCK File dataset.
TRMNLOCK	Assign this DD to the New LOCK File dataset allocated in the DEFINE Step. This VSAM RRDS File must be empty at the beginning of this step.

3.2.3 Controls and Parameters

None

3.2.4 Options

3.2.4.1 Step RENAME - IDCAMS Step to Rename the LOCK Files

Step RENAME uses the IDCAMS utility to alter rename, the Old LOCK Names to a save names, and the New LOCK Names to the Old LOCK Names. The normal IDCAMS are required for the JCL.

3.2.5 Sample MVS JCL - TRMULOCK (Member DBAJLCKE)

Sample **MVS** JCL for the TRMULOCK is shown on the following page.

```
//DBAJLCKE  JOB (YOUR,ACCT),'LOCK EXPANDER',MSGCLASS=A
//            CLASS=A,NOTIFY=&SYSUID
//***************************************************************************
//*  IMPORTANT: THIS JOB CANNOT BE RUN WHILE THERE IS ANY ALLOCATION TO
//*             THE OLD TRMS LOCK FILE
//***************************************************************************
//* THE FOLLOWING IDCAMS STEP IS USED TO ALLOCATE A NEW TRMS LOCK FILE FOR:
//*   1. FORMATTING AND TRANSFERING ALTERED LOCK FILE INFORMATION IN STEP
//*      TRMULOCK
//*   2. RENAMING TO THE OLD LOCK FILE NAME IN STEP RENAME.
//***************************************************************************
//DEFINE   EXEC PGM=IDCAMS,REGION=0M
//SYSPRINT DD SYSOUT=*
//SYSIN    DD   *
   DEFINE CLUSTER(NAME('YOUR.NEW.TRMS.LOCK')               -
          CYLINDERS(## 0)                                  -
          VOLUMES(VOLSER)                                  -
          CONTROLINTERVALSIZE(4096)                        -
          NUMBERED                                         -
          SPEED                                            -
          OWNER(OWNER)                                     -
          RECORDSIZE(4089 4089)                            -
          SHAREOPTIONS (3 4)                               -
          UNIQUE)                                          -
          DATA                                             -
          (NAME('YOUR.NEW.TRMS.LOCK.DATA')    )            -
//*****************************************************************
//*    THE FOLLOWING TRMULOCK STEP IS USED TO FORMAT A NEW TRMS LOCK
//*    FILE AND TRANSFER THE OLD TRMS LOCK INFORMATION TO THE NEW
//*    LOCK FILE.   THE INFORMATION IS UPDATED IN THE NEW LOCK FILE
//*    TO REFLECT THE NEW LOCK MAP SIZE INFORMATION.
//*****************************************************************
//TRMULOCK EXEC PGM=TRMULOCK,REGION=0M,COND=(0,NE)
//STEPLIB  DD DSN=TRMS.REL#.LOADLIB,DISP=SHR
//SYSDUMP  DD SYSOUT=*
//SYSPRINT DD SYSOUT=*
//*      TRMSLOCK IS ASSIGNED TO YOUR CURRENT TRMS LOCK FILE
//TRMSLOCK DD DSN=TRMS.LOCK,DISP=SHR
//*      TRMNLOCK IS ASSIGNED TO YOUR NEW TRMS LOCK FILE
//TRMNLOCK DD DSN=YOUR.NEW.LOCK,DISP=SHR
//*****************************************************************
//*    THE FOLLOWING IDCAMS STEP IS USED TO RENAME YOUR CURRENT LOCK
//*    FILE TO A SAVE NAME AND THE NEWLY FORMATTED LOCK FILE TO YOUR
//*    OLD LOCK FILE NAME.
//*****************************************************************
//RENAME EXEC PGM=IDCAMS,REGION=0M,COND=(0,NE)
//SYSPRINT DD SYSOUT=*
//SYSIN    DD   *
   ALTER TRMS.LOCK/PASSWORD               NEWNAME(TRMS.OLD.LOCK)
   ALTER TRMS.LOCK.DATA/PASSWORD          NEWNAME(TRMS.OLD.LOCK.DATA)
   ALTER YOUR.TRMS.NEW.LOCK/PASSWORD      NEWNAME(TRMS.LOCK)
   ALTER YOUR.TRMS.NEW.LOCK.DATA/PASSWORD NEWNAME(TRMS.LOCK.DATA)
```

Figure 129 Sample MVS JCL - Member DBAJLCKE

3.2.6 TRMULOCK Return Codes

RC=0   All function completed successfully.

RC=4   Errors have occurred in a step.

RC=8   A requesting function did not complete successfully. See messages from the Step giving the error to determine the resolution of error.

Any Other Rc   Fatal error occurred. See messages from the Step giving the error to determine the resolution of error.

NOTE: Refer to TRMS Messages and Codes Manual for more information

3.2.7 Requisite

This program can only be run when there are no enque/allocations to the current TRMS LOCK File. All batch jobs, online access and accumulators (TRMS and TRM$) must be stopped before running TRUMLOCK.

3.2.8 The TRMULOCK Report

A statistical report is produced from the RENAME step. The number of control blocks formatted, map blocks formatted, text blocks formatted, map blocks used, and text blocks used is displayed for the both the OLD LOCK file and the New LOCK file. The number of blocks should be the same for everything except the new map block formatted. The number of errors in processing the lock file is also shown. If no problems were encountered while formatting the new lock file or copying the records the count is zero.

3.2.8.1 Sample of the TRMULOCK Report

```
RPTID=TRMULOCK - TRMS DBASE UTILITY  LOCK EXPANSION UTILITY REPORT TIME=14:47:31  DATE=02 JUN 2003.153 PAGE 1

TRMS T60A DATABASE                      *** LICENSED BY ***  TRMS (C) 1987-2003, CSI INC.     RELEASE 6.0A-00
                                        **** SEA  INC. ****  1230 HEMPSTEAD TPK.,  FRANKLIN SQUARE, NY  11010


TRMS332I - TRMSLOCK (OLD LOCK) DSN=VFIL.C203.T60A.LOCK
TRMS209I - OLDLOCK COUNT OF CONTROL BLOCKS FORMATTED                 1
TRMS209I - OLDLOCK COUNT OF MAP BLOCKS FORMATTED                   355
TRMS209I - OLDLOCK COUNT OF TEXT BLOCKS FORMATTED                 1800
TRMS212I - OLDLOCK COUNT OF MAP BLOCKS USED                          1
TRMS212I - OLDLOCK COUNT OF TEXT BLOCKS USED                       822
TRMS332I - TRMNLOCK (NEW LOCK) DSN=VFIL.C203.NEW.T60A.LOCK
TRMS209I - NEWLOCK COUNT OF CONTROL BLOCKS FORMATTED                 1
TRMS209I - NEWLOCK COUNT OF MAP BLOCKS FORMATTED                   535
TRMS209I - NEWLOCK COUNT OF TEXT BLOCKS FORMATTED                 1800
TRMS212I - NEWLOCK COUNT OF MAP BLOCKS USED                          1
TRMS212I - NEWLOCK COUNT OF TEXT BLOCKS USED                       822
TRMS243I - NUMBER OF ERRORS ENCOUNTERED:                            0

                            ** END OF UTILITY LOG REPORT **
```

3.2.9 Other Considerations

None

3.3 Unloading the TRMS Database

		Description	**Notes**
3.3	Job Name	DBAJUNLD	
3.3.1	Title/Description		
3.3.2	DBAJUNLD Job Component		
	JCL		
	Procedure		
	Primary Program		
3.3.3	Controls and Parameters		
3.3.4	Options		
3.3.5	Samples		
3.3.6	Return Codes		
3.3.7	Requisites		
3.3.8	Reports		
3.3.9	Other Considerations		

3.3.1 DBAJUNLD

The TRMS database is copied by the TRMSUTIL program. The job that performs the unload function is not automatically submitted by TRMS. The unload job must be submitted manually, if required. The original database remains unchanged.

The TRMS Definitions are the first elements of the data placed on the unload file with the exception of Active Notes, which are placed with the corresponding report. The second category of data is the Archive History and the Report Tracking data, the Reports and their associated distribution data is the final category of work placed on each unload file. TRMS has the capability of creating a duplex copy of the unload file, if desired.

If the unload job is run while the TRMS started task(s) are accumulating work, only partial information for the reports accumulated at that time may be unloaded. Therefore, the operator command 'MODIFY TRMS,NOACCUM' or 'MODIFY taskid, NOACCUM' should be issued before the unload job is submitted. The operator command 'MODIFY TRMS, ACCUM' or 'MODIFY taskid, ACCUM' can be issued after the unload function completes to start the

accumulation process. Although issuing these commands is not required for the unload function, it is recommended.

3.3.2 DBAJUNLD Job Components

3.3.2.1 Controlling Job DD's

In the previous MVS JCL, the following DD names are used by TRMUTIL to perform an unload of the TRMS database:

DD Name	Explanation
STEPLIB	Assign the STEPLIB DD to the TRMS loadlib.
SYSPRINT	Required for the unload reports created by the unload function. Normally a Sysout dataset, BLKSIZE(133), LRECL(133) RECFM(FA).
TRMSWORK	Required work file for unload function DCB information is supplied by program. A space amount of (CYL,(10,5)) should be adequate.
TRMSWRK2	A required work file.
TRMSLOCK	Required for the unload function. Defines the TRMS LOCK cluster.
SYSUT2	Required for the unload function. TRMS unloads the PRIMARY copy of the database to SYSUT2. The DCB attributes for this file are RECFM(VB) and a BLKSIZE of 4097 or greater.
SYSUT22	Optional for the unload function. TRMS unloads a DUPLEX copy of the database to SYSUT22. The DCB attributes for this file are RECFM(VB) and a BLKSIZE of 4097 or greater.
SYSIN	Required for TRMUTIL to supply the control statement for the desired function.
SYSUDUMP and ABLIGNR	Used for error processing.
SYSOUT	Required for the Sort Log.

3.3.2.2 Controlling Job DD's

In the previous VSE JCL, the following FILE names are used by TRMUTIL to perform an unload of the TRMS database:

FILE Name	Explanation
TRMSLIB	The TRMS loadlib.
SYSPRINT	Required for the unload reports created by the unload function. Assign SYS006 to a print device.
TRMWORK	Required work file for unload function DTF information is supplied by program.
TRMSLOC	Required for the unload function. Defines the TRMS LOCK cluster.
SYSUT2	Required for the unload function. TRMS unloads the PRIMARY copy of the database to SYSUT2. The DTF Attributes for this file are RECFM(VB) and a BLKSIZE of 4093 or greater. Assign SYS022 to a Tape Device.
SYSUT22	Optional for the unload function. TRMS will unload a DUPLEX copy of the database to SYSUT22. The DTF Attributes for this file are RECFM(VB) and a BLKSIZE of 4093 or greater. Assign SYS023 to Tape Device.
SYSIN	Required to supply the control statement for the desired displays. The SYSIN FILE can define any dataset with an LRECL of 80 or may define an instream dataset. If not in stream, the filename must be "SYSINP". Must be 80 byte unblocked records. If instream, SYS031 must be assigned. If on disk, the sys-number on the extent statements must be assigned. If not SYS031 will be used and must be assigned.

3.3.3 Controls and Parameters

3.3.3.1 Control Statement

<u>Parameter</u>	<u>Explanation</u>
UNLOAD	The entire database and all the control information is unloaded to SYSUT2 for the primary copy and to SYSUT22 for the duplex copy if the DD/FILE name is present in the JCL.

3.3.4 Options

TRMS has the capability of creating a duplex copy of the unload file, if desired.

3.3.5 MVS JCL Requirements - DBAJUNLD

A sample MVS JCL for the TRMUTIL execution for the Unload Facility is shown below and is also provided in the TRMS INSTLIB as member DBAJUNLD.

```
 //DBAJUNLD JOB (ACCOUNTING),'UNLOAD JOB',MSGCLASS=T,
 //       CLASS=A,MSGLEVEL=1,NOTIFY=&SYSUID
 //*
 //TRMSARCH EXEC PGM=TRMUTIL,REGION=0M
 //*
 //STEPLIB  DD   DSN=TRMS.REL#.LOADLIB,DISP=SHR
 //*
 //*              UNLOAD REPORTS
 //SYSPRINT DD   SYSOUT=*
 //*
 //*              WORK FILE FOR UNLOAD RUN
 //TRMSWORK DD   DSN=&&WORK,DISP=(,DELETE,DELETE),
 //               UNIT=SYSDA,SPACE=(CYL,(10,5))
 //*
 //TRMSWRK2 DD DSN=&&WRK2,DISP=(DELETE,DELETE),
 //               UNIT=SYSDA,SPACE=(TRK,(1,1))
 //*
 //*               TRMS VSAM FILES
 //* THE TRMS LOCK DATASET CONTAINS THE NAMES OF THE KSDS AND RRDS(S)
 //* DATASETS AND ARE DYNAMICALLY ALLOCATED.
 //*
 //TRMSLOCK DD DSN=TRMS.REL#.LOCK,DISP=SHR
 //*
 //*               UNLOAD FILE NAMES
 //* NOTE!!   ALL UNLOAD BLKSIZES MUST BE AT LEAST 4100.
 //SYSUT2    DD DSN=TRMS.UNLOAD.PRIMARY(+1),
 //               DISP=(,CATLG,DELETE),
 //               UNIT=(TAPE,,DEFER),
 //               DCB=(TRMS.DSCB,BLKSIZE=23476),
 //               LABEL=(1,SL,RETPD=35)
 //* NOTE!  IF A DUPLEX UNLOAD FILE IS REQUIRED, SIMPLY UNCOMMENT THE
 //*          FOLLOWING DD STATEMENT
 //SYSUT22  DD   DSN=TRMS.UNLOAD.DUPLEX(+1),
 //               DISP=(,CATLG,DELETE),
 //               UNIT=(TAPE,,DEFER),
 //               DCB=(TRMS.DSCB,BLKSIZE=23476),
 //               LABEL=(1,SL,RETPD=35)
 //SYSUDUMP DD SYSOUT=*
 //*
 //SYSOUT   DD SYSOUT=*
 //*
 //ABNLIGNR DD DUMMY
 //*
 //SYSIN    DD DSN=TRMS.REL#.INDYLIN(DBASUNLD),DSP=SHR
 //*
 //
```

Figure 130 Sample MVS JCL - Unload Member DBAJUNLD

3.3.5.1 VSE JCL Requirements

Sample VSE JCL for the TRMUTIL execution for the Unload Facility is shown below and is also provided in the TRMS INSTLIB as member TRMSUNLD.JCL.

> *EXTREMELY IMPORTANT NOTE FOR VSE USERS*
> *DO <u>NOT</u> IGNORE*
> *SEE VSE NOTE IN SECTION*

```
      * $$ JOB JNM=TRMSUNLD
      * $$ LST CLASS=A
      // JOB TRMSUNLD
      // OPTION PARTDUMP
      // DLBL IJSYSUC,'VSAM.USER.CATALOG',,VSAM        <---- VSAM USER CATALOG
      // DLBL TRMSLIB,'TRMS.LIBRARY',,VSAM             <---- TRMS LIBRARY
      // TLBL SYSUT2,'TRMS BKUP'
      /* TLBL SYSUT22,'TRMS DUPLX BKUP'                <- USED ONLY FOR DUPLEXING
      /* DLBL TRMWORK,'TRMWORK',0,VSAM,RECORDS=10000,RECSIZE=4093
      /* ************
      /*
      /* IF YOU WISH TO SPECIFY A BLOCKSIZE OR USE A SPECIFIC
      /* SYS-NUMBER FOR A TAPE, READ ABOUT THE "TMS" FEATURE IN
      /* SECTION 4.0 OF THE ADMIN GUIDE.
      /* ************
      // PAUSE JOB=TRMSUNLD  MOUNT THE OUTPUT FILE
      // ASSGN SYS006,SYSLST      SYSPRINT
      // ASSGN SYS031,READER      SYSINP
      // LIBDEF *,SEARCH=TRMSLIB.REL#.INST
      // EXEC PROC=TRMSLBLS
      * *** JOB=TRMSUNLD  (TRMUTIL)   STEP  1 OF 1
      // EXEC TRMUTIL,SIZE=70K
      UNLOAD
      /*
      /&
      * $$ EOJ
```

Figure 131 Sample VSE JCL - Unload

3.3.6 Return Codes

RC=4   TRMS604 message issued when errors were encountered
            processing active reports.

RC=1   TRMS603 message issued when no reports were found to archive.

RC=8   TRMS301 message issued when ARCHDEF DD is missing.

Distributions whose Report Definitions have an ARCHDD which matches a DD Name in the Archive Proc will be archived to that file when the Report Definition is also flagged as Archivable.

NOTE: Refer to TRMS Messages and Codes Manual for more information.

