3B CALL MANAGEMENT SYSTEM

Release 2, Issue 1.4

CUSTOM REPORTS

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General Information

The *3B Call Management System Custom Reports* (585-215-503) document describes the Custom Reports Creation subsystem and tells you how to use it.

The Custom Reports Creation subsystem is a standard part of the 3B Call Management System (3B CMS). You use it to create, change, and delete custom reports designed specifically for your needs. With custom reports, you can supplement the standard CMS reports with reports that display additional call-center data or reports that display call-center data in a different way. However, because your custom reports will probably use much of the data already available in standard CMS reports, you should refer to Appendix B in this document for ideas on how to display and select report data for your custom reports.

This document assumes that you are already familiar with the other 3B CMS subsystems and that you are aware of the data already available in the standard CMS reports.

What Is a Custom Report

A custom report is a report that you create and design using the Custom Reports Creation subsystem. Like standard CMS reports, a custom report displays information about Automatic Call Distribution (ACD) activity in your call center. For a custom report, you determine what specific ACD information is displayed and how it is displayed. A custom report can be almost identical to a standard CMS report, or it can be totally different from CMS standard reports.

A custom report can consist of three types of display items:

Time Stamps   Time stamps are definitions for one of three types of time data: the date of the data in the report, the time a report was generated, or the date a report was generated. On a standard CMS report, time stamps usually appear at the top of the first page. Time stamps can be used on historical reports only. (Time stamps are described in detail in Chapters 3 and 4.)

Data Items   Data items are definitions for actual ACD statistics, dates, times, or identifiers for specific splits, agents, trunk groups, trunks, or groups. (Data items are described in detail in Chapters 5 and 6.)

Labels   Labels contain the fixed text that appears on a report. A label can be the title of a report, the name or description for a data item or time stamp, or special instructions for reading a report. Normally, you will want to place a label beside each data item and time stamp in a report so you can readily identify the data in those fields. (Labels are described in detail in Chapters 3 and 4.)

What Is the Custom Reports Creation Subsystem

The Custom Reports Creation subsystem is a group of screens and menus that let you do three things:

> Create a new custom report by copying and modifying a standard (real-time or historical) report design
>
> Create a new custom report by copying and modifying an existing custom (real-time or historical) report design
>
> Create a new custom report (real-time or historical) from scratch.

The screens in the Custom Reports Creation subsystem work almost like the screens in the standard Reports subsystem. That is, you first select options in a series of menus to order the custom report design you want to work on. (The use of Custom Reports Creation menus is described in Chapter 2.)

Then, once you have ordered a custom report design, CMS displays the report design on the **Screen Painter**. The Screen Painter is a screen that you use almost like a word processor to add, change, delete, or move display items in a custom report design. As you work, the display items appear on the Screen Painter almost exactly as they would appear in an actual report. (The Screen Painter is described in detail in Chapters 3 and 4.)

After you have designed a custom report on the Screen Painter, a Compile screen appears. The Compile screen (see Chapter 7) converts your report design into programming code so the computer can actually generate the report with ACD data.

Basic Workflows for Creating Custom Reports

The two workflow diagrams and associated text that follow describe the main steps required to create a custom report. The first diagram shows the main steps for creating a custom report by copying and modifying a standard report. The second diagram shows the main steps for either creating a custom report from scratch or creating a custom report by copying and modifying an existing custom report. These workflows give general descriptions of basic custom report creation. The workflows actually comprise numerous procedures you must follow when creating a custom report. Keep these workflows in mind as you work through the procedures described in this document.

Creating a Custom Report by Copying a Standard Report

CUSTOM REPORT CREATION MENU	1. Select the Standard Real-Time or Standard Historical Reports option on the Custom Report Creation menu.
COPY STANDARD [Historical or Real-time] REPORTS MENU	2. A menu appears that lists either Standard Real-time or Historical Reports. Enter a name for the report you are creating, and select the standard report you want to copy.
SCREEN PAINTER (displays a copy of the standard report design)	3. The design of the standard report you copied appears on the Screen Painter. Modify the design for your needs. You can do the following: — Add display items — Move, copy, delete, or change display items — Insert or delete lines — Add video attributes to display items. (Real-time reports only.)
COMPILE SCREEN	4. The Compile screen appears when you exit the Screen Painter. Compile the report so CMS can generate the report with call center data.

Creating a Report From Scratch or by Copying a Custom Report
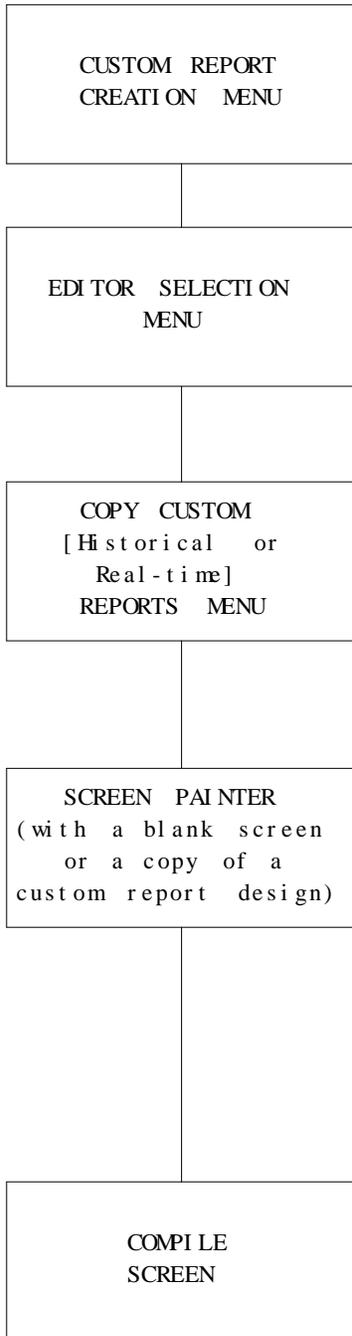
```
┌─────────────────────┐
│                     │
│   CUSTOM  REPORT    │
│   CREATION  MENU    │
│                     │
└─────────────────────┘
          │
          │
┌─────────────────────┐
│                     │
│  EDITOR  SELECTION  │
│       MENU          │
│                     │
└─────────────────────┘
          │
          │
┌─────────────────────┐
│   COPY  CUSTOM      │
│  [Historical   or   │
│    Real-time]       │
│   REPORTS  MENU     │
└─────────────────────┘
          │
          │
┌─────────────────────┐
│   SCREEN  PAINTER   │
│ (with a blank screen│
│   or a copy of a    │
│ custom report design)│
└─────────────────────┘
          │
          │
┌─────────────────────┐
│                     │
│     COMPILE         │
│     SCREEN          │
│                     │
└─────────────────────┘
```

1. Select the Custom Real-Time or Custom Historical Reports option on the Custom Report Creation menu.

2. A menu appears that lists the Screen Painter and UNIX vi editor. Select the Screen Painter option to create or modify 3B CMS custom reports.

3. A menu appears that lists either Custom Real-time or Historical Reports. Enter a name for the report you are creating. Then select the custom report you want to copy. Do not select a report if you are creating a report from scratch.

4. The Screen Painter appears, with either a blank screen or a copy of the custom report design you selected. Modify the design for your needs. You can do the following:

    — Add display items
    — Move, copy, delete, or change display items
    — Insert or delete lines
    — Add video attributes to display items. (Real-time reports only.)

5. The Compile screen appears when you exit the Screen Painter. Compile the report so CMS can generate the report with call center data.

Organization of This Document

The sections of this document are organized as follows:

Chapter 1	''Introduction'' is an overview of the material in the Custom Reports document. The chapter also reviews conventions used in the document to describe the Custom Reports Creation subsystem and its procedures.
Chapter 2	''Start-Up Procedures for a Custom Report Design'' tells you how to begin your custom report design — by copying either a standard or custom report design or by starting from scratch. The procedures in this chapter take you to the point where you actually begin the report design on the Screen Painter.
Chapter 3	''The Screen Painter'' describes the screen on which you design your custom reports. You will use the Screen Painter for the bulk of your work in the Custom Reports Creation subsystem.
Chapter 4	''Designing a Custom Report'' tells you how to add, change, or delete labels and time stamps, how to arrange display items in a report design, and how to give report display items special video display attributes.
Chapter 5	''Data Items and the Data Item Window'' describes the Data Item Window and data items that are available for a custom report. The Data Item Window, which pops up on the Screen Painter, is the tool you use to define the data for your custom reports. The chapter also reviews the CMS database structure, which you should understand to effectively define data for your reports.
Chapter 6	''Defining Data Items'' tells you how to add or change data items in a custom report design. The chapter also tells you how to use the Dictionary for data item research.
Chapter 7	''Final Procedures for a Custom Report Design'' tells you how to save a custom report design so CMS can use it to generate reports. The chapter also tells you how to change or delete a custom report design.
Chapter 8	''Ordering Custom Reports'' tells you how to order custom real-time and historical reports in the Reports subsystem.

Appendix A	"Database Reference" lists all database items that can be used in reports. The appendix also contains cross-reference tables which list the database items for each database and file. Finally, the appendix lists the formula for each standard calculation available in CMS.
Appendix B	"Standard Reports Reference" illustrates and describes each standard report available in CMS for copying and modifying your custom reports. This appendix also has a Report Item Cross-reference, which you can use to quickly identify those standard reports that closely match you custom report needs.
Appendix C	"Compiler Error Messages" lists the complete text of the error messages that may appear when you try to compile your report design.
Appendix D	"The UNIX* System Visual (*vi*)† Editor" lists the major commands of *vi*.
Appendix E	"The INFORMIX** Database Management System" briefly discusses the possible use of the INFORMIX Relational Database Management System for custom report creation. INFORMIX, which is within the UNIX system, is included as part of CMS.
Appendix F	"Step-By-Step Samples" describes every step required to create two sample custom reports. These samples are intended to illustrate how the various procedures in this document may be combined to produce a custom report.
Glossary	The Glossary defines important terms used in this document.

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† The visual editor is based on software developed at The University of California, Berkeley, California; Computer Science Division, Department of Electrical Engineering and Computer Science, and such software is owned and licensed by the Regents of the University of California.

** INFORMIX is a registered trademark of Informix Software, Inc.

Notation Conventions in This Document

The following list summarizes conventions used in this document:

Technical terms make their first appearance in the text in boldface, and are generally defined at that time. All boldface terms also appear in the Glossary in the *3B CMS Administration* (585-215-504) document.

CMS screen names appear with initial capitals (for example, Screen Painter, Report Parameters, etc.). In some cases, screen names are abbreviated (for example, Copy...Custom Reports instead of Copy, Create, Modify, or Delete Custom Historical Reports).

Terminal keys used in data entry appear in text enclosed in a key shape: for example, ESC and COPY. This is true for both hard-labeled keys and screen-labeled keys (SLKs).

Screens are reproduced in each chapter to help you understand data entry. Small boxes in these screens are field number references and do not actually appear on the CMS's screen displays.

Database item names and other data items appear exactly as they appear in the Dictionary and/ or CMS database — with all capital letters (for example, AVG ANS SPEED, ACDCALLS, etc.).

In text, when a field from a screen is referred to, that reference is in a distinct typeface that simulates the screen-displayed characters: `Split No.`

Examples of data input appear in italics (for example, *y* (yes), *ACDCALLS*, etc.).

In the procedures sections of the document, instructions for data input are often followed by bullet items.

> They look like this.

Such items provide background information.

In the procedures, the system response to an input or command appears in brackets. For example:

[The Compile screen appears.]

Abbreviations and Acronyms Used in This Manual

The following abbreviations and acronyms are used in this guide.

3B CMS   3B Call Management System

ACD   Automatic Call Distribution

ACW   After Call Work

ASA   Average Speed of Answer

AUX   Auxiliary Work

DD/MM/YY   Day/Month/Year (a date format)

ID   Identification, as in Agent ID

SLK   Screen-labeled key

Using the CMS Help Keys for On-Line Documentation

The screen-labeled key [HELP KEYS] appears on every CMS screen. This SLK displays the following tier of Help SLKs.

SCREEN HELP	FIELD HELP	EXPAND MESSAGE		PREV MESSAGE	NEXT MESSAGE		HARD KEYS		RESUME

The Help SLKs display a variety of information about the screen you are currently on. The Help information can supplement, or, in many cases, replace the information in this document. Once you are familiar with the use of these keys, you may be able to find information faster by using these keys.

The Help SLKs are described as follows:

FIELD HELP   This SLK displays a single line message about the proper entry for the field the cursor is in. On the Screen Painter, this SLK applies only to the Data Item Window and Time Stamp Window.

SCREEN HELP   This SLK displays a full-screen of information describing the purpose of the Screen Painter and what options are available when designing a report.

EXPAND MESSAGE   This SLK displays a multiple line window that expands the information given in the last CMS message.

PREV MESSAGE   This SLK redisplays the last single-line message CMS displayed.

NEXT MESSAGE   This SLK displays the next message, if one exists, that CMS generated after the message you are currently looking at. Use this key to return to later messages after you have used the [PREV MESSAGE] SLK.

HARD KEYS   This SLK displays a complete list of the terminal keys available on the Screen Painter and Data Item Window.

RESUME   This SLK redisplays the first tier of SLKs.

Other SLKs Common to All Screens

The following SLKs work as described for all screens except the Screen Painter, the Compile screen, and the Compilation Error screen.

EXIT   This SLK exits the current screen and redisplays the previous screen or menu.

PRINT SCREEN   This SLK prints the contents of the current screen on your system printer.

PREV PAGE   This SLK displays the previous page of a multipage display. $\boxed{\text{PREV PAGE}}$ appears only when multiple pages exist.

NEXT PAGE   This SLK displays the next page of a multipage display. $\boxed{\text{NEXT PAGE}}$ appears only when multiple pages exist.

Other Publications on 3B CMS

3B Call Management System Administration (585-215-504)

3B Call Management System Graphics Administration (585-215-505)

3B Call Management System Vectoring Administration (585-215-502)

3B Call Management System Planning, Configuration, and Implementation (585-215-601)

3B Call Management System Quick Reference (585-215-704)

3B5 Call Management System Installation and Maintenance (585-215-103)

3B2 Call Management System Installation and Maintenance (585-215-104).

General Information

Your first decision in designing a new custom report is whether to copy and modify an existing report design or to create a report design from scratch (that is, on a blank Screen Painter screen). If you choose to modify an existing report, you then decide which report design will require the least modification to produce the report design you ultimately want. Thus, you may choose to modify one of the following types of existing reports:

A Standard Real-time Report

A Standard Historical Report

A Custom Real-time Report

A Custom Historical Report.

In the vast majority of cases, modifying an existing report design (standard or custom) will be the quickest, easiest method for designing a new custom report. However, if you choose to create a report design from scratch, or even if you are only modifying an existing report, you should have a very clear idea of what type of report it will be — real-time or historical — and which databases and files will contain the database items you want.

This chapter describes the menus and procedures you must use to begin a custom report design. It also gives you a checklist of tasks you should complete before you actually begin using the Custom Reports Creation subsystem.

Preliminary Tasks for Custom Report Design

Before you begin using the Custom Reports Creation subsystem, you should complete the following tasks.

NOTE	Unless you are creating a very small report or would have to make numerous and sweeping changes to a standard report, the job of designing a custom report will be much easier if you work from a copy of a standard report. But even if you decide to create a custom report from scratch, the tasks that follow will make your report design easier.

Decide what kind of data you want in your report. Some possibilities are:

— Individual agent data

— Split totals

— Calls-in-queue data

— Individual trunk data

— Trunk group totals.

Check the standard reports descriptions (see Appendix B) to see if a standard report approximates the data you want.

If a standard report approximates the data you want, order and print a copy of that report.

Review the standard report descriptions in Appendix B for the proper database items, formulas, calculations, or data functions that define the report items you want to keep or change. Jot this information down on your standard report printout if you are using one.

Review Appendix A or B for database items and calculations you might want to add or substitute for items already in the standard report. Jot this information down on your report printout.

If you cannot find a database item or an existing formula or calculation that will give you the data you want, determine what database items and formulas exist and figure out new formulas or calculations. Jot the new formulas or calculations down on your report printout.

Decide which report items you want to delete. Mark them on your report printout.

Decide what format changes you might want to make and mark them on your printout.

Decide which database(s) and file(s) you will use in the report:

Databases

— Current and/ or Previous Real-time databases

— Half-hour and/ or Daily Historical databases

Files

— Agent

— Split

— Trunk

— Trunk Group

Be sure the database items (and the database items in your calculations, formulas, and data functions) are contained in the databases and files you select.

| NOTE | You cannot create a report that uses data from both the real-time and historical databases. |

When you have completed these tasks, you will be ready to begin Custom Reports Creation procedures on CMS.

The Custom Reports Menus

When you begin a custom report design, you select options in a series of menus and give your report a name.

