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BELLCORE PRACTICE  
BR 759-200-002  
ISSUE 5, MAY 1998  
RELEASE 7.2

**TDIS**  
**TIRKS<sup>®</sup> Detailed Regulatory**  
**Process Interface System**

**TDIS Circuit Equipment Study**  
**(TDIS-CES)**  
**Installation and Operations**  
**Guide**

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Prepared for Bellcore by:  
TDIS Development Team

For further information, please contact:  
TDIS Hot Line (732) 699-8506

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# TDIS-CES Installation & Operations

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# 1. Introduction

The purpose of this document is to provide instructions and planning information for the installation, operations, maintenance, and administration of TIRKS<sup>®</sup>/Detailed Regulatory Process Interface System - Circuit Equipment Study (TDIS-CES), release 7.2 of TDIS.

## 1.1 Audience

This document is directed toward operations and maintenance personnel and computer center technical support. The following person(s) should follow the procedures in this document:

- **Computer Center Administrator** - The person(s) responsible for the products, libraries, and procedures supported by the computer center. The services of the computer center administrator are oriented toward **all** applications on the system.
- **Application Administrator** - The person(s) who serve as a liaison between the end users and the computer center. The services of the application administrator are oriented toward only selected applications, such as TDIS-CES. The TDIS-CES application administrator is responsible for handling the administrative functions, including the installation, libraries, operations, and administrator's menu. For the purposes of this document, the term *application administrator* is used when referring to the person(s) responsible for all TDIS-CES administrative functions.
- **Administrator** - In some Bellcore Client Companies (BCCs), the work performed by the computer center administrator and the application administrator may overlap. The term "administrator" is used generically to refer to a member of either of the above groups.

The responsibilities of the TDIS-CES application administrator include

- Creating, updating, and securing the TDIS-CES Security Authorization table
- Installing the TDIS-CES software with proper security measures
- Updating and maintaining the functions associated with the Administrator's Menu
- Executing all TDIS-CES functions to test and resolve problems that users encounter
- Upgrading the TDIS-CES software as new releases become available.

This document assumes that the application administrator is proficient in the Multiple Virtual Machine (MVS) operating system; Time Sharing Option (TSO); Interactive System Productivity Facility (ISPF); the ISPF tool, Dialog Manager; Job Control Language (JCL); and Command Lists (CLISTS).

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## 1.2 Conventions

This section explains some of the conventions used throughout this document.

- The terms *you* and *user* are used to refer to different people. In this guide, the term *you* refers to the application administrator; the term *user* refers to any TDIS-CES user.
- For certain procedures, you are instructed to press the ENTER or TAB key to perform a function. If your keyboard does not have an ENTER or TAB key, use the equivalent key. If you program function keys to perform the TDIS-CES commands, you may press the function key rather than typing the command.
- You may enter text, such as the letter of a menu option, in lower-case letters. TDIS-CES automatically converts lower-case letters to upper-case.

## 1.3 Organization of this Document

Section	Title	Description
1	Introduction	Describes the audience, purpose, conventions, and organization of the document.
2	Installation Procedures	Defines installation requirements and provides step-by step instructions for proper installation of the TDIS-CES software.
3	Operations	Provides a listing and a description of the operations the application administrator performs to maintain the TDIS-CES system.
4	Administrator's Menu	Explains how to access the Administrator's Menu and how to use each of the functions listed on the menu.
5	Archive and Restore Procedures	Explains how to archive and restore TDIS-CES software libraries, study data, and user tables.
6	Glossary	Defines terms and acronyms used throughout the document.

## 1.4 For More Information

For information on how to use the TDIS-CES system, refer to the *TDIS-CES User Guide* (BR-759-200-002).

A TDIS-CES hotline is available to help resolve installation or procedural problems. The hotline number is (732) 699-8506.

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## 2. Installation Procedures

Bellcore sends the TDis-CES software libraries to your location via the MVS NetWork Data Mover (NDM). This section explains how to retrieve and install the TDis-CES software once you have received these software libraries. Since each Bellcore Client Company (BCC) may set up the TDis-CES environment differently, this section provides generic guidelines for installing the software. You may customize your environment (within limits) to your preference.

For the TDis-CES system to function, it is essential that the software is properly installed. Proper installation of the TDis-CES software provides

- Access to the TDis-CES Security Authorization table (YDCAUTH)
- Retrieval of usage data from TDis and investment data from the Division of Revenues Monthly Allocation Process (DRMA)
- Proper "placement" of all software so users can execute a circuit equipment study and you can administer the TDis-CES system
- The ability to update TDis-CES tables and correct potential errors.

### 2.1 Preparing to Install the TDis-CES Software

Before installation, you must establish certain hardware and software environments and set the correct terminal configuration. These requirements are defined in Subsections 2.1.1 through 2.1.3. Section 2.4.1 describes the security recommendations for the TDis-CES system.

#### 2.1.1 Hardware Environment

To install the TDis-CES software, you must meet **all** of the following hardware requirements:

- IBM<sup>®</sup> 3085 (or higher) processor (or equivalent)
- At least 160 megabytes of Direct Access Storage Device (DASD)
- At least 3000 megabytes of auxiliary (tape) storage.

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## 2.1.2 Software Environment

To install the TDIS-CES software, you must meet the standard operating environment (SOE) for **all** of the following software requirements:

- IBM Multiple Virtual System Operating System (MVS/XA)
- IBM Time Sharing Option (TSO)
- Interactive System Productivity Facility (ISPF)
- Run-time libraries for IBM OS-PL/I.

## 2.1.3 Terminal Configuration

For the TDIS-CES system to function properly, you must have synchronous communication with the mainframe computer. Common terminal types for the TDIS-CES system are the IBM 3270, 3170, and 3192. You may also access the TDIS-CES system from a personal computer (PC) which dials into a protocol conversion with 3270-like terminal emulation software or uses internal asynchronous/synchronous conversion.

## 2.1.4 Security Recommendations

Since MVS does not specify a security package, you must establish the following security controls for all TDIS-CES software libraries and tables:

Read Authority	All TDIS-CES users and the application administrator must have read authority for all TDIS-CES software libraries; this excludes user tables.
Write Authority	Only the application administrator should have write authority for the TDIS-CES software libraries; users should not be able to make changes to these libraries.
Create/Destroy Authority	Only the application administrator should have create/destroy authority for the TDIS-CES software libraries. However, all users and the application administrator should have create/destroy authority for the Table library (ISPTLIB).

For dataset protection, you may want to disable *edit* and *replace* commands for TDIS-CES users. These commands are disabled by creating limited command tables for each user. See Section 3.6 for more information on command tables.

For maximum security, users may be issued user IDs specifically for the TDIS-CES application. When these users log on to the MVS system, TDIS-CES is automatically

invoked. When these users log out of the TDIS-CES system, they are automatically logged off of the MVS system.

## 2.2 Installing the TDIS-CES Software

Once the hardware, software, and terminal configuration environments are properly established, you are ready to install the TDIS-CES software. This section provides step-by-step instructions for proper TDIS-CES installation. Section 2.4 provides a sample installation CLIST that you may modify or use as a guideline when installing the TDIS-CES software.

1. **Log on to MVS/TSO.**
2. **Invoke ISPF.**
3. **Determine under which high-level node you will install the TDIS-CES software.**

Datasets belonging to the TDIS-CES application must have a high-level prefix that identifies them as part of the application. Dataset names should have the following format:

[high-level-node-1] [.node-2] [.qualifier]

Bellcore ships software libraries with standard qualifier names; however, you must determine the node prefixes.

4. **Spool the TDIS-CES files onto a DASD.**

Bellcore sends the TDIS-CES files to your location via the MVS NDM Service. Retrieve these files with the IEBCOPY command and spool them onto a DASD. Use the following naming convention:

XXXXX.YYYYY.ZZZZZ

Where

XXXXX	= the name of the high-level node (qualifier)
YYYYY	= the name of the designated area for the TDIS-CES application
ZZZZZ	= the name of the library, as it was allocated at installation (for example, CLIST, TABLES, PANELS).

5. **Create the Security Authorization table.**

**Before** the TDIS-CES software can be accessed, you must create the Security Authorization table (YDCAUTH). The function of the Security Authorization table is to establish the user IDs that can access the TDIS-CES system and to designate the study areas available for each user ID.

The guidelines for the Security Authorization table are listed below:

- You must manually create, maintain, and dataset-protect the Security Authorization table **outside** of the TDIS-CES application.
- Set the dataset security (RACF, ACF2, etc.) of the Security Authorization table so that only the application administrator’s user ID may modify the table. All TDIS-CES users **must** have read-only access to the Security Authorization table.

6. To create the security table table (YDCAUTH):

- a. Select the appropriate method to allow you to create a dataset. The new dataset must have the following attributes:
  - Organization value = physical sequential disk dataset (DSORG (PS))
  - Record format = fixed blocked (RECFM (F,B))
  - Logical record length (LRECL) = 10

The attributes for the new dataset are shown in Figure 2-1.

```

    _____ ALLOCATE NEW DATA SET _____
COMMAND ==> █
DATA SET NAME: XXXXX.YYYY.YDCAUTH

VOLUME SERIAL      ==>          (Blank for authorized default volume) *
GENERIC UNIT       ==>          (Generic group name or unit address) *
SPACE UNITS        ==> TRACK    (BLKS, TRKS, or CYLS)
PRIMARY QUANTITY   ==> 1        (In above units)
SECONDARY QUANTITY ==> 1        (In above units)
DIRECTORY BLOCKS   ==> 0        (Zero for sequential data set)
RECORD FORMAT      ==> FB
RECORD LENGTH      ==> 10
BLOCK SIZE         ==> 6600

( * Only one of these fields may be specified)
    
```

**Figure 2-1.** Attributes of the YDCAUTH Dataset

- b. Edit the YDCAUTH file. Enter the appropriate user identifications (IDs) and associated study areas in the YDCAUTH dataset. The entries in YDCAUTH dataset must have the following format:

- An 8-character MVS/TSO user ID code. The user ID must be alphanumeric, with an initial alphabetic. If the user ID is shorter than 8 characters, pad the remainder of the field with blanks. The user ID must begin in column 1.
- A 2-character authorized study area code. The study area code must consist of 2 alphabetic characters; numeric characters are **never** valid. The study area code must appear in columns 9 and 10.
- The application administrator’s user ID must have a study area value of ”\*\*\*”. This study area value allows access to the Administrator’s Menu, as well as **all** available study areas.
- User IDs with access to more than one study area require separate records for each area.