3.3.7 Requisites

If the unload job is run while the TRMS started task(s) are accumulating work, only partial information for the reports accumulated at that time may e unloaded. There fore, the operator command 'MODIFY TRMS,NOACCUM' or 'MODIFY taskid, NOACCUM' should be issued before the unload job is submitted. The operator command 'MODIFY TRMS, ACCUM' or 'MODIFY taskid, ACCUM' can be issued after the unload function completes to start the accumulation process. Although issuing these commands is not required for the unload function, it is recommended.

3.3.8 Sample Unload Reports

The Batch Unload Program produces several reports.

1. Control Statements and Error Reports (two reports)
2. Unload Database Recap Report
3. Control Record Summary Report.

The two Control Statement and Error Reports validate the input statements for the Batch Unload Program and the associated record count program.

The Unload Database Recap Report shows a listing of the Reports that were unloaded. Included in the listing is the report number, accumulation date and time, archive number, database percentage, number of pages, record count, creating job name, restored, current status success of its unload, and the number of undistributed reports. The Second part of the Unload Database Recap Report shows the total number of: Reports, Records, Pages, Report Blocks accounted for, Blocks formatted, Blocks marked in use, and Percentage of the database used. The third part of the report is a summary of the RRDS file(s) and includes: their Index number, Status, total Blocks, Blocks used, the Percentage used, and the individual RRDS Dataset names.

The Control Record Summary Report shows the count of the KSDS records by individual types and the total number of records.

TRMS239I - UNLOAD CONTROL STATEMENT VALIDATED - UNLOAD

REPORT	REPORT#	ACCUMULATE DATE/TIME	ARCHIVE#	DB%	PAGE CNT	RECORD CNT	CREATE JOB	STATUS	UNLOAD	#UNDIST
BUY700MC	64	MON, 04 AUG 2003.216, 09:39	280	0.00	165	5779	C20051CP	ONLINE	COMPLETE	2
LRECL200	65	THU, 07 AUG 2003.219, 12:07	280	0.00	1	94	C200L200	ONLINE	COMPLETE	1
MILL010M	487333	THU, 12 JUN 2003.163, 11:06	279	0.00	59	1944	C200LIDX	ONLINE	COMPLETE	0
MILL010M	487334	THU, 12 JUN 2003.163, 11:16	279	0.00	47	1944	C200LIDX	ONLINE	COMPLETE	0
MILL010M	487335	THU, 12 JUN 2003.163, 11:53	279	0.00	57	1944	C200LIDX	ONLINE	COMPLETE	0
MILL010M	487336	THU, 12 JUN 2003.163, 13:25	278	0.00	750	7500	C200MB0C	ONLINE	COMPLETE	215
QARPT01	50	TUE, 22 JUL 2003.203, 19:53		0.00	62	611	C200RPT1	ONLINE	COMPLETE	0
QARPT01	51	TUE, 22 JUL 2003.203, 21:04		0.00	404	4033	C200RPT1	ONLINE	COMPLETE	0
STATE	68	THU, 07 AUG 2003.219, 19:15	280	0.01	280	11891	C200BUTM	ONLINE	COMPLETE	0
STATE	69	THU, 07 AUG 2003.219, 19:26	280	0.40	10820	437111	C200BUTM	ONLINE	COMPLETE	0
STATENI	80	MON, 11 AUG 2003.223, 18:32	280	0.02	579	24383	C200A347	ONLINE	COMPLETE	0
STATENI	81	MON, 11 AUG 2003.223, 19:01	280	0.40	10820	437111	C200C246	ONLINE	COMPLETE	0
STATENI	82	WED, 13 AUG 2003.225, 08:33	280	0.40	10821	437161	C200C246	ONLINE	COMPLETE	0
STATE1	75	FRI, 08 AUG 2003.220, 13:23	280	0.01	501	20769	C200TMST	ONLINE	COMPLETE	0
STATE1	85	THU, 14 AUG 2003.226, 14:46	280	0.00	5	254	C100CONT	ONLINE	COMPLETE	0
STATE1	86	THU, 14 AUG 2003.226, 15:18	280	0.04	1199	50315	C100CONT	ONLINE	COMPLETE	0
STATE2	87	TUE, 19 AUG 2003.231, 14:40	280	0.01	282	11973	C200BI2	ONLINE	COMPLETE	0
STATE2	88	TUE, 19 AUG 2003.231, 15:09	280	0.01	501	20761	C200BI2	ONLINE	COMPLETE	0
STATE2	89	TUE, 19 AUG 2003.231, 15:14	280	0.01	501	20761	C200BI2	ONLINE	COMPLETE	0
STATE2	90	TUE, 19 AUG 2003.231, 15:18	280	0.01	501	20769	C200BI2	ONLINE	COMPLETE	0
STATE2	91	TUE, 19 AUG 2003.231, 15:23	280	0.00	4	194	C200BI12	ONLINE	COMPLETE	0
STATE2	92	TUE, 19 AUG 2003.231, 15:26	280	0.00	4	194	C200BI12	ONLINE	COMPLETE	0
STATE2	94	TUE, 19 AUG 2003.231, 19:16	280	0.00	3	156	C200BI12	ONLINE	COMPLETE	0
STATE3	70	FRI, 08 AUG 2003.220, 11:09	280	0.40	10821	437161	C200BUTM	ONLINE	COMPLETE	0
STATE3	77	MON, 11 AUG 2003.223, 11:48	280	0.40	10821	437161	C200BUTX	ONLINE	COMPLETE	0
STATE3	93	TUE, 19 AUG 2003.231, 15:34	280	0.01	501	20769	C200BI12	ONLINE	COMPLETE	0
STATE3	95	TUE, 19 AUG 2003.231, 19:16	280	0.41	10820	437111	C200CALL	ONLINE	COMPLETE	0
THE4TH	210	FRI, 22 AUG 2003.234, 14:34	279	0.00	34	510	C200TH4	ONLINE	COMPLETE	5
THE4TH	211	FRI, 22 AUG 2003.234, 14:34	279	0.00	34	510	C200TH4	ONLINE	COMPLETE	5
THE4TH	212	FRI, 22 AUG 2003.234, 14:34	279	0.00	34	510	C200TH4	ONLINE	COMPLETE	5
THE4TH	213	FRI, 22 AUG 2003.234, 14:34	279	0.00	34	510	C200TH4	ONLINE	COMPLETE	5
THE4TH	214	FRI, 22 AUG 2003.234, 14:34	279	0.00	34	510	C200TH4	ONLINE	COMPLETE	5
THE4TH	215	FRI, 22 AUG 2003.234, 14:34	279	0.00	34	510	C200TH4	ONLINE	COMPLETE	5
THE4TH	216	FRI, 22 AUG 2003.234, 14:34	279	0.00	34	510	C200TH4	ONLINE	COMPLETE	5
THIRTY5	47	TUE, 08 JUL 2003.189, 14:55	279	14.09	1003993	35000000	C200035M	ONLINE	COMPLETE	0
TUESDAY	221	TUE, 26 AUG 2003.238, 10:29	279	0.38	28464	1000000	C200P1M	ONLINE	COMPLETE	0
TUESDAY	222	TUE, 26 AUG 2003.238, 10:55	279	0.38	28464	1000000	C200TUES	ONLINE	COMPLETE	0
TUESDAY	223	TUE, 26 AUG 2003.238, 11:54	279	0.00	31	1062	C200TUES	ONLINE	COMPLETE	0
TUESDAY	224	TUE, 26 AUG 2003.238, 12:01	279	0.38	28464	1000000	C200TUES	ONLINE	COMPLETE	0

```
TOTAL NUMBER OF REPORTS IN THE DATABASE              46
TOTAL NUMBER OF RECORDS IN THE DATA BASE       97084955
TOTAL NUMBER OF PAGES IN THE DATA BASE          2724740
TOTAL NUMBER OF REPORT BLOCKS ACCOUNTED FOR      429223
TOTAL NUMBER OF BLOCKS FORMATTED                1055700
TOTAL NUMBER OF BLOCKS MARKED IN USE             429223


PERCENTAGE OF DATA BASE USED                      40.65


RRDS LIST - INDEX  =STATUS=  TOTAL BLOCKS   USED BLOCKS   %USED  ----------- RRDS DATASET NAME -----------

0   DRAINED          3,600            45    1.2   VFIL.C111.T60A.TRWMULT.RRDS001
1   DRAINED          3,600             0    0.0   VFIL.C111.T60A.TRWMULT.RRDS002
2   ACTIVE       1,048,500       429,178   40.9   VFIL.C111.T60A.TRWMULT.RRDS003

ARCHIVE DSNAME=C203.T60A.UNL191
VOLUME SERIALS=WEC002
                         ** END OF DATABASE RECAP REPORT **
```

```
RPTID=TRMSBKUP-CNTL RECORD COUNTS CONTROL RECORD SUMMARY REPORT  TIME=11:34:33  DATE=28 AUG 2003.240 PAGE   1
SEA TEST SYSTEM-DRNGSYKB SS(R) DEST(R987) EA(MB)***LICENSED BY***TRMS (C) 1987-2003, CSI INC. RELEASE 6.0A-00
                                        *** SEA INC*** 1230 HEMPSTEAD TPK., FRANKLIN SQUARE, NY 11010
GLOBAL                            ===>        2
DSN/UNIT ASSOCIATION              ===>       30
MAILDROP                          ===>      616
RECIPIENT                         ===>      756
USER NAME                         ===>      759
REPORT                            ===>      665
REPORT NAME                       ===>      672
KEY INDEX RECORD                  ===>    1,079
TRIGGER                           ===>      506
DISTRIBUTION                      ===>    2,159
DISTRIBUTION SUB DEFINITION       ===>    5,248
CALENDAR                          ===>       36
EXTERNAL: DJDE INSERT             ===>       15
EXTERNAL: TRMS INSERT             ===>        8
EXTERNAL: JOB INFO                ===>      323
EXTERNAL: SYSOUT                  ===>      276
EXTERNAL: DSN                     ===>      101
EXTERNAL: EXTERNAL ADDRESS        ===>        6
ACTION LIST: DISTRIBUTION LIST    ===>      205
ACTION LIST: DEFINITION ALIAS     ===>        2
ACTION LIST: REQUIREMENTS LIST    ===>      251
ACTION LIST: ACCESS LIST          ===>       43
QUERY RULE: INDEX                 ===>       66
QUERY RULE: BOC                   ===>       94
QUERY RULE: PARTIAL BREAKOUT      ===>    2,412
QUERY RULE: WINDOW                ===>      235
HELP                              ===>    3,023
HELP DATA DICTIONARY              ===>        0
NOTES                             ===>        1
UTILITIES: MASS CHANGE            ===>        2
ACTIVE REPORT                     ===>       46
ACTIVE TRIGGER REQUIREMENT        ===>        3
ACTIVE REPORT NAME                ===>        0
ADMINISTRATOR TRIGGER MANIPULATION ===>       0
BUNDLE CONTENT                    ===>        3
ACTIVE DISTRIBUTION               ===>   24,397
ARCHIVE HISTORY                   ===>      184
ARCHIVE VOLUME TRACKING           ===>        6
ARCHIVE VOLUME DESCRIPTION        ===>        8
ARCHIVE VOLUME EXTENSION          ===>        0
REPORT DISTRIBUTION TRACKING      ===>        2
SMF DATABASE                      ===>        0
TOTAL RECORDS                     ===>   44,240
                    ** END OF CONTROL RECORD SUMMARY REPORT **


RPTID=TRMUTIL-TRMS UTILITY PROGRAM  CONTROL STATEMENTS & ERROR RPT TIME=11:34:33 DATE=28 AUG 2003.240  PAGE 1
SEA TEST SYSTEM-DRNGSYKB SS(R) DEST(R987) EA(MB)***LICENSED BY***TRMS (C) 1987-2003, CSI INC. RELEASE 6.0A-00
                                    ***SEA INC.***1230 HEMPSTEAD TPK., FRANKLIN SQUARE, NY  11010


TRMS622I - UNLOAD FUNCTION COMPLETED RC X'00000000'


RPTID=TRMUTIL2-TRMS UTILITY LOG  CONTROL SUMMARY REPORT  TIME=11:34:33         DATE=28 AUG 2003.240     PAGE 2
SEA TEST SYSTEM-DRNGSYKB SS(R) DEST(R987) EA(MB)***LICENSED BY***TRMS (C) 1987-2003, CSI INC. RELEASE 6.0A-00
                                    ***SEA INC.*** 1230 HEMPSTEAD TPK., FRANKLIN SQUARE, NY  11010


TRMS242I - NUMBER OF CONTROL STATEMENTS READ:    1
TRMS243I - NUMBER OF ERRORS ENCOUNTERED:         0

                        ** END OF UTILITY LOG REPORT **
```

3.3.9 Other Considerations

The UNLOAD keyword is recommended in the SYSIN DD Statement.

3.4 DBAJMTRR - Empty An RRDS Data File

		Description	Notes
3.4	Job Name	DBAJMTRR	
3.4.1	Title/Description		
3.4.2	DBAJMRTT Job Components		
	JCL		
	Procedure		
	Primary Program		
3.4.3	Controls and Parameters		
3.4.4	Options		
3.4.5	Samples		
3.4.6	Return Codes		
3.4.7	Requisites		
3.4.8	Reports		
3.4.9	Other Considerations		

3.4.1 DBAJMTRR

The TRMUMTRR Program will empty a TRMS RRDS in preparation for its removal from a TRMS Database.

All blocks in use in the RRDS will be written to other RRDS Files in the database. You must specify the RRDS to be emptied via the TRMEMPTY DD Statement. <u>The RRDS being emptied must be in a drained status and there must be sufficient data blocks available in the database to relocate all of the in use blocks in the RRDS.</u> The empty program cannot run with any accumulation or restores executing.

Upon successful completion of this job, the RRDS will be placed in pending removal status. Then run the TRMURMRR member DBAJRMVR, to remove the RRDS from the database.

It is highly recommended that the RRDS to be emptied be drained for a few days to let it empty as much as possible prior to running the empty program against the dataset.

3.4.2 DBAJMTRR Job Components

3.4.2.1 Controlling Job DD's

The following DDNames are required to empty a TRMS RRDS data file.

FILE Name	Explanation
STEPLIB/ TRMSLIB	TRMS Loadlib
SYSPRINT	Used to list the reports being moved and the status of the empty RRDS run. (Assign SYS006 to a print device for VSE).
SORTMSG	If the PARM SORTDONE is not specified, the sort messages output file.
SYSOUT	Same as SORTMSG
TRMSLOCK/ TRMSLOC	Assign to the LOCK Cluster that the empty cluster is associated with TRMSLOC. (Assign to the TRMSLOC DLBL for VSE).
TRMSKSDS/ TRMSKSD	Assign to the KSDS cluster that the empty cluster is associated withTRMSKSD (Assign to the TRMSKSD DLBL for VSE).
TRMEMPTY/ TRMEMPT	Assign to the RRDS cluster being emptied. (Assign to the TRMEMPT DLBL for VSE).
SORTIN	Used only if Execute Parm is not SORTDONE.
SORTOUT	If PARM=SORTDONE was specified on the execute statement, the DD must be assigned to the dataset created by SORTOUT in STEPSORT. Otherwise, a temporary dataset must be defined.
SORTWK01-03	Work datasets for sort.
SYSUDUMP	Assign to the MVS error processing file.

3.4.2.2 Controlling Job DD's

The following Step Stepsort names are required for VSE to empty a
TRMS RRDS data file.