The Custom Reports Creation Menu

When you access the Custom Report Creation subsystem, the first menu CMS displays is the Custom Reports Creation menu (Figure 2-1). If you want to copy and modify a standard report design, you can select either the `Standard Real-time` or `Standard Historical Reports` options. If you want to copy an existing custom report design, you can select either the `Custom Real-time` or `Custom Historical Reports` options. If you want to create a report design from scratch, you must also select one of the custom reports options since, for future access or modification, CMS will list your report design as either real-time or historical on the menus.

```
+------------------------------------------------------------------+
| Call Management System            Switch_Name:Up          Time   |
+------------------------------------------------------------------+

                        CALL MANAGEMENT SYSTEM

   _____

                        CUSTOM REPORTS CREATION

                        Standard Reports
                        [ ] Real-time Reports
                        [ ] Historical Reports

                        Custom Reports
                        [ ] Real-time Reports
                        [ ] Historical Reports

 +-----+ +-----+ +-------+ +-------+ +-------+  +------+ +------+ +------+
 |     | |     | |       | |       | |       |  | EXIT | |PRINT | | HELP |
 |     | |     | |       | |       | |       |  |      | |SCREEN| | KEYS |
 +-----+ +-----+ +-------+ +-------+ +-------+  +------+ +------+ +------+
```
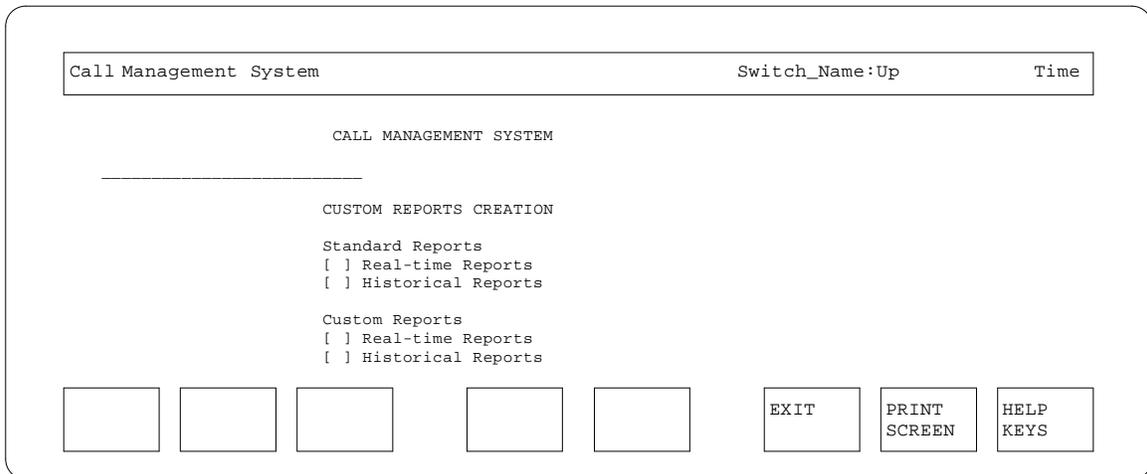
Figure 2 1   The Custom Reports Creation Menu

The Copy Standard Reports Menus

If you select either of the Standard Reports options on the Custom Reports Creation menu, CMS will next display one of the following menus (Figures 2-2 and 2-3). These menus are almost identical to the Standard Reports menus you use when ordering the actual reports. On these menus, you enter the name of your new custom report and select one specific standard report that you want to modify to your own design. You then press the [COPY] SLK to simultaneously copy that report design onto the Screen Painter and display the Screen Painter screen.

```
┌─────────────────────────────────────────────────────────────────────────┐
│ ┌─────────────────────────────────────────────────────────────────────┐ │
│ │ Call Management System                   Switch_Name:Up        Time   │ │
│ └─────────────────────────────────────────────────────────────────────┘ │
│                                                                           │
│                          CALL MANAGEMENT SYSTEM                           │
│                                                                           │
│            CUSTOM REPORTS - COPY STANDARD REAL-TIME REPORTS               │
│                                                                           │
│            New Report Name: _____                                │
│                                                                           │
│                            [ ] Split Status                               │
│                            [ ] Group Status                               │
│                            [ ] Split Summary                              │
│                            [ ] System Status                              │
│                            [ ] Agent/Split Comparison                     │
│                            [ ] Call Profile                               │
│                            [ ] Trunk Group Summary                        │
│                            [ ] Split Performance                          │
│                            [ ] Split Event Count Summary                  │
│                                                                           │
│  ┌──────┐ ┌──────┐ ┌──────┐   ┌──────┐ ┌──────┐  ┌──────┐ ┌──────┐ ┌──────┐│
│  │COPY  │ │      │ │      │   │      │ │      │  │EXIT  │ │PRINT │ │HELP  ││
│  │      │ │      │ │      │   │      │ │      │  │      │ │SCREEN│ │KEYS  ││
│  └──────┘ └──────┘ └──────┘   └──────┘ └──────┘  └──────┘ └──────┘ └──────┘│
└─────────────────────────────────────────────────────────────────────────┘
```

Figure 2 2   The Copy Standard Real-Time Reports Menu

```
┌─────────────────────────────────────────────────────────────────────────┐
│ ┌─────────────────────────────────────────────────────────────────────┐ │
│ │ Call Management System                   Switch_Name:Up        Time   │ │
│ └─────────────────────────────────────────────────────────────────────┘ │
│                                                                           │
│                          CALL MANAGEMENT SYSTEM                           │
│                                                                           │
│            CUSTOM REPORTS -  COPY STANDARD HISTORICAL REPORTS             │
│                                                                           │
│            New Report Name: _____                                │
│                                                                           │
│            Split        Split Event    System        Summary             │
│            [ ] Daily     [ ] Daily      [ ] Daily     [ ] Split           │
│            [ ] Weekly    [ ] Weekly     [ ] Weekly    [ ] Group           │
│            [ ] Monthly   [ ] Monthly    [ ] Monthly   [ ] Trunk Group     │
│                                                                           │
│            Agent         Agent Event    Trunk Group   Daily Only          │
│            [ ] Daily     [ ] Daily      [ ] Daily     [ ] Login Logout    │
│            [ ] Weekly    [ ] Weekly     [ ] Weekly    [ ] Call Profile    │
│            [ ] Monthly   [ ] Monthly    [ ] Monthly   [ ] Trunk           │
│                                                                           │
│  ┌──────┐ ┌──────┐ ┌──────┐   ┌──────┐ ┌──────┐  ┌──────┐ ┌──────┐ ┌──────┐│
│  │COPY  │ │      │ │      │   │      │ │      │  │EXIT  │ │PRINT │ │HELP  ││
│  │      │ │      │ │      │   │      │ │      │  │      │ │SCREEN│ │KEYS  ││
│  └──────┘ └──────┘ └──────┘   └──────┘ └──────┘  └──────┘ └──────┘ └──────┘│
└─────────────────────────────────────────────────────────────────────────┘
```

Figure 2 3   The Copy Standard Historical Reports Menu

> **NOTE** If Call Vectoring is active, the standard reports available in the Copy...Standard Reports Menus will differ from those listed in Figures 2-2 and 2-3.

The Editor Selection Menu

If you select either of the Custom Reports options on the Custom Reports Creation menu, CMS next displays the Editor Selection menu (Figure 2-4). To work on a custom report, you select the `Screen Painter` option on this menu. However, selecting this option does not immediately display the Screen Painter. Instead, CMS first displays a menu of custom report designs for you to copy, modify, or delete.

The `UNIX System vi editor` option has been included so that AT&T services personnel can troubleshoot CMS custom reports.

```
┌──────────────────────────────────────────────────────────────────────────┐
│  ┌──────────────────────────────────────────────────────────────────────┐ │
│  │ Call Management System                    Switch_Name:Up        Time  │ │
│  └──────────────────────────────────────────────────────────────────────┘ │
│                      CALL MANAGEMENT SYSTEM                                 │
│                                                                            │
│                  CUSTOM REPORTS - EDITOR SELECTION                          │
│                                                                            │
│            [ ] Screen painter                                              │
│                                                                            │
│            [ ] UNIX vi editor                                              │
│                                                                            │
│                                                                            │
│   ┌─────┐ ┌─────┐ ┌─────┐   ┌─────┐ ┌─────┐  ┌─────┐ ┌──────┐ ┌─────┐      │
│   │     │ │     │ │     │   │     │ │     │  │EXIT │ │PRINT │ │HELP │      │
│   │     │ │     │ │     │   │     │ │     │  │     │ │SCREEN│ │KEYS │      │
│   └─────┘ └─────┘ └─────┘   └─────┘ └─────┘  └─────┘ └──────┘ └─────┘      │
└──────────────────────────────────────────────────────────────────────────┘
```

Figure 2 4   **The Editor Selection Menu**

The Copy Custom Reports Menu

After you select one of the custom report options on the Custom Reports Creation menu and select the Screen Painter on the Editor Selection menu, CMS displays the Copy, Create, Modify, Or Delete Custom Reports menu (Figure 2-5) for either real-time or historical custom reports. On this menu, you enter a unique name for your new custom report and select one specific custom report that you want to copy and modify. You then press the COPY SLK to simultaneously copy that report design onto the Screen Painter and display the Screen Painter.

If you want to design a custom report from scratch, enter the name of your new custom report and press CREATE/MODIFY to access a blank Screen Painter. You do not select an existing report from the menu if you want to design a report from scratch.

```
┌─────────────────────────────────────────────────────────────────────────────────┐
│  ┌─────────────────────────────────────────────────────────────────────────────┐ │
│  │ Call Management System                          Switch_Name:Up         Time  │ │
│  └─────────────────────────────────────────────────────────────────────────────┘ │
│                                                                                   │
│                           CALL MANAGEMENT SYSTEM                                  │
│                                                                                   │
│      CUSTOM REPORTS - COPY, CREATE, MODIFY OR DELETE CUSTOM [Real-time or Historical] REPORTS │
│                                                                                   │
│      Report Name: _____                                    │
│                                                                                   │
│      Custom Report Name      Owner    Description                                 │
│      [ ] agentcalls          sally                                                │
│      [ ] exceptsplits        acd1                                                 │
│      [ ] systemcheck         acd1     Split/trunk group compare                   │
│      [ ] trunkassign         sally    Trunk assignments                           │
│      [ ] ACDAVERAGES         george                                               │
│      [ ] AGENTPERFORM        pat                                                  │
│      [ ] AGENTTIMESHEET      chuck    Login/logout for sales agents               │
│      [ ] SALESGROUP1         george   Group 1 summary                             │
│      [ ] SPLITSUM2           pat      Split summary for sales                     │
│      [ ] TRUNKSUMMARY        acd1     Summary of split trunks                     │
│                                                                                   │
│                                              [Page 1 of n]                        │
│  ┌──────┐ ┌──────┐ ┌────────┐   ┌──────┐ ┌──────┐   ┌──────┐ ┌──────┐ ┌──────┐    │
│  │COPY  │ │DELETE│ │CREATE/ │   │PREV  │ │NEXT  │   │EXIT  │ │PRINT │ │HELP  │    │
│  │      │ │      │ │MODIFY  │   │PAGE  │ │PAGE  │   │      │ │SCREEN│ │KEYS  │    │
│  └──────┘ └──────┘ └────────┘   └──────┘ └──────┘   └──────┘ └──────┘ └──────┘    │
└─────────────────────────────────────────────────────────────────────────────────┘
```

Figure 2 5   The Copy, Create, Modify, Or Delete Custom Reports Menu

SLKs On the Copy Custom Reports Menus

The three SLKs on the left side of the Copy...Custom Reports menus work as described in the following list. The other SLKs work as described in Chapter 1.

COPY
This SLK copies the report design that you select and gives it the name that you entered in the `Report Name` field. It also accesses the Screen Painter, which will contain a copy of the selected report design.

DELETE
This SLK deletes the report design that you select on the menu. You must be the creator of the report to be able to delete it.

CREATE/ MODIFY
This SLK displays a blank Screen Painter if you enter a new report name in the `Report Name` field and do not select a report design from the menu. If you do select an existing report design, [CREATE/MODIFY] displays the Screen Painter with the original report design displayed on the Screen Painter.

Global Versus Private Reports

The report designs listed on the Copy...Custom Reports menu (Figure 2-5) can be either global or private. **Private** reports are reports that appear on your menu only if you created them. Other CMS users will never see your private reports on their menu, and you will never see theirs. **Global** reports are reports that appear on all CMS users' menus. Any CMS user can copy a global report, regardless of who created it. However, only the user who created a particular global report can change or delete it. Therefore, to change a global report created by someone else, a user must first copy the report under a new name and then change it. The `Owner` column of the Copy...Custom Reports menu lists the user ID of the person who created each report.

You make your report either global or private after you have finished designing it and are ready to compile it on the Compile screen (see Chapter 7).

| NOTE | Compiling a report means that CMS stores your report design in programming code so that the computer can actually generate the report with call center data. |

> **NOTE**   If a CMS user's ID is removed, that user's private custom reports will also be removed. The user's global reports will be placed under the ownership of the associated login ID (e.g. *acd1*) for the administrator to maintain.

Copying a Standard Report Design

Follow this procedure to copy a standard report design to the Screen Painter. The report designs you copy should require the fewest changes possible to produce the report design you ultimately want. Copying a standard report to the Screen Painter requires that you also give the copy a new report name.

1   Select the CUSTOM REPORTS CREATION option from the CMS main menu.

   [The Custom Reports Creation screen appears.]

2   Select Real-time or Historical under the Standard Reports heading.

3   Press RETURN.

   [The Copy Standard Real-time Reports or Copy Standard Historical Reports menu appears.]

4   In the New Report Name field, enter a unique name for the report you will design. Use up to 12 alphanumeric characters (including underscores and hyphens). Do not use periods and blanks.

5   Move the cursor to the specific standard report design you want to copy.

6   Press COPY.

   [The Screen Painter appears with an exact copy of the standard report design.]

   You may begin changing the standard report design (see Chapters 4 and 6).

Copying an Existing Custom Report Design

Follow this procedure to copy an existing custom report design onto the Screen Painter. The report design you copy should require the fewest changes possible to produce the report you ultimately want. You may copy any report listed on the Copy...Custom Reports menu, whether or not you are the owner. However, copying a custom report requires that you enter a unique name for your copy of the report design.

> **NOTE** If you are the owner of an existing report design, you may want to modify the design instead of copying it, especially if you plan to replace the existing report design with the new one. By modifying the existing report design instead of copying it, you can change the design, yet keep the original report name. See "Modifying an Existing Custom Report" in Chapter 7.

1   Select the CUSTOM REPORTS SELECTION option in the CMS main menu.

    [The Custom Reports Creation screen appears.]

2   Select Real-time or Historical under the Custom Reports heading.

3   Press RETURN.

    [The Editor Selection screen appears with the cursor already positioned to select the Screen Painter.]

4   Press RETURN again.

    [The Copy...Custom Real-time Reports or Copy...Custom Historical Reports menu appears.]

5   Type a unique name for the new report in the Report Name field. Use up to 12 alphanumeric characters (including underscores and hyphens). Do not use periods and blanks.

6   Move the cursor to the specific custom report design you want to copy.

7   Press COPY.

    [The Screen Painter will appear with an exact copy of the custom report design.]

    You may begin changing the custom report design (see Chapters 4 and 6).

Creating a Report Design From Scratch

Follow this procedure to design a custom report with a blank Screen Painter. In most cases, copying an existing report design will be much faster than designing a report from scratch. However, to create a report containing only a few data items or only data items that existing reports do not have, designing a report from scratch may be the quickest method.

1   Select the CUSTOM REPORTS CREATION option from the CMS main menu.

    [The Custom Reports Creation screen appears.]

2   Select either Real-time or Historical under the Custom Reports heading.

    [The Editor Selection screen appears with the cursor positioned to select the Screen Painter.]

3   Press [RETURN].

    [The Copy...Custom Real-time Reports or Copy...Custom Historical Reports menu appears.]

4   Enter a unique name in the Report Name field. Use up to 12 alphanumerics (including hyphens and underscores). Do not use periods and blanks.

5   Press [CREATE/MODIFY].

    [A blank Screen Painter appears.]

    You may begin entering labels, data items, and time stamps to create your report (see Chapters 4 and 6).

General Information

After you have given your report a name and selected the appropriate options on the Custom Report menus, the Screen Painter appears. The Screen Painter is the tool you use to design your report. On the Screen Painter, you do the following tasks:

> Add display items (labels, time stamps, and data items)
>
> Move, copy, change, or delete display items
>
> Add video attributes to display items. (Real-time reports only.)

As you do these tasks, the Screen Painter displays the labels, time stamps, and data items almost as they would appear in an actual report.

The Screen Painter offers some editing capabilities that make your report design easy to do:

> A block editing capability for copying, moving, or deleting whole sections of the report design or individual display items
>
> A video attribute capability for highlighting, dimming, underlining, or showing in reverse video the real-time report display items
>
> Two windows (the Data Item Window and the Time Stamp Window) that pop-up on the Screen Painter. You use these windows to define data items and time stamps.

In addition, the Screen Painter offers additional space if your report design is so big that it requires more than one screen. For real-time reports, the Screen Painter has four **quads**, with each quad equal to one screen on your terminal. For historical reports, the Screen Painter has three **sections**, with each section equal to one screen on your terminal.

This chapter describes the Screen Painter and its capabilities. The Data Item Window is described in detail in Chapter 5, "Data Items and the Data Item Window."

The Screen Painter Screen

If you are creating a report from scratch, the Screen Painter will appear as a blank screen. If you are creating a report by copying an existing report design, the Screen Painter will appear with a copy of that report design. Figure 3-1 shows how the Screen Painter would look if, for example, the standard Split Status Report design were copied onto it.

```
┌─────────────────────────────────────────────────────────────────────────┐
│ Call Management System                          Switch_Name:Up      Time  │
│                           SPLIT STATUS                                    │
│  SPLIT: xxxxxxxxxx                      TRUNK GROUP STATUS                 │
│                              TRUNK GROUP  NO. BUSY  TOTAL NO.              │
│  NUMBER OF CALLS WAITING        xxx                                        │
│  OLDEST CALL WAITING            xxx           xxx      xxx     xxx         │
│  AVERAGE SPEED OF ANSWER        xxx                                        │
│                                                                           │
│  NUMBER OF ABANDONED CALLS      xxx                                        │
│  AVERAGE TIME TO ABANDON        xxx                                        │
│                                                                           │
│                                                                           │
│  NUMBER OF ACD CALLS            xxx                                        │
│  AVERAGE ACD TALK TIME          xxx                                        │
│  AVERAGE AFTER CALL WORK TIME   xxx                                        │
│                                                                           │
│  NUMBER OF OUTGOING CALLS       xxx                                        │
│  AVERAGE OUTGOING TALK TIME     xxx                                        │
│                                                                           │
│  NUMBER OF AGENTS STAFFED       xxx  NUMBER OF AGENTS AVAILABLE  xxx       │
│  NUMBER OF ACD CALLS            xxx  NUMBER IN AFTER CALL WORK   xxx       │
│  NUMBER IN AUX WORK             xxx  NUMBER ON OUTGOING CALLS    xxx       │
│                                                                           │
│ ┌──────┐ ┌──────┐ ┌──────┐   ┌──────┐ ┌──────┐   ┌──────┐ ┌──────┐ ┌──────┐│
│ │LABEL │ │DATA  │ │      │   │MOVE  │ │ERASE │   │EXIT  │ │MORE  │ │HELP  ││
│ │      │ │ITEM  │ │      │   │      │ │      │   │      │ │KEYS  │ │KEYS  ││
│ └──────┘ └──────┘ └──────┘   └──────┘ └──────┘   └──────┘ └──────┘ └──────┘│
└─────────────────────────────────────────────────────────────────────────┘
```

Figure 3 1   The Screen Painter (With a Split Status Report)

Notice that the Screen Painter copy contains x's, not real data. The x's are used on the Screen Painter to identify the positions and field lengths of the various kinds of data that will appear in the report.

NOTE	For each custom report, you can copy only one existing report's design onto the Screen Painter.

Screen Painter Quads for Custom Real-Time Reports

For real-time reports, your terminal screen will contain up to 20 lines and 80 columns. A standard real-time report design will always use just one screen. However, you can design a custom real-time report that is much larger than this because the Screen Painter has up to four screens you can use at one time for your report design. These four screens are called **quads** because together they form a report design that is two screens wide and two screens deep, with each screen containing up to 20 lines and 80 columns. Your terminal can only show one quad at a time, but you can use the Screen Painter **movement keys** to move from quad to quad in a multiquad design.

▽ **CAUTION** Multiple quad reports can affect the refresh rate of real-time reports, as well as the overall performance of CMS. Each quad in a multi-quad report counts as one user terminal for CMS. Thus, if you are currently viewing a 4-quad real-time report, CMS will count 4 terminals against the maximum number of terminals that can simultaneously be logged into your computer. With two terminals, each displaying a 4-quad report, CMS will count 8 terminals logged in against the allowable maximum. Since the report refresh rate can be slowed by the addition of logged-in terminals, viewing multi-quad reports may slow the refresh rate for all real-time reports currently displayed.

▽ **CAUTION** Though your report may have more than one quad, the limit to the number of report entries remains the same as if the report had only one quad. (See "Additional Limits On Data Item Window Entries" in Chapter 5.) In addition, a multiple quad report may not refresh properly if the report has many report entries, even though the maximum entries per report has not been reached.