See Figure 2-2 for an illustration of a populated YDCAUTH dataset. Refer to Section 3.4 for details on updating the YDCAUTH table.

```

EDIT  —  XXXXX.YYYY.YDCAUTH  _____  LINE 00000000 COL 001 010
COMMAND ==> █                SCROLL ==> CSR
***** TOP OF DATA *****
USER01  **      study areas
USER02  AA      ↙
USER02  AB
USER03  AA
USER03  AB
USER04  BB
USER04  ZZ
USER04  AB
USER06  ZZ
USER07  AA
USER07  AB
USER07  ZZ
USER08  AA
USER08  ZZ
USER09  BB
USER09  BC
user IDs
    
```

**Figure 2-2.** YDCAUTH File - With Data

**7. Create a “dummy” user input table library.**

Create a dummy user input table library for every user, including the application administrator. The naming convention for this library is

USERID.DUMMY.TABLES. The following are the required attributes for the dummy tables:

- Track = 1
- Organization value = partitioned organization (DSORG (PO))
- Logical Record Length (LRECL) = 80
- Block size (BLKSIZE) = 6160
- Record format = fixed blocked (RECFM (F,B))

**8. Contact the TDIS and DRMA administrators.**

To allow TDIS-CES users to load the necessary TDIS and DRMA data, arrange the connection between TDIS-CES and DRMA and TDIS-CES and TDIS.

On a monthly or as-needed basis, make sure the TDIS and DRMA data are in the appropriate datasets. TDIS procedures YDTS300 and YDTS510 copy the MFACSUM and MEQPSUM files to disk. The naming conventions for the TDIS and DRMA datasets are shown below:

- DRMA data - XXXX.CPU.DR08
- TDIS data - XXXX.CPU.MFACSUM and XXXX.CPU.MEQPSUM.

**9. Make the required allocations/LIBDEFs.**

Bellcore ships these libraries:	Which must be LIBDEF'ed as:
Loadlib	ISPLLIB
Panels	ISPPLIB
Msgs	ISPMLIB
Tables	ISPTLIB and <i>← input table</i> ISPTABL <i>← output table</i>
Clist	SYSPROC* (add to SYSPROC allocation)

\* See Step 10. for more information on SYSPROC.

The final allocation that must be made is the Security Authorization table, which must be allocated as **YDCAUTH**. Bellcore does **not** ship the YDCAUTH table; it must be created at your company work site (Step 5 provided instructions for creating the Security Authorization table).

You must set up a CLIST (or similar function) to perform the above allocations/LIBDEFs for yourself and all users. All allocations are accessed during each invocation of the TDIS-CES system.

---

See Section 2.4 for a generic example of how to allocate the TDIS-CES libraries.

**10. Append the CLIST library with your SYSPROC.**

Bellcore ships a library called *CLIST*, which must be allocated to SYSPROC. You must append this TDIS-CES CLIST library with the existing SYSPROC allocation. Place this CLIST in a high position in the order of concatenation so that any duplicate names are executed from the TDIS-CES libraries.

See Section 2.4 for an example of how to append the TDIS-CES CLIST library with your SYSPROC. If this procedure is not done correctly, the following message is displayed:

— YDCACC Not Found.

**11. Invoke the main CLIST, YDCACC.**

The main TDIS-CES CLIST is YDCACC. By invoking the YDCACC *CLIST*, the YDCACC *program* will be executed. The TDIS-CES program, YDCACC, validates users' access authority and grants entry into the TDIS-CES system.

Invoke the YDCACC CLIST, which is the entry point into the TDIS-CES system, with the following command:

```
ISPEXEC SELECT CMD(%YDCACC &YDCDEPTH) NEWAPPL(YDC) PASSLIB
```

See Section 2.4 for a generic example of how to invoke YDCACC.

**12. Access the TDIS-CES system.**

Since the Common Variables table has not yet been created, you receive an error message. You may ignore this error message; however, you must immediately proceed to Step 12.

**13. Create the Common Variables table.**

The Common Variables table is used to store variables applicable to all TDIS-CES users. The Common Variables table **must** be created before users may access the system to perform TDIS-CES functions. Refer to Section 4.1 for directions on how to access the Administrator's Menu to create the Common Variables table.

**14. Create the Debugging Tool Generation Data Groups.**

The Debugging Tool Process within CES requires certain Generation Data Groups to be created prior to execution of the CES system. A JCLLIB member, YDCSI01, has to be executed for each study area with the CES system in order to create the required Generation Data Group bases.

## 2.3 Problem Solving

If you have trouble installing the software, refer to Section 2.4 to see a sample installation CLIST or call the TDIS-CES hotline, (201) 699-8506.

## 2.4 Sample Installation CLIST

This section provides a sample installation CLIST (Exhibit 2-1) that you may use as a guide when creating your own CLISTS for installation. You may also modify and use this sample installation CLIST at your company site. The YDCALLOC member of the CLIST library contains an electronic copy of Exhibit 2-1.

Although you may install the TDIS-CES libraries and front-end in several ways, certain parts of the installation must be set up exactly as they are in Exhibit 2-1. For functions such as split screen to work properly, duplicate the sections that are preceded with an arrow symbol ( $\Rightarrow$ ) and appear in boldface italic type in Exhibit 2-1.

### Exhibit 2-1. Sample Installation CLIST

```

/**** YDCALLOC 8.1 05/13/98 15:35:34 ****/
/**** COPYRIGHT 1998 BELL COMMUNICATIONS RESEARCH, INC. ****/
PROC 0
WRITE /*****
WRITE /* THIS CLIST IS A MODEL IT IS NOT INTENDED FOR USE IN THE */
WRITE /* TDIS-CES SYSTEM AS IS. IT MAY BE MODIFIED BASED ON */
WRITE /* LOCAL COMPANY CONVENTIONS AND USED. */
WRITE /*****
EXIT
/* CONTROL MAIN NOPROMPT SYMLIST LIST CONLIST MSG NOFLUSH
CONTROL MAIN NOPROMPT NOSYMLIST NOLIST NOCONLIST NOMSG NOFLUSH
/*****
/* THIS CLIST MUST PERFORM THE FOLLOWING STEPS IN ORDER TO */
/* INVOKE THE TDIS-CES SYSTEM CORRECTLY: */
/* 1) INCREMENT THE YDCDPH0 COUNTER */
/* 2) ADD THE TDIS-CES CLIST LIBRARY TO SYSPROC. (IF NECESSARY) */
/* 3) LIBDEF TDIS-CES LOAD MODULE LIBRARY AS ISPLLIB. */
/* 4) LIBDEF TDIS-CES MESSAGE LIBRARY AS ISPMLIB. */
/* 5) LIBDEF TDIS-CES PANEL LIBRARY AS ISPLLIB. */
/* 6) LIBDEF TDIS-CES TABLE LIBRARY AS ISPTABL. */
/* 7) LIBDEF USER AND TDIS-CES TABLE LIBRARIES AS ISPTLIB. */
/* NOTE: A USER TABLE LIBRARY MUST ALWAYS COME FIRST TO AVOID */
/* TABLE LOCKOUTS. */
/* 8) ALLOCATE TDIS-CES AUTHORIZATION SECURITY TABLE AS YDCAUTH. */

```

```

/* 9) AFTER THESE STEPS ARE COMPLETED SUCCESSFULLY, INVOKE      */
/* TDIS-CES UTILIZING THE FOLLOWING COMMAND:                        */
/*   ISPEXEC SELECT CMD(%YDCACC &YDCDEPTH) NEWAPPL(YDC) PASSLIB  */
/* 10) DEALLOCATE YDCAUTH AND REVOKE LIBDEFS FOR TDIS SOFTWARE   */
/* 11) DECREMENT THE YDCDPH0 COUNTER                              */
/* 12) RESTORE SYSPROC.                                           */
/* *****                                                        */
/* *****                                                        */
/* *****                                                        */
/* THE FOLLOWING IS AN EXAMPLE OF HOW TO ALLOW USERS TO CHOOSE   */
/* BETWEEN A TEST TABLE LIBRARY AND A PRODUCTION TABLE LIBRARY. */
/* IF A TEST TABLE LIBRARY IS NOT NECESSARY, THEN JUST LIBDEF THE*/
/* PRODUCTION TABLE LIBRARY. THIS EXAMPLE CAN BE TAILORED MANY  */
/* WAYS TO MEET A COMPANY'S NEEDS. FOR EXAMPLE, THE USER CAN    */
/* CHOOSE BETWEEN TWO DISTINCT ENVIRONMENTS, A TEST ENVIRONMENT */
/* WITH TEST TABLES AND SOFTWARE (I.E NEW RELEASES) AND A      */
/* PRODUCTION ENVIRONMENT.                                       */
/* *****                                                        */
/* *****                                                        */
/* *****                                                        */
/* KEEP TRACK OF THE NUMBER OF INVOCATIONS OF TDIS-CES.         */
/* *****                                                        */
ISPEXEC VGET YDCDPH0 PROFILE
SET YDCDPH0 = &YDCDPH0 + 1
IF &YDCDPH0 < 1 +
THEN DO
    WRITE
    WRITE THE NESTING LEVEL COUNTER IS IN ERROR (VAL = &YDCDPH0).
    WRITE LEAVE TDIS-CES AND EXECUTE 'YDCDEPTH' CMD TO CORRECT, THEN
    WRITE TRY AGAIN. IF PROBLEM RECURS, CONTACT YOUR ADMINISTRATOR.
    WRITE
    EXIT
END
ISPEXEC VPUT YDCDPH0 PROFILE
/* *****                                                        */
/* CHECK TDIS-CES DEPTH LEVEL. IF FIRST INVOCATION, ADD TDIS-CES*/
/* CLIST LIBRARY TO SYSPROC, OTHERWISE LEAVE SYSPROC AS IS.     */
/* *****                                                        */
IF &YDCDPH0 = 1 +
THEN DO
    SET YDCSP = &STR( )
    /* *****                                                        */
    /* DETERMINE WHICH DATASETS ARE CURRENTLY ALLOCATED TO SYSPROC */
    /* AND STORE THEM IN VARIABLE YDCPROC, THEN REBUILD SYSPROC   */