VSE FILE Name	Explanation
SYSPRINT	Used to report the sort statistics (assign SYS006 to a print device for VSE).
SORTMSG	The same as SYSPRINT.
SYSOUT	The same as SYSPRINT.
SORTIN	Assign to your RRDS to be emptied.
SORTOUT	Assign to a disk file to be passed to the TRMUMTRR Step.
SORTWK01-03	Assign to disk for sort work space.
SYSIN	Sort Control Statement Input - Sort statements are:
	SORT fields= (25,12,BI,A)
	SUM fields= none
	OUTFIL OUTREC = (25,12)
	OPTION MSGPRT = ALL, LIST, LISTX

3.4.3 Controls and Parameters

None

3.4.4 Options

None

3.4.5 Sample JCL

3.4.5.1 Sample MVS JCL - DBAJMTRR

Below is sample JCL for TRMUMTRR. It is member DBAJMTRR in the TRMS INSTLIB.

```
//DBAJMTRR JOB (ACCOUNTING,INFO),'EMPTY TRMS RRDS',
//           MSGLEVEL=1,CLASS=A,MSGCLASS=T,NOTIFY=&SYSUID
//*****************************************************************************
//* JOB WILL EMPTY A TRMS RRDS IN PREPARATION FOR ITS REMOVAL FROM A TRMS DATABASE.
//* ALL BLOCKS USED IN THE RRDS WILL BE WRITTEN TO OTHER RRDS FILES IN THE DATABASE.
//*****************************************************************************
//*  SPECIFY THE RRDS TO BE EMPTIED VIA THE TRMEMPTY DD STATEMENT.
//*
//* THE RRDS BEING EMPTIED MUST BE IN DRAINED STATUS AND THERE MUST BE SUFFICIENT
//* DATA BLOCKS AVAILABLE IN THE DATABASE TO RELOCATE ALL OF THE IN USE BLOCKS IN
//* THE RRDS.
//*
//* UPON SUCCESSFUL COMPLETION OF THIS JOB THE RRDS WILL BE PLACED IN PENDING
//* REMOVAL STATUS.
//*****************************************************************************
//STEP1      EXEC PGM=TRMUMTRR,REGION=0M,TIME=300
//STEPLIB   DD   DSN=TRMS.REL#.LOADLIB,DISP=SHR
//SYSPRINT  DD SYSOUT=*
//SYSUDUMP  DD SYSOUT=*
//*****************************************************************************
//* THE TRMS LOCK FILE OF THE DATABASE TO BE EMPTIED
//*****************************************************************************
//*YES!!  TRMSKSDS IS REQUIRED!!  THE KSDS OF THE DATABASE TO BE EMPTIED.
//*****************************************************************************
//TRMSKSDS  DD DSN=YOUR.KSDS.FILE,DISP=SHR
//*****************************************************************************
//* THE RRDS DATA FILE THAT IS TO BE EMPTIED
//*****************************************************************************
//TRMEMPTY  DD DSN=YOUR.RRDS.TO.BE.EMPTIED,DSP=SHR
//*
//SORTOUT   DD DSN SYSOUT=*
//SORTIN    DD UNIT=SYSALLDA,SPACE=(CYL,(50,10)).
//             DCB=BLKSIZE=27989
//SORTOUT   DD UNTI=SYSALLDA,SPACE=(CYL,(50,10)).
//             DCB=BLKSIZE=27989
//SORTWK01  DD UNIT=SYSDA,SPACE=(CYL,(25))
//SORTWK02  DD UNIT=SYSDA,SPACE=(CYL,(25))
//SORTWK03  DD UNIT=SYSDA,SPACE=(CYL,(25))
```

Figure 132 Sample MVS JCL Member DBAJMTRR -TRMUMTRR (Empty RRDS file)

3.4.5.2 Sample VSE JCL - TRMUMTRR

Sample JCL to empty a TRMS RRDS data file is shown below and is
also provided in the TRMS INSTLIB as TRMUMTRR.

> *EXTREMELY IMPORTANT NOTE FOR VSE USERS*
> *DO NOT IGNORE*
> *SEE NOTE IN SECTION*

```
* $$ JOB JNM=TRMUMTRR
* $$ LST CLASS=A
// JOB TRMUMTRR
// OPTION PARTDUMP
// DLBL IJSYSUC,'VSAM.USER.CATALOG',,VSAM <== VSAM USER CATALOG
// DLBL TRMSLIB,'TRMS.LIBRARY',,VSAM       <== TRMS LOAD LIBRARY
// ASSGN SYS006,SYSLST       SYSPRINT
// DLBL TRMEMPT,'TRMS.rel#.RRDS###',,VSAM <== RRDS TO BE EMPTIED
/*
/*    TRMEMPT DLBL DEFINES THE SPECIFIC TRMS DATA
/*    VSAM FILE TO BE EMPTIED.
/*
// DLBL TRMSLOC,'TRMS.rel#.LOCK',,VSAM    <== LOCK ==
/*
/*    TRMSLOC DLBL DEFINES THE TRMS LOCK VSAM FILE
/*
// DLBL TRMSKSD,'TRMS.rel#.KSDS',,VSAM    <== KSDS ==
/*
/*    TRMSKSD DLBL DEFINES THE TRMS KSDS VSAM FILE
/*
/*     THE SORTIN DLBL MUST BE THE RRDS TO BE EMPTIED
/*
//* DLBL SORTIN,'TRMS.REL#.RRDS###'
// EXTENT,XXXXXX-----> FILL IN VOLUME NUMBER
// DLBL SORTOUT,'SORTLIB,'0,VSAM,RECORDS=10000, RECSIZE=2504
// EXTENT , XXXXXX   -> FILL IN VOL NUMBER
// DLBL SORTWK1,"SWK1",0,VSAM,RECORDS=10000,RECSIZE=2(64, DISP=(,DELETE)
// EXTENT , XXXXXX -----> FILL IN VOL NUMBER
* *** JOB=TRMUMTRR (SORT) STEP 1 OF 2
//EXE SORT
   SORT FIELDS=(25,12,B1,A)
/*
// LIBDEF *,SEARCH=TRMSLIB.TRMS
 * *** JOB=TRMUMTRR             STEP 2 OF 2
// EXEC TRMUMTRR,SIZE=100K
/*
/&
* $$ EOJ
```
Figure 133 Sample VSE JCL - TRMUMTRR (Empty RRDS file)

3.4.6 Return Codes

RC=0   No errors or messages

RC=4   Informational messages

RC>4   Errors have occurred, read job output messages

NOTE: Refer to TRMS Messages and Codes Manual for more information

3.4.7 Requisites

<u>The RRDS being emptied must be in a drained status and there must be
sufficient data blocks available in the database to relocate all of the in use
blocks in the RRDS.</u> The empty program cannot run with any accumulation
or restores executing.

3.4.8 Reports

3.4.8.1 Sample RRDS Empty Report

Below is portion of an RRDS Empty report. The report show the reports
that were moved to another RRDS and the Reports' cycle number, number
of blocks moved, and the time the MOVE started and ended.

3.4.8.2 The Last Page of an EMPTY RRDS Report

```
TRMS479I - RELOCATION OF REPORT=C203TPRP, CYCLE=        79, BLOCKS MOVED=         16, START TIME=15:45:49.6, END TIME=15:45:49.7
TRMS479I - RELOCATION OF REPORT=C203TPRP, CYCLE=        80, BLOCKS MOVED=          2, START TIME=15:45:49.7, END TIME=15:45:49.7
TRMS479I - RELOCATION OF REPORT=C203TPRP, CYCLE=        81, BLOCKS MOVED=         20, START TIME=15:45:49.7, END TIME=15:45:49.8
TRMS479I - RELOCATION OF REPORT=C203TPRP, CYCLE=        82, BLOCKS MOVED=          2, START TIME=15:45:49.8, END TIME=15:45:49.9
TRMS479I - RELOCATION OF REPORT=C203TPRP, CYCLE=        83, BLOCKS MOVED=          2, START TIME=15:45:49.9, END TIME=15:45:49.9
TRMS479I - RELOCATION OF REPORT=C203TPRP, CYCLE=        84, BLOCKS MOVED=          2, START TIME=15:45:49.9, END TIME=15:45:49.9
TRMS479I - RELOCATION OF REPORT=C203TPRP, CYCLE=        85, BLOCKS MOVED=          2, START TIME=15:45:49.9, END TIME=15:45:50.0
TRMS479I - RELOCATION OF REPORT=C203TPRP, CYCLE=        86, BLOCKS MOVED=          2, START TIME=15:45:50.0, END TIME=15:45:50.0
TRMS479I - RELOCATION OF REPORT=C203TPRP, CYCLE=        87, BLOCKS MOVED=          2, START TIME=15:45:50.0, END TIME=15:45:50.1
TRMS479I - RELOCATION OF REPORT=C203TPRP, CYCLE=        88, BLOCKS MOVED=          3, START TIME=15:45:50.1, END TIME=15:45:50.1
TRMS479I - RELOCATION OF REPORT=C203TPRP, CYCLE=        89, BLOCKS MOVED=          2, START TIME=15:45:50.1, END TIME=15:45:50.1
TRMS479I - RELOCATION OF REPORT=C203TPRP, CYCLE=        90, BLOCKS MOVED=        177, START TIME=15:45:50.1, END TIME=15:45:50.7
TRMS479I - RELOCATION OF REPORT=C203TPRP, CYCLE=        91, BLOCKS MOVED=          2, START TIME=15:45:50.7, END TIME=15:45:50.8
TRMS479I - RELOCATION OF REPORT=C203TPRP, CYCLE=        92, BLOCKS MOVED=          3, START TIME=15:45:50.8, END TIME=15:45:50.8
TRMS479I - RELOCATION OF REPORT=C203TPRP, CYCLE=        93, BLOCKS MOVED=          2, START TIME=15:45:50.8, END TIME=15:45:50.9
TRMS479I - RELOCATION OF REPORT=C203TPRP, CYCLE=        94, BLOCKS MOVED=         20, START TIME=15:45:50.9, END TIME=15:45:51.0
TRMS479I - RELOCATION OF REPORT=TRMSUSPN, CYCLE=        95, BLOCKS MOVED=          2, START TIME=15:45:51.0, END TIME=15:45:51.0
TRMS479I - RELOCATION OF REPORT=TRMSUSPN, CYCLE=        96, BLOCKS MOVED=          3, START TIME=15:45:51.0, END TIME=15:45:51.1
TRMS479I - RELOCATION OF REPORT=TRMSUSPN, CYCLE=        97, BLOCKS MOVED=          2, START TIME=15:45:51.1, END TIME=15:45:51.1
TRMS479I - RELOCATION OF REPORT=C203DOL, CYCLE=        98, BLOCKS MOVED=          2, START TIME=15:45:51.1, END TIME=15:45:51.2
TRMS479I - RELOCATION OF REPORT=C203DOL, CYCLE=        99, BLOCKS MOVED=          2, START TIME=15:45:51.2, END TIME=15:45:51.2
TRMS479I - RELOCATION OF REPORT=C203DOL, CYCLE=       100, BLOCKS MOVED=          2, START TIME=15:45:51.2, END TIME=15:45:51.2
TRMS479I - RELOCATION OF REPORT=C203DOL, CYCLE=       101, BLOCKS MOVED=          2, START TIME=15:45:51.2, END TIME=15:45:51.3
TRMS479I - RELOCATION OF REPORT=KAYSDOL, CYCLE=       102, BLOCKS MOVED=          2, START TIME=15:45:51.3, END TIME=15:45:51.3
TRMS479I - RELOCATION OF REPORT=KAYSDOL, CYCLE=       103, BLOCKS MOVED=          2, START TIME=15:45:51.3, END TIME=15:45:51.4
TRMS479I - RELOCATION OF REPORT=KAYSDOL, CYCLE=       104, BLOCKS MOVED=          2, START TIME=15:45:51.4, END TIME=15:45:51.4
TRMS480I - TOTAL BLOCKS RELOCATED.............................=   826
TRMS317I - RRDS VFIL.C203.T60A.RRDS001 EMPTIED AND PLACED IN REMOVE PENDING STATUS
```

3.4.9 Other Considerations

It is highly recommended that the RRDS to be emptied be drained for a few days to let it empty as much as possible prior to running the empty program against the dataset.

3.5 DBAJRMVR - Remove an RRDS Data File from the TRMS Database

		Description	Notes
3.5	Job Name	DBAJRMVR	
3.5.1	Title/Description		
3.5.2	DBAJRMVR Job Components		
	JCL		
	Procedure		
	Primary Program		
3.5.3	Controls and Parameters		
3.5.4	Options		
3.5.5	Samples		
3.5.6	Return Codes		
3.5.7	Requisites		
3.5.8	Reports		
3.5.9	Other Considerations		

3.5.1 Remove RRDS File

The TRMURMRR Program will remove an emptied RRDS from a TRMS Database.

All references to the RRDS (in the LOCK File controlling the database) will be deleted. Specify the RRDS to be removed via the TRMREMOV DD Statement. <u>The RRDS being removed must be in pending removal status</u>. Run the TRMUMTRR program to empty the RRDS and place it in pending removal status before running this program.

Upon successful completion of this job, the RRDS can be deleted via the IBM IDCAMS Utility.

3.5.2 TRMUMTRR Job Components

3.5.2.1 Controlling Job DD's

The following FILE names are required to remove an RRDS data file from the TRMS database.

STEPLIB   The TRMS loadlib.

SYSPRINT   This DD is used for the Remove RRDS report.

TRMSLOCK   The LOCK cluster assigned to this TRMS database.

TRMSKSDS   The KSDS cluster assigned to this TRMS database.

TRMREMOV   The RRDS data cluster being removed. RRDS###, where ### ranges from 001 to 256.

SYSUDUMP
  and ABLIGNR   Used for error processing.

3.5.2.2 Controlling Job DD's

The following FILE names are required to remove an RRDS data file from the TRMS database.

FILE Name	**Explanation**
TRMSLIB	The TRMS loadlib.
SYSPRINT	The SYSPRINT is used by TRMURMRR to report the status of the remove RRDS run. Assign SYS006 to a print device.
TRMREMO	The RRDS data cluster being removed from the TRMS database. RRDS###, where ### ranges from 001 to 256, is for the RRDS to be removed from the TRMS database.
TRMSLOC	The TRMSLOC DLBL must be assigned to the LOCK cluster that controls the TRMS database.
TRMSKSD	The TRMSKSD DLBL must be assigned to the TRMS KSDS cluster.

3.5.3 Controls and Parameters

None

3.5.4 Options

Upon successful completion of this job, the RRDS can be deleted via the IBM IDCAMS Utility.

3.5.5 Sample MVS JCL - DBAJRMVR

Below is a sample JCL to execute TRMURMRR.

```
//DBAJRMVR JOB  (ACCOUNTING,INFO),'REMOVE EMPTIED RRDS',
//     MSGLEVEL=1,CLASS=A,MSGCLASS=T,NOTIVY=&SYSUID
//*    THIS JOB WILL REMOVE AN EMPTIED RRDS FROM A TRMS DATA BASE.
//*    ALL REFERENCES TO THE RRDS (IN THE LOCK FILE CONTROLLING THE
//*    THE DATABASE) WILL BE DELETED.
//*    SPECIFY THE RRDS TO BE REMOVED VIA THE TRMREMOV DD STATEMENT
//*    THE RRDS BEING REMOVED MUST BE IN PENDING REMOVAL STATUS.
//*    RUN THE TRMUMTRR JOB TO EMPTY THE RRDS AND PLACE IT IN PENDING
//*    REMOVAL STATUS BEFORE FUNNING THIS JOB
//*    UPON SUCCESSFUL COMPLETION OF THIS JOB THE RRDS CAN BE DELETED
//*     VIA THE IBM IDCAMS UTILITY.
//***********************************************************************
//STEP1     EXEC PGM=TRMURMRR,REGION=0M,TIME=120
//STEPLIB   DD  DSN=TRMS.REL#.LOADLIB,DISP=SHR     **  TRMS LOAD LIBRARY    **
//SYSPRINT  DD  SYSOUT=*
//SYSUDUMP  DD  SYSOUT=*
//ABNLIGNR  DD   DUMMY
//TRMSLOCK  DD DSN=TRMS.REL#.LOCK,DISP=SHR           **  TRMS LOCK FILE       **
//TRMSKSDS  DD DSN=TRMS.REL#.KSDS,DISP=SHR           **  TRMS KSDS FILE       **
//TRMREMOV  DD DSN=TRMS.REL#.RRDS###,DISP=SHR        **  RRDS TO BE REMOVED   **
//
```

Figure 134 Sample MVS JCL - Member DBAJRMVR - TRMURMRR (Remove RRDS File)

3.5.5.1 Sample VSE JCL - TRMURMRR

Sample JCL to REMOVE an RRDS data file from the TRMS database is
shown below and is also provided in the TRMS INSTLIB as TRMURMRR.

```
            EXTREMELY IMPORTANT NOTE FOR VSE USERS
                        DO NOT IGNORE
                    SEE NOTE ON SECTION
```

```
* $$ JOB JNM=TRMURMRR
* $$ LST CLASS=A
// JOB TRMURMRR
// OPTION PARTDUMP
// DLBL IJSYSUC,'VSAM.USER.CATALOG',,VSAM  <== VSAM USER CATALOG
// DLBL TRMSLIB,'TRMS.LIBRARY',,VSAM        <== TRMS LIBRARY
// ASSGN SYS006,SYSLST      SYSPRINT
// DLBL TRMREMO,'TRMS.rel#.RRDS###',,VSAM  <== RRDS TO BE REMOVED
/*
/*    TRMREMO DLBL DEFINES THE SPECIFIC TRMS DATA VSAM FILE
/*    TO BE REMOVED FROM THE EXISTING Database CONTROLLED
/*    BY THE LOCK FILE DEFINED BY THE TRMSLOC DLBL.
/*
// DLBL TRMSLOC,'TRMS.rel#.LOCK',,VSAM      <== LOCK ==
/*
/*    TRMSLOC DLBL DEFINES THE TRMS LOCK VSAM FILE
/*
// DLBL TRMSKSD,'TRMS.rel#.KSDS',,VSAM      <== KSDS ==
/*
/*    TRMSKSD DLBL DEFINES THE TRMS KSDS VSAM FILE
/*
// LIBDEF *,SEARCH=TRMSLIB.TRMS
* *** JOB=TRMURMRR              STEP 1 OF 1
// EXEC TRMURMRR,SIZE=100K
/*
/&
* $$ EOJ
```

Figure 135 Sample VSE JCL - TRMURMRR (Remove RRDS file)

3.5.6 Return Codes

RC=3   Getmain error or allocation error, review messages in SYSPRINT.