Figure 3-2 shows the quad arrangement and the movement between quads using movement keys.
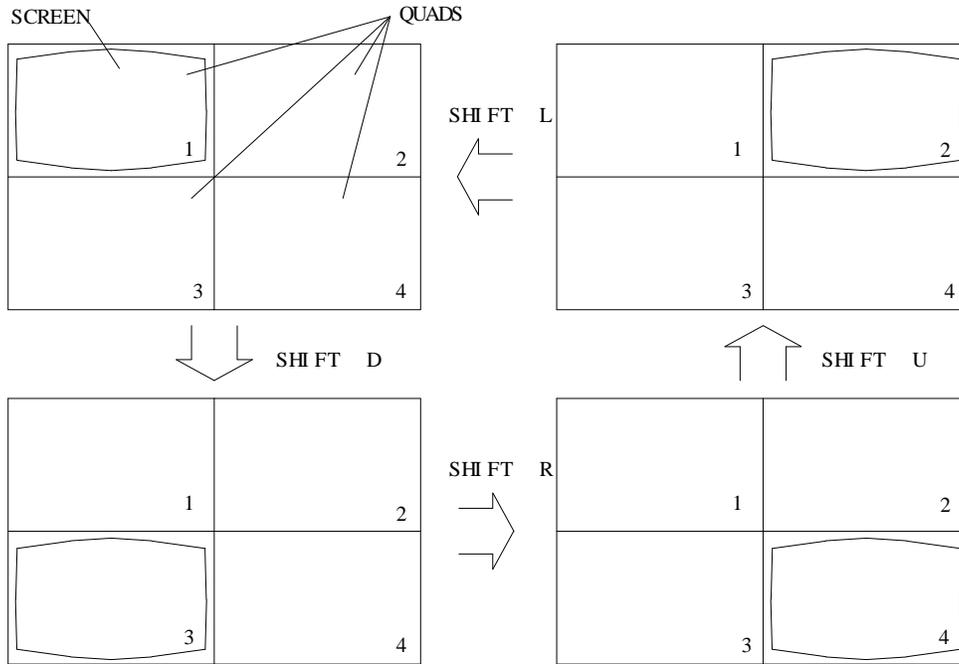
Figure 3 2   Real-Time Report Quads

The number of the quad you are in is always shown at the bottom right of the screen, except on 6500 series terminals. On some terminals, the row and column positions of the cursor are also displayed.

A copy of a standard real-time report design always appears initially in Quad 1. However, you can move the whole copy of a standard report design to another quad using the Screen Painter's block editing feature.

Screen Painter Sections for Custom Historical Reports

For historical reports, your terminal screen will contain up to 21 lines and 132 columns. A standard historical report design will always use just one screen. However, you can design a custom historical report that is much larger than this because the Screen Painter has up to three screens you can use at one time for your report design. These three screens are called **sections** because together they form a report design that is three screens long. Your terminal can only show one section at a time, but you can use the Screen Painter **movement keys** to move from section to section.

> **NOTE** CMS automatically converts your terminal to 132-column display when you access the Screen Painter to design an historical report.

> **NOTE** Using more than one section is optional, but if you have a lot of display items or you want a report with separate groupings of related display items, you may need more than one section.

Figure 3-3 illustrates sections and the movement between sections using the movement keys.
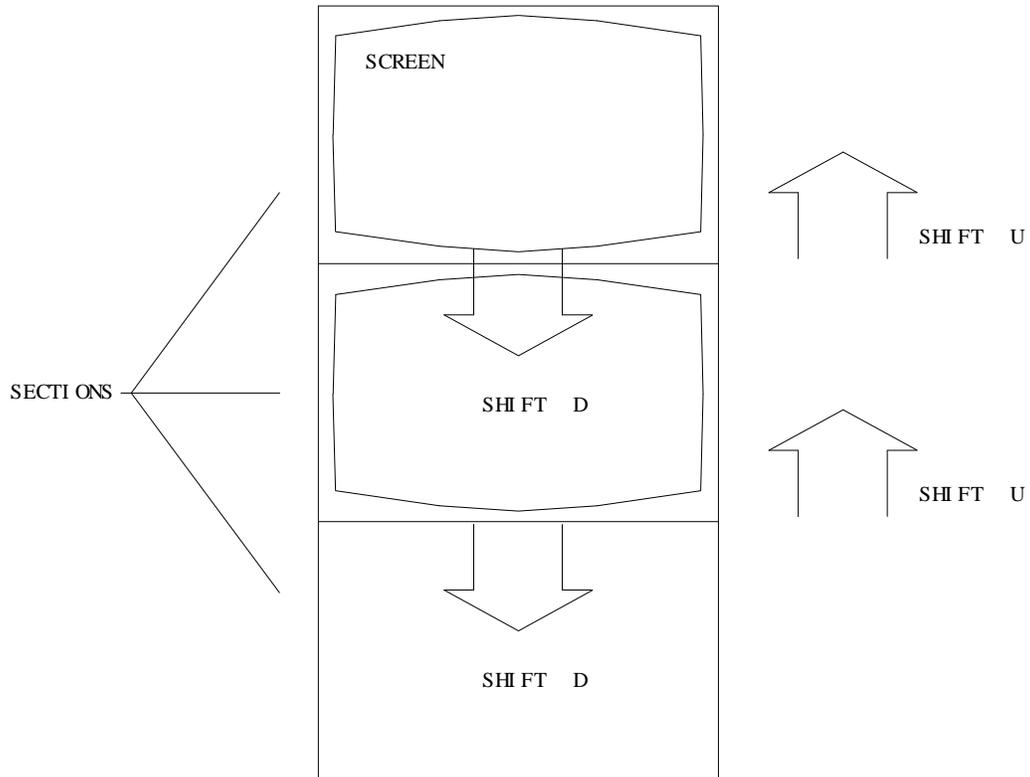
Figure 3 3 Historical Report Sections

The section number you are in is always shown at the bottom right of the screen, except on 6500 series terminals. On some terminals, the row and column positions of the cursor are also displayed.

A copy of a standard historical report design always appears initially in Section 1. However, you can move the whole copy of a standard report design to another section using the Screen Painter's block editing feature.

Display Items in a Custom Report Design

The display items you must define and arrange in a custom report are as follows:

Time Stamps Time stamps are used on historical reports only. Time stamps are definitions for one of three types of time data: the date of the data in the report, the time a report was generated, or the date a report was generated. Time stamps usually appear at the top of the first page of a standard report.

The sample Group Summary Report (Figure 3-4) contains the following time stamps:

> The date the report was generated (`4/01/88`)
>
> The date of the data appearing in the report (`3/21/88`).

Data Items Data items are definitions for actual ACD statistics, dates, times, or identifiers for specific splits, agents, trunk groups, trunks, or groups.

Figure 3-4 contains the following data items:

> All numerical values
>
> The agents' identifiers (`Ernestine Angel, 1023`, etc.)
>
> The group identifier (`transfers`).

Labels Labels contain the fixed text that appears on a report. A label can be the title of a report, the name or description for a data item or time stamp, or special instructions for reading a report. Normally, you will want to place a label beside each data item and time stamp in a report so you can readily identify the data in those fields.

Figure 3-4 contains the following labels:

> The column headers (`AGENT, NUMBER OF ACD CALLS, AVERAGE ACD TALK TIME`, etc.)
>
> The report title (`GROUP SUMMARY`);
>
> Other field identifiers (`GROUP:, DAY:,` and `SUMMARY`).

```
                                            GROUP SUMMARY                     (MENU:GRPSUM)
4/01/88                                                                       DAY:3/21/88
GROUP: transfers

            NUMBER    AVERAGE   AVERAGE  WEIGHTED   NO. OF  AVG EXT  NO. OF   AVG EXT     %       %
            OF ACD   ACD TALK    AFTER       CALL  EXT OUT OUT TALK  EXT IN   IN TALK    AUX     ACD
AGENT        CALLS       TIME CALL WORK      VALUE    CALLS    TIME   CALLS      TIME    WORK    TIME
--------------------------------------------------------------------------------------------------
Ernestine Angel  78    201.52     21.33    221.04        0        0       0      0.00   23.78   90.65
Derick Samson    98    134.55     34.99    168.75        0        0      14     67.98   21.99   56.77
1023            122     99.99     23.66    122.23        8      129       0      0.00    9.00   78.62
Jill Gilian      90    140.51     65.78    205.88        1        8       1     19.40   41.22   43.19
--------------------------------------------------------------------------------------------------
SUMMARY         388    144.14     36.44    179.48        9     23.5      15     21.85   24.00   67.26
```

Figure 3 4   Sample Group Summary Report

The next figure (Figure 3-5) illustrates what a copy of the Group Summary Report design would look like on the Screen Painter.

```
+---------------------------------------------------------------------------------+
| Call Management System                        Switch_Name:Up          Time      |
+---------------------------------------------------------------------------------+
                                            GROUP SUMMARY                     (MENU:GRPSUM)
XX/XX/XX                                                                      DAY: XX/XX/XX
GROUP: XXXXXXXXXXXXXXXXXXX

            NUMBER    AVERAGE   AVERAGE  WEIGHTED   NO. OF  AVG EXT  NO. OF   AVG EXT     %       %
            OF ACD   ACD TALK    AFTER       CALL  EXT OUT OUT TALK  EXT IN   IN TALK    AUX     ACD
AGENT        CALLS       TIME CALL WORK      VALUE    CALLS    TIME   CALLS      TIME    WORK    TIME
--------------------------------------------------------------------------------------------------
XXXXXXXXXXXXXX  XXXX   XXXX.XX   XXXX.XX  XXXX.XX     XXXX  XXXX.XX    XXXX   XXXX.XX XXX.XX  XXX.XX
--------------------------------------------------------------------------------------------------
SUMMARY        XXXXXX  XXXX.XX   XXXX.XX  XXXX.XX   XXXXXX  XXXX.XX  XXXXXX   XXXX.XX XXX.XX  XXX.XX




 +-------+ +-------+ +-------+   +-------+ +-------+   +-------+ +-------+ +-------+
 | LABEL | | DATA  | | TIME  |   | MOVE  | | ERASE |   | EXIT  | | MORE  | | HELP  |
 |       | | ITEM  | | STAMP |   |       | |       |   |       | | KEYS  | | KEYS  |
 +-------+ +-------+ +-------+   +-------+ +-------+   +-------+ +-------+ +-------+
```

Figure 3 5   The Screen Painter (With a Group Summary Report Design)

Notice that, even though the actual report (Figure 3-4) displays columns of data under each heading, only one line of *x*'s is used in the report design (Figure 3-5) to define each data item field. Only one line of *x*'s is used because, if the definition of a data item is broad enough to include multiple values, CMS automatically duplicates that data item field when it generates an historical report, thereby creating a column of values. On a real-time report design, a column of data item fields will be displayed according to the number of fields you specify for each page of the report. This concept is explained in Chapter 5, "Data Items and the Data Item Window."

Display Item Additions and Changes

On the Screen Painter, you add or change display items using the following general steps:

1 To **change** a display item, move the cursor to that display item's current position on the Screen Painter.

   To **add** a display item, move the cursor to a blank position on the Screen Painter.

2 Press the appropriate screen-labeled key (SLK): [TIME STAMP], [LABEL], or [DATA ITEM].

3 Enter one of the following sets of characters:

For a Label	The text you want displayed on the actual report.
For a Time Stamp	One of the following formats: *xx/xx/xx* for month/day/year or *xx:xx:xx* for hour:minute:second.
For a Data Item	*x*'s to specify the appropriate field length.

4 Press [RETURN], which gives the following results:

For a Label	Saves the text and completes the entry of that label.
For a Time Stamp	Displays the Time Stamp Window.
For a Data Item	Displays the Data Item Window.

You complete a time stamp or data item using the associated window. The Time Stamp Window and the Data Item Window are briefly described on the following pages.

NOTE	Adding/changing labels and time stamps are discussed in greater detail in Chapter 4, "Designing a Custom Report."

NOTE	Adding/changing data items are discussed in greater detail in Chapter 6, "Defining Data Items."

The Time Stamp Window

Use the Time Stamp Window (Figure 3-6) to define the values CMS should display in a Time Stamp field. The Time Stamp Window pops up on the Screen Painter after you enter a time stamp format.

NOTE	Time stamps are used only on historical reports. Therefore, the Time Stamp Window is not available when you are designing a real-time report.

```
Call Management System                          Switch_Name:Up          Time

                                   GROUP SUMMARY                 (MENU:GRPSUM)
XX/XX/XX                                                         DAY: XX/XX/XX
GROUP: XXXXXXXXXXXXXXXXXXX

              NUMBER    AVERAGE    AVERAGE WEIGHTED    NO. OF  AVG EXT  NO. OF   AVG EXT     %       %
              OF ACD   ACD TALK     AFTER     CALL    EXT OUT OUT TALK  EXT IN   IN TALK    AUX     ACD
AGENT          CALLS       TIME CALL WORK    VALUE     CALLS     TIME   CALLS      TIME    WORK    TIME
-----------------------------------------------------------------------------------------------------

XXXXXXXXXXXXXX  XXXX    XXXX.XX   XXXX.XX  XXXX.XX     XXXX  XXXX.XX    XXXX    XXXX.XX XXX.XX  XXX.XX
-----------------------------------------------------------------------------------------------------
SUMMARY        XXXXXX    XXXX.XX   XXXX.XX  XXXX.XX   XXXXXX  XXXX.XX  XXXXXX    XXXX.XX XXX.XX  XXX.XX


    --------------------------------------------------------------------
    [ ] Current Date       [ ] Current Time       [ ] Date of Reported Data
    --------------------------------------------------------------------

    | 7006 Select a date or time from displayed options and press RETURN. |

 ┌────────┐ ┌────────┐ ┌────────┐   ┌────────┐ ┌────────┐   ┌────────┐ ┌────────┐ ┌────────┐
 │ LABEL  │ │ DATA   │ │ TIME   │   │ MOVE   │ │ ERASE  │   │ EXIT   │ │ MORE   │ │ HELP   │
 │        │ │ ITEM   │ │ STAMP  │   │        │ │        │   │        │ │ KEYS   │ │ KEYS   │
 └────────┘ └────────┘ └────────┘   └────────┘ └────────┘   └────────┘ └────────┘ └────────┘
```

Figure 3 6   The Time Stamp Window

By moving the cursor to the option you want (`Current Date`, `Current Time`, or `Date of Reported Data`), you can tell CMS which date or time to insert into the Time Stamp field when the report is generated.

The Data Item Window

Use the Data Item Window (Figure 3-7) to define the values CMS should display in a data item field. The Data Item Window pops up on the Screen Painter after you enter *x*'s to specify data item field length.

```
 Call Management System                          Switch_Name:Up          Time

                                      GROUP SUMMARY                (MENU:GRPSUM)
 XX/XX/XX                                                          DAY: XX/XX/XX
 GROUP: XXXXXXXXXXXXXXXXXXX

              NUMBER    AVERAGE   AVERAGE WEIGHTED    NO. OF  AVG EXT  NO. OF   AVG EXT    %       %
              OF ACD   ACD TALK    AFTER     CALL    EXT OUT  OUT TALK EXT IN   IN TALK   AUX     ACD
 AGENT         CALLS      TIME CALL WORK     VALUE     CALLS     TIME  CALLS      TIME    WORK    TIME
 ------------------------------------------------------------------------------------------------------

 XXXXXXXXXXXXXXX  XXXX   XXXX.XX  XXXX.XX  XXXX.XX     XXXX  XXXX.XX    XXXX   XXXX.XX XXX.XX  XXX.XX
 ------------------------------------------------------------------------------------------------------
 SUMMARY        XXXXXX   XXXX.XX  XXXX.XX  XXXX.XX    XXXXXX  XXXX.XX  XXXXXX   XXXX.XX XXX.XX  XXX.XX


     ----------------------------------------------------------------------------
 Item: _____
 Justify:__ Fill: __  File: _____ Data Base: _____
 Criteria: _____
         _____
 Repeat Item: _____
 Start Date: _____   Number of Days:_____
     ----------------------------------------------------------------------------
 |    7007 Please complete the data item specification window and press RETURN  |
     ----------------------------------------------------------------------------

  ┌───────┐ ┌───────┐ ┌───────┐ ┌───────┐ ┌───────┐ ┌───────┐ ┌───────┐ ┌───────┐
  │       │ │ DATA  │ │DICTNARY│ │       │ │       │ │ EXIT  │ │RESUME │ │ HELP  │
  │       │ │ ITEM  │ │ ACCESS │ │       │ │       │ │       │ │       │ │ KEYS  │
  └───────┘ └───────┘ └───────┘ └───────┘ └───────┘ └───────┘ └───────┘ └───────┘
```

Figure 3 7   The Data Item Window

By completing the Data Item Window fields, you can tell CMS where in the database to look for data to insert into the data item fields.

| NOTE | Data items and the Data Item Window will be discussed in detail in Chapter 5, "Data Items and the Data Item Window." |

The Block Editing Capability

A **block** is a rectangular area on the Screen Painter that you define and use for quick rearrangement of display items (time stamps, labels, and data items). You can define a block that contains a single display item, several display items, or all the display items in a quad or section. You define a block by marking the upper left-hand and lower right-hand corners of the rectangle, and the block so defined is highlighted. You can then do three things to the display items within the block:

> Erase the block
>
> Move the block to another location on the Screen Painter (including a different quad or section)
>
> Copy the block to another location on the Screen Painter (including a different quad or section).

NOTE	Block editing and formatting a custom report are described in Chapter 4, "Designing a Custom Report."

Video Attributes for Real-Time Reports

The Screen Painter gives you the option of altering the way real-time report display items are displayed on your terminal. Display items can be displayed with any of the following video attributes:

> NORMAL (default display)
>
> BRIGHT
>
> DIM
>
> INVERSE VIDEO (the brightness display of characters and background is reversed, like the negative of a photograph)
>
> UNDERLINE.

Your changes to video attributes must be for each individual report display item; you cannot change the video attributes for all display items at one time. If you want to change video attributes, press VIDEO ACCENT, which displays the video attribute SLKs. You then change an attribute by placing the cursor on any character of the target display item and pressing the SLK for the desired attribute.

| NOTE | Some terminals do not have the "bright" capability. |

NOTES

General Information

On the Screen Painter you add, change, rearrange, and erase report display items — that is, labels, time stamps, and data items. If the Screen Painter already contains report display items because you copied an existing report, you should first erase the display items you do not want and then rearrange, if necessary, the display items you want to keep. These actions will create space and reference points on the screen for adding other display items. Next, since time stamps normally appear at the top of a report design, you probably should enter them before labels and data items. Then you should enter labels since they give you reference points for entering your data items. Also, entering all labels at once, then all data items at once, is more efficient than switching back and forth between labels and data items.

This chapter describes the procedures you can use to rearrange report display items in a design, add or change labels and time stamps, and add video attributes to the display items of a report. Procedures for adding or changing data items are described in Chapter 6.

The Screen Painter SLKs

On the Screen Painter, you cannot enter or arrange any report display items unless you press the appropriate SLK. However, once you press an SLK, you must either complete the task or abort by pressing [CTRL] + a. Therefore, be sure to position the cursor in the right place on the screen before you begin a task.

The SLKs on the Screen Painter are the same for real-time and historical report designs, with two exceptions:

> The [TIME STAMP] SLK (shown in Figure 4-1) is not available for real-time reports. Data in real-time reports is always for the current or previous interval, so time stamps are not necessary.