```

```

/* WITH THESE DATASETS AND THE TDIS-CES CLIST LIBRARY.          */
/*****
SET SYSOUTTRAP = 200
LISTA ST
SET X = 2
DO WHILE &X <= &SYSOUTLINE
    SET YDCFILE = &&SYSOUTLINE&X
    IF &SUBSTR(1:9,&STR(&YDCFILE          )) = &STR(  SYSPROC ) +
    THEN DO
        SET YDCSP = '&&SYSOUTLINE&EVAL(&X-1) '
        DO WHILE &X+2 <= &SYSOUTLINE
            SET X = &X+2
            SET YDCDSN = &&SYSOUTLINE&X
            IF &SUBSTR(3:9,&STR(&YDCDSN          )) = &STR( ) +
            THEN SET YDCSP = &YDCSP, '&&SYSOUTLINE&EVAL(&X-1) '
            ELSE SET X = &SYSOUTLINE+1
        END
    END
    ELSE SET X = &X+1
END
SET SYSOUTTRAP = 0
/*****
/* IF NO DATASETS WERE FOUND FOR SYSPROC, TERMINATE CLIST.      */
/*****
IF &YDCSP = &STR( ) +
THEN DO
    SET YDCDPH0 = 0
    ISPEXEC VPUT YDCDPH0 PROFILE
    WRITE SYSPROC ALLOCATION CAN NOT BE FOUND !
    EXIT
END
SET YDCPROC = &YDCSP
ISPEXEC VPUT YDCPROC PROFILE
ALLOC DD(SYSPROC) DSN(&YDCPROC 'YDCS.CES.CLIST') SHR REUSE
/*****
/* IF THE NEW SYSPROC COULD NOT BE BUILT, TERMINATE CLIST.      */
/*****
IF &LASTCC a= 0 +
THEN DO
    WRITE ERROR ENCOUNTERED WHILE ATTEMPTING TO ALLOCATE SYSPROC !
    GOTO X7
END
END
/*****

```

```

/* DETERMINE WHICH LOGICAL SCREEN THIS IS, AND THE LEVEL WITHIN IT*/
/*****
ISPEXEC VGET ZSCREEN SHARED
ISPEXEC VGET YDCDPH&ZSCREEN PROFILE
SET LEVELCTR = &&YDCDPH&ZSCREEN
SET LEVELCTR = &LEVELCTR + 1
IF &LEVELCTR > 9 +
THEN DO
    WRITE MAX. DEPTH OF 9 LEVELS EXCEEDED IN LOGICAL SCREEN &ZSCREEN
    SET YDCDPH0 = &YDCDPH0 - 1
    ISPEXEC VPUT YDCDPH0 PROFILE
    EXIT
END
SET YDCDPH&ZSCREEN = &LEVELCTR
ISPEXEC VPUT YDCDPH&ZSCREEN PROFILE
SET YDCDEPTH = &STR(&ZSCREEN)&LEVELCTR
/*****
/* LIBDEF THE TDIS-CES LOAD LIBRARY AS ISPLLIB.
*/
/*****
ISPEXEC LIBDEF ISPLLIB DATASET ID('YDCS.CES.LOADLIB')
IF &LASTCC a= 0 +
THEN DO
    WRITE LIBDEF FOR LOAD LIBRARY (ISPLLIB) FAILED !
    GOTO X6
END
/*****
/* LIBDEF THE TDIS-CES MESSAGE LIBRARY AS ISPMLIB.
*/
/*****
ISPEXEC LIBDEF ISPMLIB DATASET ID('YDCS.CES.MSGS')
IF &LASTCC a= 0 +
THEN DO
    WRITE LIBDEF FOR MESSAGE LIBRARY (ISPMLIB) FAILED !
    GOTO X5
END
/*****
/* LIBDEF THE TDIS-CES PANEL LIBRARY AS ISPLLIB.
*/
/*****
ISPEXEC LIBDEF ISPLLIB DATASET ID('YDCS.CES.PANELS')
IF &LASTCC a= 0 +
THEN DO
    WRITE LIBDEF FOR PANEL LIBRARY (ISPLLIB) FAILED !
    GOTO X4
END
/*****

```

---

```

/* DETERMINE WHETHER TO USE THE TEST OR PRODUCTION TABLE LIBRARY. */
/*****
WRITENR ENTER TABLE LIBRARY OPTION (TEST/PROD) ==>
READ &MODE
IF &MODE ^= PROD THEN SET MODE = TEST
/*****
/* LIBDEF THE TDIS-CES TABLE OUTPUT LIBRARY AS ISPTABL.          */
/*****
IF &MODE = PROD +
THEN ISPEXEC LIBDEF ISPTABL DATASET ID('YDCS.CES.TABLES')
ELSE ISPEXEC LIBDEF ISPTABL DATASET ID('YDCS.CESTEST.TABLES')
IF &LASTCC ^= 0 +
THEN DO
    WRITE LIBDEF FOR &MODE TABLE OUTPUT LIBRARY (ISPTABL) FAILED !
    GOTO X3
END
/*****
/* LIBDEF THE TDIS-CES TABLE INPUT LIBRARY AS ISPTLIB.          */
/* NOTE: A USER DUMMY TABLE LIBRARY MUST ALWAYS BE THE FIRST   */
/* INPUT TABLE LIBRARY FOR LOCKING PURPOSES.                      */
/*****
IF &MODE = PROD +
THEN ISPEXEC LIBDEF ISPTLIB DATASET ID('&SYSUID..DUMMY.TABLES' , +
                                         'YDCS.CES.TABLES')
ELSE ISPEXEC LIBDEF ISPTLIB DATASET ID('&SYSUID..DUMMY.TABLES' , +
                                         'YDCS.CESTEST.TABLES')

IF &LASTCC ^= 0 +
THEN DO
    WRITE LIBDEF FOR &MODE TABLE INPUT LIBRARY (ISPTLIB) FAILED !
    GOTO X2
END
/*****
/* ALLOCATE THE TDIS-CES AUTHORIZATION SECURITY TABLE AS YDCAUTH. */
/*****
ALLOC DD(YDCAUTH) DSN('YDCS.CES.YDCAUTH') SHR REUSE
IF &LASTCC ^= 0 +
THEN DO
    WRITE ALLOCATION OF AUTHORIZATION SECURITY TABLE (YDCAUTH) FAILED!
    GOTO X1
END
/*****
/* INVOKE THE TDIS-CES SYSTEM USING CMD(%YDCACC) AND NEWAPPL(YDC).*/
/*****
ISPEXEC SELECT CMD(%YDCACC &YDCDEPTH) NEWAPPL(YDC) PASSLIB

```

```

/*****/
/* FREE THE TDIS-CES AUTHORIZATION SECURITY TABLE (YDCAUTH). */
/*****/
X1: FREE DD(YDCAUTH)
/*****/
/* REVOKE THE LIBDEFS ISSUED FOR THE TDIS SOFTWARE LIBRARIES. */
/*****/
X2: ISPEXEC LIBDEF ISPTLIB DATASET ID( )
      IF &LASTCC ^ = 0 THEN WRITE CANCEL OF LIBDEF FOR ISPTLIB FAILED !
X3: ISPEXEC LIBDEF ISPTABL DATASET ID( )
      IF &LASTCC ^ = 0 THEN WRITE CANCEL OF LIBDEF FOR ISPTABL FAILED !
X4: ISPEXEC LIBDEF ISPPLIB DATASET ID( )
      IF &LASTCC ^ = 0 THEN WRITE CANCEL OF LIBDEF FOR ISPPLIB FAILED !
X5: ISPEXEC LIBDEF ISPMLIB DATASET ID( )
      IF &LASTCC ^ = 0 THEN WRITE CANCEL OF LIBDEF FOR ISPMLIB FAILED !
X6: ISPEXEC LIBDEF ISPLLIB DATASET ID( )
      IF &LASTCC ^ = 0 THEN WRITE CANCEL OF LIBDEF FOR ISPLLIB FAILED !
/*****/
/* REMOVE TDIS-CES CLIST LIBRARY FROM SYSPROC (RESTORE SYSPROC) */
/*****/
X7: ISPEXEC VGET YDCDPH0 PROFILE
      SET YDCDPH0 = &YDCDPH0 - 1
      ISPEXEC VPUT YDCDPH0 PROFILE
      IF &YDCDPH0 = 0 +
      THEN DO
          ISPEXEC VGET YDCPROC PROFILE
          ALLOC DD(SYSPROC) DSN(&YDCPROC) SHR REUSE
      END
      ISPEXEC VGET ZSCREEN SHARED
      ISPEXEC VGET YDCDPH0&ZSCREEN PROFILE
      SET LEVELCTR = &&YDCDPH0&ZSCREEN
      SET LEVELCTR = &LEVELCTR - 1
      SET YDCDPH0&ZSCREEN = &LEVELCTR
      ISPEXEC VPUT YDCDPH0&ZSCREEN PROFILE
END

```

### 2.4.1 New TDIS-CES Datasets

The following temporary datasets are dynamically created with a disposition of *new* (DISP = NEW, DELETE). These datasets are also dynamically deleted. The following list provides the DDNAMES allocated. These datasets are created with system-generated dataset names.

**Table 2-1. DISP = NEW, DELETE Datasets**

YDCA&YDCDEPTH	YDC8IN
YDCCR&YDCPEPTH	YDCCP
YDCDR&YDCDEPTH	YDC8OUT
YDCERR&YDCDEPTH	YDCIIN
YDCIR&YDCDEPTH	YDCIOUT
YDCMR&YDCDEPTH	YDCILR
YDCRR&YDCDEPTH	SYSOUT
YDCTCR&YDCDEPTH	\$ORTPARM
YDCTER&YDCDEPTH	YDC0IN
YDCTGR&YDCDEPTH	YDC0OUT
YDCTHR&YDCDEPTH	YDC1IN
YDCTIR&YDCDEPTH	YDC1OUT
YDCTLR&YDCDEPTH	YDC2IN
YDCTMR&YDCDEPTH	YDC2OUT
YDCTNR&YDCDEPTH	YDCS0R
YDCTSR&YDCDEPTH	YDCMATCH
YDCTTR&YDCDEPTH	YDCLAC
YDCTUR&YDCDEPTH	YDCSAC
YDCUR&YDCDEPTH	YDCTEMP
YDCRIN	YDCULR
YDCROUT	

The YDCDEPTH variable can contain values of 11 through 19, 21 through 29, 31 through 39, and 41 through 49. These values allow you to use split-screen mode to create four screens; each screen may contain up to 9 invocations of TDIS-CES.

### 3. Operations

To maintain the TDIS-CES system properly, you must be aware of the standard system operations. This section includes guidelines for the following operations:

- Handling the TDIS-CES system files and functions
- Restoring the TDIS-CES system when the MVS operating system crashes
- Adding more virtual memory
- Updating the Security Authorization table
- Allowing and denying access to the TDIS-CES system
- Modifying command tables for specific users
- Adding a study area
- Removing a study area
- Resetting the YDCDEPTH counter
- Using the Trace function.