TRMSA010E Open error on SYSPRINT or open error on TRMSLOCK.

TRMS309E   LOCK file or RRDS DSN not found.

TRMS343E   Unable to get exclusive enqueue.

NOTE: Refer to TRMS Messages and Codes Manual for more information.

3.5.7 Requisites

 The RRDS being removed must be in pending removal status. Run the TRMUMTRR program to empty the RRDS and place it in pending removal status before running this program.

3.5.8 Reports

3.5.8.1 Sample TRMURMRR Empty RRDS Report

RPTID=TRMURMRR - EMPTY RRDS   EMPTY RRDS PRIOR TO REMOVAL   TIME=16:09:21   DATE=09 JUN 2003.160   PAGE   1
TRMS T60A DATABASE   *** LICENSED BY *** TRMS (C) 1987-2003, CSI INC.   RELEASE 6.0A-00
                                                    **** SEA INC. **** 1230 HEMPSTEAD TPK., FRANKLIN SQUARE,   NY 11010

TRMS318I - RRDS VFIL.C203.T60A.RRDS001 HAS BEEN REMOVED FROM THE DATABASE

3.5.9 Other Considerations

None

3.6 DBAJRECO - Dead Block Recovery

		Description	Notes
3.6	Job Name	DBAJRECO	
3.6.1	Title/Description		
3.6.2	DBAJRECO Job Components		
	JCL		
	Procedure		
	Primary Program		
3.6.3	Controls and Parameters		
3.6.4	Options		
3.6.5	Samples		
3.6.6	Return Codes		
3.6.7	Requisites		
3.6.8	Reports		
3.6.9	Other Considerations		

3.6.1 TRMS Dead Block Recovery Program, TRMRECOV

WARNING: It is very important that nothing is running against the database while Dead Block Recovery is running. Please make sure all accumulation tasks and other jobs that run against the TRMS database are temporarily shut down. Online access should also be stopped.

These jobs include:

> - all TRMS accumulation tasks (including secondary tasks)
> - TRM$ subsystem tasks
> - any TRMS JCL (especially archive)

TRMRECOV will validate chains, recover dead blocks and validate/recover/clean errors in a database. Dead Blocks occur in a database when restores abend, or accumulation tasks abends. All task, restores, accumulations, etc., must be quiest before recover can be run. All accumulation tasks, ie., restores, any database update jobs, database maintenance, must be stopped prior to and during the execution of a recovery job.

The following JCL is used to recover or validate a database. A copy resides in the TRMS.INSTLIB(DBAJRECO). The major Enq. Name "TRMMAINT" minor "LOCK'DSN" must be passed by GRS for all machines/LPARS with access to the database.

3.6.2 TRMRECOV Job Components

3.6.2.1 Controlling Job DD's

The following DD Names are used by TRMRECOV to perform recovery or validation of a TRMS database.

DD Name	Explanation
STEPLIB	Assign the STEPLIB DD to the TRMS loadlib.
SYSPRINT	Recovery Control Statement and Error Report. Normally a Sysout dataset, BLKSIZE (133), LRECL (133) RECFM (FBA). See the TRMRECOV report in Section 5.
TRMSWORK	Work file for Recover/Validate process. The DCB information is provided in the recovery program. A space amount of (CYL,(2,2)) should be adequate.
TRMSLOCK	Defines the LOCK CLUSTER DATASET name of the database to be recovered.
SYSIN	Control Statement Input File for the function to be handled by TRMRECOV.
SYSUDUMP	A file used for error processing.
SYSOUT	An output statement file (?)

3.6.3 Controls and Parameters

3.6.3.1 Control Statement(s)

The verbs function parameter is a positional parameter and starts in column 1 to 16.

Parameter		
	Subparameter	**Explanation**
RECOVER		This is a verb or action parameter for the TRMRECOV Control Statement. This verb alone indicates to recover all Dead Blocks for a database solely on the Hi-Performance Blocks for each report. This parameter used as a stand alone parameter can cause problems if there is a broken chain in an RRDS Data File.
Option	VALIDATE	This subparameter of RECOVER is used to indicate that TRMRECOV should validate the report block chains as it reads through the Hi-Performance Block. With this subparameter specified, recovery will not occur if an error is found while processing the database.
Option	CLEANERRORS	This subparameter of recover is used to indicate that TRMRECOV should validate the report block chains prior to recovery. If there are reports with bad Hi-Performance Block Pointers or bad report chains, TRMRECOV will delete the report key records from the KSDS and then recover the Database. The reports in error will be identified and deleted from the database. The report(s) will no longer be accessible in the TRMS database.
Option	*VALIDATE*	This is a verb or action parameter for the TRMRECOV control statement. This verb indicates to TRMRECOV that all of the chains are to be validated for both Hi-Performance and Report chains for each report in the database.

Option	PRINT= ERROR/ALL	This subparameter of VALIDATE indicates to TRMRECOV to print only ERROR chains encountered or ALL chains in the database for reports. **NOTE:** PRINT=ALL could produce a large amount of output. DEFAULT: Print= Error.
Option	REPORTS=	This subparameter of VALIDATE is used to limit the report(s) to be validated. This is a generic value from 1 to 8 characters. DEFAULT: All Reports
Option	RCYCLE=	This subparameter of validate is used to indicate a particular report cycle # to be validated. This can be used in conjunction with Report= to limit the I/O required to accomplish the validate. DEFAULT: All Report Cycles
Examples		The VALIDATE parameter and its associated sub-parameters DO NOT make any changes to the TRMS data base. This verb is a report only function. It can be used first as a prediction type report.

Examples

The VALIDATE parameter and its associated sub-parameters DO NOT make any changes to the TRMS data base. This verb is a report only function. It can be used first as a prediction type report.

VALIDATE PRINT=ERROR
VALIDATE PRINT=ERROR,REPORTS=ACCT0103
VALIDATE
PRINT=ERROR,REPORTS=ACCT0103,RCYCLE=582
VALIDATE PRINT=ALL

Recovery changes are made to the TRMS data base, if necessary, when the RECOVER parameter is used alone or with its associated sub-parameter CLEANERRORS. RECOVER with a sub-parameter of VALIDATE does NOT make any changes to the TRMS database. It is suggested that RECOVER always be used with one of its two sub-parameters.

RECOVER VALIDATE
RECOVER CLEANERRORS

3.6.4 Options

See Controls Statements Section for processing options.

3.6.5 Sample JCL

3.6.5.1 Sample MVS JCL - DBAJRECO - TRMRECOV JCL

```
//TRMSCOV JOB (YOUR,ACCT),'RECOVER DBASE',MSGCLASS=T,
//      CLASS=X,TIME=1440,NOTIFY=&SYSUID
//STEP001   EXEC PGM=TRMRECOV,REGION=0M
//*
//*      SAMPLE OF THE DEAD BLOCK RECOVER JCL
//*
//STEPLIB  DD  DSN=TRMS.REL#.LOADLIB,DISP=SHR      <==CHANGE
//*
//SYSUDUMP  DD  SYSOUT=*
//SYSPRINT  DD  SYSOUT=*
//SYSOUT    DD  SYSOUT=*
//*
//TRMSLOCK  DD DISP=SHR,DSNAME=TRMS.REL#.LOCK ,    <==CHANGE
//TRMSWORK  DD UNIT=SYSALLDA,SPACE=(CYL,(5,5))
//*
//SAMPLES   DD  * (SAMPLE CONTROL STATEMENTS - SEE ADDENDUM/MANUAL)
*
   VALIDATE PRINT=ERROR   (PRINT IS LIMITED TO ONLY ERRORS)
   VALIDATE PRINT=ALL     (CREATE HIGH VOLUME OF PRINT - NOT RECOMMENDED)
*                             "YOURCALL" IS A SPECIFIC REPORT ID
*                             l
*                             V
   VALIDATE PRINT=ALL,REPORT=YOURCALL,RCYCLE=#####
*                             l
*                             V----------------
*                                        "###### IS A SPECIFIC CYCLE OF A REPORT ID
   RECOVER
   RECOVER VALIDATE
   RECOVER CLEANERRORS
*
//SYSIN  DD *
   VALIDATE PRINT=ERROR
```

Figure 136 Sample MVS JCL - TRMRECOV

3.6.6 TRMRECOV Return Codes

RC=0   X'00'   TRMRECOV completed with No Errors

RC=4   X'04'   Errors have occurred but were acceptable for processing

RC=8   X'08'   Errors occurred during processing, TRMRECOV terminated
                        with errors.

RC=32 X'20'   Index for a Hi-Performance Block indicated a Data File not
                        defined in the TRMS LOCK File

RC=36 X'24'   A Hi-Performance Block was outside the maximum blocks
                        of an RRDS Data File total block number.

RC=40 X'28'	A Hi-Performance block pointer was zero for an RRDS Data File Block.
RC=44 X'2C'	A report blocks Hi-Performance Block Pointer Index indicated a Data File not defined in the TRMS LOCK File.
RC=48 X'30'	A report block in the Hi-Performance record was outside the maximum blocks of the RRDS Data File total Block Number.
RC=52 X'34'	A reports Hi-Performance Block Pointer was zero for an RRDS Data File Block.
RC=56 X'38'	A Hi-Performance Block Record was invalid for a report.
RC=## X'##'	Return Code from the TRMS Access Method. (See the TRMS Access Method Section in the Installation and Programmers Guide for error codes).

NOTE: Refer to TRMS Messages and Codes Manual for more information

3.6.7 Requisites

WARNING: It is very important that nothing is running against the database while Dead Block Recovery is running. Please make sure all accumulation tasks and other jobs that run against the TRMS database are temporarily shut down. Online access should also be stopped.

These jobs include:

- all TRMS accumulation tasks (including secondary tasks)
- TRM$ subsystem tasks
- any TRMS JCL (especially archive)

3.6.8 Sample Dead Block Recovery Reports

The VALIDATE parameter and its subparameters produce a report that shows invalid HI-Performance and Report chains found in the database. The reports below are an example of theVALIDATE type of report created by TRMRECOV. No changes are made to the TRMS database.

3.6.8.1 Sample TRMRECOV Reports Using "VALIDATE PRINT=ERRORS"

```
RPTID=TRMRECOV - TRMS DBASE UTILITY   CONTROL STATEMENTS AND ERROR RPT   TIME=13:10:21  DATE=10 JUN 2003.161  PAGE  1
KAYS T60A DATABASE                                    *** LICENSED BY *** TRMS (C) 1987-2003, CSI INC.           RELEASE 6.0A-0(
                                                      **** SEA  INC. **** 1230 HEMPSTEAD TPK.,  FRANKLIN SQUARE, NY      11(

TRMS238I - VALIDATE CONTROL STATEMENT VALIDATED - VALIDATE PRINT=ERROR
RPTID=TRMRECOV - TRMS DBASE UTILITY   CONTROL STATEMENTS AND ERROR RPT   TIME=13:10:21  DATE=10 JUN 2003.161  PAGE  2
KAYS T60A DATABASE                                    *** LICENSED BY *** TRMS (C) 1987-2003, CSI INC.           RELEASE 6.0A-0(
                                                      **** SEA  INC. **** 1230 HEMPSTEAD TPK.,  FRANKLIN SQUARE, NY   11(

TRMS089I - REPORT RECORDS PROCESSED FOR RECOVERY= 104
TRMS387I - BLOCKS TOTAL=  1800, PREV. USED=   826, ACCOUNTED FOR=   826, INDEX#= 1, DSN=VFIL.C203.T60A.RRDS002
TRMS622I - VALIDATE FUNCTION COMPLETED RC X'00000000'

TRMS242I - NUMBER OF CONTROL STATEMENTS READ:   1                                          .
TRMS243I - NUMBER OF ERRORS ENCOUNTERED:          0
                         ** END OF UTILITY LOG REPORT **
```

3.6.8.2 Sample TRMRECOV Reports using "RECOVER CLEANERRORS"

The RECOVER parameter and its subparameters produce a report that shows:

    #1 - invalid HI-Performance and Report chains found in the database
    #2 - what action(s) has been taken to correct the problem

The reports below are an example of the RECOVER type of report created by TRMRECOV. Corrections have
been made to the TRMS database as noted in the report.

```
RPTID=TRMRECOV - TRMS DBASE UTILITY  CONTROL STATEMENTS AND ERROR RPT  TIME=13:09:09   DATE=10 JUN 2003.161  PAGE  1
TRMS T60A DATABASE                                    *** LICENSED BY *** TRMS (C) 1987-2003, CSI INC.            RELEASE 6.0A-00
                                                      **** SEA  INC. **** 1230 HEMPSTEAD TPK.,  FRANKLIN SQUARE,  NY    11010

TRMS238I - RECOVER CONTROL STATEMENT VALIDATED - RECOVER CLEANERRORS
TRMS386C (TRMRECOH) MISSING VALID HIPER POINTER RECORDS FOR REPORT "C203TPRP", CYCLE(78)
TRMS360C (TRMRECOH) "$AMGR" FAILED IN PROGRAM "TRMRECOH" AT LOCATION "LOCA0451"
TRMS361C (TRMRECOH) $AM MODULE "TRMSAMGR" LOCATION "$AMGR030"
TRMS362C (TRMRECOH) R15=X'8C' FDBK=X'00000048' R0=X'00' RECLEN=X'000000FA'
TRMS386C (TRMRECO2) MISSING ** TRMRECOH ERR. * RECORDS FOR REPORT "C203TPRP", CYCLE(X'0000004E')
TRMS089I - REPORT RECORDS PROCESSED FOR DELETION= 1

RPTID=TRMRECOV - TRMS DBASE UTILITY   CONTROL STATEMENTS AND ERROR RPT    TIME=13:09:09  DATE=10 JUN 2003.161     PAGE  2
TRMS T60A DATABASE                                    *** LICENSED BY *** TRMS (C) 1987-2003, CSI INC.            RELEASE 6.0A-00
                                                      **** SEA  INC. **** 1230 HEMPSTEAD TPK.,  FRANKLIN SQUARE, NY    11010

TRMS089I - REPORT RECORDS PROCESSED FOR RECOVERY= 104
TRMS387I - BLOCKS TOTAL=  1800, PREV. USED=   826, ACCOUNTED FOR=   826, INDEX#= 1, DSN=VFIL.C203.T60A.RRDS002
TRMS388I - RECOVERED BLOCKS=  0, CURRENT USED=   826, PREVIOUS USED=   826, DSN=VFIL.C203.T60A.RRDS002
TRMS389I - TOTAL RECOVERED    0
TRMS622I - RECOVER FUNCTION COMPLETED RC X'00000004'
TRMS242I - NUMBER OF CONTROL STATEMENTS READ:   1
TRMS243I - NUMBER OF ERRORS ENCOUNTERED:            1
                         ** END OF UTILITY LOG REPORT **
```

3.6.9 Other Considerations

TRMRECOV will validate chains, recover dead blocks and validate/recover/clean errors in a database. Dead Blocks occur in a database when restores abend, or accumulation tasks abends. All task, restores, accumulations, etc., must be quiet before recover can be run. All accumulation tasks, ie., restores, any database update jobs, database maintenance, must be stopped prior to and during the execution of a recovery job.

4 TRMS Report Functions

	AutoSub	JobTYPE/FREQUENCY	JOB Name	Description	Requisite
4		**TRMS Report Functions**			
4.1	No	TRPT-R	TRMJGPRT	Print TRMS Definitions	
4.2	No	TRPT-R	RPTJXREF	Definition Cross Reference	
4.3	No	TRPT-R	RPTJCONT	Archive/DB Report Content	
4.4	No	TRPT-R	RPTJRUSE	RRDS Utilization	

4.1 TRMGBPRT - Global Print

		Description	Notes
4.1	Job Name	TRMGBPRT	
4.1.1	Title/Description		
4.1.2	TRMGBPRT Job Components		
	JCL		
	Procedure		
	Primary Program		
4.1.3	Controls and Parameters		
4.1.4	Options		
4.1.5	Samples		
4.1.6	Return Codes		
4.1.7	Requisites		
4.1.8	Reports		
4.1.9	Other Considerations		

4.1.1 Global Print

This program can be executed with the TRMS accumulation task either Active or Inactive. The only requirement is that the database is already formatted before this program is executed.