> The [VIDEO ACCENT] SLK is not available for historical reports.

```
Call Management System                           Switch_Name:Up              Time

                                    GROUP SUMMARY                    (MENU:GRPSUM)
XX/XX/XX                                                             DAY: XX/XX/XX
GROUP: XXXXXXXXXXXXXXXXXXX

             NUMBER   AVERAGE   AVERAGE WEIGHTED    NO. OF  AVG EXT  NO. OF  AVG EXT     %       %
             OF ACD  ACD TALK     AFTER     CALL   EXT OUT OUT TALK  EXT IN  IN TALK    AUX     ACD
AGENT         CALLS      TIME CALL WORK    VALUE     CALLS     TIME   CALLS     TIME    WORK    TIME
-------------------------------------------------------------------------------------------------
XXXXXXXXXXXXXXX  XXXX   XXXX.XX   XXXX.XX  XXXX.XX     XXXX  XXXX.XX    XXXX  XXXX.XX  XXX.XX  XXX.XX
-------------------------------------------------------------------------------------------------
SUMMARY         XXXXXX   XXXX.XX   XXXX.XX  XXXX.XX   XXXXXX  XXXX.XX  XXXXXX  XXXX.XX  XXX.XX  XXX.XX


  ┌───────┐ ┌───────┐ ┌───────┐   ┌───────┐ ┌───────┐   ┌───────┐ ┌───────┐ ┌───────┐
  │ LABEL │ │ DATA  │ │ TIME  │   │ MOVE  │ │ ERASE │   │ EXIT  │ │ MORE  │ │ HELP  │
  │       │ │ ITEM  │ │ STAMP │   │       │ │       │   │       │ │ KEYS  │ │ KEYS  │
  └───────┘ └───────┘ └───────┘   └───────┘ └───────┘   └───────┘ └───────┘ └───────┘
```

Figure 4-1   The Screen Painter (With a Group Summary Report Design)

LABEL
This SLK allows you to enter or change text on the Screen Painter. Press [LABEL] when you want to add or change report titles, field names, or special fixed instructions on the screen.

DATA ITEM
This SLK allows you to enter or change a data item on the Screen Painter. When you press [DATA ITEM], you must first enter *x*'s on the Screen Painter to establish a field length for the data item; then, when you press [RETURN], the Data Item Window pops up at the bottom of the Screen Painter so you can define the data item.

TIME STAMP   This SLK allows you to enter or change a time stamp on the Screen Painter. When you press ⌊TIME STAMP⌋, you first enter *xx/ xx/ xx* for the month/ day/ year or *xx:xx:xx* for the hour:minute:second; then, when you press ⌊RETURN⌋, the Time Stamp Window pops up at the bottom of the Screen Painter so you can define the time stamp.

MOVE   This SLK allows you to move a block of report display items to a different location on the Screen Painter. Pressing ⌊MOVE⌋ defines the upper left corner of the block you want to move and sets in motion the block move sequence.

ERASE   This SLK allows you to erase a block of report display items from the Screen Painter. Pressing ⌊ERASE⌋ defines the upper left corner of the block you want to erase and sets in motion the block erase sequence.

EXIT   This SLK accesses the Compile screen.

MORE KEYS   This SLK displays the second tier of SLKs available on the Screen Painter (see the following section on Second Tier SLKs).

HELP KEYS   This SLK displays the Help SLKs (see Chapter 1).

The Second Tier of SLKs

When you press ⌊MORE KEYS⌋ on the Screen Painter, the following SLKs appear.

VIDEO ACCENT	PRINT SCREEN	COPY		INSERT LINE	DELETE LINE		EXIT	RESUME	HELP KEYS

The following list describes each SLK in the second tier:

VIDEO ACCENT   This SLK displays a third tier of SLKs (see Video Attribute SLKs) that you use to add video attributes to your report display items. This SLK is available only when designing or changing a real-time report. You cannot add video attributes to an historical report.

PRINT SCREEN   This SLK prints the contents of the Screen Painter exactly as it appears on your terminal.

COPY   This SLK allows you to copy a block of report display items to a different location on the Screen Painter screen. Pressing ⌊COPY⌋ defines the upper left corner of the block you want to copy, and sets in motion the block copy sequence.

INSERT LINE   This SLK inserts a blank line above the current line position of the cursor.

DELETE LINE   This SLK deletes the line on which the cursor is currently positioned.

EXIT   This SLK accesses the Compile screen.

RESUME   This SLK redisplays the first tier of SLKs on the Screen Painter.

HELP KEYS   This SLK displays the Help SLKs (see Chapter 1).

Video Attribute SLKs

Pressing [VIDEO ACCENT] displays the following tier of Video Attribute SLKs.

BRIGHT	DIM	NORMAL		INVERSE VIDEO	UNDER LINE		EXIT	RESUME	HELP KEYS

The Video Attribute SLKs work as follows:

BRIGHT   This SLK increases the brightness of the text in the report display. On some terminals, "bright" is not available.

DIM   This SLK decrease the brightness of the text in the report display.

NORMAL   This SLK returns the text in the report display back to normal brightness.

INVERSE VIDEO This SLK reverses the text and background of a display item so that the text is dark and the background is highlighted.

UNDERLINE   This SLK places a line under the text of the report display item.

EXIT   This SLK exits the Screen Painter and displays the Compile screen.

RESUME   This SLK redisplays the second tier of SLKs.

HELP KEYS   This SLK displays the Help SLKs (see Chapter 1).

Movement and Function Keys on the Screen Painter

You move the cursor around on the Screen Painter using the keys in the following list. Familiarity with these keys can save you a lot of time in custom report design.

Table 4 1   Quad/Section Movement Keys

R (shift + r)	Move right one quad.
L (shift + l)	Move left one quad.
U (shift + u)	Move up one quad or section.
D (shift + d)	Move down one quad or section.

Table 4 2   Cursor Movement Keys

h	Move left one space.
l	Move right one space.
j	Move down one line.
k	Move up one line.
Arrow keys	Move direction indicated on the arrow.
Backspace	Move left one space.
Space Bar	Move right one space.
B (shift + b)	Go to the beginning of the line the cursor is currently on.
E (shift + e)	Go to the end of the line the cursor is currently on.
CTRL **c**	Move the field the cursor is in to the center of the same line.

Table 4 3   Function Keys

CTRL	**e**	Exit the Screen Painter.
CTRL	**l**	Redraw the screen.
CTRL	**p**	Print current screen.
CTRL	**u**	Undo last command.
CTRL	**a**	Abort any Screen Painter procedure before you have completed it.
CTRL	**w**	Write current screen format to disk.

NOTE When you press the LABEL , TIME STAMP , or DATA ITEM SLK, most of the movement keys revert to their regular data entry status so you can add or change display items in the report design. For example, pressing ''h'' will actually enter the character ''h'' instead of moving the cursor to the left.

The movement keys that stay active when entering a time stamp, label, or data item are described in the following table.

Table 4 4   Movement Keys Within Report Display Items

Right Arrow	Nondestructive right movement; does NOT add blanks
Left Arrow	Nondestructive left movement
Spacebar	Destructive right space
BACKSPACE	Destructive left space
TAB	Moves to the next field
SHIFT + TAB	Moves to the previous field
Down Arrow	Moves to the next field
Up Arrow	Moves to the previous field

When you change a label, time stamp, or data item, you can clear the text in a field by pressing CTRL + z.

Adding and Deleting Lines

Follow this procedure if you want to add a blank line to your report design or delete either a blank line or a line containing report display items.

1   Press [MORE KEYS].

[The following set of SLKs will appear.]

VIDEO ACCENT	PRINT SCREEN	COPY		INSERT LINE	DELETE LINE		EXIT	RESUME	HELP KEYS

2   Press either [INSERT LINE] or [DELETE LINE].

[A line will be added above the cursor's line if you press [INSERT LINE]; The cursor's line will be deleted if you press [DELETE LINE].]

3   Press [RESUME] to redisplay the first tier of SLKs.

NOTE   If the bottom line on the Screen Painter contains display items, you cannot add another line.

Erasing a Block of Report Display Items

Follow this procedure to erase a block that contains a single display item (label, data item, or time stamp), several display items, or all of the display items on the report design. For a display to be included in a block erase, the display item's first character must be enclosed by the block. If the display item extends beyond the right boundary of the block, it will still be erased.

> **NOTE** When a data item field in a real-time report is followed by a column of highlighted repeat fields, you need to include only the data item field in the block erase. The highlighted repeat fields will automatically be erased with the data item.

1   Position the cursor where you want the upper left corner of the block to be.

2   Press ERASE to mark the upper left corner of the block.

3   Position the cursor where you want the lower right corner of the block to be.

4   Press RETURN to mark the lower right corner of the block.

[The block will be highlighted, as shown in Figure 4-2.]

```
┌─────────────────────────────────────────────────────────────────────────────
│  ┌──────────────────────────────────────────────────────────────────────┐
│  │ Call Management System                    Switch_Name:Up         Time │
│  └──────────────────────────────────────────────────────────────────────┘
│                          SPLIT STATUS
│     SPLIT: 1                                TRUNK GROUP STATUS
│                                       TRUNK GROUP  NO. BUSY  TOTAL NO.
│     NUMBER OF CALLS WAITING        xxx
│     OLDEST CALL WAITING            xxx         xxx       xxx       xxx
│     AVERAGE SPEED OF ANSWER        xxx         xxx       xxx       xxx
│                                                xxx       xxx       xxx
│     NUMBER OF ABANDONED CALLS      xxx         xxx       xxx       xxx
│     AVERAGE TIME TO ABANDON        xxx         xxx       xxx       xxx
│
│
│     NUMBER OF ACD CALLS            xxx
│     AVERAGE ACD TALK TIME          xxx
│     AVERAGE AFTER CALL WORK TIME   xxx
│
│     NUMBER OF OUTGOING CALLS       xxx
│  ┌──────────────────────────────────────────────────────────────────────┐
│  │ Press RETURN to erase specified area or <CTRL>-``a'' to abort request. │
│  └──────────────────────────────────────────────────────────────────────┘
│
│  ┌──────┐ ┌──────┐ ┌──────┐   ┌──────┐ ┌──────┐   ┌──────┐ ┌──────┐ ┌──────┐
│  │LABEL │ │DATA  │ │TIME  │   │MOVE  │ │ERASE │   │EXIT  │ │MORE  │ │HELP  │
│  │      │ │ITEM  │ │STAMP │   │      │ │      │   │      │ │KEYS  │ │KEYS  │
│  └──────┘ └──────┘ └──────┘   └──────┘ └──────┘   └──────┘ └──────┘ └──────┘
```

Figure 4 2   Block Erasing — Before

5   Press ⟨RETURN⟩ again to erase the block.

[The block will be erased, leaving a blank space where the display items used to be (see Figure 4-3).]

```
┌─────────────────────────────────────────────────────────────────────────┐
│                                                                           │
│   ┌─────────────────────────────────────────────────────────────────┐   │
│   │ Call Management System                    Switch_Name:Up    Time │   │
│   └─────────────────────────────────────────────────────────────────┘   │
│                          SPLIT STATUS                                     │
│       SPLIT: 1                             TRUNK GROUP STATUS             │
│                                      TRUNK GROUP  NO. BUSY  TOTAL NO.     │
│       NUMBER OF CALLS WAITING     xxx                                     │
│       OLDEST CALL WAITING         xxx         xxx      xxx      xxx       │
│       AVERAGE SPEED OF ANSWER     xxx         xxx      xxx      xxx       │
│                                               xxx      xxx      xxx       │
│       NUMBER OF ABANDONED CALLS   xxx         xxx      xxx      xxx       │
│       AVERAGE TIME TO ABANDON     xxx         xxx      xxx      xxx       │
│                                                                           │
│                                                                           │
│                                                                           │
│                                                                           │
│       NUMBER OF OUTGOING CALLS    xxx                                     │
│                                                                           │
│   ┌──────┐ ┌──────┐ ┌──────┐  ┌──────┐ ┌──────┐   ┌──────┐ ┌──────┐ ┌──────┐
│   │LABEL │ │DATA  │ │TIME  │  │MOVE  │ │ERASE │   │EXIT  │ │MORE  │ │HELP  │
│   │      │ │ITEM  │ │STAMP │  │      │ │      │   │      │ │KEYS  │ │KEYS  │
│   └──────┘ └──────┘ └──────┘  └──────┘ └──────┘   └──────┘ └──────┘ └──────┘
│                                                                           │
└─────────────────────────────────────────────────────────────────────────┘
```

Figure 4 3   Block Erasing — After

Moving a Block of Report Display Items

Follow this procedure to move a block that contains a single display item (label, data item, or time stamp), several display items, or all of the display items on the report design. For a display item to be included in a block move, the display item's first character must be enclosed by the block. If the display item extends beyond the right boundary of the block, it will still be moved.

> **NOTE** When a data item field in a real-time report is followed by a column of highlighted repeat fields, you need to include only the data item field in the block move. The highlighted repeat fields will automatically be moved with the data item.

You can use this procedure to move display items to another quad or section, not just within the current screen.

1 Position the cursor where you want the upper left corner of the block to be.

2 Press ⌈MOVE⌉ to mark the upper left corner of the block.

3 Position the cursor where you want the lower right corner of the block to be.

4 Press ⌈RETURN⌉ to mark the lower right corner of the block.

   [The block will be highlighted, as shown in Figure 4-4.]

Moving a Block of Report Display Items

```
┌─────────────────────────────────────────────────────────────────┐
│  ┌──────────────────────────────────────────────────────────┐    │
│  │ Call Management System              Switch_Name:Up    Time │    │
│  └──────────────────────────────────────────────────────────┘    │
│                                                                   │
│                          SPLIT STATUS                             │
│    SPLIT: xxxxxxxxxxxxxxx            TRUNK GROUP STATUS            │
│                                 TRUNK GROUP  NO. BUSY  TOTAL NO.   │
│    NUMBER OF CALLS WAITING      xxx                                │
│    OLDEST CALL WAITING          xxx          xxx    xxx     xxx    │
│    AVERAGE SPEED OF ANSWER      xxx          xxx    xxx     xxx    │
│                                              xxx    xxx     xxx    │
│    NUMBER OF ABANDONED CALLS    xxx          xxx    xxx     xxx    │
│    AVERAGE TIME TO ABANDON      xxx          xxx    xxx     xxx    │
│                                                                   │
│                                                                   │
│    NUMBER OF ACD CALLS          xxx                                │
│    AVERAGE ACD TALK TIME        xxx                                │
│    AVERAGE AFTER CALL WORK TIME xxx                                │
│                                                                   │
│    NUMBER OF OUTGOING CALLS     xxx                                │
│                                                                   │
│   ┌──────────────────────────────────────────────────────────┐   │
│   │ Move cursor to new position, and press RETURN.             │   │
│   └──────────────────────────────────────────────────────────┘   │
│  ┌─────┐ ┌─────┐ ┌─────┐   ┌─────┐ ┌─────┐   ┌─────┐ ┌─────┐ ┌─────┐│
│  │LABEL│ │DATA │ │TIME │   │MOVE │ │ERASE│   │EXIT │ │MORE │ │HELP ││
│  │     │ │ITEM │ │STAMP│   │     │ │     │   │     │ │KEYS │ │KEYS ││
│  └─────┘ └─────┘ └─────┘   └─────┘ └─────┘   └─────┘ └─────┘ └─────┘│
└─────────────────────────────────────────────────────────────────┘
```

Figure 4 4   Block Moving — Before

5   Position the cursor in the new location where you want the upper left-hand corner of the block to be.

6   Press RETURN.

[The block will be moved, as shown in Figure 4-5.]

```
┌─────────────────────────────────────────────────────────────────────┐
│                                                                       │
│  ┌──────────────────────────────────────────────────────────────┐    │
│  │ Call Management System              Switch_Name:Up      Time │    │
│  └──────────────────────────────────────────────────────────────┘    │
│                                                                       │
│                          SPLIT STATUS                                 │
│         SPLIT: xxxxxxxxxxxxxxx              TRUNK GROUP STATUS         │
│                                       TRUNK GROUP  NO. BUSY  TOTAL NO. │
│         NUMBER OF CALLS WAITING     xxx                                │
│         OLDEST CALL WAITING         xxx         xxx     xxx     xxx    │
│         AVERAGE SPEED OF ANSWER     xxx         xxx     xxx     xxx    │
│                                                 xxx     xxx     xxx    │
│         NUMBER OF ABANDONED CALLS   xxx         xxx     xxx     xxx    │
│         AVERAGE TIME TO ABANDON     xxx         xxx     xxx     xxx    │
│                                                                       │
│                                                                       │
│                                  NUMBER OF ACD CALLS          xxx     │
│                                  AVERAGE ACD TALK TIME        xxx     │
│                                  AVERAGE AFTER CALL WORK TIME xxx     │
│                                                                       │
│         NUMBER OF OUTGOING CALLS    xxx                                │
│                                                                       │
│  ┌──────┐ ┌──────┐ ┌──────┐  ┌──────┐ ┌──────┐  ┌──────┐ ┌──────┐ ┌──────┐ │
│  │LABEL │ │DATA  │ │TIME  │  │MOVE  │ │ERASE │  │EXIT  │ │MORE  │ │HELP  │ │
│  │      │ │ITEM  │ │STAMP │  │      │ │      │  │      │ │KEYS  │ │KEYS  │ │
│  └──────┘ └──────┘ └──────┘  └──────┘ └──────┘  └──────┘ └──────┘ └──────┘ │
│                                                                       │
└─────────────────────────────────────────────────────────────────────┘
```

Figure 4 5   Block Moving — After

NOTE	If the new position of the block overlaps other display items, the move will not be completed and the block will remain in its original position.

Copying a Block of Report Display Items

Follow this procedure to copy a block that contains a single display item (label, data item, or time stamp), several display items, or all of the display items on the report design. For a display item to be included in a block copy, the display item's first character must be enclosed by the block. If the display item extends beyond the right boundary of the block, it will still be copied. This process is the same as moving a block of text except the original block is not removed.

NOTE	When a data item field in a real-time report is followed by a column of highlighted repeat fields, you need to include only the data item field in the block copy. The highlighted repeat fields will automatically be copied with the data item.

You can use this procedure to copy display items to another quad or section, not just within the current screen.

1 Press MORE KEYS.

[The second tier of SLKs appears.]