#### 3.1 Handling the TDIS-CES Files and Functions

To properly maintain the TDIS-CES system, it is important for you to be familiar with the ISPF environment and its tools, as well as the TDIS-CES structure. The following list provides some helpful guidelines for handling TDIS-CES files and functions.

- Be aware of the naming conventions of your TDIS-CES libraries. These files are stored under a specific, high-level node; the library names should have standard prefixes. The following is an example of the naming convention for TDIS-CES libraries:

XXXXX.YYYYY.ZZZZZ

- Where XXXXX = the name of the high-level node (qualifier)  
      YYYYY = the name of the designated area for the TDIS-CES application  
      ZZZZZ = the name of the library, as it was allocated at installation (for example, CLIST, TABLES, PANELS).
- Be aware of the naming conventions of the DRMA and TDIS datasets. The following is an example of the naming convention for the DRMA file:

XXXXX.CPU.DR08

- 
- Where XXXXX = the name of the high-level node (qualifier)  
CPU = the CPU code  
DR08 = the name of the DRMA file.
  - The following is an example of the naming conventions for the TDIS files:  

```
XXXXX.CPU.MFACSUM  
XXXXX.CPU.MEQPSUM
```
  - Where XXXXX = the name of the high-level node (qualifier)  
CPU = the CPU code  
MFACSUM/MEQPSUM = the names of the TDIS files.
  - Be aware of the naming conventions of your TDIS-CES members within each library.  
The following is an example of the naming convention for TDIS-CES members:  

```
YDCXXXXX
```
  - Where YDC = the prefix that has been allotted for all TDIS-CES files  
XXXXX = an abbreviation for the function; for example,  
YDCCOMV is the member that contains the common  
variable information. The function abbreviation  
(XXXXX) consists of 2-5 characters.
  - Remember that any TSO command may be executed in the  
*COMMAND* ==> field on the TDIS-CES screens.
  - The maximum number of files concurrently allocated if you are in split screen mode  
is 25.
  - To conserve space, compress the TDIS-CES datasets once a week.
  - The YDCBRWSE CLIST uses the IEBGENER MVS system utility. To conform to  
local standards, you may wish to use another system utility in place of IEBGENER.
  - You may use any TSO editor to modify the TDIS-CES Security Authorization table  
(YDCAUTH).

### 3.2 If the MVS Operating System Crashes

If the MVS operating system crashes at any point during a circuit equipment study, you must restore the TDIS-CES system to its normal functioning condition **before** users return to work. The following is a list of some likely problems that may need to be resolved after the MVS operating system crashed and was restored:

1. Use option **Q** (query locks) on the Administrator's Menu to find out if the Investment and/or Usage tables are locked for the study area that was undergoing an investment or usage load at the time of the crash. If the table(s) are locked, unlock them by using the **I** and **U** options on the Administrator's Menu. See Section 4.5 for directions on using the lock functions on the Administrator's Menu.
2. Reset the YDCDEPTH counter to **0**. This procedure is determined by a BCC-specific method. The following are two messages that indicate the YDCDEPTH counter needs to be reset:
  - YDCACC Not Found
  - Cannot allocate YDCACC.
3. Instruct users to log out of the TDIS-CES system and ISPF before they rerun the function(s) that were in process at the time of the crash.

### 3.3 Adding More Virtual Memory

Virtual memory is the “on-line” space that is allotted for each TSO user ID. The recommended space needed for the TDIS-CES system is 3000K. Your space requirements may vary according to company needs.

Since it is possible to need more virtual memory than what is currently available, users (including the application administrator) may adjust the amount of virtual memory allotted to their user ID.

Add more virtual memory when:

- You (or any TDIS-CES user) receive a Region Abend message indicating there is not enough memory to continue processing.
- All TDIS-CES functions fail to execute, resulting in a Region Abend message indicating there is not enough memory to execute a TDIS-CES function.

To add more virtual memory:

1. Log on to MVS/TSO.
2. On the TSO/E Logon screen, increase the value in the *SIZE* ==> field. **Important:** Adding virtual memory on the TSO/E Logon screen is a common way of adding

memory. If you choose to set up your logon procedures differently, this affects the procedure for adding more virtual memory.

**NOTE** — You must always be aware of your machine's virtual memory constraints. You may **not** add more virtual memory than is available on your machine. You will not be permitted to log on if you have specified more virtual memory than the available amount. If you need more memory than what is available, contact the TSO system administrator.

### 3.4 Updating the Security Authorization Table

The purpose of the Security Authorization table (YDCAUTH) is to govern which TSO user IDs may have access to the TDIS-CES system. Without the administrative capabilities of the Security Authorization table, anyone with a TSO user ID would be able to access the TDIS-CES system.

The Security Authorization table must be updated when:

- A new TSO user ID, requiring access to the TDIS-CES system, is established
- An existing TSO user ID is terminated or should no longer have access to the TDIS-CES system
- A new study area is created and existing user IDs need to access the new area
- An existing study area is deleted
- A user ID needs to access a study area that is not currently authorized for that user ID.
- A user ID should be denied access to a study area that is currently authorized for that user ID.

To update the Security Authorization table:

1. Access the ISPF environment.
2. Edit the YDCAUTH file. There are several ways to edit this file; choose the method that is most suitable for your needs.
3. Update the YDCAUTH file by adding or deleting user IDs and/or study areas.

**NOTE** — Only the TDIS-CES application administrator may update the Security Authorization table.

See Figure 3.1 and the following text for more information about updating the Security Authorization table.

```

EDIT  — XXXXX.YYYY.YDCAUTH  ————— LINE 00000000 COL 001 010
COMMAND ==> █                SCROLL ==> CSR
***** TOP OF DATA *****
USER01  **
USER02  AA
USER02  AB
USER03  AA
USER03  AB
USER04  BB
USER04  ZZ
USER04  AB
USER06  ZZ
USER07  AA
USER07  AB
USER07  ZZ
USER08  AA
USER08  ZZ
USER09  BB
USER09  BC
    
```

**Figure 3-1.** Updating the Security Table

**Examples:**

- If you want to delete study area **ZZ**, you must delete all references to it for the following user IDs: USER04, USER06, USER07, USER08.
- If you want user ID **USER04** to have access only to study areas **BB** and **ZZ**, you must delete the line of the table that says **USER04 AB**.
- If user ID **USER09** should no longer have access to the TDIS-CES system, you must delete all lines of the table that include that user ID.

### 3.5 Adding and Removing TDIS-CES Users

Occasionally, users may require or be denied access to the TDIS-CES system. To maintain proper security, it is essential that access or denial to the TDIS-CES system is monitored closely.

To allow a new user access to the TDIS-CES system:

1. Make sure that the user has a valid user ID for the MVS and TSO systems with sufficient region allocated. If the user does not have valid MVS and TSO user IDs, instruct him/her to contact the MVS computer center administrator.
2. Add the new user ID, with its authorized study areas, to the Security Authorization table (YDCAUTH). See Section 3.4 for directions on updating the Security Authorization table.
3. Set up a command table to monitor the commands available to the user (optional). See Section 3.6 for more information about command tables.

To deny a current user access to the TDIS-CES system:

- Delete all records for the user ID and its authorized study areas from the Security Authorization table (YDCAUTH).

### 3.6 Modifying Command Tables

TDIS-CES provides a standard command table to enable users to perform the functions needed to operate the system. This command table enables users to

- scroll right
- scroll left
- disable the attention\* command throughout the *entire* TDIS-CES application.

The standard command table (YDCCMDS) for the TDIS-CES system is located in the table library (YDCTLIB). See Figure 3.3 for an illustration of the standard command table.

Each BCC may restrict access to specified commands (for example, EDIT, SUBMIT) for certain users. If you want to restrict a user's access to certain commands, you must modify the user's ISPF command table. For detailed instructions on modifying command tables, refer to the *ISPF Dialog Management Guide* (SC 34-4112-00, Appendix A).

---

\* The term *attention* refers to ending a command in the middle of its execution. Attention performed during an update can destroy a table.

```

BROWSE — XXXXX.YYYY.TABLES(YDCCMDS)- 01.00 ——— LINE 00000000 COL 001 080
COMMAND ==> █ SCROLL ==> PAGE
***** TOP OF DATA *****
..TIR:...0.\SARCMS .....h...-.....a.....i.....TSOPLD .....ZCTVER
B .....M.ZCTTRUNC.....ZCTACT .....ZCTDESC .....LEFT
..0..PASSTHRU..SCROLL LEFT.....RIGHT..0..PASSTHRU..SCROLL RIGHT
***** BOTTOM OF DATA *****
    
```

Figure 3-2. Standard Command Table (YDCCMDS)

### 3.7 Adding a Study Area

At times, you may need to add a new study area to the TDIS-CES system so that users may access the new data.

To add a study area:

1. In the Security Authorization table (YDCAUTH), add records for the new study area for the user IDs that should have authorization to access the new study area. A table for the new study area is automatically created during the Load Investment or Load Usage process in the table library; its naming convention is YDCVARxx, where xx = the code for the new study area.
2. Instruct users to execute any TDIS-CES update/change function for the new study area.

### 3.8 Removing a Study Area

When a study area is no longer in operation, all references to it throughout the TDIS-CES system should be removed.

To remove a study area:

1. Delete all records for the obsolete study area from the Security Authorization table (YDCAUTH).
2. Delete all tables in the table library for the obsolete study area. Tables whose last two characters are the obsolete study area should be removed; for example, if you want to delete all of the tables for study area “AB”, delete all tables with the last two characters “AB” (YDCBINAB, YDCSBDAB, etc.).

### 3.9 Resetting the YDCDEPTH Counter

The YDCDEPTH counter enables users to simultaneously access split screen mode and multiple invocations of ISPF and TDIS-CES by managing the allocation and de-allocation of the TDIS-CES CLIST libraries to SYSPROC. The YDCDEPTH counter must be incremented for each invocation of TDIS-CES and decremented when each invocation is terminated. This restores the counter to 0 at the end of each session (all invocations of TDIS-CES).

In case of an MVS crash or time-out, users should be able to reset/erase the YDCDEPTH counter. The following are two messages that indicate the YDCDEPTH counter needs to be reset:

- YDCACC Not Found
- Cannot allocate YDCACC.