The program Prints or Exports definitions based on SYSIN control statements described the Control Statements Section.

NOTE: PRINT and EXPORT share all 'TYPE=' parameters and all sub-parameters.

4.1.2 TRMGBPRT Job Components

4.1.2.1 PRINT

When the PRINT parameter is used, the Batch Utility Program is executed to Print a detailed report of TRMS database definitions.

4.1.3 Controls and Parameters

4.1.3.1 Controlling Job DD's

The following DD names are required for the execution of TRMGBPRT using the **MVS** JCL:

DD Name	Explanation
STEPLIB	The STEPLIB DD is used to define the TRMS loadlib.
TRMSKSDS	Required for the TRMGBPRT program. Defines the TRMS KSDS Cluster of the TRMS database.
SYSPRINT	Required for the display of the requested definitions from the TRMS database. Normally a Sysout dataset, BLKSIZE(133), LRECL(133) RECFM(FA).
TRMSWORK	Required for "EXPORT" parameter specification. This file contains the exported definitions generated from export.
TRMSWRK2	Required for "EXPORT" parameter specifications. This field contains record delete the exported definitions that are SYSIN to the "TRMGBDEL" Program Install member 'DBAJDELE'.
SYSIN	Required for TRMGBPRT to supply the control statement for the desired displays. The SYSIN DD can define any dataset with an LRECL of 80 or can define an instream dataset.

TRMERROR, SYSUDUMP and ABNLIGNR are error processing DD statements.

4.1.3.2 Controlling Job DD's

The following FILE names are required for the execution of TRMGBPRT when using the **VSE** JCL:

FILE Name	Explanation
TRMSLIB	The TRMS loadlib.
TRMSKSD	Required for the TRMGBPRT program. Defines the TRMS KSDS Cluster of the TRMS database.
SYSPRINT	Required for the display of the requested definitions from the TRMS database. Assign SYS006 to a print device.
SYSIN	Required for TRMGBPRT to supply the control statement for the desired displays. The SYSIN FILE can define any dataset with an LRECL of 80 or may define an instream dataset. If not in stream, the Filename must be "SYSINP". Must be 80 byte unblocked records. If instream, SYS031 must be assigned. If on disk, the sys-number on the extent statement must be assigned. If not, SYS031 will be used and must be assigned.

4.1.3.3 Control Statements - TRMGBPRT

The Control statements can begin in any column from 1 - 72. Columns 73-80 are ignored and can have sequence numbers if desired.

The format of a control statement is:

PARAMETER TYPE=[value],SUB-PARAMETER=[value]

Examples:
```
PRINT       TYPE=ALL
EXPORT      TYPE=RECIPIENT,ID=USER0100
```

Each control statement consists of one Parameter, one TYPE=[value], and optional TYPE specific sub-parameters. Any number of control statements can be included in the SYSIN. If a control statement is repeated, the function is repeated. An asterisk in position 1 of a control statement denotes a comment line.

The sub-parameters, NAME=, ID=, and GROUP=, normally specify generic values. When any of the sub-parameters are given a value with fewer than eight characters, the program returns all records that match the

value when applied as a prefix. For example, if ID=C10 is supplied, all IDs that begin with C10 will be contained in the output. A period at the end of a value of less than eight characters limits the value to the number of characters before the period. For example, if "ID=C100." is specified, only the ID'C100' will be contained in the output.

Parameters	Explanation
PRINT	Print a detailed report of the definitions contained in the TRMS database.
EXPORT	Extract TRMS definitions into character format export records. (Refer to the **TRMS IMPORT** Section of this Manual for information on the records created by EXPORT). TYPE=GOLBAL is not Exportable. All other TYPE= values are allowed.

Parameter **Sub-parameter**	Explanation
TYPE=ALL	Processes all of the current definitions for the TRMS database. There are no sub-parameters.
TYPE=GLOBAL	Print the current Global definitions for the TRMS database. This TYPE is only valid for the PRINT Function Parameter. Global records can not be EXPORTed. There are no sub-parameters.
TYPE=MAILDROP	Processes the current Maildrop definitions in the TRMS database.
,NAME=	This sub-parameter limits the Maildrop definitions that are processed to those that match the value supplied. The "NAME=" value can be from 1-8 characters.
TYPE=RECIPIENT or TYPE=USERID	Processes all current Recipient definitions for the TRMS Recipients.
,ID=	This sub-parameter limits the Recipient definitions processed to those that match the value supplied. The "ID=" value can be from 1-8 characters.

TYPE=REPORTS	Processes all of the current Report definitions in the TRMS database.
,NAME=	This sub-parameter limits the Report definitions processed to those that match the value supplied. The "NAME=" value can be from 1-8 characters.
TYPE=TRIGGERS	Processes all of the current Trigger definitions for the TRMS database.
,NAME=	This sub-parameter limits the Trigger definitions processed to those that match the values supplied. The "NAME=" value can be from 1-8 characters.
TYPE=CALENDARS	Processes all of the current Calendar definitions for the TRMS database.
,NAME=	This sub-parameter limits the Calendar definitions processed to those that match the value supplied. The "NAME=" value can be from 1-8 characters.
TYPE=DISTRIBUTION	Processes all of the current Distribution definitions for the TRMS database.
,NAME=	This sub-parameter limits the Distribution definitions processed to those that match the value supplied. The "NAME=" value can be from 1-8 characters.
,ID=	This sub-parameter limits the Distribution definitions processed to those that match the Recipient value supplied. The "ID=" value can be from 1-8 characters.
,GROUP=	This sub-parameter limits the Distribution definitions processed to those that match the Group value supplied. The "GROUP=" value can be from 1-8 characters.
TYPE=RESTDSN	Processes all of the current Archive DSN/Volume association Definitions in the TRMS database.
,DSN=	This sub-parameter limits the DSN/Volume definitions processed to those that match the value supplied. The "DSN=" value can be up to 44 characters.

TYPE=ACTDIS	Processes all of the current Action List, TYPE=DISTLST (Distribution List) definitions in the TRMS database.
,NAME=	This sub-parameter limits the DISTLST definitions processed to those that match the value supplied. The "NAME=" value can be from 1-8 characters.
TYPE=ACTACC	Processes all of the current Action List TYPE=ACCLST (Access List) definitions in the TRMS database.
,NAME=	This sub-parameter limits the Access List definitions processed to those that match the value supplied. The "NAME=" value can be from 1-8 characters.
TYPE=ACTALI	Processes all of the current Action List, TYPE=DEFALIAS (Alias definitions) in the TRMS database.
,COMPONENT=	This sub-parameter is the three character component id. They are: MLD Maildrop RCP Recipient RPT Report TRG Trigger DST Distribution ACL Action List CAL Calendar EXC External QRL Query List
,NAME=	This sub-parameter limits the Alias definitions processed to those that match the value supplied. **COMPONENT is required when using NAME.** The "NAME=" value can be from 1-8 characters.
TYPE=ACTREQ	Processes all of the current Action List, TYPE=REQSLST (Requirement List) definitions in the TRMS database.
,NAME=	This sub-parameter limits the Requirement List definitions processed to those that match the value supplied. The "NAME=" value can be from 1-8 characters.

TYPE=EXTDJDE		Processes all of the current EXTERNAL,TYPE=DJDE (DJDE) definitions for the TRMS database.
	,NAME=	This sub-parameter limits the DJDE definitions processed to those that match the values supplied. The "NAME=" value can be from 1-8 characters.
TYPE=EXTTRMS		Processes all of the current EXTERNAL,TYPE=TRMS (TRMS Insertion) definitions for the TRMS database.
	,NAME=	This sub-parameter limits the TRMS Insertion definitions processed to those that match the value supplied. The "NAME=" value can be from 1-8 characters.
TYPE=EXTDSN		Processes all of the current EXTRENAL,TYPE=DSN (DSN Distribution) definitions for the TRMS database.
	,NAME=	This sub-parameter limits the DSN definitions processed to those that match the value supplied. The "NAME=" value can be from 1-8 characters.
TYPE=EXTJOB		Processes all of the current EXTERNAL,TYPE=JOB (JOB) Definitions in the TRMS database.
	,NAME=	This sub-parameter limits the JOB INFO definitions processed to those that match the value supplied. The "NAME=" value can be from 1 - 8 characters.
TYPE=EXTSYSO		Processes all of the current EXTERNAL,TYPE=SYSO (SYSOUT) definitions in the TRMS database.
	,NAME=	This sub-parameter limits the SYSOUT definitions processed to those that match the value supplied. The "NAME=" value can be from 1-8 characters.

TYPE=EXTXTN	Processes all of the current EXTERNAL,TYPE=XTRN (External Address) definitions in the TRMS database.
,NAME=	This sub-parameter limits the External Address definitions processed to those that match the value supplied. The "NAME=" value can be from 1-8 characters.
TYPE=QRYIDX	Processes all of the current QUERY RULE,TYPE=INDEX (Report Index) definitions in the TRMS database.
,NAME=	This sub-parameter limits the Report Index definitions processed to those that match the value supplied. The "NAME=" value can be from 1-8 characters.
TYPE=QRYBOC	Processes all of the current QUERY RULE,TYPE=BOC (Break On Change) definitions in the TRMS database.
,NAME=	This sub-parameter limits the Break On Change definitions processed to those that match the value supplied. The "NAME=" value can be from 1-8 characters.
TYPE=QRYPAR	Processes all of the current QUERY RULE,TYPE=PARTIAL (Partial Breakout) definitions for the TRMS database.
,NAME=	This sub-parameter limits the Partial Breakout definitions processed to those that match the values supplied. The "NAME=" value can be from 1-8 characters.
TYPE=QRYWIN	Processes all of the current View/Print Window definitions for the TRMS database.
,NAME=	This sub-parameter limits the View/Print Window definitions processed to those that match the value supplied. The "NAME=" value can be from 1-8 characters.

TYPE=HELPDE	Processes all of the current Default Help definitions for the TRMS database.
,NAME=	This sub-parameter limits the Default Help definitions processed to those that match the value supplied. The "NAME=" value can be from 1-8 characters.
TYPE=HELPSI	Processes all of the current Site Help definitions in the TRMS database.
,NAME=	This sub-parameter limits the Site Help definitions processed to those that match the value supplied. The "NAME=" value can be from 1 - 8 characters.
TYPE=NOTESI	Processes all of the current Default Note definitions in the TRMS database.
,NAME=	This sub-parameter limits the Default Note definitions processed to those that match the value supplied. The "NAME=" value can be from 1-8 characters.
TYPE=NOTEAC	Processes all of the current Active Note definitions in the TRMS database.
,NAME=	This sub-parameter limits the Active Note definitions processed to those that match the value supplied. The "NAME=" value can be from 1-8 characters.
TYPE=MASSCHG	Processes all of the current Utilities - Mass Change definitions in the TRMS database.
,NAME=	This sub-parameter limits the Mass Change definitions processed to those that match the value supplied. The "NAME=" value can be from 1-8 characters.

TRMERROR, SYSUDUMP and ABNLIGNR are error processing DD statements.

4.1.4 Options

Refer to Control Statements

4.1.5 Sample JCL

4.1.5.1 Sample MVS JCL - TRMGBPRT

Sample **MVS** JCL for the TRMGBPRT execution is shown below and
is also provided in the TRMS INSTLIB as member TRMJBPRT.

```
//TRMJGRPT JOB ('ACCOUNTING INFORMATION),'TRMS GLOBAL PRINT'
//           MSGCLASS=T,CLASS=A,MSGLEVEL=1,
//           NOTIFY=&SYSUID
//*
//STEP1     EXEC PGM=TRMGBPRT,REGION=0M
//STEPLIB   DD  DSN=TRMS.REL#.LOADLIB,DISP=SHR    YOUR TRMS LOADLIB
//TRMSKSDS DD  DSN=TRMS.REL#.KSDS,DISP=SHR        YOUR TRMS KSDS NAME
//           THIS JCL WILL PRODUCE A REPORT THAT DISPLAYS DEFINITIONS
//           THAT ARE CURRENTLY IN EFFECT FOR THE TRMS DATABASE.  THE
//           TRMSKSDS DD STATEMENT NAMES THE FILE WHERE THE DEFINITIONS
//           ARE STORED.
//SYSPRINT DD  SYSOUT=*
//TRMERROR DD  SYSOUT=*
//SYSUDUMP DD  SYSOUT=*
//ABNLIGNR DD  DUMMY
//SYSIN    DD  *
PRINT TYPE=ALL
//*PRINT TYPE=GLOBAL
//*PRINT TYPE=MAILDROP
//*PRINT TYPE=USERID=TRMSUSPN
//*PRINT TYPE=REPORTS
//*PRINT TYPE=TRIGGERS
//*PRINT TYPE=DISTRIBUTION
//*PRINT TYPE=DISTRIBUTION,NAME=TRMSUSPN
//*PRINT TYPE=CALENDAR,NAME=ARCHIVE
```

Figure 137 Sample MVS JCL - TRMJBPRT (Global Print)

4.1.5.2 Sample VSE JCL - TRMGBPRT

Sample **VSE** JCL for the TRMGBPRT execution is shown below and is also provided in the TRMS INSTLIB as member TRMGBPRT.JCL.

```
  * $$ JOB JNM=TRMSGPRT
  * $$ LST CLASS=A
  // JOB TRMSGPRT
  // OPTION PARTDUMP
  // DLBL IJSYSUC,'VSAM.USER.CATALOG',,VSAM        <---- VSAM USER CATALOG
  // DLBL TRMSLIB,'TRMS.LIBRARY',,VSAM             <---- TRMS LIBRARY
  /*            THIS JCL WILL PRODUCE A REPORT THAT DISPLAYS THE
  /*            ELEMENTS AS THEY ARE CURRENTLY IN EFFECT FOR
  /*            THE TRMS' DATABASE DEFINED BY THE TRMSKSD
  /*            DD STATEMENT.  (SEE TRMSLBLS FOR THAT STATEMENT)
  /*
  // ASSGN SYS006,SYSLST    SYSPRINT
  // ASSGN SYS031,READER    SYSINP
  // LIBDEF *,SEARCH=TRMSLIB.REL#.INST
  // EXEC PROC=TRMSLBLS
  * *** JOB=TRMSGPRT  (TRMGBPRT)   STEP 1 OF 1
  // EXEC TRMGBPRT,SIZE=128K
  TYPE=   (a specific type or "ALL")
  /&
  * $$ EOJ
```

Figure 138 Sample VSE JCL - TRMGBPRT (Global Print)

4.1.6 Return Codes

RC=8   Bad Parameter or Operand is too long

NOTE: Refer to TRMS Messages and Codes Manual for more information

4.1.7 Requisites

Must have a TRMS Database.

4.1.8 Reports

SYSPRINT

4.1.9 Other Considerations

None

4.2 Printing Database Cross Reference Reports

		Description	Notes
4.2	Job Name	RPTJXREF	
4.2.1	Title/Description		
4.2.2	RPTJXREF Job Components		
	JCL		
	Procedure		
	Primary Program		
4.2.3	Controls and Parameters		
4.2.4	Options		
4.2.5	Samples		
4.2.6	Return Codes		
4.2.7	Requisites		
4.2.8	Reports		
4.2.9	Other Considerations		

4.2.1 Database XREF Reports

Database Cross Reference Reports are printed by the TRMUTIL program. These reports show either reports by recipients or recipients by reports. The job that performs the cross reference print function is not automatically submitted by TRMS. The job must be submitted manually, if desired.

4.2.2 RPTJXREF Job Components

4.2.2.1 Controlling Job DD's

The following DD names are used by TRMUTIL to perform a Cross Reference report of the TRMS database:

DD Name	**Explanation**
STEPLIB	Assign the STEPLIB DD to the TRMS loadlib.
SYSPRINT	Required for the Control statement and Error report created by the Cross Reference function. Normally

a Sysout dataset, BLKSIZE(133), LRECL(133) RECFM(FA).