VIDEO ACCENT	PRINT SCREEN	COPY		INSERT LINE	DELETE LINE		EXIT	RESUME	HELP KEYS

2 Position the cursor where you want the upper left corner of the block to be.

3 Press COPY to mark the upper left corner of the block.

4 Position the cursor where you want the lower right corner of the block to be.

5 Press RETURN to mark the lower right corner of the block.

[The block will be highlighted, as shown in Figure 4-6.]

```
Call Management System                          Switch_Name:Up        Time

                          SPLIT STATUS
   SPLIT: 1                                TRUNK GROUP STATUS
                                     TRUNK GROUP   NO. BUSY   TOTAL NO.
   NUMBER OF CALLS WAITING      xxx
   OLDEST CALL WAITING          xxx        xxx       xxx        xxx
   AVERAGE SPEED OF ANSWER      xxx        xxx       xxx        xxx
                                           xxx       xxx        xxx
   NUMBER OF ABANDONED CALLS    xxx        xxx       xxx        xxx
   AVERAGE TIME TO ABANDON      xxx        xxx       xxx        xxx

   NUMBER OF ACD CALLS          xxx
   AVERAGE ACD TALK TIME        xxx
   AVERAGE AFTER CALL WORK TIME xxx

   NUMBER OF OUTGOING CALLS     xxx


   Move cursor to new position, and press RETURN.
```

VIDEO ACCENT	PRINT SCREEN	COPY		INSERT LINE	DELETE LINE		EXIT	RESUME	HELP KEYS

Figure 4 6   Block Copying — Before

6   Position the cursor in the new location where you want the upper left-hand corner of the block to be.

7   Press ⌷RETURN⌷.

[The block will be copied in the new position, and the original block will remain where it was (see Figure 4-7).]

```
┌──────────────────────────────────────────────────────────────────────────────┐
│  ┌────────────────────────────────────────────────────────────────────────┐  │
│  │ Call Management System                        Switch_Name:Up      Time   │  │
│  └────────────────────────────────────────────────────────────────────────┘  │
│                           SPLIT STATUS                                         │
│     SPLIT: 1                              TRUNK GROUP STATUS                    │
│                                   TRUNK GROUP  NO. BUSY  TOTAL NO.              │
│     NUMBER OF CALLS WAITING      xxx                                            │
│     OLDEST CALL WAITING          xxx          xxx       xxx       xxx           │
│     AVERAGE SPEED OF ANSWER      xxx          xxx       xxx       xxx           │
│                                               xxx       xxx       xxx           │
│     NUMBER OF ABANDONED CALLS    xxx          xxx       xxx       xxx           │
│     AVERAGE TIME TO ABANDON      xxx          xxx       xxx       xxx           │
│                                                                                │
│     NUMBER OF ACD CALLS          xxx     NUMBER OF ACD CALLS          xxx       │
│     AVERAGE ACD TALK TIME        xxx     AVERAGE ACD TALK TIME        xxx       │
│     AVERAGE AFTER CALL WORK TIME xxx     AVERAGE AFTER CALL WORK TIME xxx       │
│                                                                                │
│     NUMBER OF OUTGOING CALLS     xxx                                            │
│                                                                                │
│  ┌───────┐ ┌───────┐ ┌──────┐   ┌───────┐ ┌───────┐  ┌──────┐ ┌────────┐ ┌──────┐ │
│  │VIDEO  │ │PRINT  │ │COPY  │   │INSERT │ │DELETE │  │EXIT  │ │RESUME  │ │HELP  │ │
│  │ACCENT │ │SCREEN │ │      │   │LINE   │ │LINE   │  │      │ │        │ │KEYS  │ │
│  └───────┘ └───────┘ └──────┘   └───────┘ └───────┘  └──────┘ └────────┘ └──────┘ │
└──────────────────────────────────────────────────────────────────────────────┘
```

Figure 4 7   Block Copying — After

8   Press [RESUME] to redisplay the first tier of SLKs.

| NOTE | If the position of the block copy overlaps other display items, the copy will not be completed, and only the original block in its original position will remain. |

Block Editing Display Items With Irregular Lengths

All report display items that **begin** within a block will be affected by the block erase/move/copy. Even report display items that extend beyond the right boundary of a block will be affected. Figure 4-8 illustrates a block containing four display items that will be affected by an erase/move/copy. Even though Item 4 extends beyond the right boundary of the block, it will be affected because it begins within the block.
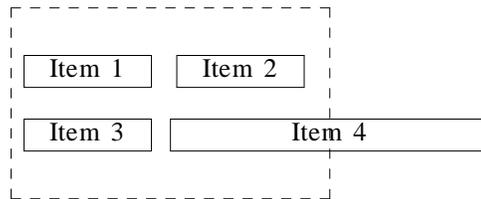
Figure 4 8   Block Editing — Case 1

Figure 4-9 presents a case in which only display items 2, 3, and 4 would be affected. Item 1 will be unaffected by an erase/move/copy because it does not begin within the block.
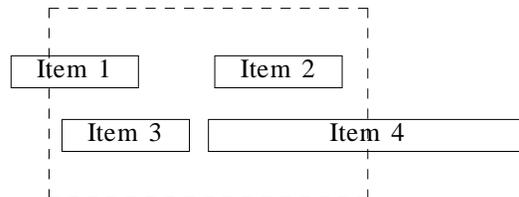
Figure 4 9   Block Editing — Case 2

| NOTE | The beginning and ending points of a label may not always be obvious. The simplest method of determining the length of a label is to highlight it by pressing LABEL. You can then immediately return to block editing by pressing CTRL **a**. |

An alternate way of checking label lengths is to define a block for the whole screen. The block will highlight every label on the screen. You can then press CTRL **a** to abort, and then block edit only those parts of the report you need to change.

Once you are sure of the beginning and ending points of labels, it is easier to perform block editing operations.

Adding a Label

Follow this procedure to add report titles, field names, and additional fixed text that you want displayed on a report. A label can have from 1 to 80 characters (the width of a screen for real-time reports). However, an historical report design appears on the Screen Painter with a width of 132 characters. So, if you add an extremely long label (more than 80 characters) to an historical report design (for example, a horizontal line that separates parts of the report), you may have to combine two labels.

Because you can enter a label on one line only, a column heading or field name that contains two or more lines of text (such as the column headings in Figure 4-1) must be entered as two or more separate labels. Also, because CMS considers blanks to be part of a label, you should avoid entering unnecessary blanks at the beginning or end of the label's text.

1   Position the cursor where you want the label text to begin.

2   Press [LABEL].

3   Type the label text using any characters desired.

4   Press [RETURN] to save the label.

5   Repeat Steps 1 through 4 for any other labels you want to enter.

NOTE   If a new label overlaps the boundaries of any other display item, the label will not be added.

Changing a Label

Follow this procedure if you want to change the text in a title, field name, or any other fixed text on the report design. You can overwrite all or part of a label.

If your change will lengthen the label, you must type the new text starting from the existing starting point of the label, and then, if necessary, reposition the label using the block move procedure.

1   Position the cursor within the label field.

2   Press ⌈LABEL⌉. Before entering the new text, you may clear the entire field by pressing ⌈CTRL⌉ + z.

> **NOTE** | Before pressing ⌈LABEL⌉ and entering new text, you may apply a temporary video attribute to a label to show its boundaries.

3   Type the new characters you want in the label.

4   Press ⌈RETURN⌉ to save the change, or press ⌈CTRL⌉ + a to revert to the original label.

5   Repeat Steps 1 through 4 for any other labels you want to change.

Adding a Time Stamp

Follow this procedure if you want to include any of the following pieces of time/date information in an historical report:

The date when the report was generated, in MM/DD/YY (month/day/year) format

The current time when the report was generated in hh:mm:ss (hour:minute:second) format

The date on which the data used in the report was recorded, in MM/DD/YY format.

NOTE	Time stamps can be used only in historical reports.

1   Position the cursor where you want the time stamp to begin.

2   Press TIME STAMP.

3   Enter either xx:xx:xx for a time or xx/xx/xx for a date.

4   Press RETURN.

   [The following **Time Stamp** window will appear in your report.]

```
                                    DAILY AGENT REPORT              (MENU:DAGENT)
XX/XX/XX                                                            DAY: XX/XX/XX

AGENT:    XXXXXX
SPLIT:    XXXXXXXXXXXXXXXXXXXX

           NUMBER  AVERAGE   AVERAGE WEIGHTED  NO. OF   AVG EXT NO. OF AVG EXT   %    %    TOTAL  NUMBER
           OF ACD ACD TALK    AFTER     CALL EXT OUT OUT TALK EXT IN IN TALK  AUX  ACD    MIN     OF
TIME       CALLS     TIME CALL WORK    VALUE   CALLS      TIME CALLS    TIME WORK TIME STAFFED ASSISTS
─────────────────────────────────────────────────────────────────────────────────────────────────
XX:XX_XX:XX  XXXXX   XXXXX    XXXXXX   XXXXX   XXXXX      XXXX XXXXXX XXX XXX   XXX X    XXXXX    XXXX
─────────────────────────────────────────────────────────────────────────────────────────────────
SUMMARY      XXXXX   XXXXX    XXXXXX   XXXXX   XXXXX      XXXX XXXXXX XXX XXX   XXX X    XXXXX    XXXX


    --------------------------------------------------------------------------
     [ ] Current Date       [ ] Current Time       [ ] Date of Reported Data
    --------------------------------------------------------------------------

    ┌─────────┐  ┌─────────┐  ┌─────────┐   ┌─────────┐  ┌─────────┐   ┌─────────┐  ┌─────────┐  ┌─────────┐
    │ LABEL   │  │ DATA    │  │ TIME    │   │ MOVE    │  │ ERASE   │   │ EXIT    │  │ MORE    │  │ HELP    │
    │         │  │ ITEM    │  │ STAMP   │   │         │  │         │   │         │  │ KEYS    │  │ KEYS    │
    └─────────┘  └─────────┘  └─────────┘   └─────────┘  └─────────┘   └─────────┘  └─────────┘  └─────────┘
```

5 Move the cursor to the desired time stamp option.

6 Press RETURN.

[The Time Stamp Window disappears and the cursor returns to the time stamp field.]

Changing a Time Stamp

Follow this procedure if you want to change a time stamp.

1   Place the cursor in the time stamp field.

2   Press TIME STAMP .

3   Type the new format, if necessary (that is, xx:xx:xx to xx/xx/xx or vice versa).

4   Press RETURN .

     [The time stamp window appears with the cursor in the brackets for the stamp type currently specified.]

5   Move the cursor to the desired time stamp option.

6   Press RETURN .

     [The Time Stamp Window disappears and the cursor returns to the time stamp field.]

Adding Video Attributes to a Real-time Report

Follow this procedure to change the video attributes of labels and data items in a real-time report. Normally you change video attributes to increase readability of the report and to emphasize or de-emphasize certain display items in the report.

You cannot change the display for all or a group of display items at one time: you must change the attributes for each report display item separately.

1 Place the cursor within the label or data item field whose video attributes you want to change.

2 Press [MORE KEYS].

[The second tier of SLKs appears.]

VIDEO ACCENT	PRINT SCREEN	COPY		INSERT LINE	DELETE LINE		EXIT	RESUME	HELP KEYS

3 Press [VIDEO ACCENT].

[The Video Attribute tier of SLKs appears.]

BRIGHT	DIM	NORMAL		INVERSE VIDEO	UNDER LINE		EXIT	RESUME	HELP KEYS
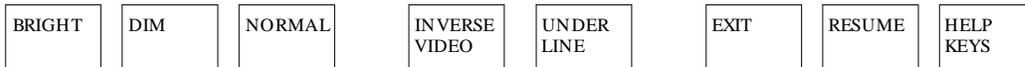
4 Press the SLK(s) of whichever attribute(s) you desire for the field. You can specify both underline and any one of the other attributes to be in effect simultaneously.

[The entire label or data item will take on the video attribute.]

5 Repeat Steps 1 through 4 for each display item you want to add video attributes to.

6 Press [RESUME] to return to the previous SLKs.

[CMS redisplays the second tier of SLKs.]

NOTE Some terminals do not have the "bright" attribute.

NOTES

General Information

The most important and most complex task in creating a custom report is defining the report's data items, the ACD data collected by CMS. A data item can be one of five types:

A database item

A formula

A calculation

A constant

A data function.

You define data items for a report using the Data Item Window, which pops up on the Screen Painter after pressing the DATA ITEM SLK. To effectively define data items for a report, you must understand the variety of options available to you when using the Data Item Window. Also, since database items comprise the vast majority of data items you will define, you must also understand the structure of the CMS databases.

This chapter gives the following information:

What database items are

How they fit together in the database structure

What other data items you can use for reports

How you use the Data Item Window to define data items for your reports.

Database Items: The Primary Source of Report Data

Database items are names for specific data stored in the CMS databases. Database items may store login IDs, extension numbers, split numbers, trunk numbers, trunk group numbers, and synonyms for login IDs, splits, or trunk groups. In addition, database items may store statistical data compiled from your call center's activity. The number of ACD calls, the wait time for calls in queue, and whether or not an agent is currently on an ACD call are examples of this statistical data.

NOTE	If your system has the Call Vectoring feature, database items may also store vector and Vector Directory Number (VDN) data. Vector and VDN database items have been included in Appendix A, "Database Reference."

Types of Data in Database Items

Database items can show four different types of data, as described in the following list. Refer to Appendix A to find out what type of data a specific database item shows.

Status In real-time reports only, this type of data gives the current state of agents, splits, trunks, and trunk groups. For example, ASTATE gives the current state of an agent — UNSTAF, AVAIL, ACD, ACW, AUX, etc. ACDCOUNT gives the number of agents currently on ACD calls in a split. ALLTRKSBUSY gives the number of trunks currently in use in a trunk group. TSATE gives the current state of a trunk — QUEUED, CONN, SEIZED, IDLE, etc. In both real-time and historical reports, status items also include data such as the equipment location of a trunk, a timemark for the beginning or ending of an event (for example, when an agent logs in), or a flag noting that a change of status has occurred.

Time This type of data gives the cumulative time of certain types of activity. For example, ACDTIME gives the total time agents in a split spent on ACD calls. ALLINUSE gives the total time the trunks in a trunk group were in use.

Event This type of data gives the cumulative number of certain types of events. For example, ACDCALLS (in an Agent file) gives the number of calls an agent has handled. ACDCALLS (in a Split file) gives the cumulative number of ACD calls handled by all agents in a split.

Identifier This type of data may identify the split, agent, trunk group, and so on.

Call-Based and Interval-Based Items

Database items, both real-time and historical, can also be either **interval-based** or **call-based**.

Interval-Based Items

Interval-based items are database items that either record time of events during and up to the end of an interval or record event occurrences when the events begin. For example, say an agent answers a call during Interval 17. The call lasts 4 minutes in this interval. The call continues into Interval 18, lasts 3 minutes, and ends in Interval 18. For this agent, one call is recorded in Interval 17 by the interval-based item ACDCALLS. No call is recorded in Interval 18. Four minutes of call time is recorded in Interval 17 by the interval-based item ACDTIME, and 3 minutes of call time is recorded in Interval 18 by ACDTIME.

> **NOTE** When an agent handles a call that extends over two intervals and does **not** receive anymore calls in the second interval, the second interval will show an average talk time of 0. That is, the talk time pegged in the second interval is divided by 0 calls, which yields 0 average talk time within CMS.
>
> Also, the summary line of an agent report **will** factor in the time of an extended call. As a result, if the agent has an extended call over two or more intervals, average talk time in the summary line could theoretically be greater than that of any single interval listed in the report.

Call-Based Items

Call-based items are database items that record event occurrences when the events end or record total time for events within the intervals in which the events end: they do not split up time between two intervals. In the preceding example, the call-based item NUMTALK would record the call in Interval 18. No call would be recorded in Interval 17. The call-based item CUMTALK would record seven minutes of call time in Interval 18.

The difference in the way call-based items and interval-based items collect data can cause slight differences in the totals displayed in the items for any particular interval. In most cases, call-based items give the most consistent reporting of data because they always record an event and the duration of the event in the same interval. However, certain types of information are only available in interval-based items, so you may need to use interval-based items in some reports.

Also, at times, the link between the switch and the 3B may be interrupted or messages from the switch may be disregarded because of software audit corrections or protocol violations. When these lapses in communication occur, an interval-based item may collect data, while a call-based item may not. Or the reverse may be true. You can ensure that, when comparing your custom reports, data is consistent if you do not alternate call-based and interval-based database items that collect the same type of data.

The Structure of CMS Databases

When a login ID (agent), split, trunk, or trunk group becomes active in your ACD, CMS creates a record which contains many database items for call center activity. Each record is simply a grouping of database items in computer memory. Each record has a key database item (login ID, split, trunk, or trunk group). When it creates a record, CMS stores values in the key database item (login ID, split, trunk, trunk group) and in the database items associated with the key item. Conversely, when CMS retrieves report data, it finds a specific record by key item and then finds the values in the selected database items.

Records are stored in four different databases:

> Current Real-Time
>
> Previous Real-Time
>
> Half-Hour Historical
>
> Daily Historical.

These databases differ in the timeframes for which their records store data, and they differ somewhat in the kind of data their records store. However, each database organizes its records into the same four types of files:

> Agent
>
> Split
>
> Trunk
>
> Trunk Group.

| NOTE | If your system has the Call Vectoring feature, vector and VDN files also exist in the CMS databases, as well as vector and VDN key database items. The Vector and VDN files store data the same way as the other CMS files. |

Each file is simply a grouping of all records that have the same key database item. Therefore, an Agent file contains all records with the key database item, LOGID; a Split file contains all records with the key database item, SPLIT; and so on.

> **NOTE** Records in an Agent file also contain the database item SPLIT, but because SPLIT is not a key database item in an Agent file, SPLIT values have no effect on the way agent records are stored.

The CMS database structures form the basis on which you define database items (and all other data items, except constants) for a custom report. To define a single data item, you must identify not only the database item, but also the database, the file, and the record(s). For historical reports, identifying records includes specifying the day(s) and interval(s) from which the data should be extracted. The following pages describe the structures of the four CMS databases.

The Real-Time Database Structure

If you are creating a real-time custom report, you will use data from the Real-Time databases. Figure 5-1 represents the structure of both the Current Interval and Previous Interval Real-time databases. Both databases are stored in your computer's main memory.

The Current Interval database contains data for ACD activity that has occurred or is occurring within the current half-hour. In the Current Interval database, records within each agent, split, trunk, and trunk group file are created for every measured agent, split, trunk, or trunk group. For each record created, continued ACD activity triggers changes in that record's data over the course of the interval.

The Previous Interval database contains data for ACD activity that occurred in the half-hour interval that just ended. The Previous Interval database is kept in main memory so the data can appear with current real-time data in real-time reports.