You may reset YDCDEPTH in your own YDCDEPTH CLIST, or use the one provided for you in the CLIST library. The following is the sample YDCDEPTH CLIST from the CLIST library:

```
PROC 0
  ISPEXEC VERASE (YDCDPH0 YDCDPH1 YDCDPH2 YDCDPH3+
                YDCDPH4 YDCPROC YDCDEPTH) PROFILE
END
```

### 3.10 Tracking Error Conditions with the Trace Function

The Trace function allows you to review the CLISTS that trigger the TDIS-CES functions. By reviewing these CLISTS, you may be able to isolate the cause of certain error conditions. To use the Trace function effectively, you must be knowledgeable about CLISTS and basic MVS programming.

The Trace function is helpful when:

- A user executes any TDIS-CES function and receives an error message indicating that a file allocation failed.
- An attempt to execute a function produces no results or *hangs*
- A CLIST error is encountered
- Any other irregular operating condition occurs.

To use the Trace function:

1. Determine which TDIS-CES function is not working properly. **Important:** This example uses the HI-CAP Group Code User Table and study area **OH** as the demonstration for using the Trace function.
2. Access the Administrator's Menu (see Figure 3-3). For directions on accessing the Administrator's Menu, see Section 4.

```

----- T/DIS-CES ADMINISTRATOR MENU -----
OPTION ==> █

      C T/DIS-CES - Enter T/DIS-CES Application
      V COMM VARS - Update the Common Variable Table
      L LIB COMPR - Compress Library PDS

      Q QUERY LOCK - Determine ID(s) Holding Table Locks
      I INV LOCK  - Release Lock on the Investment Table
      U USG LOCK  - Release Lock on the Usage Table

      X EXIT      - Exit T/DIS-CES Administrative Functions

Please enter the two character study area code for processing:
      STUDY AREA ==>      (Omit for option 'L' or 'V')

                        For CLIST Diagnostics only - TRACE: OFF

DSN to Compress:
(Option 'L' only - Normally TABLE library DSN entered - in quotes)

Press ENTER to continue, X to exit, or HELP for more information

```

**Figure 3-3.** Administrator's Menu

3. Enter the code of the function you want to trace in the *OPTION* ===> field and press the TAB key. The option shown in Figure 3-3 is C.
4. Enter the study area code for the function you want to trace. **Important:** If the function you want to trace does not require a study area code (such as option V - Common Variables Table), do not enter a study area code into this field.
5. Type the word **on** on top of the word **OFF**. Press the space bar so the **F** from the word **OFF** disappears.

**NOTE** — The default mode for the Trace option is **OFF**. When the Trace function is activated (switched **ON**), it stays in effect until you return to the Administrator's Menu. Once you return to the Administrator's Menu, the Trace mode automatically returns to the **OFF** position.

6. Press the ENTER key. The screen for the option you chose to trace is displayed. The screen for this example is the TDIS-CES Main Menu (see Figure 3-4).

```

----- TDIS-CES MAIN MENU -----
OPTION ===>

  IL INV. LOAD - Load DRMA Investment Data      STUDY AREA: OH
  UL USAGE LOAD - Load TDIS Usage Data         DRMA DATE: 06/93
  UC USAGE RPT - Develop Usage CC/CAT/ECN data  TDIS DATE: 10/04/93
  D DRMA      - Verify DRMA Investment         PRINTER: PY4P11
  M MATCH     - Match Usage and Investment     CLASS: A
  I INVESTMENT - Analyze/Adjust Investment
  C COMPL USAGE- Verify Complement Usage
  U USAGE     - Analyze/Adjust Usage
  S STUDY     - Execute Basic Study
  R RESULTS   - Verify Study Results
  B BROWSE    - Browse load, CC/CAT/ECN or Study Reports
  T TABLES   - Manage User Tables
  RI INV LOCK - Release Lock on the Investment Table
  RU USG LOCK - Release Lock on the Usage Table
  SR STATUS   - Status Report
  DB DEBUG AIDE - Debugging Aide
  X EXIT      - Exit TDIS-CES Application

Press ENTER to continue, X to exit, or HELP for more information.
    
```

**Figure 3-4.** TDIS-CES Main Menu for Trace Function

7. Enter the code for the TDIS-CES function you want to trace in the *OPTION* ===> field and press the ENTER key. The screen for the option you chose

to trace is displayed (see Figure 3-5). The screen for this example is the User Table Management Menu (option **T** on the Main Menu).

```

----- TDIS-CES USER TABLE MANAGEMENT -----
OPTION ==> █

C CARRIER SPREAD - Carrier Distribution Table      STUDY AREA: OH
E STUDY AREA ECN  - Study Area ECN Table           DRMA DATE: 06/93
G GROUP CODES    - HI-CAP Group Codes Table       TDIS DATE: 10/04/93
H CLASS CODES    - HI-CAP Class Code Table        PRINTER: PY4P11
N NO 800 SPREAD  - No 800 Spread ECN Table        CLASS: A
I ICAC           - Inter-Company Administrative Contract Table
L SELECTED LOC   - Selected Locations Study Table
M MAPPINGS       - Location, ECN, FRC Mapping Table
S SEP CATEGORIES - Class Code to Separations Category Table
SI INVESTMENT    - Supplemental Investment Table
T TECH WEIGHTING - Technology Weighting Table
U USAGE          - Supplemental Usage Tables
UM USAGE MAPPINGS - Usage Location, ECN, and TD Mapping Table
X EXIT           - Exit TDIS-CES User Tables

Press ENTER to continue, X to exit, or HELP for more information.

```

**Figure 3-5.** User Table Management Menu

8. Enter the code for the option you want to trace. The option for this example is **G** (HI-CAP Group Codes Table).
9. Press the ENTER key. The Tracing screens, which contain CLIST code, are displayed (see Figure 3-6).

```

/*****
/*      BEGIN CLIST: YDCHGC0      */
/*****

END
END
ISPEXEC CONTROL ERRORS RETURN
ISPEXEC CONTROL ERRORS RETURN
ERROR
ERROR
SET &CC = 0
SET &CC = 0
ISPEXEC
ISPEXEC FREE DDNAME(&RPTNME)
IF DDNAME(YDCGP1)
IF DDNAME(YDCGP1) FILE YDCGP1 NOT FREED, IS NOT ALLOCATED
SET ISPEXEC VGET (DEST) PROFILE
SET ISPEXEC VGET (DEST) PROFILE
FREE ALLOC FILE(&RPTNME) SYSOUT(A) DEST(&DEST)
FREE ALLOC FILE(YDCGP1) SYSOUT(A) DEST(XYZ)
FILE SYSOUT DATA SET NOT ALLOCATED, DESTINATION UNDEFINED TO SUBSYSTEM
DO IF &LASTCC ^= 0 THEN
DO IF 12 ^= 0 THEN
SET DO
*** DO
SET DDNME = DD(&RPTNME)
SET DDNME = DD(YDCGP1)
SET DSNME = &STR(SYSOUT(A) DEST(&DEST))
SET DSNME = SYSOUT(A) DEST(XYZ)
ISPEXEC SETMSG MSG(YDC000A)
ISPEXEC SETMSG MSG(YDC000A)
GOTO ENDIT
GOTO ENDIT
FREE DD(&DDNME &RPTNME)
FREE DD(DD(YDCGP1) YDCGP1)
INVALID FILE NAME, DD(YDCGP1)
*** █

EXIT
EXIT
*** █
    
```

Figure 3-6. Trace Screens #1 - 3 for the HI-CAP Group Codes

10. Review the CLIST code for possible errors. Press the ENTER key to move from one Trace screen to the next.

Since the function failed, the HI-CAP Group Codes table (option G) is **not** displayed. The system returns to the User Table Management Menu, with an error message in the upper-right corner of the screen (see Figure 3-7).

```

----- TDIS-CES USER TABLE MANAGEMENT ----- ALLOCATION FAILED
OPTION ==> █

C CARRIER SPREAD - Carrier Distribution Table      STUDY AREA: OH
E STUDY AREA ECN  - Study Area ECN Table           DRMA DATE: 06/93
G GROUP CODES    - HI-CAP Group Codes Table        TDIS DATE: 10/04/93
H CLASS CODES    - HI-CAP Class Code Table         PRINTER: PY4P11
N NO 800 SPREAD  - No 800 Spread ECN Table         CLASS: A
I ICAC           - Inter-Company Administrative Contract Table
L SELECTED LOC   - Selected Locations Study Table
M MAPPINGS       - Location, ECN, FRC Mapping Table
S SEP CATEGORIES - Class Code to Separations Category Table
SI INVESTMENT    - Supplemental Investment Table
T TECH WEIGHTING - Technology Weighting Table
U USAGE          - Supplemental Usage Tables
UM USAGE MAPPINGS - Usage Location, ECN, and TD Mapping Table
X EXIT           - Exit TDIS-CES User Tables

Press ENTER to continue, X to exit, or HELP for more information.
    
```

**Figure 3-7.** The User Table Management Menu - With an Error Message

11. Resolve the error(s) you found when using the Trace function. If you did not find any errors, investigate other possible causes of the problem.

**NOTE —** The trace function remains activated until you return to the Administrator’s Menu.

See Section 3.10.1 for an illustration and example of a CLIST error.

### 3.10.1 Finding a CLIST Error with the Trace Function

The following example illustrates a CLIST error that was detected in the trace of the HI-CAP Group Codes Table (from Section 3.10). Figure 3-8 illustrates a printer allocation problem, which was simple to detect with the Trace function.

```

FREE DDNAME(&RPTNME)
FREE DDNAME(YDCGP1)
FILE YDCGP1 NOT FREED, IS NOT ALLOCATED
ISPEXEC VGET (DEST) PROFILE
ISPEXEC VGET (DEST) PROFILE
ALLOC FILE(&RPTNME) SYSOUT(A) DEST(&DEST)
ALLOC FILE(YDCGP1) SYSOUT(A) DEST(XYZ)
  SYSOUT DATA SET NOT ALLOCATED, DESTINATION UNDEFINED TO SUBSYSTEM
IF &LASTCC ^= 0 THEN
IF 12 ^= 0 THEN
DO
DO
SET DDNME = DD(&RPTNME)
SET DDNME = DD(YDCGP1)
SET DSNME = &STR(SYSOUT(A) DEST(&DEST))
SET DSNME = SYSOUT(A) DEST(XYZ)
ISPEXEC SETMSG MSG(YDC008A)
ISPEXEC SETMSG MSG(YDC008A)
GOTO ENDIT
GOTO ENDIT
FREE DD(&DDNME &RPTNME)
FREE DD(DD(YDCGP1) YDCGP1)
INVALID FILE NAME, DD(YDCGP1)
*** █
    
```

↑  
 Indicates that the printer destination is not valid.