TRMSRPTS	Required for the reports created by the Cross Reference function. Normally a Sysout dataset, BLKSIZE(133), LRECL(133) RECFM(FA).
TRMSWORK	Required work file for the Cross Reference function. DCB information is supplied by program. A space amount of (CYL,(10,5)) should be adequate.
SORTIN	Required for the Cross Reference function. Must reference same dataset as TRMSWORK.
SORTOUT	Required for the Cross Reference function. Must reference same dataset as TRMSWORK.
SORTWK01 SORTWK02 SORTWK03	Required for the Cross Reference function.
SYSOUT	Required for TRMUTIL.
TRMSLOCK	Required for the Cross Reference function. The name of the TRMS LOCK cluster.
SYSIN	Required for TRMUTIL to supply the control statement for the desired function. There are two valid parameters: XREF,XTYPE=REPTXREF - will produce a report of all recipients for each report in the database. XREF,XTYPE=USERXREF will produce a report of all reports for each recipient in the database.
SYSUDUMP and ABLIGNR	Used for error processing

4.2.2.2 Controlling Job DD's

The following FILE names are used by TRMUTIL to perform a Cross Reference report of the TRMS database:

FILE Name	Explanation
TRMSLIB	The TRMS loadlib.
SYSPRINT	Required for the Control statement and Error report created by the Cross Reference function. Assign SYS006 to a print device.
TRMSRPTS	Required for the reports created by the Cross Reference function. Assign SYS009 to a print device.
TRMWORK	Required work file for unload function DTF information is supplied by program. A space amount of (CYL,(10,5)) should be adequate.
TRMSLOC	Required for the unload function. Defines the TRMS LOCK cluster.
SORTWK1 SORTWK2 SORTWK3	Required for the Cross Reference function.
SYSIN	Required for TRMUTIL to supply the control statement for the desired displays. The SYSIN FILE can define any dataset with an LRECL of 80 or may define an instream dataset. If not in stream, the filename must be "SYSINP". Must be 80 byte unblocked records. If instream, SYS031 must be assigned. If on disk, the sys-number on the extent statements must be assigned. If not SYS031 will be used and must be assigned.

4.2.3 Controls and Parameters

None

4.2.4 Options

N/A

4.2.5 Sample JCL

4.2.5.1 Sample MVS JCL - Cross Reference

Sample MVS JCL for the TRMUTIL execution for the Cross
Reference Facility is shown below and is also provided in the TRMS
INSTLIB as member RPTJXREF (which executes procedure
RPTPXREF).

```
 //RPTJXREF JOB (ACCOUNTING),'XREF JOB',MSGCLASS=T,
 //         CLASS=A,MSGLEVEL=1,NOTIFY=&SYSUID
 //TRMSXREF EXEC RPTPXREF,OUT=A
//*
//* THE FIRST COMMENTED CONTROL STATEMENTS WILL PRODUCE A
 //* REPORT OF ALL RECIPIENTS FOR EACH REPORT IN THE DATABASE.
 //*
 //* THE SECOND COMMENTED CONTROL STATEMENT WILL PRODUCE A REPORT
 //* OF ALL REPORTS FOR EACH RECIPIENT IN THE DATABASE.
 //*
 //TRMSUTIL.SYSIN DD*
//*XREF,XTYPE=REPTXREF
 //*XREF,XTYPE=USERXREF
 //SYSPRINT DD  SYSOUT=&OUT
```

Figure 139 Sample MVS JCL - Cross Reference Report, Member RPTJXREF

The Sample MVS JCL above will execute the TRMUTIL Procedure (RPTRXREF) below to produce a Cross Reference Report.

```
//RPTPXREF PROC OUT=A
//TRMSUTIL EXEC PGM=TRMUTIL,REGION=1024K
//STEPLIB  DD DSN=TRMS.REL#.LOADLIB,DISP=SHR
//*
//*       CROSS REFERENCE REPORTS
//*
//SYSPRINT DD   SYSOUT=&OUT
//TRMSRPTS DD   SYSOUT=&OUT
//*
//*       WORK FILE FOR CROSS REFERENCE RUN
//*
//TRMSWORK DD   DSN=&&WORK,DISP=(,DELETE,DELETE),
//             UNIT=SYSDA,SPACE=(CYL,(10,5))
//*
//*       SORT FILES FOR REPORTS
//*       SORTIN AND SORTOUT MUST BE
//*       THE SAME DATASET AS TRMSWORK
//*
//SORTIN   DD   DSN=*.TRMSWORK,DISP=SHR,
//             VOL=REF=*.TRMSWORK
//SORTOUT  DD   DSN=*.TRMSWORK,DISP=SHR,
//             VOL=REF=*.TRMSWORK
//SORTWK01 DD   UNIT=SYSDA,SPACE=(CYL,5)
//SORTWK02 DD   UNIT=SYSDA,SPACE=(CYL,5)
//SORTWK03 DD   UNIT=SYSDA,SPACE=(CYL,5)
//SYSOUT   DD   SYSOUT=&OUT
//*
//*       TRMS VSAM FILES
//*
//*  THE TRMS LOCK DATASET CONTAINS THE NAMES OF THE KSDS
//*  AND RRDS(S) DATASETS AND ARE DYNAMICALLY ALLOCATED.
//*
//TRMSLOCK DD   DSN=TRMS.REL#.LOCK,DISP=SHR
//*
//SYSUDUMP DD   SYSOUT=&OUT
//*
//ABNLIGNR DD   DUMMY
```

Figure 140 Sample MVS Proc - Cross Reference, RPTPXREF

4.2.5.2 Sample VSE JCL - Cross Reference

Sample VSE JCL for the TRMUTIL execution for the Cross Reference
Facility is shown below and is also provided in the TRMS INSTLIB as
member TRMSXREF.JCL.

```
* $$ JOB JNM=TRMSXREF
* $$ LST CLASS=A
// JOB TRMSXREF
// OPTION PARTDUMP
// DLBL IJSYSUC,'VSAM USER.CATALOG',,VSAM      <---- VSAM USER CATALOG
// DLBL TRMSLIB,'TRMS.LIBRARY',,VSAM           <---- TRMS LIBRARY
// DLBL TRMWORK,'TRMSWORK',0,VSAM,RECORDS=8000,RECSIZE=4093
// EXTENT  ,XXXXXX                             <---- FILL IN VOLUME
// DLBL SORTWK1,'SORTWK',0,VSAM,RECORDS=10000,RECSIZE=4093,     C DISP=(,DELETE)
// EXTENT  ,XXXXXX                             <---- FILL IN VOLUME
// ASSGN SYS006,SYSLST       SYSPRINT
// ASSGN SYS009,SYSLST       TRMSRPTS
// ASSGN SYS031,READER       SYSINP
// LIBDEF *,SEARCH=TRMSLIB.REL#.INST
// EXEC PROC=TRMSLBLS
* *** JOB=TRMSXREF (TRMUTIL)   STEP  1 OF 1
// EXEC TRMUTIL,SIZE=70K
XREF
/*
/&
* $$ EOJ
```

Figure 141 Sample VSE JCL - Cross Reference

4.2.6 Return Codes

RC=8   Read error on KSDS

NOTE: Refer to TRMS Messages and Codes Manual for more information

4.2.7 Requisites

N/A

4.2.8 Sample Cross Reference Reports

Two general reports are produced for both XTYPEs , the Control Statements and
Error Report and the Control Summary Report. The first validates the SYSIN
control statement syntax. The second counts the SYSIN statements and gives the
number of errors encountered.

4.2.8.1 XREF Utility Report Summary

```
RPTID=TRMUTIL1 - TRMS UTILITY LOG    CONTROL STATEMENTS AND ERROR RPT  TIME=13:04:33   DATE=03 JUN 2003.154        PAGE   1
KAYS T60A DATABASE                                        *** LICENSED BY ***  TRMS (C) 1987-2003, CSI INC.       RELEASE 6.0A-00
                                                              **** SEA  INC. ****  1230 HEMPSTEAD TPK., FRANKLIN SQUARE, NY 11010


TRMS293I - XREF CONTROL STATEMENT VALIDATED - XREF,XTYPE=USERXREF
TRMS622I - XREF FUNCTION COMPLETED RC X'00000000'




RPTID=TRMUTIL2 - TRMS UTILITY LOG         CONTROL SUMMARY REPORT      TIME=13:04:33   DATE=03 JUN 2003.154        PAGE   2
KAYS T60A DATABASE                                        *** LICENSED BY ***  TRMS (C) 1987-2003, CSI INC.       RELEASE 6.0A-00
                                                              **** SEA  INC. ****  1230 HEMPSTEAD TPK., FRANKLIN SQUARE, NY 11010


TRMS242I - NUMBER OF CONTROL STATEMENTS READ:      1
TRMS243I - NUMBER OF ERRORS ENCOUNTERED:           0
                                                    ** END OF UTILITY LOG REPORT **
```

XREF Utility Reports

4.2.8.2 XREF Reports

Two types of XREF reports can be produced by using different SYSIN parameters.

XREF,XTYPE=USERXREF produces the " REPORTS Within RECIPIENTS " report shown below. XREF,XTYPE=REPTREF produces the " RECIPIENTS within REPORTS " second report shown below.

4.2.8.3 Reports Within Recipients, XTYPE=USERXREF

| | ---------------- REPORT ----------------- | | --- DISTRIBUTION ---- | | |
USERID	ID	LONG NAME	GRP. ID	TYP	TRIGGER
C203	BUY700MC	MR ROGERS REPORT	C203USER	V	ONLINE
	BUY700MC	MR ROGERS REPORT	PRINTED	S	NEWTRIGR
	C203DOL	DOLORES NEW2 REPORT	ONE	S	CLNDRTRG
	C203RPT	KAYSREPORT	GROUP1	S	CLNDRTRG
	C203TPRP	$AVRTRPR FOR LIBERTY MUTUAL	GROUP1	T	CLNDRTRG
	KAYSDOL	KAYSDOL TESTING MISSING DIST DEF	ONE	S	KAYQA
	R2	THE R2 REPORT	C203USER	V	ONLINE
DOLORES	TRMSUSPN	SUSPENSE REPORT LONG NAME	GROUP1	S	KAYSDOL
TRMSBKER	TRMSBKER	EXCEPTION REPORT LONG NAME	TRMSBKER	V	ONLINE
TRMSUSPN	TRMSUSPN	SUSPENSE REPORT LONG NAME	SUSPENSE	V	ONLINE

*** END OF REPORT ***

4.2.8.4 Recipients Within Reports, ETYPE=REPTXREF

| ---------------- REPORT ----------------- | | --- DISTRIBUTION ---- | | | |
ID	LONG NAME	USERID	GRP. ID	TYP	TRIGGER
BUY700MC	MR ROGERS REPORT	C203	C203USER	V	ONLINE
		C203	PRINTED	S	NEWTRIGR
C203DOL	DOLORES NEW2 REPORT	C203	ONE	S	CLNDRTRG
C203RPT	KAYSREPORT	C203	GROUP1	S	CLNDRTRG
C203TPRP	$AVRTRPR FOR LIBERTY MUTUAL	C203	GROUP1	T	CLNDRTRG
KAYSDOL	KAYSDOL TESTING MISSING DIST DEF	C203	ONE	S	KAYQA
R2	THE R2 REPORT	C203	C203USER	V	ONLINE
TRMSBKER	EXCEPTION REPORT LONG NAME	TRMSBKER	TRMSBKER	V	ONLINE
TRMSUSPN	SUSPENSE REPORT LONG NAME	DOLORES	GROUP1	S	KAYSDOL
		TRMSUSPN	SUSPENSE	V	ONLINE

*** END OF REPORT ***

4.3 RPTJCONT - Contents Reports

		Description	Notes
4.3	Job Name	RPTJCONT	
4.3.1	Title/Description		
4.3.2	RPTJCONT Job Components		
	JCL		
	Procedure		
	Primary Program		
4.3.3	Controls and Parameters		
4.3.4	Options		
4.3.5	Samples		
4.3.6	Return Codes		
4.3.7	Requisites		
4.3.8	Reports		
4.3.9	Other Considerations		

4.3.1 File Contents Reports

The TRMS Contents Reporter function lists the contents of a database or TRMS Archive and UNLOAD created files. This function does not currently support OAM. These reports show a line of information about each report that appears in the input file or database only restricted by the sub-parameter value if specified. The job that performs the Contents Reports function is not automatically submitted by TRMS. The job must be submitted manually, if desired.

The information shown on this report includes, among other items, the report short name, cycle number, accumulation date and time, line and page counts.

4.3.2 RPTJCONT Job Components

4.3.2.1 Controlling Job DD's

The following DD names are used by TRMUTIL to perform a
Contents Report:

DD Name	Explanation
STEPLIB	Assign the STEPLIB DD to the TRMS loadlib.
SYSPRINT	Required for the Control statement and Error report and the Contents Report created by this function. Normally a Sysout dataset, BLKSIZE(133), LRECL(133) RECFM(FA).
TRMSWORK	Required work file for the Cross Reference function. DCB information is supplied by program. A space amount of (CYL,(10,5)) should be adequate.
TRMSLOCK	Required for access to the TRMS Database Control Record for Report Title Information.
TRMSARCH	Required input file(s) the program uses to produce the contents report, a TRMS Archive or Unload file.
SYSIN	Required for TRMUTIL to supply the control statement for the desired function. The required SYSIN parameter value is the required SYSIN REPORT in position one.
SYSUDUMP ABNLIGNR	Required for error processing.

4.3.2.2 Controlling Job DD's

The following FILE names are used by TRMURPTR to perform a Cross Reference report of the TRMS database:

FILE Name	**Explanation**
TRMSLIB	The TRMS loadlib.
SYSPRINT	Required for the Control statement and Error report created by the Cross Reference function. Assign SYS006 to a print device.
TRMARCH	Required input file(s) the program uses to produce the contents report.
TRMWORK	Required work file for unload function DTF information is supplied by program. A space amount of (CYL,(10,5)) should be adequate.
TRMSLOC	Required for the unload function. Defines the TRMS LOCK cluster.
SYSIN	Required for TRMURPTR to supply the control statement for the desired displays. The SYSIN FILE can define any dataset with an LRECL of 80 or may define an instream dataset. If not in stream, the filename must be "SYSINP". Must be 80 byte unblocked records. If instream, SYS031 must be assigned. If on disk, the sys-number on the extent statements must be assigned. If not SYS031 will be used and must be assigned.

4.3.3 Controls and Parameters

4.3.3.1 Control Statement

Parameter **Sub-Parameter**	**Explanation**
REPORT/REPORTAR or REPORTDB	This is the verb or action parameter for the TRMUTIL control statement. The verb is a positional parameter and must be the first operand on the control statement. This parameter starts in position 1. The parameters "REPORT" and "REPORTAR" are synonomus and are used to create an Archive Report List using the "TRMSARCH" DDname for input. More than one Archive File can be concatinated to the DDname. The parameter "REPORTDB" is used to crate a database report list using the KSDS for the database identified by the "TRMSLOCK" DDname for input. Only one database may be specified per execution.
Option REPORT	The "REPORT" sub-parameter is the only recognized sub-parameter for the contents report function. This parameter value is considered generic if specified. The report sub-parameter is NOT required.

4.3.4

Refer to Control Statements for Optional Parameters

4.3.5 Sample JCL

4.3.5.1 Sample MVS JCL - Contents Reports

Sample MVS JCL for the TRMUTIL execution for the Contents
Report is shown below and is also provided in the TRMS INSTLIB as
member RPTJCONT.

```
//RPTJCONT JOB (ACCOUNTING),'CONTENTS REPORTER',MSGCLASS=T
//             CLASS=A,MSGLEVEL=1,NOTIFY=&SYSUID
//*
//*        CONTENTS REPORT
//*
//* THIS JCL IS USED TO CREATE A REORT THAT SHOWS A LINE OF
//* INFORMATION ABOUT EACH REPORT THAT APPEARS IN THE INPUT FILE.
//*
//TRMSRPTR EXEC PGM=TRMUTIL,REGION=0M
//*
//STEPLIB  DD   DSN=TRMS.#REL.LOADLIB,DISP=SHR
//*
//*              CONTENT REPORTS
//*
//SYSPRINT DD   SYSOUT=*
//*
//*          WORK FILE FOR JOB
//TRMSWORK DD   DSN=&&WORK,DISP=(,DELETE,DELETE),
//             UNIT=SYSDA,SPACE=(CYL,(10,5))
//*
//*             TRMS VSAM FILES
//*
//*   THE TRMS LOCK DATASET CONTAINS THE NAMES OF THE KSDS
//*   AND RRDS(S) DATASETS AND ARE DYNAMICALLY ALLOCATED.
//*
//TRMSLOCK DD   DSN=TRMS.#REL.LOCK,DISP=SHR
//*
//*             INPUT FILES TO REPORT FROM
//*
//*   THE TRMSARCH DATSETS CAN BE ANY ARCHIVE OR UNLOAD FILE
//*   CREATED BY TRMS
//*
//TRMSARCH DD   DSN=TRMS.#REL.UNLOAD,DISP=SHR
//*        DD   DSN=TRMS.#REL.BACKUP,DISP=SHR
//*
//SYSUDUMP DD SYSOUT=*
//*
//ABNLIGNR DD DUMMY
//*
//SYSIN    DD  *
REPORT
```

Figure 142 Sample MVS JCL - Member RPTJCONT (Contents Report)

4.3.5.2 Sample VSE JCL - Contents Reports

Sample VSE JCL for the TRMUTIL execution for the Cross Reference Facility is shown below and is also provided in the TRMS INSTLIB as member TRMURPTR JCL.

```
* $$ JOB JNM=TRMURPTR
* $$ LST CLASS=A
// JOB TRMURPTR
// OPTION PARTDUMP
// DLBL IJSYSUC, 'VSAM.USER.CATALOG',, VSAM      <---- VSAM USER CATALOG
// DLBL TRMSLIB, 'TRMS.LIBRARY',, VSAM           <---- TRMS LIBRARY
// DLBL TRMWORK, 'TRMSWORK', 0, VSAM, RECORDS=8000, RECSIZE=4093
// EXTENT   , XXXXXX                             <---- FILL IN VOLUME
// TLBL/DLBL TRMSARCH
// ASSGN SYS006, SYSLST       SYSPRINT
// ASSGN SYS031, READER       SYSINP
// LIBDEF *, SEARCH=TRMSLIB.REL#.INST
// EXEC PROC=TRMSLBLS
* *** JOB=TRMURPTR   STEP  1 OF 1
// EXEC TRMURPTR SIZE=70K
REPORT
/*
/&
* $$ EOJ
```

Figure 143 Sample VSE JCL - Contents Reports

4.3.6 Return Codes

RC=8   No report records

RC=4   Record not found

NOTE: Refer to TRMS Messages and Codes Manual for more information

4.3.7 Requisites

N/A

4.3.8 Reports

4.3.8.1 Sample Contents Reports

The TRMUTIL program produces several reports:

1- The Control Statements and Error Rpt shows the validation of the required SYSIN parameter - REPORT

2 - The TRMS Contents Reporter Listing shows the Report Names in the TRMSARCH Dataset(s) and some information about each report -. Cycle, creating Jobname, Accumulation Date and Time, Line Count, Page Count, Block Count, Distribution Count, Actual Count, and the Undistributed Count

3 - The Control Summary Report is a count of input parameters and any errors encountered.