When a half-hour ends and a new half-hour begins, the records in the Current Interval database are copied into the Previous Interval database, as well as the Half-Hour Historical database. Records in the Current Interval database are erased so data for the new half-hour can be stored. As indicated in Figure 5-1, the Current and Previous Interval databases have almost the same structures, except that the Previous Interval database does not have status database items.
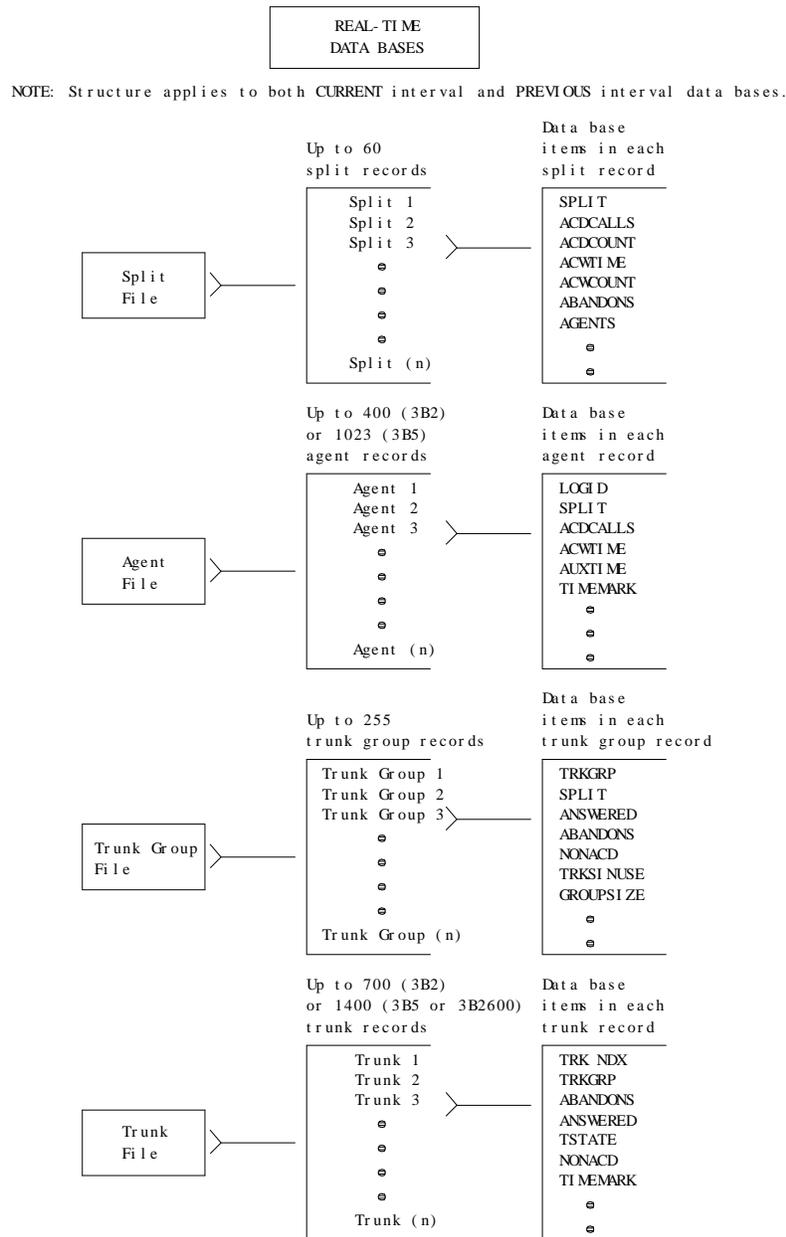
Figure 5 1   Structure of the Real-Time Database

The Half-Hour Historical Database Structure

If you are creating a daily report (which usually displays data interval-by-interval for a single day), you will use data from the Half-Hour Historical database (Figure 5-2). The Half-Hour Historical database contains half-hour records that can be up to 31 days old.

```
                              ┌────────────────────────┐
                              │ HALF-HOUR HISTORICAL   │
                              │      DATA BASE         │
                              └────────────────────────┘

Up to 31            Up to 48            Up to 60           Data base
days of             intervals of        split records      items in each
half-hour data      data per day        per interval       split record

   01/12/88           12:00-12:30AM       Split 1            JDATE
   01/13/88           12:30-01:00AM       Split 2            INTERVAL
   01/14/88           01:00-01:30AM       Split 3            SPLIT
      .                    .                  .              ACDCALLS
      .                    .                  .              ACWTIME
      .                    .                  .              ABANDONS
      .                    .                  .                 .
   02/11/88           11:30-12:00AM       Split (n)             .

Split
File

                                         Up to 400 (3B2)
                                         or 1023 (3B5)
Up to 31            Up to 48             agent records      Data base
days of             intervals of         per interval       items in each
half-hour data      data per day                            agent record

   01/12/88           12:00-12:30AM       Agent 1            JDATE
   01/13/88           12:30-01:00AM       Agent 2            INTERVAL
   01/14/88           01:00-01:30AM       Agent 3            LOGID
      .                    .                  .              SPLIT
      .                    .                  .              ACDCALLS
      .                    .                  .              ABANDONS
      .                    .                  .                 .
   02/11/88           11:30-12:00AM       Agent (n)             .

Agent
File

Up to 31            Up to 48             Up to 255          Data base
days of             intervals of         trunk group records items in each
half-hour data      data per day         per interval       trunk group record

   01/12/88           12:00-12:30AM       Trunk Group 1      JDATE
   01/13/88           12:30-01:00AM       Trunk Group 2      INTERVAL
   01/14/88           01:00-01:30AM       Trunk Group 3      TRKGRP
      .                    .                  .              ANSWERED
      .                    .                  .              NONACD
      .                    .                  .              ABANDONS
      .                    .                  .                 .
   02/11/88           11:30-12:00AM       Trunk Group (n)       .

Trunk Group
File

                                         Up to 700 (3B2)
                                         or 1400 (3B5 or 3B2600) Data base
Up to 31            Up to 48             trunk records      items in each
days of             intervals of         per interval       trunk record
half-hour data      data per day

   01/12/88           12:00-12:30AM       Trunk 1            JDATE
   01/13/88           12:30-01:00AM       Trunk 2            INTERVAL
   01/14/88           01:00-01:30AM       Trunk 3            TRK-NDX
      .                    .                  .              TRKGRP
      .                    .                  .              ANSWERED
      .                    .                  .              NONACD
      .                    .                  .                 .
   02/11/88           11:30-12:00AM       Trunk (n)             .

Trunk
File
```

Figure 5 2   Structure of the Half-Hour Historical Database

At the end of each half-hour, the Current Interval real-time records are copied into the Half-Hour Historical database, which is stored on disk. The records are stored in the appropriate file, and each file stores records from the same interval together as a group. As each half-hour passes, another group of records is added to each of the files. Therefore, any of the four files may contain up to 48 intervals of records for a single day. The files also store all intervals in a single day together as a group, and each file can store up to 31 days of records. When an interval of records is copied from the Current Interval database, both a date and a half-hour interval number (1 through 48) are inserted into each record so that records can be retrieved not just by key database item, but also by day and interval.

The Half-Hour Historical database's method for storing and organizing records means that the Split file may contain up to 48 records (one for each interval) for a single split for a single day. With 31 days of half-hour data possible, the Split file could store up to 1488 half-hour records (31 * 48) for a single split. The same quantities of records are also possible for agents, trunks, and trunk groups.

The Daily Historical Data Base Structure

If you are creating a weekly, monthly, or daily summary custom report, you will use data from the Daily Historical database (Figure 5-3). The Daily Historical database contains daily records that can be up to 387 days old. Each daily record is a summary of all half-hour records in a day for a split, agent, trunk, or trunk group.

Each day's half-hour data is summarized into daily data when the Daily Data Archive process executes — usually early in the morning. When 387 days of data have been stored, the oldest day of data is simultaneously removed from the database when the next day's summary data is added to the database.

| NOTE | To ensure the collection of daily data, the Daily Data Archive should be scheduled to run automatically every night. See Chapter 11, "Maintenance," in the *3B Call Management System Administration* (585-215-504) document. |

```
                              ┌──────────────────┐
                              │ DAILY HISTORICAL │
                              │    DATA BASE     │
                              └──────────────────┘

         Up to 387              Up to 60              Data base
         days of               split records          items in each
         daily data            per day               split record

                             ┌───────────┐         ┌───────────┐
                             │ 01/20/87  │         │ Split 1   │        ┌───────────┐
                             │ 01/21/87  │         │ Split 2   │        │ JDATE     │
                             │ 01/22/87  │         │ Split 3   │        │ SPLIT     │
┌──────────┐                 │     .     │         │     .     │        │ ACDCALLS  │
│ Split    │                 │     .     │         │     .     │        │ ACWTIME   │
│ File     │                 │     .     │         │     .     │        │ ABANDONS  │
└──────────┘                 │ 02/11/88  │         │ Split (n) │        │     .     │
                             └───────────┘         └───────────┘        │     .     │
                                                                        └───────────┘
                                                   Up to 400 (3B2)
                                                   or 1023 (3B5)
         Up to 387                                 agent records        Data base
         days of                                   per day              items in each
         daily data                                                     agent record
                             ┌───────────┐         ┌───────────┐
                             │ 01/20/87  │         │ Agent 1   │        ┌───────────┐
                             │ 01/21/87  │         │ Agent 2   │        │ JDATE     │
┌──────────┐                 │ 01/22/87  │         │ Agent 3   │        │ LOGID     │
│ Agent    │                 │     .     │         │     .     │        │ ACDCALLS  │
│ File     │                 │     .     │         │     .     │        │ ACWTIME   │
└──────────┘                 │     .     │         │     .     │        │ SPLIT     │
                             │ 02/11/88  │         │ Agent (n) │        │     .     │
                             └───────────┘         └───────────┘        │     .     │
                                                                        └───────────┘
         Up to 387              Up to 255             Data base
         days of               trunk group records   items in each
         daily data            per day               trunk group record
                             ┌───────────┐         ┌─────────────────┐
                             │ 01/20/87  │         │ Trunk Group 1   │  ┌───────────┐
                             │ 01/21/87  │         │ Trunk Group 2   │  │ JDATE     │
┌──────────┐                 │ 01/22/87  │         │ Trunk Group 3   │  │ TRKGRP    │
│ Trunk Group│               │     .     │         │     .           │  │ ANSWERED  │
│ File     │                 │     .     │         │     .           │  │ NONACD    │
└──────────┘                 │     .     │         │     .           │  │ ABANDONS  │
                             │ 02/11/88  │         │ Trunk Group (n) │  │     .     │
                             └───────────┘         └─────────────────┘  │     .     │
                                                                        └───────────┘
                                                   Up to 700 (3B2)
                                                   or 1400 (3B5 or 3B2600)  Data base
         Up to 387                                 trunk records        items in each
         days of                                   per day              trunk record
         daily data
                             ┌───────────┐         ┌───────────┐
                             │ 01/20/87  │         │ Trunk 1   │        ┌───────────┐
                             │ 01/21/87  │         │ Trunk 2   │        │ JDATE     │
┌──────────┐                 │ 01/22/87  │         │ Trunk 3   │        │ TRK-NDX   │
│ Trunk    │                 │     .     │         │     .     │        │ TRKGRP    │
│ File     │                 │     .     │         │     .     │        │ ANSWERED  │
└──────────┘                 │     .     │         │     .     │        │ NONACD    │
                             │ 02/11/88  │         │ Trunk (n) │        │     .     │
                             └───────────┘         └───────────┘        │     .     │
                                                                        └───────────┘
```

Figure 5 3   Structure of the Daily Historical Database

The Agent, Split, Trunk, and Trunk Group files store their portion of a day's records together as a group. As each day passes, another group of records is added to each of the files. Therefore, a file may contain up to 387 daily records for each split, agent, trunk, or trunk group. When a day of records is summarized and entered into the daily database, a date is inserted into each record so that each record in a file can be identified with a date.

Other Data Items in CMS Reports

Besides database items, you can use four other types of data items in your custom reports: formulas, calculations, constants, and data functions. Except for constants, these data items are composed of database items. Therefore, as with database items, you must identify the database, file, and records when you define these data items for your reports.

NOTE	Do not confuse the terms "database item" and "data item." A data item can be a database item or any of the following items.

The following list explains each type of data item:

Constants   Constants are fixed numerical values that can be used alone or within formulas to calculate figures not possible using only standard CMS database items. For example, a constant could be a per-minute trunk occupancy charge, which could be manipulated within various formulas to generate daily trunk group charges. A constant could also be an average for the estimated dollar loss of an abandoned call, which could then be used to calculate daily loss of revenue due to abandoned calls. No constants exist in CMS when it is first installed. You must enter them into CMS using the Dictionary subsystem.

Data Functions   Most Data Functions are prefixes you can add to database item names to modify report output for those database items:

    SYN   Converts the numeric identifier for an agent, split, or trunk group to a synonym. For example, the data item SYN(LOGID) gives the name of an agent instead of a login ID number.

    MIN (Minimum)   Retrieves the lowest value recorded for a database item over the time frame of the report. For example, the data item MIN(ACDCALLS) gives the lowest number of ACD calls handled.

    MAX (Maximum)   Retrieves the highest value recorded for a database item over the time frame of the report. For example, the data item MAX(AUXTIME) gives the highest amount of time in an AUX work session.

    SUM   Retrieves the sum of all values recorded for a database item, formula, or calculation. For example, SUM(NUM CALL OUT2) gives the total number of extension out calls for all of the days, intervals, agents, etc. covered in a report.

DATE(DAY)   Shows the day when data in associated data items was generated.   DATE(DAY) is not a prefix for a database item, but rather a separate item that is tied to other data items through the specifications in the Data Item Window. DATE(DAY) generates the left-hand column of dates typically found in weekly and monthly historical reports.

NOTE	SYN is the only data function you can use in real-time reports.

Formulas   Formulas are combinations of arithmetic operators and database items, data functions, and/ or constants. The arithmetic operators are:

+   add
-          subtract
*   multiply
/   divide
( )   perform first

Some examples of formulas are:

```
ACDCALLS/ACDTIME

INTIME+OUTTIME

100*(ABANDONS/(ANSWERED+ABANDONS+OUTFLOW))
```

NOTE	Arithmetic operations are generally performed in order from left to right. However, multiplication and division operations are performed before addition and subtraction operations, unless the addition or subtraction operations are enclosed in parentheses. Operations in parentheses are always performed first. If more than one set of parentheses is used, the operation in the set farthest to the left is performed first. If one set of parentheses is inside of another set, the operation of the inner set is performed first.

Calculations   Calculations are synonyms for formulas, and they are created using the Dictionary— Calculations screen. If you use the same formula in several or many custom reports, creating and/ or using a calculation instead of a formula can save you a lot of time if a later change to the formula is necessary. You can save time because, when you change a calculation's formula in the Dictionary, CMS will automatically change the associated formula in every custom report.
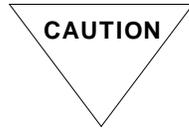
> **CAUTION**   If you change standard calculations, you should immediately test the new calculation in a custom report. If that calculation does not work correctly, the standard reports that also use the calculation will either not run or will show incorrect data.

The process of selecting data items for a custom report will be discussed more completely in the following section.

The Data Item Window

You use the Data Item Window to identify and set parameters for each data item in your custom report. The Data Item Window (shaded area in Figure 5-4) pops up on the Screen Painter when you have pressed $\boxed{\text{DATA ITEM}}$, entered *x*'s on the Screen Painter to specify field length, and pressed $\boxed{\text{RETURN}}$.

```
+--------------------------------------------------------------------------+
| Call Management System                    Switch_Name:Up          Time   |
+--------------------------------------------------------------------------+
|                              GROUP SUMMARY           (MENU:GRPSUM)        |
| XX/XX/XX                                             DAY: XX/XX/XX        |
| GROUP: XXXXXXXXXXXXXXXXXXX                                                |
|            NUMBER   AVERAGE   AVERAGE WEIGHTED   NO. OF  AVG EXT NO. OF  AVG EXT    %      %    |
|            OF ACD   ACD TALK   AFTER     CALL   EXT OUT OUT TALK EXT IN  IN TALK   AUX    ACD   |
| AGENT       CALLS     TIME  CALL WORK   VALUE    CALLS    TIME   CALLS    TIME    WORK   TIME   |
| ------------------------------------------------------------------------------------------     |
|                                                                          |
| XXXXXXXXXXXXXX  XXXX   XXXX.XX  XXXX.XX  XXXX.XX   XXXX XXXX.XX   XXXX   XXXX.XX XXX.XX  XXX.XX  |
| ------------------------------------------------------------------------------------------     |
| SUMMARY       XXXXXX   XXXX.XX  XXXX.XX  XXXX.XX   XXXXXX XXXX.XX XXXXXX  XXXX.XX XXX.XX  XXX.XX |
|                                                                          |
|                                                                          |
|   --------------------------------------------------------------------   |
| Item: _____  |
| Justify:__ Fill: __  File: _____ Data Base: _____ |
| Criteria: _____   |
|           _____   |
| Repeat Item: _____  |
| Start Date: _____  Number of Days:_____   |
|   --------------------------------------------------------------------   |
|    7007 Please complete the data item specification window and press RETURN |
|                                                                          |
|  +------+  +------+  +------+  +------+  +------+  +------+  +------+  +------+ |
|  |      |  |      |  |DICTNARY| |      |  |      |  |      |  |      |  |HELP  | |
|  |      |  |      |  |ACCESS | |      |  |      |  |      |  |      |  |KEYS  | |
|  +------+  +------+  +------+  +------+  +------+  +------+  +------+  +------+ |
+--------------------------------------------------------------------------+
```

Figure 5 4   The Data Item Window

To specify the parameters for a data item, you can use the following fields in the Data Item Window:

      File

      Database

      Criteria

      Repeat Item.

You do not always have to fill in all of these fields to select a data item, but in many cases, you will. The `Start Date` and `Number of Days` fields, which do not appear for real-time reports, set additional parameters for historical reports. The `Justify` and `Fill` fields affect the report display of a data item, but they are not parameters for data selection.

The Item Field

The "Item" field contains the specific name of the data item. Table 5-1 lists the five types of data items, along with format requirements and examples.

> **NOTE** The "Item" field is the only field in the Data Item Window in which you can enter upper- or lower-case letters. All other fields automatically convert your entries to upper-case.

Table 5 1   Data Items

Type of Data Item	Format	Examples
Database Item	All capital letters, with no blanks or special characters	`ACDCALLS; ABANDONS; CUMACW; STROKE4; AUXINTIME`
Constant	All lower-case letters with no blanks. The constant must be entered exactly as it appears in the Dictionary.	`trunk_cost; avg_wage_rate; avg_speed_ans_goal`
Data Function	All upper-case letters, followed by a database item in parentheses. No blanks between function name and database item.	`SYN(LOGID); SUM(AUXTIME); MAX(ASSISTS); DATE(DAY)`
Formula	Upper- or lower-case letters, with arithmetic operators (+ to add; – to subtract; * to multiply; / to divide; ( ) to perform the enclosed operation first). No blanks or other special characters. Operations performed from left to right except for ( ).	`ACDTIME/ACDCALLS; (ACWTIME-ACWTIME- ACWOUTTIME)/ ACDCALLS; FULL_AG_NUM_CALL/FULLTIME_AGENT; MIN(ACDTIME)/MIN(ACDCALLS)`
Calculation	Upper-case letters for standard calculations and upper- or lower-case letters for custom calculations, with no blanks. The calculation must be entered exactly as it appears in the Dictionary.	`AVG_ACW_TIME; avg_acw_time; AVG_ANSWER_SPEED`

> **NOTE** If you enter a calculation or formula in the Item field, the maximum allowable number in any part of the formula is 65536. If a formula includes a number greater than 65536, the data for that item in a report will be inaccurate.

Not all files and databases contain the same database items. Therefore, the file and database you use will limit not only your choice of database items, but also your choice of formulas, calculations, and data functions since the latter three data items are built with database items. For example, ACDCALLS, which is available for all split and agent files, is not available in trunk group files. As a result, the formula ACDTIME/ ACDCALLS, the calculation AVG ACW TIME (which uses ACDCALLS), and the data function MIN(ACDCALLS) are not available when trunk group files are used. Your choice of constants is not limited by the file and database selected because constants do not consist of database items.

You can verify that database items are in a database or file in one of two ways:

> Refer to Appendix A and review either the alphabetical listing of database items or the Standard Reports Reference in Appendix B.

> Press the $\boxed{\text{DICTNARY ACCESS}}$ SLK to look up the database item in the Dictionary.

NOTE	Output data from any formula or calculation using a divide symbol (/) always takes the form XXXX.XX, where the decimal point is automatically added by CMS. So, for this type of formula or calculation, the field length you specify on the Screen Painter must include three extra Xs: one X for a decimal point and two Xs for the decimal digits. If you add a decimal point yourself (for example, a three-place decimal point) when specifying the field length, CMS will ignore it and overwrite the field with Xs and a two-place decimal point.

Call-Based Versus Interval-Based Data Items

For Real-Time and Daily Historical reports, which display data by half-hour interval, you should use **call-based** database items whenever possible, especially in formulas or calculations. Using call-based items ensures that the total time of an event is recorded in the same interval that the occurrence of the event is recorded.

As an example, CUMACW, the total time in ACW sessions, is a call-based item. Therefore, it records the time for each ACW session when the session ends. It also records the total time of each session, even if the session starts in the previous interval. NUMACW, the total number of completed ACW sessions, is also a call-based item, and therefore, records each ACW session when the session ends. For any particular interval, the formula CUMACW/ NUMACW will be accurate because the items both record data when an event ends. The **interval-based item**, ACWTIME, also measures total time in ACW. However, if an ACW session overlaps two intervals, ACWTIME will record some time in the first interval and the remaining time in the next interval. As a result, for any particular interval, ACWTIME may not show the total time of an ACW session that continues from one interval to the next. So the time of ACW may not match the number of ACW sessions in an interval, and the formula ACWTIME/ NUMACW may not be totally accurate.

NOTE	Because a relatively small percentage of events are affected by the problem of carry-over to the next interval, it is permissible to use interval-based items when no call-based items are available in the database.