**Figure 3-8.** Trace Screen #2 from the HI-CAP Group Codes Table Trace

To solve the allocation problem illustrated in Figure 3-8, enter a valid printer destination on any of the screens that display that field (for example, TDIS-CES Main Menu).

### 3.11 Handling Corrupt Data

On rare occasions, the investment data from DRMA and/or the usage data from TDIS may be corrupt. Since it is impossible to conduct a circuit equipment study with corrupt data, this source information must be reloaded into the TDIS-CES system.

There are many reasons for corrupt data, including an MVS system crash in the middle of a Usage or Investment Load function. The loading of corrupt data may result in one or more of the following conditions:

- After a user executes a load investment or load usage, a TDIS-CES function fails because the required table does not exist.
- After a user executes a Load Investment and/or Load Usage function, he/she notices that the data contains extra characters (such as control characters).
- A required table contains no entries. No data appears when the table is displayed.
- The DRMA or TDIS date is invalid or blank.
- A load investment or load usage fails due to a conversion error (for example, invalid numeric data).

If the Investment Load function produces corrupt data, you should:

1. Use the Trace function to check the CLIST that extracts the DRMA investment information. The CLIST should extract the *XXXXX.CP.DR08* file (where *XXXXX* = high-level node; *CP* = CPU site; *DR08* = file that contains DRMA information).
2. Check for CLIST errors.
  - If you find CLIST errors, resolve them and go on to Step 3.
  - If you do not find CLIST errors, skip Step 3 and go on to Step 4.
3. Instruct the user to execute an Investment Load. If this Investment Load produces proper data, the problem is solved. However, if the investment data is still corrupt, proceed to the next step.
4. Contact the DRMA administrator and ask him/her to release a new copy of the *DR08* file.

**CAUTION** — Check with users who are using the DRMA information for the same CPU site. You must coordinate the release of the new *DR08* file with all users so that no one receives improper data.

5. When the new copy of the *DR08* file is available, instruct the user to re-execute the Investment Load function. The new *DR08* file will overwrite the existing, corrupt DRMA data.

---

If the Usage Load function produces corrupt data, you should:

1. Use the Trace function to check the CLIST that extracts the TDIS usage information. The CLIST should extract the *XXXXX.CPU.MFACSUM* and the *XXXXX.CPU.MEQPSUM* files (where XXXXX = high-level node; CPU = process that created the data; MFACSUM and MEQPSUM = files that contain the TDIS information).
2. Check for CLIST errors.
  - If you find CLIST errors, resolve them and go on to Step 3.
  - If you do not find CLIST errors, skip Step 3 and go on to Step 4.
3. Instruct the user to execute a Usage Load. If this Usage Load produces proper data, the problem is solved. However, if the usage data is still corrupt, proceed to the next step.
4. Contact the TDIS administrator and ask him/her to release a new copy of the *MFACSUM* and *MEQPSUM* files for the appropriate CPU.

**CAUTION** — Check with users who are using the TDIS information for the same CPU site. You must coordinate the release of the new MFACSUM and MEQPSUM files with all users so that no one receives improper data.

5. When the new copies of the *MFACSUM* and *MEQPSUM* files are available, instruct the user to re-execute the Usage Load function. The new *MFACSUM* and *MEQPSUM* file(s) will overwrite the existing, corrupt TDIS data.

## 4. The Administrator's Menu

As the TDIS-CES application administrator, you are responsible for maintaining the functions associated with the Administrator's Menu. This section includes guidelines for accessing and maintaining the functions associated with the Administrator's Menu to

- Access the TDIS-CES Main Menu
- Create and Update the Common Variables table
- Query the status of Investment and Usage table locks
- Release Investment table lock
- Release Usage table lock
- Exit the TDIS-CES application.

### 4.1 Accessing the Administrator's Menu

To access the Administrator's Menu:

1. Access the TDIS-CES Access panel (see Figure 4-1).

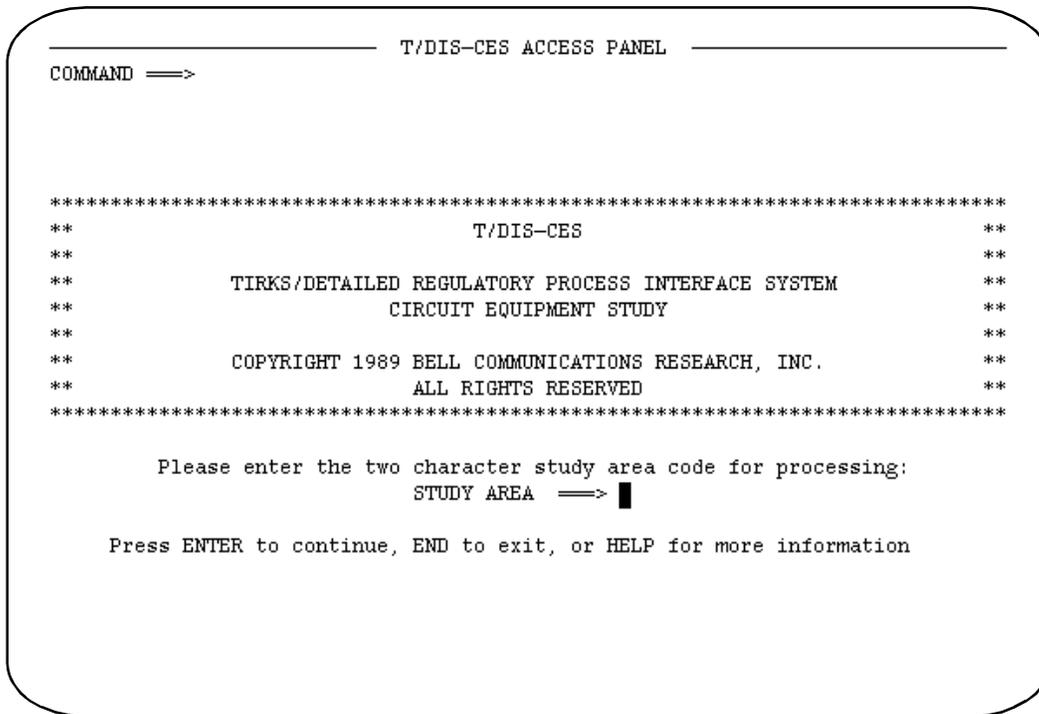


Figure 4-1. TDIS-CES Access Panel

2. Enter double asterisks (\*\*) in the *STUDY AREA* ==> field.
3. Press the ENTER key. If your user ID has the proper security clearance, the Administrator's Menu is displayed (see Figure 4-2).

```

----- T/DIS-CES ADMINISTRATOR MENU -----
OPTION ==> █

      C T/DIS-CES - Enter T/DIS-CES Application
      V COMM VARS - Update the Common Variable Table
      L LIB COMPR - Compress Library PDS

      Q QUERY LOCK - Determine ID(s) Holding Table Locks
      I INV LOCK  - Release Lock on the Investment Table
      U USG LOCK  - Release Lock on the Usage Table

      X EXIT      - Exit T/DIS-CES Administrative Functions

Please enter the two character study area code for processing:
STUDY AREA ==>      (Omit for option 'L' or 'V')

For CLIST Diagnostics only - TRACE: OFF

DSN to Compress:
(Option 'L' only - Normally TABLE library DSN entered - in quotes)

Press ENTER to continue, X to exit, or HELP for more information
    
```

**Figure 4-2.** TDIS-CES Administrator's Menu

**Table 4-1.** Field Descriptions for the Administrator's Menu

Field	Description
OPTION ==>	This field allows you to enter the appropriate 1-character, alphabetic option (C, V, Q, I, U, or X) from the menu.
STUDY AREA ==>	This field allows you to enter the appropriate 2-character study area code.
TRACE: OFF	This field allows you to switch on the Trace function to track error conditions. This option is automatically set to the OFF position. For detailed instructions on how to use the Trace function, see Section 3.10.

#### 4.1.1 Accessing the Functions on the Administrator's Menu

To access the TDIS-CES standard functions from the Administrator's Menu:

1. Type the letter of the appropriate function (c, v, l, q, i, u, or x) in the *OPTION* ==> field.
2. Enter the 2-character study area code in the *STUDY AREA* ==> field.

**NOTE** — You do not have to enter the study area code when accessing the Common Variables table (option **V**).

3. Press the ENTER key.
4. Perform **one** of the following functions:
  - If you do not want to switch on the Trace function, press the ENTER key again.
  - If you want to switch on the Trace function, type the word **on** into the *TRACE: OFF* field. See Section 3.10 for more information about the Trace function.

Sections 4.2 through 4.5 explain how to use each of the standard functions on the Administrator's Menu.

## 4.2 The TDIS-CES Application Screen

The TDIS-CES Application function (option **C** on the Administrator's Menu) allows you to access the TDIS-CES Main Menu from the Administrator's Menu. The TDIS-CES Main Menu is shown in Figure 4-3.

```

----- TDIS-CES MAIN MENU -----
OPTION ==>

  IL INV. LOAD - Load DRMA Investment Data      STUDY AREA: OH
  UL USAGE LOAD - Load TDIS Usage Data          DRMA DATE: 06/93
  UC USAGE RPT - Develop Usage CC/CAT/ECN data  TDIS DATE: 10/04/93
  D DRMA       - Verify DRMA Investment         PRINTER: PY4P11
  M MATCH      - Match Usage and Investment     CLASS: A
  I INVESTMENT - Analyze/Adjust Investment
  C COMPL USAGE- Verify Complement Usage
  U USAGE      - Analyze/Adjust Usage
  S STUDY      - Execute Basic Study
  R RESULTS    - Verify Study Results
  B BROWSE     - Browse load, CC/CAT/ECN or Study Reports
  T TABLES   - Manage User Tables
  RI INV LOCK  - Release Lock on the Investment Table
  RU USG LOCK  - Release Lock on the Usage Table
  SR STATUS    - Status Report
  DB DEBUG AIDE - Debugging Aide
  X EXIT       - Exit TDIS-CES Application

Press ENTER to continue, X to exit, or HELP for more information.