4.3.8.2 Sample of the TRMURPTR Contents Report

```
RPTID=TRMUTIL1-TRMS UTILITY LOG CONTROL STATEMENTS & ERROR RPT TIME=14:43:06 DATE=10 JUN 2003.161 PAGE 1
TRMS T60A DATABASE                    *** LICENSED BY ***   TRMS (C) 1987-2003, CSI INC.   RELEASE 6.0A-00
                                      **** SEA INC. ****   1230 HEMPSTEAD TPK., FRANKLIN SQUARE, NY 11010


TRMS238I - REPORT CONTROL STATEMENT VALIDATED - REPORT


RPTID=ARCREC01 - TRMS CONTENTS REPORTER LISTING   TIME=14:43:06   DATE=10 JUN 2003.161          PAGE  2
TRMS T60A DATABASE                    *** LICENSED BY *** TRMS (C) 1987-2003, CSI INC.   RELEASE 6.0A-00
                                      **** SEA INC. **** 1230 HEMPSTEAD TPK., FRANKLIN SQUARE, NY   11010
INPUT FILE: C203.T60A.ARCH030.G0001V00
---- REPORT ----  ------- ACCUMULATION -------- LINE    PAGE    BLOCK   DIST.   ACTUAL  UNDIST.
  NAME   CYCLE   JOBNAME   DATE AND TIME         COUNT   COUNT   COUNT   COUNT   COUNT   COUNT
--------  -------  --------  ---------------------  --------- -------- -------- -------- -------- --------
C203RPT   80    C203BUNP  19 MAR 2003.078 13:24   100     5      2      1       1       0
C203RPT   81    C203BUND  19 MAR 2003.078 13:24   1340    33     20     1       1       0
C203RPT   82    C203RBRK  01 APR 2003.091 16:30   24      1      2      1       1       0
C203RPT   83    C203RBRK  01 APR 2003.091 16:30   15      1      2      1       1       0
C203RPT   84    C203RBRK  01 APR 2003.091 16:30   52      1      2      1       1       0
C203RPT   85    C203RBRK  01 APR 2003.091 16:30   27      1      2      1       1       0
C203RPT   86    C203RBRK  01 APR 2003.091 16:30   75      2      2      1       1       0
C203RPT   87    C203RBRK  01 APR 2003.091 16:30   39      1      2      1       1       0
C203RPT   88    C203RPT   01 APR 2003.091 16:31   119     1      3      1       1       0
C203RPT   89    C203RPT   01 APR 2003.091 16:31   67      1      2      1       1       0
C203RPT   90    C203RPT   01 APR 2003.091 16:31 11905    436    177    1*       0       0
C203RPT   91    C203RBRK  01 APR 2003.091 16:34   36      1      2      1       1       0
C203RPT   92    C203RBRK  01 APR 2003.091 16:34   137     1      3      1       1       0
C203RPT   93    C203RBRK  01 APR 2003.091 16:34   45      1      2      1       1       0
C203RPT   94    C203BUND  04 APR 2003.094 11:58   1340    33     20     1       1       1
                                      ** END OF REPORT **

TRMS622I - REPORT FUNCTION COMPLETED RC X'00000000'


RPTID=TRMUTIL2 - TRMS UTILITY LOG  CONTROL SUMMARY REPORT TIME=14:43:06   DATE=10 JUN 2003.161    PAGE 3
TRMS T60A DATABASE                    *** LICENSED BY ***  TRMS (C) 1987-2003, CSI INC.   RELEASE 6.0A-00
                                      **** SEA  INC. ****  1230 HEMPSTEAD TPK., FRANKLIN SQUARE, NY 11010




TRMS242I - NUMBER OF CONTROL STATEMENTS READ:    1
TRMS243I - NUMBER OF ERRORS ENCOUNTERED:         0

                             ** END OF UTILITY LOG REPORT **
```

4.3.9 Other Considerations

N/A

4.4 RPTJRUSE - Summarizing RRDS Data File Report Utilization

		Description	Notes
4.4	Job Name	RPTJRUSE	
4.4.1	Title/Description		
4.4.2	RPTJRUSE Job Components		
	JCL		
	Procedure		
	Primary Program		
4.4.3	Controls and Parameters		
4.4.4	Options		
4.4.5	Samples		
4.4.6	Return Codes		
4.4.7	Requisites		
4.4.8	Reports		
4.4.9	Other Considerations		

4.4.1 RRDS File Use

The TRMURRPT Program is used to summarize information about the Reports that reside in an RRDS data file.

NOTE: In order to report on an RRDS data file it must be in drained status. Draining an RRDS data file is accomplished through the TRMS Interactive Interface Globals option, (Primary Menu Option 8-Internals, 2 for Update with a Global Group of R) .

4.4.2 RPTJRUSE Job Components

4.4.2.1 Controlling Job DD's

The following FILE names are required by the Summarize Report program, TRMURRPT.

STEPLIB	The TRMS loadlib.
SYSPRINT	This DD is used by TRMURRPT to report the status of the summarize report run.
TRMSRRPT	This is the drained RRDS cluster being reported. RRDS###, where ### ranges from 001 to 256.
TRMSLOCK	The TRMS LOCK cluster set that controls the TRMS database.
TRMSKSDS	The TRMS KSDS cluster data set for this TRMS database.
SYSUDUMP and ABLIGNER	Used for error processing.

4.4.2.2 Controlling Job DD's

The following FILE names are required to summarize Report utilization within an RRDS data file.

FILE Name	Explanation
STEPLIB	The TRMS loadlib.
SYSPRINT	The SYSPRINT is used by TRMURRPT to report the status of the summarize report run. Assign SYS006 to a print device.
TRMSRRP	The RRDS data cluster being reported. RRDS###, where ### ranges from 001 to 256, is for the RRDS to be reported.
TRMLOC	The TRMSLOC DLBL must be assigned to the LOCK cluster that controls the TRMS database.
TRMSKSD	The TRMSKSD DLBL must be assigned to the TRMS KSDS cluster.

4.4.3 Controls and Parameters

N/A

4.4.4 Options

N/A

4.4.5 Sample JCL

4.4.5.1 Sample MVS JCL - TRMURRPT

Sample JCL to summarize Report utilization within an RRDS data file
is shown below and is also provided in the TRMS INSTLIB as
member RPTJRUSE.

```
//RPTJRUSE  JOB (ACCOUNTING,INFO),'REPORT ON RRDS',
//              MSGLEVEL=1,CLASS=A,MSGCLASS=T,NOTIFY=&SYSUID
//***********************************************************************
//*   REPORT ON RRDS USAGE BY REPORT AND REPORT CYCLE #
//*
//* THE RRDS TO BE REPORTED ON IS SPECIFIED BY THE TRMSRRPT DD CARD
//* AND MUST BE IN DRAINED STATUS.  THE RRDS IS DRAINED USING THE
//* RRDS SUBOPTION OF THE GLOBALS OPTION OF THE TRMS INTERACTIVE
//* INTERFACE.
//*
//* THE REPORT IS WRITTEN TO SYSPRINT AND CONTAINS THE NAME AND CYCLE
//* NUMBER OF EACH REPORT HAVING AT LEAST ONE DATA BLOCK IN THE RRDS
//* ALONG WITH A TOTAL NUMBER OF REPORT BLOCKS AND THE COUNT OF REPORT
//* BLOCKS WITHIN THE RRDS.
//***********************************************************************
//TRMURRPT EXEC PGM=TRMURRPT,REGION=0M,TIME=120
//STEPLIB  DD  DSN=TRMS.REL#.LOADLIB,DISP=SHR  <== TRMS LOADLIB
//SYSPRINT DD  SYSOUT=*
//SYSUDUMP DD  SYSOUT=*
//ABNLIGNR DD  DUMMY
//TRMSRRPT DD  DSN=TRMS.REL#.RRDS###,DISP=OLD <= RRDS TO REPORT==
//*
//*   TRMSRRPT DD DEFINES THE SPECIFIC TRMS DATA VSAM FILE
//*
//TRMSLOCK DD DSN=TRMS.REL#.LOCK,DISP=OLD     <===== LOCK ===
//*
//*   TRMSLOCK DD DEFINES THE TRMS LOCK VSAM FILE
//*
//TRMSKSDS DD DSN=TRMS.rel#.KSDS,DISP=OLD      <===== KSDS ===
//*   TRMSKSDS DD DEFINES THE TRMS KSDS VSAM FILE
//*
```

Figure 144 Sample MVS JCL - Member RPTJRUSE (Summarize RRDS file)

4.4.5.2 Sample VSE JCL - TRMURRPT

Sample JCL to summarize Report utilization within an RRDS data file is shown below and is also provided in the TRMS INSTLIB as TRMURRPT.

> *EXTREMELY IMPORTANT NOTE FOR **VSE** USERS*
> *DO <u>NOT</u> IGNORE*
> *SEE VSE NOTE IN SECTION*

4.4.6 Return Codes

RC=10   Unable to open SYSPRINT

RC=8   TR<S306E - RRDS DSN NOT FOUND

NOTE: Refer to TRMS Messages and Codes Manual for more information

4.4.7 Requisites

In order to report on an RRDS data file it must be in drained status. Draining an RRDS data file is accomplished through the TRMS Interactive Interface Globals option, (Primary Menu Option 8-Internals, 2 for Update with a Global Group of R) .

4.4.8 Reports

4.4.8.1 Sample RRDS Summary Reports

The portion of the Summarize RRDS File report shown below gives the name of the RRDS being reported upon, the total blocks it contains, and the number of blocks currently being used.

For each Report in the RRDS it lists the Cycle Number, the number of database Blocks it occupies in this RRDS, and the total number of RRDS Blocks it uses in all RRDS files.

4.4.8.2 Summarize RRDS Contents Report (Portion of Page 2)

RRDS "VFIL.C203.T60A.RRDS001" CONTAINS 1800 BLOCKS OF WHICH 846 ARE IN USE

REPORT NAME	REPORT CYCLE #	BLOCKS IN RRDS	TOTAL BLOCKS
TRMSUSPN	45	5	5
TRMSUSPN	46	2	2
C203DOL	98	2	2
C203RPT	78	57	20
C203DOL	99	2	2
C203DOL	100	2	2
C203DOL	101	2	2
KAYSDOL	102	2	2
KAYSDOL	103	2	2
KAYSDOL	104	2	2
TRMSUSPN	105	2	2
TRMSUSPN	106	2	2
TRMSUSPN	64	2	2
TRMSUSPN	68	277	277
TRMSUSPN	69	2	2

4.4.9 Other Considerations

The information about the RRDS displayed by this report may be inaccurate. All Blocks in the RRDS that have a report name and cycle number in the block header that corresponds to a T82 record in the database KSDS are considered "live". If a report was deleted and then restored, the block(s) in this RRDS may be "residual" from before the report was deleted. Short of running the hiper block records for the report, there is not way to tell when a block matching the 82 key is 'live' or 'residual'.

5 A List of Other Batch Jobs Supplied By SEA

	AutoSub	JobTYPE/FREQUENCY	JOB Name	Description	Requisite
5		**TRMS Utilities Request**			
5.1	No	TU-R	TRMJBLD1	Build TRMS Install library	See Install Guide - Section 2.1
5.2	No	TU-R	TRMJINST	Build other TRMS libraries	See Install Guide - Section 2.2
5.3	No	TU-R	DBAJKEXM	Examine KSDS for Corruption	
5.4	No	TU-R	DBAJRPRK	Repair KSDS Cluster	
5.5	No	TU-R	TRMJDJDE	Assem/Link TRMSDJDE mod	
5.6	No	TU-R	TRMJSECK	ASM TRMS External Security	See Install Guide - Section 3.8
5.7	No	TU-R	TRMJMNTC	TRMS ZAP Maintenance	See Install Guide - Section 11.3

6 A List of User Exits Supplied by SEA

	AutoSub	JobTYPE/FREQUENCY	JOB Name	Description	Requisite
6		**TRMS User Exits - Request**			
6.1	No	TUE-R	TRMSUX1	Preprompt User Logon	See Install Guide - Section 8.1
6.2	No	TUE-R	TRMSUX2	Post Logon Exit	See Install Guide - Section 8.2
6.3	No	TUE-R	TRMSUX5	Dynamic Allocation Exit	See Install Guide - Section 8.3
6.4	No	TUE-R	TRMSUX6	Internal Reader/POWER	See Install Guide - Section 8.4
6.5	No	TUE-R	TRMSUX7	Micro Fiche Processing	See Install Guide - Section 8.5
6.6	No	TUE-R	TRMSUX8	Accumulator Submit Exit	See Install Guide - Section 8.6
6.7	No	TUE-R	TRMSUX9	VCSI Panel Processing Exit	See Install Guide - Section 8.7
6.8	No	TUE-R	TRMSUX10	Archive Browse Recall Exit	See Install Guide - Section 8.8
6.9	No	TUE-R	TRMSUX20	SMF Exit	See Install Guide - Section 8.9
6.10	No	TUE-R	TRMSUX21	User/Cover Separator Exit	See Install Guide - Section 8.10
6.11	No	TUE-R	TRMSUX23	Bundle Alteration Exit	See Install Guide - Section 8.11
6.12	No	TUE-R	TRMSUX25	Single Report/Multi-Report	See Install Guide - Section 8.12
6.13	No	TUE-R	TRMSUX26	Archive File Deletion	See Install Guide - Section 8.13
6.14	No	TUE-R	TRMSUX27	Direct to Dataset Uncatalog	See Install Guide - Section 8.14
6.15	No	TUE-R	TRMABKEX TRMABKX2	Breakout Exits	See Install Guide - Section 8.15

Appendix A
Glossary of Terms

A Glossary of Terms

Accumulate

The TRMS process of reading reports from the JES/POWER spool and writing them to the TRMS database.

Accumulation

The output of a job or step that has been defined to TRMS. A Report is accumulated into the TRMS database. A Report is defined to TRMS when it is associated to TRMS in the SYSOUT parameter of a DD statement for MVS or SUBSYSTEM DEST parameter of a POWER LST statement in VSE, and in a TRMS Report Distribution Definition.

Accumulation Time

When a job or step defined to TRMS has run, its output is accumulated in the JES/POWER spool. It becomes immediately available to be accumulated into the TRMS database and browsed by an authorized user.

Action List

Has the following four types:
ACC - Access List
This is a list of User ID's that will be allowed to ACCESS the associated REPORT or NOTE. Used by REPORT and NOTE.
DEF - Definition Alias
This is a reverse pointer for a RENAME to allow ADMINISTRATOR's to review COMPONENTS that have been renamed Used by ALL DEFINITIONS.
DIS - Distribution List
This is a list of BOC values and lists of USERS that will receive an associated breakout of the report. Used by DISTRIBUTION.
REQ - Requirements List
This is a list of Report ID's that are ALL required to have been processed before a BUNDLE job can start. Used by TRIGGER.