The File Field

The File field can contain any one of the following filenames:

```
SPLIT

AGENT

TRUNK GROUP

TRUNK.
```

| NOTE | If Call Vectoring is active, VECTOR and DN filenames are also available. |

The file you select will provide values for the data item you entered in the Item field. However, since each database contains its own version of these four files, your file selection will not be complete until you fill in the Data Base field. After you have entered a file name and database name, you should check Appendix A or the Dictionary to ensure that the file you enter contains the database item(s) in the Item field.

Your choice of file will be based on the type of data you want the data item to show. For example, if you want the data item ACDCALLS to display calls received by individual agents, you will enter `AGENT` in the File field. If you want the total calls received by all agents in a split, you will enter `SPLIT` in the File field.

If your data item is a calculation, you need to review the formula of the calculation to see which database items constitute the formula. You can research the formula for a calculation in Appendix A or by pressing `DICTNARY ACCESS`. Once you have identified the database items in the formula, you can check the database items for the appropriate file(s) and database(s).

The Database Field

The "Data Base" field contains one of the following database names:

CURRENT

PREVIOUS

HALF HOUR

DAILY.

The database you select is based on the time frame for which you want report data. For real-time reports, you can select the CURRENT or PREVIOUS database. For historical reports, you can select the HALF HOUR database (for daily reports) or the DAILY database (for weekly, monthly, or summary reports). Since each database contains an agent, split, trunk group, and trunk file, a database selection is required to complete your file selection. The CURRENT and PREVIOUS databases have identical file structures. So, if you wish to include in one report the same database items from both the Current and Previous databases, you will have to check a file for a database item only once.

Limitations on File and Data Base Entries

You cannot mix real-time and historical data items in a single report. Therefore, in a real-time report, you can select items only from the Current and/or Previous databases. Likewise, in an historical report, you can select items only from the Half Hour and/or Daily databases.

You can, however, select data items from more than one file for a report if you also select the appropriate databases.

The Criteria Field

The "Criteria" field contains one or more (up to six) criteria statements that specify which records in a file should supply values to your data item. Each criteria statement gives a value or range of values for a database item. CMS finds each record containing the database item value(s) and extracts from each record the value for the data item.

NOTE	Do not confuse the terms "database item" and "data item." The "database item" value you enter in the Criteria field **does not appear in your report**. Rather, for each record selected by the database item value, that record's value for the data item (identified in the Item field) will appear in your report.

The format of a criteria statement is:

[DATABASE ITEM] [RELATIONAL OPERATOR] [VALUE]

The database item name must be an exact name used by CMS (see Appendix A). The value can be a numerical value or a synonym (if the synonym has been named in the Dictionary). Any database item in the selected file can be used in a criteria statement.

| NOTE | You must enter a criteria statement for the GROUP database item if you want agent group or extension group data. |

Your criteria statements will always select records according to the value of a database item. However, records may be selected because they have values greater than the criteria, or less than the criteria, or not equal to the criteria. The following relational operators can be used in your criteria statements:

EQ   Equal to

NE   Not equal to

LT   Less than

GT   Greater than

LE   Less than or equal to

GE   Greater than or equal to

As an example of a criteria statement, say that you want a report to display ACDCALLS values only for agents within Split 1, not all agents in your call center. After selecting the Agent file, you will also enter the following statement in the Criteria field: SPLIT EQ 1. This statement tells CMS to extract ACDCALLS values only from records with a value of 1 for the SPLIT database item.

In addition, you can use the following logical operators to join several (up to six) criteria statements.

AND All criteria must be met by the selected records (for example, `ACDCALLS GE 100 AND ABANDONS GE 50`, which tells CMS to select records that contain 100 or more in the ACDCALLS database item **AND** 50 or more in the ABANDONS database item.)

As another example, say you want a report that lists ACDCALLS values for all splits, but only for half-hour intervals between 17 (8:00-8:30 a.m.) and 34 (4:30-5:00 p.m.) in a day. After selecting the Split file, you will also enter the following statement in the Criteria field: `INTERVAL GE 17 AND INTERVAL LE 34`. This statement tells CMS to extract ACDCALLS values only from records with interval numbers from `17` to `34` for the INTERVAL database item.

OR At least one of the criteria must be met by the selected records (for example, `SPLIT EQ SPLIT=1 OR LOGID GE 1000`, which tells CMS to select records that contain `1` in the SPLIT database item **OR** records that contain `1000` or a greater value in the `LOGID` database item). Records that meet both criteria are also selected.

Logical operators help you create more precise record selections and allow you to select records based on a range of database item values.

Variable Criteria

A specific value in a criteria statement will tell CMS to display data item values only from records containing that value. That is, a specific value "hard-codes" your record selection so that a user ordering the report will have no control of the records selected for the report. Thus, specific values in the criteria statement create some inflexibility for report users, and this hard-coding may require you to create many custom reports, perhaps one separate report for each split, each agent, each trunk group, and so on.

Fortunately, instead of entering a specific value in a criteria statement, you can enter a variable field. CMS will then place this variable field on the Report Parameters screen so the CMS user can define the value of the criteria when ordering a report. For example, instead of the criteria statement `SPLIT EQ 1`, which says that the data will always be for Split 1, you can enter `SPLIT EQ SPLIT="BLANK"`, which inserts a blank field labeled `SPLIT=` on the Report Parameters screen. The user can then select records for any split desired.

As another example, instead of the criteria statements `INTERVAL GE 17 AND INTERVAL LE 34`, which say that the data will always be for intervals 17 through 34, you can enter `INTERVAL GE FIRST_INTERVAL=1 AND INTERVAL LE LAST_INTERVAL=48`. These variable criteria statements say to insert the labeled fields `FIRST_INTERVAL=` and `LAST_INTERVAL=`, with default entries of 1 and 48, onto the Report Parameters screen. The user can then accept the default range of Intervals 1 to 48 or overtype the default range to select records for any intervals desired.

A variable criteria statement can have one of the following formats:

`[DATABASE ITEM]  [RELATIONAL OPERATOR]  [FIELD_LABEL=]  [VALUE]`

or

`[DATABASE ITEM]  [RELATIONAL OPERATOR]  [FIELD_LABEL=]  ["BLANK"]`

where `FIELD_LABEL` is any name you want to appear on the Report Parameters screen.

A value in a variable criteria statement creates a default value which the user can accept or overtype on the Report Parameters screen. `"BLANK"` in a variable criteria statement creates a blank field on the Report Parameters screen. The user must then enter a value in this field to order a report.

NOTE	You can create variable criteria fields for agent or extension groups by entering `GROUP EQ GROUPNAME="BLANK"`.

Limitations on Variable Criteria Statements

When using the same field label in a criteria statement for more than one data item in a report, you must use the same value for that field label each time you use it. For example, if you entered `SPLIT EQ SPLIT_NUMBER=1` for one data item, then entered `SPLIT EQ SPLIT_NUMBER="BLANK"` for another data item, you would get an error message. Also, if you entered `INTERVAL GE INTERVAL=1` for a data item, then entered `INTERVAL GE INTERVAL=5` for another data item, you would get an error message.

However, if you use the same field label in variable criteria statements for more than one item, you have to enter a complete statement only for the first data item in the report. Then, for other data items, you need to enter only the database item, the relational operator, and the field label. You do not have to enter the "=" sign and the value or "blank" designation. For example, if your criteria statement for the first data item is `SPLIT EQ SPLIT="BLANK"`, your criteria statement for the next data item can be `SPLIT EQ SPLIT` only, and CMS will know that the statement actually means "blank," or whatever the previous statement's value was.

NOTE	An even faster method for entering criteria statements is available. See "The Quick Method of Data Item Selection" later in this chapter.

The Repeat Item Field

The "Repeat Item" field contains an additional criterion for data items that generate multiple values. The Criteria field in a Data Item Window (also the Start Date and Number of Days fields, described later) tells CMS **what** record(s) should supply data to your report. But if multiple records meet the criteria, CMS will have multiple values to display in the report. The repeat item tells CMS **in what order** to display these multiple values.

NOTE	If a data item has multiple values but you do not enter a repeat item, CMS will display only the first value it finds in the file and ignore all other values.

If you want to display multiple values, you must enter a repeat item. The repeat item creates a column of values, with each value coming from a different record. The end result is usually a report that displays columns of values for each of a series of:

Dates (as in most weekly and monthly reports)

Intervals (as in most daily reports)

Agents (as in the Split Summary Report)

Splits (as in the System Reports)

Trunks (as in the Trunk Group Summary Report).

In addition to having the same criteria, the values in each column of a multicolumn report should normally be listed in exactly the same order. So, each data item that generates a column of values should have the same repeat item.

NOTE	You may create a report in which the columns of data are not intended to be compared line for line (for example, columns showing half-hour data and columns showing daily data). In such cases, columns do not need to have the same repeat item.

For example, in the standard historical Group Summary Report design (Figure 5-5), each field of x's (shaded) will generate a column of data. These fields share the same repeat item, LOGID.

```
┌─────────────────────────────────────────────────────────────────────────────────┐
│  ┌──────────────────────────────────────────────────────────────────────────┐   │
│  │ Call Management System                         Switch_Name:Up       Time   │   │
│  └──────────────────────────────────────────────────────────────────────────┘   │
│                                          GROUP SUMMARY              (MENU:GRPSUM)  │
│  XX/XX/XX                                                           DAY: XX/XX/XX  │
│  GROUP: XXXXXXXXXXXXXXXXXXX                                                        │
│                                                                                   │
│              NUMBER   AVERAGE   AVERAGE WEIGHTED    NO. OF  AVG EXT  NO. OF  AVG EXT    %      %   │
│              OF ACD  ACD TALK     AFTER     CALL   EXT OUT OUT TALK  EXT IN  IN TALK   AUX    ACD  │
│  AGENT        CALLS      TIME CALL WORK    VALUE     CALLS     TIME   CALLS     TIME  WORK   TIME  │
│  ---------------------------------------------------------------------------------------------   │
│                                                                                                  │
│  XXXXXXXXXXXXXXX  XXXX    XXXX.XX  XXXX.XX XXXX.XX     XXXX  XXXX.XX    XXXX  XXXX.XX XXX.XX XXX.XX │
│  ---------------------------------------------------------------------------------------------   │
│  SUMMARY        XXXXXX    XXXX.XX  XXXX.XX XXXX.XX   XXXXXX  XXXX.XX  XXXXXX  XXXX.XX XXX.XX XXX.XX │
└─────────────────────────────────────────────────────────────────────────────────┘
```

Figure 5 5   Group Summary Report Design

When the report is run to generate actual call-center data, the result (Figure 5-6) is a report with columns of data (shaded), with each column displaying values in sequence of agent (logid) records.

```
                                          GROUP SUMMARY              (MENU:GRPSUM)
4/01/88                                                              DAY:3/21/88
GROUP: transfers

              NUMBER   AVERAGE   AVERAGE WEIGHTED    NO. OF  AVG EXT  NO. OF  AVG EXT    %      %
              OF ACD  ACD TALK     AFTER     CALL   EXT OUT OUT TALK  EXT IN  IN TALK   AUX    ACD
AGENT          CALLS      TIME CALL WORK    VALUE     CALLS     TIME   CALLS     TIME  WORK   TIME
------------------------------------------------------------------------------------------------
2001              78    201.52    21.33   221.04         0        0       0     0.00  23.78  90.65
2002              98    134.55    34.99   168.75         0        0      14    67.98  21.99  56.77
2003             122     99.99    23.66   122.23         8      129       0     0.00   9.00  78.62
2004              90    140.51    65.78   205.88         1        8       1    19.40  41.22  43.19
------------------------------------------------------------------------------------------------
SUMMARY          388    144.14    36.44   179.48         9     23.5      15    21.85  24.00  67.26
```

Figure 5 6   Group Summary Report

NOTE	In multicolumn report designs like the Group Summary Report design, not only are the repeat items the same for each column, but the criteria statements are also the same.

In the Group Summary Report, the data item labeled GROUP and the data items in the SUMMARY row do not need a repeat item since they do not generate multiple values.

The three types of repeat items you can enter are:

>   The word LOOP (for historical reports only)
>
>   A database item (for historical reports only)
>
>   A number (for real-time reports only).

LOOP as a Repeat Item

With the word **LOOP** as the repeat item, CMS displays values in the order in which records are stored in the CMS databases and files. Thus, in the Daily Agent file, LOOP will display values by day and within each day, by agent. In the Half Hour Split File, LOOP will display values first by day, then by interval, and finally by split. As with any repeat item, however, the values displayed with LOOP will be limited by your criteria statements and/ or entries in the Start Date and Number of Days fields.

You can use LOOP to display values by day, interval, or in numerical sequence of login IDs, splits, trunk groups, or trunks. For each interval in a daily report or for each day in a weekly/ monthly report, LOOP can display values for a single split, agent, trunk, or trunk group, or it can display values for multiple splits, agents, trunks, or trunk groups, depending on the how specific your criteria statements are.

Limitations on LOOP as a Repeat Item

If a data item (in the Item field) is a SUM data function and the repeat item is LOOP, values for splits, agents, trunks, or trunk groups may be listed on the report out of numerical sequence. This situation occurs when some splits, agents, trunks, or trunk groups do not have activity at the beginning of the report's time period (hence, their records appear later than others in the file).

For example, say you want a report that lists a weekly total of ACD calls for each agent in a split. Your report would contain LOGID values and SUM(ACDCALLS) values. With the LOOP repeat item, the report could appear as shown in Figure 5-7.

```
                    Weekly Agent ACD Calls
Split: 1

                              Number of
                      Agent   ACD Calls
                      -----   ---------
                      2110      455
                      2111      412
                      2112      501
                      2114      435
                      2115      389
                      2116      444
                      2113      427
```

Figure 5 7   Sample Report With LOOP as Repeat Item

Notice that Agent 2113 appears out of sequence. This sequence occurs because Agent 2113 had no recorded activity on the first day covered by the report (perhaps because of absence or reassignment of duties).

If you want multiple values for a SUM data function, you can use the appropriate database item as the repeat item to ensure values are displayed in sequence of login ID, split, trunk, or trunk group. For example, in Figure 5-7, using the repeat item LOGID, instead of LOOP, would ensure that data is listed in order of agent logids.

Database Item as a Repeat Item

With a **database item** as a repeat item, CMS will display values in the following way:

> First, CMS displays the value from the record with the lowest value for the repeat item.

> Next, CMS displays the value from the record with the second lowest value for the repeat item.

> CMS continues to display values from records in sequence of the repeat item values.

| NOTE | CMS will take values only from records that meet your criteria and, if you are using the Daily Database, your entries in the Start Date and Number of Days fields. |

If you are using the Half-Hour Historical Database, the repeat item INTERVAL will display a value for each interval, starting from the earliest interval specified. If you are using the Daily Historical Database, the repeat item DAY will display a value for each date, starting from the earliest date specified.

| NOTE | A database item used as a repeat item must be contained in the file and database specified in the File and Data Base fields. That is, if you are using the DAILY database, you cannot repeat on INTERVAL. Likewise, if you are using the SPLIT file, you cannot repeat on LOGID. |

Repeat Items and the Report Parameters Screen

A database item in the Repeat Item field, while determining the order of displayed values, also generates a set of defaulted input fields on the Report Parameters screen for use when ordering the report. Table 5-2 shows the Report Parameters input fields and default values generated by certain database items when used as repeat items.

Table 5 2   Sample Repeat Items and Report Parameters Values

Repeat Item	Report Parameter Input Fields
INTERVAL	`FIRST_INTERVAL=1` `LAST_INTERVAL=48`
DAY	`FIRST_DAY=`value in Start Date field `LAST_DAY=`value in Number of Days field
LOGID	`FIRST_LOGID=1` `LAST_LOGID=9999` (System 85/ DIMENSION PBX) or `999999999` (System 75)
SPLIT	`FIRST_SPLIT=1` `LAST SPLIT=60` (maximum number of splits)
ACDCALLS	`FIRST_ACDCALL=1` `LAST_ACDCALL=2`
TRK NDX	`FIRST_TRK_NDX=1` `LAST_TRK_NDX=3267` (maximum number of trunks)
TRKGRP	`FIRST_TRKGRP=1` `LAST_TRKGRP=255` (maximum number of trunk groups)

The generation of defaulted input fields with a database item as the repeat item eliminates the need to enter a criteria statement with that database item.

Limitations on Database Items as Repeat Items

Using a database item as a repeat item has two important limitations. First, a report that uses database items as repeat items may take much longer than normal to run. This delay occurs because CMS must search for data record-by-record, instead of searching with the index structure created by key database items (LOGID, SPLIT, TRKGRP, or TRK NDX).

Second, CMS will display a value for only the last record it finds with a particular value for the repeat item. If two or more records have the same value for the repeat item, values will not be displayed from records appearing earlier in the file.

For example, say you wanted a split summary report with only two columns of data:

In one column, the number of ACD calls handled by each agent in the split

In the second column, the agents that handled them.

Your report would contain ACDCALLS values and LOGID values. With the repeat item ACDCALLS, the report would appear as follows (Figure 5-8):

```
                        Agent ACD Calls
Split: 1                                          Day: 10/11/88

            Number of
            ACD Calls    Agent
            ---------    -----
               101        2121
               103        2111
               115        2110
               125        2123
               129        2125
               130        2119
               133        2120
               136        2116
               140        2124
```

Figure 5 8   Sample Report 1 With Database Item as Repeat Item

Notice that the report lists values in ascending order of the number of ACD calls handled for the day. According to the report, Agent 2119 had 130 ACD calls. However, say that Agent 2118 also had 130 ACD calls. With repeat item ACDCALLS, this report would still list only the last agent with 130 ACD calls, Agent 2119. Agent 2118 would not be listed because that agent's record would not be the last record with the ACDCALLS value of 130.

If this same report were to use LOGID as the repeat item, the values would appear in ascending order of login IDs (Figure 5-9).

```
                        Agent ACD Calls
Split: 1                                          Day: 10/11/88

            Number of
            ACD Calls    Agent
            ---------    -----
               115        2110
               103        2111
               140        2115
               136        2116
               130        2118
               130        2119
               133        2120
               101        2121
               125        2123
               140        2124
               129        2125
```

Figure 5 9   Sample Report 2 With Database Item as Repeat Item

Notice that Agent 2118 is now listed with 130 ACD calls. Notice also that two agents, Agent 2115 and Agent 2124, are listed with 140 ACD calls each. With ACDCALLS as repeat item (as in Figure 5-8), Agent 2115 would not appear because that agent's record was not the last record with 140 ACD calls.

This limitation can also affect certain displays when using repeat items INTERVAL, DAY, or a key database item (SPLIT, LOGID, TRKGRP, or TRK NDX). Therefore, to avoid omitting data, you should use LOOP whenever possible.

NOTE	The exception is when the data item is a SUM data function (see "Limitations on LOOP as a Repeat Item").

A Number as a Repeat Item

You enter **a number** for all data items that generate multiple values in a **real-time report**. This number tells CMS to display a certain number of values per page of the report in case more records meet your criteria than can be displayed on one page.

NOTE	In a real-time custom report design, when you complete a Data Item Window that contains a repeat item, the Screen Painter will fill in the column length specified by the repeat. The repeat fields for multiple values will appear in highlighted video.

With a number, CMS will display values as they are stored in the real-time files, that is, by values of the key database items (that is, SPLIT, LOGID, TRKGRP, or TRK NDX). Normally with a number repeat item, CMS displays record values in ascending order of key database item values. However, if records are created at different times within the Current Interval, the first record created will also be displayed first, regardless of the key database item value. For example, in the Agent file, if Agent 0009 logs in before Agent 0007 in an interval, values from Agent 0009's record will be displayed first.