```

**Figure 4-3.** TDIS-CES Main Menu

To learn how to access and execute the functions on the TDIS-CES Main Menu, refer to the *TDIS-CES User's Guide* (BR-759-200-001)

### 4.3 The Common Variables Screen

The purpose of the Common Variables table (option V on the Administrator's Menu) is to create or change certain variables that apply to all TDIS-CES users. The information in this table is established during the initial installation of TDIS-CES and rarely changes.

```

_____ T/DIS-CES COMMON VARIABLE INPUT _____
OPTION ==>

Please enter the following required fields:

HI-LVL Dataset Qualifier (max 15 chars)
==> XXXXX
Company Name (max 36 chars)
==> BELLCORE T/DIS RELEASE 4.0
SITE CPU Code      (2 chars) ==> NW
SITE Data Base Owner (2 chars) ==> NW

Press ENTER to continue, X to exit, or HELP for more information
```

**Figure 4-4.** Common Variables Table

**Table 4-2.** Field Descriptions for the Common Variables Table

Field	Description
OPTION	This field allows you to enter any valid TDIS-CES command.
HI-LVL Dataset Qualifier	This field contains the name of the high-level node under which the TDIS-CES software is installed. This field may contain a maximum of 15 characters.
Company Name	This field contains the name and release number of the TDIS-CES software. This field may contain a maximum of 36 characters.
SITE CPU Code	<p>This field contains the 2-character alphabetic code that denotes the CPU on which TDIS-CES processing occurs. The value for this field is <b>usually</b> the same as the value in the SITE Data Base Owner field.</p> <p>A CPU site may incorporate many study areas.</p>
SITE Data Base Owner	<p>This field contains the 2-character alphabetic code that denotes the name of the BCC.</p> <p>The Data Base Owner may incorporate many CPUs.</p>

### 4.3.1 Updating the Common Variables Table

Update the Common Variables table when

- The TDIS-CES application moves under a new high-level qualifier or when the high-level node is changed
- The release number of the TDIS-CES application changes
- The SITE CPU changes
- The SITE Data Base Owner changes.

To update the Common Variables table:

1. Access the Common Variables table by choosing option **V** on the Administrator's Menu.
2. Move the cursor until it appears in the field to be modified.
3. Type the new value into the appropriate field; you will overwrite the existing value for that field. **Important:** If the original field value is longer than the new value, press the space bar until the remainder of the original field value disappears.
4. Repeat Steps 2 and 3 until you have made all necessary changes. Then, go on to Step 5.
5. Press the ENTER key. A verification message is displayed in the upper right-hand corner of your screen :

COM VAR TABLE UPDATED

6. Press the TAB key until the cursor is in the *OPTION* ==> field.
7. Type **x** into the *OPTION* ==> field.
8. Press the ENTER key. The Administrator's Menu is displayed.

## 4.4 Compress Library PDS

The TDIS-CES Table Library, i.e., that DSN assigned as ISPTLIB in the LIBDEF of your Installation CLIST (see Section 2.4), is a partitioned data set (PDS) with a lot of update activity. Over time, the organization of data tables loses efficiency and the total size of the PDS increases accordingly.

### 4.4.1 When to Use the Compress Function (Option L)

In order to minimize DASD storage costs and to prevent TDIS-CES system failures from attempting to exceed maximum allocated storage space, you must compress the Table Library periodically. This process reorganizes the stored data and brings total storage down to the minimum required. How frequently you should use the Compress function depends on local activity; you should do it at least once a week.

### 4.4.2 Using the Compress Function

Follow the procedures below to use the Compress function:

1. Enter the fully-qualified DSN for the Table Library (enclosed in quotes) in the DSN to Compress field at the bottom of the Administrator's menu.
2. Select Option L.
3. Press the ENTER key.

After a short processing delay, the message `COMPRESS SUCCESSFUL` appears in the upper-right corner and the process is completed.

**NOTE** — If another user is using the Table library when you try to use the Compress function, the process will terminate with the error message `ALLOCATION FAILED`. Before attempting another compress, make sure all other users log off TDIS-CES.

**NOTE** — To minimize contention for the Table Library, you should use the Compress function at periods of off-peak local activity (e.g., early morning or lunchtime).

---

## 4.5 The Lock Screens

There are three functions on the TDIS-CES Administrator's Menu associated with locking:

- Query Lock (option **Q**) - the purpose of this screen is to determine which user ID, if any, is locking the investment and/or usage tables for a study area.
- Investment Lock (option **I**) - the purpose of this screen is to release the lock for the investment tables for a particular study area.
- Usage Lock (option **U**) - the purpose of this screen is to release the lock for the usage tables for a particular study area.

### 4.5.1 When to Use the Lock Screens

Within the TDIS-CES application, the Study Area Variables table (YDCVARZZ, where ZZ = the study area) controls the sharing of information across all user IDs working in common databases. The Study Area Variables table *protects* the investment and usage data by not allowing more than one user to update a database simultaneously. For example, if user ID "A" executes a Load Usage and/or a Load Investment for study area "ZZ" while user ID "B" is currently working on a circuit equipment study for the **same** study area, user ID "A" would destroy the data for the study currently in process for user ID "B". For this reason, the TDIS-CES system "locks" all other users out of the investment and/or usage tables while another user is updating the corresponding database.

Under normal conditions, the Study Area Variables table does not need to be modified. However, there are special circumstances that require you to determine if locks are applied to the table and, if necessary, to release those locks. The following are some conditions that indicate you may need to release the locks to the Study Area Variables table:

- None of the users with access to the TDIS-CES system can execute a Load Investment or a Load Usage function for a particular study area.
- The MVS system crashed during an update\* function.
- A user timed-out of the MVS operating system during an update function.
- The program abends during an update function.

---

\* Update functions are Load Investment, Load Usage, Adjust Investment, Adjust Usage, and Execute Basic Study.

## 4.5.2 Using the Lock Functions

To check the locks on the usage and investment tables:

1. Access the Administrator's Menu.
2. Type **q** in the *OPTION* ==> field and press the ENTER key. One of the following messages will appear in the upper right-hand corner of the screen:
  - a. No locks applied — if you receive this message, lock-out from the investment and usage tables is not the problem. Investigate other solutions to your problem.
  - b. Usg lock: [*login*] — if you receive this message, release the locks on the usage tables.
  - c. Inv lock: [*login*] — if you receive this message, release the locks on the investment tables.
  - d. Both tables locked — if you receive this message, you should release the locks on both the usage and investment tables.

To display more information about the above messages, type **help** (or press the equivalent function key) in the *OPTION* ==> field.

To release the locks on the Usage and/or Investment tables:

**WARNING** — Make sure that no one is currently updating the Investment or Usage databases **before** you release the locks to the table(s). By releasing the locks to the tables while a user is making changes to a database, multiple users will be able to update a single database simultaneously; this process destroys the data.

1. Access the Administrator's Menu.
2. Type **q** in the *OPTION* ==> field and press the ENTER key. You receive message b, c, or d (above).
3. Type **help** (or press the equivalent function key) in the *OPTION* ==> field. A detailed message, indicating the user IDs that are holding the investment and/or usage locks, is displayed.
4. Contact the user(s) who are holding the investment and/or usage locks.
  - If the user(s) are **not** updating any of the TDIS-CES tables, proceed to Step 5.
  - If the user(s) are updating any of the TDIS-CES tables, **do not release the locks on the table(s)**.
5. Type **i** or **u** in the *OPTION* ==> field and press the ENTER key. Option **i** releases the lock on the investment tables; option **u** releases the lock on the usage tables. When the locks are successfully released, a confirmation message is displayed in the upper right-hand corner of your screen.

---

## 5. Archive and Restore Procedures

The TDIS-CES archive procedure is used to retain essential information so that it may be restored in the future. This section describes how to archive and restore TDIS-CES data.

The archive and restore features are Job Control Language (JCL) batch procedures used to archive and restore TDIS-CES information. These procedures are separated into functions. Each is archived onto a separate tape, as follows:

- YDCS050 - Archive all software and all table members (1, 3)
- YDCS051 - Archive all software and software table members only (1)
- YDCS052 - Archive all database table members and input files (2)
- YDCS053 - Archive all user table members only (2)
- YDCS060 - Restore all software and all table members (1)
- YDCS061 - Restore all software and software table members only (1)
- YDCS062 - Restore all database table members and input files (2)
- YDCS063 - Restore all user table members only (2)
- YDCS064 - Print user table members only without restore (2).

- Notes:
- (1) Execute for each CPU as required
  - (2) Execute for each study area as required
  - (3) Execute periodically for disaster recovery

The retention period for all archived information defaults to 7 years, but may be overridden by changing a symbolic parameter (RETPD).

## 5.1 Archiving Data

This section describes how to archive TDIS-CES information. Table 5-1 describes the four procedures, located in your Procedure Library (JCLLIB), used for archiving data.

**Table 5-1.** Archive Programs in the JCLLIB

Program	Function	Execution frequency
YDCS050	Archive all libraries	Periodically for disaster recovery
YDCS051	Archive software facility	With each TDIS-CES release
YDCS052	Archive database tables and input	Monthly, or after each CES
YDCS053	Archive user tables	Monthly, or after each CES

Sections 5.1.1 through 5.1.4 include a list of the archived datasets and the execution parameters for each procedure.

### 5.1.1 Disaster Recovery (YDCS050)

The disaster recovery facility, program YDCS050, archives all TDIS-CES software and table libraries, combining the functions of Sections 5.1.2 through 5.1.4 into a single procedure. The procedure should be run periodically (e.g., quarterly) at local discretion as a safeguard against extensive dataset loss. Local data center backup procedures may already be sufficient, making this procedure unnecessary.

Table 5-2 describes the execution parameters for the YDCS050 procedure.

**Table 5-2.** Execution Parameters for YDCS050

Parameter	Format*
CPU (company ID)	AA
CNTLDTE (control date)	MMYY (no slashes)

\* A = alphabetic character

Datasets archived with this procedure can subsequently be restored using the YDCS060 procedure. For additional details, refer to the runbook in the TDIS RUNBOOK library.

**NOTE** — When you archive for disaster recovery with YDCS050, retain the volume serial (VOLSER) number. You must have the VOLSER to restore data.

### 5.1.2 Archive Software Facility (YDSC051)

The archive software facility, program YDCS051, archives the following datasets onto tape:

- Program library (PGMLIB)
- CLIST library (CLIST)
- Message library (MSGS)
- Panels library (PANELS)
- Procedure library (JCLLIB)
- Table library (TABLES), members YDCCMDS and YDCCOMMV only.

Table 5-3 describes the execution parameters for the YDCS051 procedure.

**Table 5-3.** Execution Parameters for YDCS051

Parameter	Format*
CPU (company ID)	AA
CNTLDTE (control date)	MMDDYY (no slashes)

\* A = alphabetic character

Datasets archived with this procedure can subsequently be restored using the YDCS061 procedure. For more details on archiving the TDIS-CES software, refer to the runbook in the TDIS RUNBOOK library.

**NOTE —** When you archive the software facility with YDCS051, retain the Volume Serial (VOLSER) number. You must have the VOLSER to restore this data.