Active Trigger

A Trigger waiting for one or more events to be satisfied, or a defined Trigger that was identified by a Distribution for a Report being accumulated. Once a Trigger is activated by TRMS, all other Distributions that reference that Trigger Name are assigned its Trigger Cycle number. Once all of the Trigger's criteria have been satisfied, bundling is initiated for that Trigger and that Trigger becomes inactive. At this point, if any new Distributions reference this Trigger Name a new Active Trigger is generated.

Administration Authority

A user with a Recipient Definition that allows them to update and modify access to (and distribution of) information, through the control of various TRMS functions, is said to have

Administration Authority for those functions (also known as Administration Authorization).

Administrator	Someone with Administration Authority. Each user's ability to act as an Administrator is controlled by the update authority given to them. The TRMS administrator has access to all functions of TRMS. The Administrator is allowed to define or modify Maildrops, Recipients, Reports, Triggers, The Distribution, Global constants, and Security features.
Archive Level DD Name	The DDname/DLBL used to create the primary archive file or a report. Defined in the Report Definition.
Authorization Levels	Authorization Levels determine a Recipients' authority to modify TRMS components or functions.
ARCHDEF	An archive file that has no report data in it. It contains only the user-defined elements Maildrop, Recipient, Report, etc.. and the Archive History and Report Tracking data. This is also the default DDname this file is created to.
Breakout	The process of establishing the bounds of a Distribution according to its defined Distribution Definition's criteria.
Browse	The TRMS online facility for viewing reports. A Recipient can browse a Report if he has a Security Group that matches the Security Group that has been assigned to the Report Distribution. See Security Group.
Bundle	The bundle is a physical distribution of reports, whether printed or on tape. The bundle is made up of all Distributions going to the same Maildrop and assigned the same Trigger cycle. It is a collection of Distributions, with the same Maildrop destination and common Trigger criteria, that are delivered either as printed reports or on tape to a specific Maildrop. A bundle cannot be browsed. Reports defined as "Browse Only" are not part of a bundle.
Bundle Member	A member in the TRMSJOBS PDS or ICCF Library/POWER RDR Queue that has been identified by a Trigger as the job to be submitted for the bundling of the Reports associated with the Trigger. Same as Distribution Member.
Calendar	Different yearly schedules can be defined to Trigger activities and distributions based on month and day. Useful for holidays.
Component	There are five main components for TRMS: MAILDROPS, RECIPIENTS, REPORT definitions, TRIGGERS, and DISTRIBUTIONS.

Component View/Selection	Allows the user to view a subordinate component from a panel.
Coordinator	The TRMS Coordinator can be any individual at the location who is generally responsible for the distribution of reports.
Cover Page	See Distribution Cover Sheet.
Ctrl Member Name	Control Member Name. This refers to a member of a PDS in the TRMSCTRL library/ICCF Library/POWER RDR Queue. This member contains control information for output, such as laser printer instructions and microfiche instructions. It is defined in the Report Distribution Definition and also is displayed in the Distribution Administration panel.
Current Trigger	A Trigger that is active. Either the Trigger is waiting for a condition to be satisfied, or there is an error, or it has been classified as "Held". Once a Trigger fires (when all of its criteria have been satisfied) it is no longer available or active. It then becomes inactive. The criteria for that Trigger become active again when another report assigned to that Trigger appears in the database. A Current Trigger is any Trigger that has undistributed Distributions assigned to it.
D.D.-ID,	Appears in the Distribution Definition Directory Display.
Distribution Definition ID	Same as Definition ID.
Define	The process of identifying to TRMS the requirements for the various functions. For example, Recipients, Reports, Distributions, Maildrops, and Triggers are defined.
Definition ID	A field in the TRMS Define/Display a Report's Distribution Definition. Each Distribution Definition should be given a unique name. It identifies the specific distribution to TRMS. Same as D.D.-ID, Distribution Definition ID.
Delete	The process of removing an entry from a directory or from the database. If a user deletes an entry from a browse directory, it is still in the database. This is a soft delete. It can be reactivated or hard deleted by an administrator. A hard delete removes the entry from the database.
Directory	The Directory is an important concept within TRMS. Various functions have directories associated with them that allow users access to information. Report directory, Trigger directory, etc.
Display	A command used to display a directory or a file or a definition on a terminal.

Distribute and Delete	Option to delete a report from the database after all distributions are complete. Defined in Report Definition.
Distribute When Collected	If defined with Y, the report is submitted for distribution immediately after it is collected in the database. This is not recommended for normal distribution. This feature is useful for verifying control totals prior to submitting another job. Defined in Report Distribution.
Distribution Recipient.	An entire report or subset of a report that is assigned to a
Distribution Cover Sheet	A cover sheet that appears at the beginning of each report distribution. It contains Maildrop Information, Recipient Information, and space for a general Distribution Message. Same as Separator Page or Cover Page. The Sysout/Syslst or Tape Attributes Definitions determine whether to create this page or not.
Distribution Group ID	A name assigned to a Report Distribution. Used to group Distributions together and refer to them as a single group. Same as Group ID, Report Group ID. A name for the Distribution of a Report for a Recipient. Used to refer to groups of Report Distributions. Can be used to group multiple reports for one Recipient or a group of Recipients.
Distribution Member	Same as Bundle Member, Distribution Bundle Member.
Distribution Name	A 32-character field in the Report Distribution Definition. Used to assign a name to a report. This name appears on the cover page or Browse Directory instead of the Long Name that is defined on the Report Definition Panel.
External	Those items needed to meet print needs file at your site, but are not components of TRMS.
External Writer Name	Another name for Sysout Writer Name or Report Name. See Report Name.
Globals	TRMS Globals contain definitions of constants that tell TRMS which report classes are to be managed, how to limit accumulation to a specific JES/POWER destination, archive information, retention time for archive history, report separator page counts and format, banner information, installation name, and other system information. The TRMS Internals menu will display and update these globals using Global Groups - G, A,, I, and O.
Group ID	Same as Distribution Group ID, Report Group ID.

Hard Delete	See Delete.
Holiday Calendar	A yearly definition in a TRMS calendar that identifies the days of the year that are holidays.
Inactive Trigger	A state of a Trigger that has all of its assigned criteria satisfied but has not completed its bundling process. The Bundle Job has been submitted for this Trigger.
Inventory Reports	Inventory Reports or packing lists.
JES/POWER Destination	For example, a remote printer. TRMS output can be directed to any valid JES/POWER destination.
Jobname	Optional Field. Defined in Report Distribution. Used to limit a distribution to a particular job. See Distributions in the *TRMS Administrator's Guide*.
Long Name	The descriptive name of the report, up to 32 characters. Same as Report Long Name. See Name.
Maildrop	A location at which one or more Recipients reside. This is a common destination where users receive reports. Essentially, a Maildrop can be a valid JES/POWER destination.
Maildrop Inventory Report	Same as Inventory Report. Generated when a bundle job is run to create Report Distributions. It can be delivered to each Maildrop with the bundle of hard copy reports. Like a packing slip, it contains information on all Reports in the Bundle.
Manual Trigger	Has no Trigger Criteria. No events are required to satisfy a Manual Trigger. This Trigger is forced, or marked as completed, by a user with Administration Authority. The manual release for this Trigger submits the associated distribution job. Must be forced complete to bundle its assigned work.
Model	Use a model to create a Target. The model feature is used to copy an existing definition to a new definition of a component within TRMS, such as a Maildrop or a Report. The new definition, the Target, is modeled on an existing definition, the model. Fields are copied automatically based upon the specified model. For example, Model Report Group ID, Model Report Name, Model Report Recipient.
Name	The Name field is the Recipient Name of "long name" that defines the full name of a TRMS user. This field is distinct from

	the Recipient's Userid. Used to identify the Recipient when the Inventory Reports, or packing lists, are created.
NOTES	The Sticky Notes feature allows the user with the proper authority to add notes on a panel or a report.
Null Distribution	A Distribution that was defined to be a subset of a report, and the starting criteria for the subset was not found in the report data at the time of accumulation. See the Browse Component of TRMS in the *TRMS User's Guide*.
OAM COLLECTION	A group of objects that have similar characteristics. This is used to reference a large number of objects that is referenced separately would require a large catalog. Each collection name is also an entry in the MVS catalog. For this application, this can be viewed as a dataset name of a multi-volume file.
OAM OBJECT	A byte stream of data. In TRMS, this data stream is a single archived report from the TRMS database. An archived report will always have 1 object and may span over several objects if it is large enough. For this application, an object could be viewed as a volume within a multi-volume file.
Object Access Method (OAM)	An IBM access method that utilizes SMS and DB2 to achieve device independence. This access method provides an interface to IBM Optical devices. It can also interface with other devices such as DASD and TAPE (see also OAM OBJECT and OAM COLLECTION).
OUTPUT JCL Name	MVS Only - Appears in SYSOUT Attributes Display of Distribution Definition. Used to specify the name of the OUTPUT JCL statement in the JCL of the bundling job. Used for specification of Sysout attributes that are not available with dynamic allocation.
Pre-delete switch	Controlled by the TRMS Global Definitions. An Administrator with Update authority can use the Pre-delete switch, if it is set to Yes, to delete a Trigger before it is satisfied and delete a report before it is archived.
Priority	Controls the order of Reports within a Recipient's Bundle. Defined in Recipient Definition.

Query Rules	Part (Partial Breakout) A Part indicates that the recipient is to receive only part of the report that matches a set of conditions. BOC (Break on Change) A BOC indicates that the recipient is to receive only part of the report that matches a set of text string associated with the recipient. INDEX (INDICES) Indexing allow you to create points of reference in an accumulated report. These points of reference are based on changes in the values of fields located on each page of the report
Recipient	Same as Recipient ID. Appears as a field in the Report Distribution Definition. An individual that is to receive a Distribution. See Recipients.
Recipient Banner Page	The first page of a collection of distributions for one Recipient. It contains the Recipient-ID Number, Maildrop, and report distribution date.
Recipient Short Name	Same as Recipient's Userid.
Recipient's Userid	Defined in the Recipient Definition by an Administrator. This is a unique name in TRMS. Used to identify the Recipient (user) for various functions. Same data as Target Recipient, Recipient Short Name, Signon ID.
Recipients	Recipients are users. These are the end-users of the reports managed by TRMS. Recipients must be defined to TRMS to receive Distributions.
Report	The original creation of output to the JES/POWER spool which is accumulated by TRMS. There are two ways to define a report to TRMS. One is to specify that the output have an assignment of a Sysout Writer Name to handle it correctly. Secondly, the Extended Report ID feature can be used, with no need to specify the Writer Name. TRMS refers to this name as the Report short name.
Report Group ID	Same as Distribution Group ID, Group ID.
Report Long Name	A 32-character field for a long descriptive name of a report. Can be used to select distributions for the browse feature, if a Report Short Name is not used.
Report Name	The field TRMS uses to identify a Report to the system and within TRMS. Must be unique within TRMS. Same as Sysout

	Writer field in the Sysout parameter of a DD statement in the JCL or POWER Subsystem DEST Parameter associated with TRMS. Same as Short Name of Report ID. Also specified in the Report Distribution Definition Sysout Attributes.
Report Output Media	Report Output Media can be S, T, or V. S for Sysout/Syslst, T for Tape, V for Viewing. Based upon the choice made in the field, different panels are presented for Sysout/Syslst or Tape, with relevant attributes for definition. Defined in the Display of Parameters for Report Distribution panel in the Report Distribution area.
Report Requirements	Reports that satisfy the requirements of a Trigger. A `Yes` value in this field of the Trigger Definition means that there are Reports required to satisfy this Trigger. A Trigger could depend upon the completion of one job which produces one Report, or any number of Reports. The Report Names are entered in the Trigger Report Requirements Panel.
Report Short Name	Appears in the Report Distribution Definition. Same as Report Name.
Security Group	A field in the Recipient Definition used internally by TRMS to associate a Recipient with a Report Definition. TRMS allows the user's distributions to be viewed only by those TRMS browse users that have matching Security Group. This field can be masked with asterisks (*) to cause TRMS to ignore certain character positions. A mask field defined with all asterisks (*) allows full access to all distributions.
Security Group Name field.	Same as Security Group. Security Group is the name of the
Separator Page	See Distribution Cover Sheet.
Short Name	The name assigned to a Report that matches a Report's Sysout writer name that is created for TRMS to accumulate. Same as Report Name.
Signon ID	Appears in the initial TRMS Signon Panel. Defined, by an Administrator, in TRMS Recipient Definition as the Recipient's Userid.
Signon Name	Same as Signon ID.
Soft Delete	See Delete.
Sub-Component	There are four Sub-Components for TRMS: Calendars, Externals, Actions Lists and Query Rules.

Suspense	Identifies Reports that had missing information. See TRMSUSPN.
Sysout/Syslst Class	Input directed to TRMS must have one of the eight Sysout/Syslst classes specified in the TRMS Global definition. Output from TRMS can be directed to any JES/POWER output class (from the attributes Display panel of the Report Distribution Display).
Sysout Program Name	Another name for Sysout/External Writer Name or Report Name. See Report Name.
Sysout Writer Name	Specified in the Report Distribution Definition. The Sysout/External Writer Name is the same as the Report Name, and must be unique. A Target Report name becomes a Report Name, which is equal to the Sysout/External Writer Name. To define a report to TRMS, this name must appear in the program-name field of the Sysout parameter of a DD statement in JCL for MVS, or in the DEST parameter for POWER in VSE.
Target	In general, the function or component being defined. Use a model to create a Target. For example, use a Model Recipient to create a Target Recipient.
Target Recipient	Same as Recipient's Userid.
Target Report Name	Same as Report Name. Used to identify a Report to the system and within TRMS .
Trigger	A set of events that must be satisfied to initiate the bundling process for all of the accumulated distributions that named the same Trigger. Events can be a time of day, a date, days of the week, a holiday calendar, or other report names.
Trigger Criteria	The events assigned to a Trigger that must be satisfied before TRMS automatically initiates the bundling process for the Distributions which name that Trigger.
Trigger ID	Defines the Trigger Name to TRMS. Must be unique. Used when defining a Trigger Name for a report distribution.
Trigger Member	Identifies a member in the TRMSJOBS Library/ICCF Library/POWER RDR Queue that is submitted to bundle reports for a distribution. 1-8 alphanumeric characters. The member name must exist in the library defined by the TRMSJOBS DD statements for MVS, or ICCF Library or RDR Queue for VSE when the requirements for the Trigger are satisfied.

Trigger Status	A Current Trigger can be in one of the following states: Active, Error, Held, Inactive, Manual, Suspense, XHeld.
Trigger Time	A Trigger can be satisfied by specifying a time event or date event.
TRMSBKER	TRMS Breakout Error. Recipient ID used for Partial Breakout Errors.
TRMS Administrator	See Administrator.
TRMSCTRL	A DD name used by TRMS accumulation task in MVS. The TRMSCTRL dataset name is the PDS that contains the control Information that should precede the report.
TRMSJOBS	A DD name used by the TRMS accumulation task in MVS. The TRMSJOBS dataset name is the name of the PDS that acontain the JCL of the various jobs that TRMS will submit. The ICCF Library/POWER RDR Queue used by the TRMS accumulation task for VSE. It is assigned to the file that contains the JCL used to bundle Reports. The members of this file are defined in the Trigger Definition, for triggered reports, or in the Report Distribution, for "Distribute When Collected" reports.
TRMSUSPN	Suspense. Any time a report is accumulated that has something in its definition or specifications that TRMS does not understand and does not know what to do with, it uses default Suspense definitions to account for unrecognized report and missing definitions required to properly manage a report. Every component has a default Suspense category. TRMS comes with these defaults set, but they can be tailored by each installation to their appropriate needs. For example, a report can have been defined without a Sysout/External Writer Name or missing Extended Report ID information.
Undistributed Distribution	A portion of a Report that was defined in a Distribution, but for some reason was not bundled. This can occur because a bundle job failed, or Trigger events are not completed. Perhaps no date was set. TRMS keeps track of the fact that it was never bundled. It keeps the Report in the database, waiting for the undistributed distribution to be bundled. See Report Administration in the Administration function of the program.
Update Authority	Another term for Authorization Level. Defined in the Recipient Definition. Determines user's ability to change function capabilities. Possibilities are None, Display, or Update. Maildrops, Reports, Recipients, and Triggers are all defined with varying levels of update authority.

View   See Browse.

Xheld   An Administrator excluded this Trigger. The Trigger must be
                        forced to bundle with no new work assigned. Also occurs for all
                        Active Triggers if Database Unload/Format/Reload is
                        performed.

Index

Index