### 5.1.3 Archive Study Data Facility (YDCS052)

The archive study data facility, program YDCS052, archives the following datasets onto tape:

- Investment tables:
  - DRMA all investment tables (YDCDIN)
  - DRMA ECN investment table (YDCDEI)
  - DRMA FRC investment table (YDCDFI)
  - DRMA 11 Char Loc Investment Table(YDCDEXXX)

- 
- Base investment table (YDCBINXX)
  - ECN 800 investment table (YDCEINXX)
  - Central stock investment table (YDCCINXX)
  - Power investment table (YDCPINXX).
  - Usage processing tables:
    - Subdivision usage table (YDCSBDXX)
    - Complement usage table (YDCCMPXX).
  - Basic study tables:
    - Three categorized investment tables (YDCCT1XX,  
YDCCT2XX,  
YDCCT3XX)
    - Study area variables table (YDCVARXX).
  - Post basic study tables:
    - Base investment table (YDCBIPXX)
    - Central stock investment table (YDCCIPXX)
    - ECN 800 investment table (YDCEIPXX)
    - Power investment table (YDCPIPXX)
  - DEBUGGING TABLE:
    - Debugging table(YDCCPEXX)

**NOTE** — 'XX' designates the Study Area (one table for each Study Area).

Table 5-4 on the following page describes the execution parameters for the YDCS052 procedure.

**Table 5-4.** Execution Parameters for YDCS052

Parameter	Format*
CPU (company ID)	AA
SA (study area)	AA
CNTLDTE (control date)	MMDDYY (no slashes)

\* A = alphabetic character

Three additional steps in the procedure archive the three input files (MNFACSUM and MEQPSUM from TDIS and DR08 from PICS/DRMA) that are generated monthly. This gives the local company the option to also archive these three input files with the other CES data to be able to reproduce the study. Because the MNFACSUM and MEQPSUM datasets should be archived with TDIS data, and the DR08 dataset should be archived by PICS, this will introduce some redundancy in archive files. However, it will also provide access to all necessary study data in one place. If the local companies do not elect to archive the three input files, these steps may be commented.

Datasets archived with this procedure can subsequently be restored using the YDCS062 procedure. For more details about archiving the TDIS-CES study data, refer to the runbook in the TDIS RUNBOOK library.

**NOTE** — When you archive the study data with YDCS052, retain the Volume Serial (VOLSER) number. You must have the VOLSER to restore this data.

#### 5.1.4 Archive User Tables Facility (YDCS053)

The archive user tables facility, program YDCS053, archives the following datasets onto tape:

- Location, ECN, and FRC mapping table (YDCLEMXX)
- Study area ECN table (YDCSAEXX)
- Supplemental usage tables - subdivisions and complements (YDCSSBXX and YDCSCPXX)
- No-800 spread ECN table (YDCN8SXX)
- Technology weighting table (YDCTCWXX)
- HI-CAP class code table (YDCHCCXX)
- Class code to separations category table (YDCCCSXX)
- Selected location table (YDCSLSXX)

- Carrier distribution table (YDCCDTXX)
- ICAC table (YDCIACXX)
- HI-CAP group code table (YDCHGCXX).
- Supplemental Investment table (YDCSINXX)
- USAGE/ECN Mapping table (YDCUEMXX)

**NOTE** — ‘XX’ designates the Study Area (one table for each Study Area).

Table 5-5 describes the execution parameters for the YDCS053 procedure.

**Table 5-5.** Execution Parameters for YDCS053

Parameter	Format*
CPU (company ID)	AA
SA (study area)	AA
CNTLDTE (control date)	MMYY (no slashes)

\* A = alphabetic character

Datasets archived with this procedure can subsequently be restored using the YDCS063 procedure or printed using the YDCS064 procedure. For more details about archiving the TDIS-CES user tables, refer to the runbook in the TDIS RUNBOOK library.

**NOTE** — When you archive the user tables with YDCS053, retain the Volume Serial (VOLSER) number. You must have the VOLSER to restore this data.

## 5.2 Restoring Archived Data

This section describes how to restore TDIS-CES information. Table 5-6 describes the four procedures, located in your JCLLIB, for restoring data.

**Table 5-6.** Restore Programs in the JCLLIB

Program	Function	Execution frequency
YDCS060	Restore all libraries	Only for disaster recovery
YDCS061	Restore software facility	As needed
YDCS062	Restore database tables and input	As needed
YDCS063	Restore user tables	As needed

Subsections 5.2.2 through 5.2.4 include the execution parameters for each restore procedure. A fifth procedure (YDCS064, described in Section 5.2.5) permits a printout of the user tables (restored by YDCS063) for validation before restore.

Note that for the restore procedures (excluding YDCS064), writing to a test dataset (default) minimizes the probability of accidentally overlaying needed file(s), but manual copy/concatenation is then required to move these files to the active TDIS-CES libraries. Writing tables directly to the active libraries circumvents any manual copy/concatenation effort, but requires caution to avoid losing (overlying) needed files.

If you wish to restore to a test dataset, no overrides are required. If you want to restore directly to the active TDIS-CES libraries, set the symbolic parameters as follows:

```
TEST=
DISP=(OLD,KEEP,KEEP)
DVOL=,
```

This can be done either

- In the procedure, if this will be the usual mode of operation
- As overrides in the control JCL (for occasional changes).

### 5.2.1 Restore all Libraries (YDCS060)

This procedure restores the datasets archived by the YDCS050 procedure (see Section 5.1.1).

Table 5-7 describes the execution parameters for the YDCS060 procedure.

**Table 5-7.** Execution Parameters for YDCS060

Parameter	Format*
CPU (company ID)	AA
CNTLDTE (control date)	MMYY (no slashes)
VOLSER (volume serial)	ANNNNN

\* A = alphabetic character; N = numeric character

For more details on restoring all TDIS-CES libraries, refer to the runbook in the TDIS RUNBOOK library.

### 5.2.2 Restore Software Facility (YDCS061)

This procedure restores the datasets archived by procedure YDCS051 (see Section 5.1.2).

Table 5-8 describes the execution parameters for the YDCS061 procedure.

**Table 5-8.** Execution Parameters for YDCS061

Parameter	Format*
CPU (company ID)	AA
CNTLDTE (control date)	MMYY (no slashes)
VOLSER (volume serial)	ANNNNN

\* A = alphabetic character; N = numeric character

For more details on restoring the TDIS-CES software, refer to the runbook in the TDIS RUNBOOK library.

### 5.2.3 Restore Study Data Facility (YDCS062)

This procedure restores the datasets archived by the YDCS052 procedure (see Section 5.1.3).

Table 5-9 describes the execution parameters for the YDCS052 procedure.

**Table 5-9.** Execution Parameters for YDCS062

Parameter	Format*
CPU (study area)	AA
SA (study area)	AA
CNTLDTE (control date)	MMYY (no slashes)
VOLSER (volume serial)	ANNNNN

\* A = alphabetic character; N = numeric character

For more details on restoring the TDIS-CES study data, refer to the runbook in the TDIS RUNBOOK library.

## 5.2.4 Restore User Tables Facility (YDCS063)

This procedure restores the datasets archived by procedure YDCS053 (see Section 5.1.4). Table 5-10 describes the execution parameters for the YDCS063 procedure.

**Table 5-10.** Execution Parameters for YDCS063

Parameter	Format*
CPU (study area)	AA
SA (study area)	AA
CNTLDTE (control date)	MMYY (no slashes)
VOLSER (volume serial)	ANNNNN

\* A = alphabetic character; N = numeric character

For more details on restoring the TDIS-CES user tables, refer to the runbook in the TDIS RUNBOOK library.

## 5.2.5 Print User Tables (YDCS064)

This procedure prints the datasets archived by procedure YDCS063 (see Section 5.2.4). Table 5-11 describes the execution parameters for the YDCS064 procedure.

**Table 5-11.** Execution Parameters for YDCS064

Parameter	Format*
CPU (study area)	AA
SA (study area)	AA
CNTLDTE (control date)	MMYY (no slashes)
VOLSER (volume serial)	ANNNNN

\* A = alphabetic character; N = numeric character

On execution, necessary datasets are recalled from tape to temporary disk datasets and are printed using ISPF. The temporary datasets are then deleted.

**NOTE** — Step YDCS064 requires access to the ISPF profile to print reports, which would normally default to the profile of the USERID invoking the job (named “USERID.PROFILE.SPF”). Because this profile is reserved while the invoking ID is active, a contention problem would arise. Therefore, the procedure points to another profile (named “&LIBNODE..ISPF.PROFILE”) that must previously have been allocated and copied from “USERID.PROFILE.SPF”. Alternatively, the invoking JCL may contain an override that points to a copy of the profile previously created. For example

```
//STEP02.ISPFPROF                                DD  
DSN=USERID.ISPF.PROFILE,DISP=SHR
```

For more details on restoring the TDIS-CES study data, refer to the runbook in the TDIS RUNBOOK library.

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## TDIS Glossary

**ACF2**—A dataset security program for the MVS operating system.

**Application Administrator** —The person(s) who serve as the liaison between the TDIS-CES end users and the computer center. The application administrator is responsible for handling the TDIS-CES installation, CLISTS, allocations, operations, and Administrator's Menu functions.

**CLIST** — Command List. A small TSO program that triggers certain functions.

**DASD** — Direct Access Storage Device.

**DRMA** — Division of Revenues Monthly Allocation Process. DRMA provides investment data to the TDIS-CES system.

**High-Level Node** — See *high-level qualifier*.

**High-Level Qualifier** — In a dataset name, that portion appearing before the first period in the name.

**ISPF** — Interactive System Productivity Facility.

**Libraries** — A designated area on TSO that contains data for TDIS-CES utilities.

**MVS** — Multiple Virtual Machine. MVS is the operating system on which the TDIS-CES application runs.

**RACF** — A dataset security program for the MVS operating system.

**State Code** — The two-character alphabetic code that denotes a state that may undergo a circuit equipment study.

**Study Area** — The two-character alphabetic code that denotes an area in a

state that may undergo a circuit equipment study.

**Synchronous Communication** — Data communication such that data bits are transferred at each pulse of a synchronizing clock signal. Synchronous communication is the opposite of asynchronous communication.

**TDIS** — TIRKS/Detailed Regulatory Process Interface System. TDIS provides usage data for the TDIS-CES system.

**TDIS-CES** — TIRKS/Detailed Regulatory Process Interface System - Circuit Equipment Study.

**TSO** — Time Sharing Option.

**Virtual Memory** — The “on-line” random access memory (RAM) that is allotted to each TSO user.