NOTE	The number you use as a repeat item cannot exceed the maximum number of lines on your terminal. Therefore, the largest number you can use is 20.

The Start Date Field

Your entry in the "Start Date" field tells CMS from which day in the past it should begin retrieving values for the data item. You must complete this field for historical reports only. Your entry can be one of the following types:

Relative Day   A negative number (-1, -2, etc.) that tells CMS how many days in the past it should go to begin its search for data item values.

Absolute Date   A specific date (02/ 11/ 88, 10/ 22/ 87, etc.) that tells CMS at exactly what date in the past to begin its search for data item values.

Variable Day   A variable field with a default relative day (`START_DAY=-7`, `REPORT_DAY=-1`) or a default absolute date (`START_DAY=05/50/88`). This field and default value appear on the Report Parameters screen and allow the CMS user to accept the default value or overtype a different one. CMS retrieves data starting from the relative day or absolute date specified on the Report Parameters screen. The variable day format is as follows:

`[FIELD_LABEL=]  [RELATIVE DAY]`

OR

`[FIELD_LABEL=]  [ABSOLUTE DATE]`

The Number of Days Field

Your entry in the "Number of Days" field tells CMS how many days of data you want included in the report, starting from the Start Date. You can enter a number of days (1, 7, 31, etc.) or a variable field with a default number of days (`NUMBER_OF_DAYS=1`, `NUMBER_OF_DAYS=7`, etc.). A variable field with a default value will appear on the Report Parameters screen and will allow the CMS user to accept the default number or overtype a different one.

Additional Limits on Data Item Window Entries

You must complete a Data Item Window for each data item in a custom report design. However, when you design a report to display columns of data that parallel one another, the entries in every data item's Data Item Window must be the same (except for entries in the "Item," "Justify," and "Fill" fields). This guarantees that, as you read across the rows of an actual report, the values in each row will be from the same record. However, as previously stated, only the first data item in the series of columns must have a complete variable criteria statement.

| NOTE | To ensure that your data items in a multi-column report have the same Data Item Window entries, use the quick method of data item selection described in the following section. |

In a single report design, you may use a maximum of ten different sets of record selection conditions (that is, file, database, criteria, and repeat item entries). In Table 5-3, each set of Data Item Window entries is different and each would count against the ten maximum if they were used in a report design:

Table 5 3   Sample Sets of Data Item Window Entries

Field	Set 1	Set 2	Set 3	Set 4	Set 5
File	AGENT	AGENT	AGENT	AGENT	SPLIT
Data Base	HALF HOUR	HALF HOUR	HALF HOUR	DAILY	DAILY
Criteria	LOGID EQ LOGID=1111	SPLIT EQ SPLIT=1	SPLIT EQ SPLIT=1	SPLIT EQ SPLIT=1	SPLIT EQ SPLIT=1
Repeat Item	INTERVAL	INTERVAL	DAY	DAY	DAY

In addition, if you enter a horizontal series of data items that have the same entries in the Data Item Window, as in a multicolumn report, you may only specify up to 20 database items within the series. This limit includes any database items that are part of a formula, calculation, or data function. However, a database item that is repeatedly used in a horizontal series of data items will still be counted as only one database item against the maximum of 20.

For example, look at the following data items:

```
ACDCALLS

ACDTIME/ACDCALLS

SUM(ACDTIME)/SUM(ACDCALLS)

ACDCALLS/MAXAGENTS
```

If these items appeared as a horizontal series in a multicolumn report, CMS would count only three database items toward the 20 maximum:

```
ACDCALLS

ACDTIME

MAXAGENTS
```

Notice that ACDCALLS is used four times, but counted only once, and ACDTIME is used twice, but counted only once.

The Quick Method of Data Item Selection

Every time you complete a Data Item Window, CMS displays the following message:

`Reposition cursor and press DATA ITEM key to define another item.`

If you immediately reposition the cursor, press [DATA ITEM], enter x's for the next data item field, and press [RETURN], CMS will automatically fill most fields in the next Data Item Window using values you entered for the previous data item. CMS does this because it assumes your report's data items will have the same values in the Data Item Window fields, except for the "Item," "Justify," and "Fill" fields.

CMS's automatic entries can save you a lot of data entry time, and you should use this capability as much as possible. Therefore, when you create a custom report, plan to enter all of your data items at one time, one right after another. In this way, the Data Item Window entries can be carried from data item to data item. To change certain entries, simply overtype them with the entries you do want.

If you are merely adding data items to an existing report, the Data Item Window entries can still be carried over from existing items. To do this, you must display an existing item's Data Item Window before entering the new data item(s). To display an existing item's Data Item Window, place the cursor in an existing data item field and press [DATA ITEM] once and [RETURN] twice. You can then add new data items and simultaneously carry over the existing item's Data Item Window entries.

| NOTE | You cannot carry over Data Item Window entries from one item to another existing item. The carry over only works for a new item entry. |

Data Item Window Samples

The following sample Data Item Windows show the variety of ways you can select data items in a custom report design.

Example 1— Real-Time

```
_____
Item: SYN(TRKGRP)_____
Justify:_L Fill: __ File: TRUNK GROUP____ Data Base:CURRENT_____
Criteria: SPLIT EQ SPLIT="BLANK"_____
_____
Repeat Item: 10_____
_____
```

EXPLANATION

This Data Item Window says to display synonyms for all trunk groups (`SYN(TRKGRP)`) assigned to the split selected on the Report Parameters screen. Each page of the report will display a maximum of ten synonyms, and the synonyms will be left-justified.

Example 2— Real-Time

```
_____
Item: ASSOCIATION_____
Justify:_R Fill: __ File: TRUNK____ Data Base:CURRENT_____
Criteria: TRKGRP EQ TRUNK_GROUP="BLANK"_____
_____
Repeat Item: 8_____
_____
```

EXPLANATION

This Data Item Window says to display the split number or agent ID associated with each trunk (ASSOCIATION) in the trunk group selected on the Report Parameters screen. Each page of the report should display eight associated split numbers or agent login IDs, and the numbers and IDs will be right-justified.

Example 3— Historical

```
_____
Item: ACDCALLS_____
Justify:_R Fill: __ File: SPLIT____ Data Base:HALF HOUR_____
Criteria: SPLIT EQ SPLIT="BLANK" AND INTERVAL GE FIRST_INTERVAL=1_____
AND INTERVAL LE LAST INTERVAL=48_____
Repeat Item: INTERVAL_____
Start Date:REPORT_DAY=-1     Number of Days:1_____
_____
```

EXPLANATION

This Data Item Window says to display the number of ACD calls (ACDCALLS) for the split selected on the Report Parameters screen. The Data Item Window also says to display that split's ACD calls for yesterday (-1) unless the user overtypes -1 with another relative day number (or date). Finally, the Data Item Window says to display that split's ACD calls for every interval in the day (1 through 48) unless the user overtypes 1 and 48 with a smaller range.

Though the repeat item is INTERVAL, LOOP would have the same effect because the data in the Half-hour database is already organized by interval.

Example 4— Historical

```
_____
Item: EXTENSION_____
Justify:_L Fill: __ File: AGENT____ Data Base:DAILY_____
Criteria: LOGID EQ AGENT_ID="BLANK"_____
_____
Repeat Item: DAY_____
Start Date:START_DAY=-7_____Number of Days:NUMBER_OF_DAYS=7_____
_____
```

EXPLANATION

This Data Item Window says to display the
extension logged into by the agent (LOGID)
selected on the Report Parameters screen. It
also says to display that agent's extension(s) for
each of the last 7 days, unless a different Start
Day or Number of Days are selected on the
Report Parameters screen. The extension(s) will
be left-justified.

Though the Repeat Item is DAY, LOOP would
have the same effect because data in the Daily
database is already organized by day.

Example 5— Historical

```
_____
Item: MBUSYTIME_____
Justify:_R Fill: __ File: TRUNK GROUP_Data Base:HALF HOUR_____
Criteria: TRKGRP EQ TRUNK_GROUP="BLANK" AND INTERVAL GE FIRST_INTERVAL=1
AND INTERVAL LE LAST_INTERVAL=48_____
Repeat Item: INTERVAL_____
Start Date:START_DAY=-1_____Number of Days:1_____
_____
```

EXPLANATION

The Data Item Window says to display the number of seconds on maintenance busy-out (MBUSYTIME) for the trunk group selected on the Report Parameters screen. It also says to display that trunk group's maintenance busy-out time for yesterday, unless the user overtypes a different Start Day. Finally it says to display the maintenance-busy-out time (right-justified) for every interval (1 through 48) within the day selected, unless the user overtypes a narrower interval range on the Report Parameters screen.

The Dictionary for Data Item Research

The Screen Painter displays the $\boxed{\text{DICTNARY ACCESS}}$ SLK while you are completing the fields on the Data Item Window. Pressing $\boxed{\text{DICTNARY ACCESS}}$ directly accesses the Dictionary menu, from which you can access the appropriate screen to complete the following tasks:

> Creating a calculation or constant
>
> Looking up an existing calculation or constant to check its suitability for use in your custom report design
>
> Looking up a database item to check its meaning or to check the files containing the database item
>
> Looking up or creating agent or extension groups.

Any of these tasks may be required at some time. If you do not know what constants or custom calculations are available, or you do not know what report groups exist in CMS, you may have to look up these items in the Dictionary. A quick way to do this is to print a Dictionary report of the particular items you want to research. You can order a report for Calculations, Constants, Data Base Items, Agent/Extension Groups, or the whole Dictionary. However, for looking up database items or standard calculations and formulas, Appendices A and B in this document may be faster and easier to use.

To create or change agent/extension groups, follow the appropriate Dictionary procedures listed in the *3B CMS Administration* (585-215-504) document. To create, change, or look up an existing constant, calculation, database item, or group, you can follow the Dictionary procedures listed in Chapter 6. Refer to Chapter 6 also for the procedure to order a Dictionary report.

Once you have found the item(s) you are looking for or have created a new item, you will leave the Dictionary and return to the Data Item Window on the Screen Painter simply by pressing $\boxed{\text{EXIT}}$ once or twice. You not only will return to the Data Item Window, you will return to the field you were on last.

NOTES

General Information

Once you have rearranged the display items on a report design and entered the report's labels, you are ready to add data items. For each data item, you must enter x's on the Screen Painter to specify field length and fill in a Data Item Window. The quickest method for adding data items is to add them at one time, one right after the other, because from item to item, CMS will automatically fill most fields on the Data Item Window with the values entered for the previous data item. CMS does this because it assumes your report's data items will have the same File, Data Base, Criteria, and Repeat Item entries.

You should keep a current list of the following items to make the job of completing the Data Item Window easier:

> Split numbers
>
> Extensions
>
> Agent login IDs
>
> Trunk groups
>
> Trunks.

The switch administrator should be able to give you most of the information, but you can also get the information in the following ways:

For split numbers	Check the Maintenance - Session Status screen for the number of measured splits. The range of available split numbers will be from 1 to the number shown on this screen.
For extension numbers	Check the Configuration-Extension Assignments screen for each split. Make a [PRINT SCREEN] copy of each split's extension assignments.
For agent login IDs	Check the real-time Split Event Count Summary report for each split. Make a [PRINT SCREEN] copy of each split's report. If login synonyms are displayed instead of numbers, check the Dictionary-Login Identification screen for the associated login IDs.
For trunk group numbers	Check the Configuration-Trunk Group Assignments screen for each split. Make a [PRINT SCREEN] copy of each split's trunk group assignments.
For trunk numbers	Check the real-time Trunk Group Summary report for each trunk group. Make a [PRINT SCREEN] copy of each trunk group's report.

This chapter describes the procedures for adding and changing data items on a report design. It also describes procedures for researching, adding, and changing items in the Dictionary.

The Data Item Window SLKs

When you press $\boxed{\text{DATA ITEM}}$ on the first tier of SLKs on the Screen Painter, the following SLKs appear (Figure 6-1) and remain until you have entered the field length of the data item and completed the Data Item Window:

```
┌──────────────────────────────────────────────────────────────────────────────┐
│  ┌──────────────────────────────────────────────────────────────────────────┐ │
│  │ Call Management System                    Switch_Name:Up          Time    │ │
│  │                                                                            │ │
│  │                              DAILY AGENT REPORT            (MENU:DAGENT)   │ │
│  │ 4/11/87                                                    DAY: 4/10/87    │ │
│  │                                                                            │ │
│  │ AGENT:   180263                                                            │ │
│  │ SPLIT:  1 (reserv'ns)                                                      │ │
│  │                                                                            │ │
│  │          NUMBER  AVERAGE  AVERAGE WEIGHTED  NO. OF  AVG EXT  NO. OF AVG EXT  %   %   TOTAL  NUMBER │ │
│  │          OF ACD ACD TALK   AFTER    CALL  EXT OUT OUT TALK EXT IN IN TALK AUX ACD   MIN    OF │ │
│  │ TIME      CALLS   TIME CALL WORK   VALUE   CALLS    TIME  CALLS    TIME WORK TIME STAFFED ASSISTS │ │
│  │ ──────────────────────────────────────────────────────────────────────── │ │
│  │ XX:XX-XX:XX   X    XXX     XX      XXX      X       X      X      XX XX XX   XX    XXX │ │
│  │ ──────────────────────────────────────────────────────────────────────── │ │
│  │ SUMMARY      XX    XXX     XX      XXX      X      XXX      X      XX XX XX  XXX    XXX │ │
│  │                                                                            │ │
│  │ --------------------------------------------------------------------------- │ │
│  │ Item: _____ │ │
│  │ Justify:__ Fill: __ File: _____ Data Base: _____ │ │
│  │ Criteria: _____ │ │
│  │ _____ │ │
│  │ Repeat Item: _____ │ │
│  │ Start Date: _____   Number of Days:_____ │ │
│  │ --------------------------------------------------------------------------- │ │
│  │ │  7007 Please complete the data item specification window and press RETURN │ │ │
│  └──────────────────────────────────────────────────────────────────────────┘ │
│  ┌─────┐ ┌─────┐ ┌─────────┐ ┌─────┐ ┌─────┐ ┌─────┐ ┌─────┐ ┌─────┐          │
│  │     │ │     │ │DICTNARY │ │     │ │     │ │     │ │     │ │HELP │          │
│  │     │ │     │ │ACCESS   │ │     │ │     │ │     │ │     │ │KEYS │          │
│  └─────┘ └─────┘ └─────────┘ └─────┘ └─────┘ └─────┘ └─────┘ └─────┘          │
└──────────────────────────────────────────────────────────────────────────────┘
```

DICTNARY ACCESS This SLK directly accesses the Dictionary menu, from which you can look up and/ or enter calculations and formulas, group assignments, and constants. You can also look up the file and database references for database items.

HELP KEYS This SLK displays the normal Help Keys (see Chapter 1).

When you complete the Data Item Window and press $\boxed{\text{RETURN}}$, the Data Item Window disappears and the following SLKs appear:

```
┌─────┐ ┌─────┐ ┌─────┐ ┌─────┐ ┌─────┐ ┌─────┐ ┌─────┐ ┌─────┐
│     │ │DATA │ │     │ │     │ │     │ │EXIT │ │RESUME│ │HELP │
│     │ │ITEM │ │     │ │     │ │     │ │     │ │      │ │KEYS │
└─────┘ └─────┘ └─────┘ └─────┘ └─────┘ └─────┘ └─────┘ └─────┘
```

DATA ITEM   This SLK marks the beginning of the next data item field and **carries over** the Data Item Window entries from the last data item to the new one you are about to enter.

EXIT   This SLK exits the Screen Painter and accesses the Compile screen.

RESUME   This SLK redisplays the first tier of SLKs for the Screen Painter and ends the automatic carry over of Data Item Window entries from data item to data item. After pressing (RESUME), you will have to complete all fields in the Data Item Window for the next data item you enter.

HELP KEYS   (HELP KEYS) displays the normal Help Keys (see Chapter 1).

Adding a Data Item

Follow this procedure to add data items to your report design. You can add data items to an existing report design or to a design you are creating from scratch.

To save time entering data items that will have similar Data Item Window entries, do not press RESUME until you have entered all data items. This allows you to carry over these entries from data item to data item so you do not have to constantly reenter them.

If you are adding data items to an existing report design, start by positioning the cursor on an existing data item field that you think has the same Data Item Window entries that the new data item(s) should have. Then press DATA ITEM once and RETURN twice to carry over the Data Item Window entries to the new data item. This will normally make most of the steps in the following procedure unnecessary.

> **NOTE** For every data item, you must fill in the `Item`, `File`, and `Data Base` fields in the Data Item Window. For data items in historical reports, you must also fill in the `Start Date` and `Number of Days` fields.

> **NOTE** Use CTRL + a to leave the window before the data item is complete. This cancels any work done on the item.

1   Position the cursor where you want a data item field to begin.

2   Press DATA ITEM.

   [CMS displays the following message: `Please enter the data and punctuation, press RETURN when done.`]

3   Type the number of *x*'s to define the field length of the data item value(s). Refer to standard reports to estimate how many digits the field should have.

   You can also add any of the following punctuation marks: (! # $ % * : / , - .). If the data item is a formula or calculation using division, the Reports Subsystem will automatically use the last three digits for a decimal point and two decimal places when generating output.

   > **NOTE** Asterisks (****) will appear in the report (not in the screen painter) where the output values overflow a field that is too short.

4   Press $\boxed{\text{RETURN}}$.

[The Data Item Window appears.]

5   Enter one of the following data items in the Item field:

A database item   Use all capital letters, with no blanks or special characters.

A constant   Use upper- or lower-case letters. Do not use blanks. The constant must be entered exactly as it appears in the Dictionary.

A data function   Use all upper-case letters, followed by a database item in parentheses. Do not use blanks.

A formula   Use upper- or lower-case letters, with one or more of the following arithmetic operators: *+, -, *, /,* or *().* Do not use blanks or any other special characters.

A calculation   Use all upper-case letters for a standard calculation and upper- or lower-case letters for a custom calculation. Do not use blanks. A calculation must be entered exactly as it appears in the Dictionary.

$\boxed{\textbf{NOTE}}$ The database item(s) entered in the Item field — or associated with the data item in the Item field — must be contained in the file and database entered in Data Item Window.

6   Enter either *L* (left) or *R* (right) in the Justify field. This tells CMS on which side of the data item field to justify values that are shorter than the field length. Numerical values should be right-justified; synonyms should be left-justified. The system default is R.

7   Enter *0* or leave a blank in the Fill field. This entry tells CMS whether to add zeros or blanks to the remaining portion of a field when values are shorter than the field length. The system default is a blank. (The Fill character 0 is normally only appropriate for a trunk equipment location (System 85 and DIMENSION)).

8   Enter one of the following file names in the File field:

AGENT

SPLIT

TRUNK

TRUNK GROUP.

This entry tells CMS from which file the data item values should be retrieved.

NOTE	If Call Vectoring is active, you may also enter *VECTOR* and *DN* in the File field.

9 Enter either *CURRENT* or *PREVIOUS* in the Data Base field if you have identified your report design as a real-time report. Enter either *HALF HOUR* or *DAILY* if you have identified your report design as an historical report.

10 Enter up to four criteria statements in the Criteria field. Your statements tell CMS to select data item values only from records containing certain database item values (for example, a certain split number, agent logid, or a range of interval numbers). Use one of the following formats:

   To fix the values for record selection

   [*DATABASE ITEM*] [*RELATIONAL OPERATOR*] [*VALUE*]

   To create Report Parameters fields for user-defined selection values

   [*DATABASE ITEM*] [*RELATIONAL OPERATOR*] [*FIELD LABEL=*] [*VALUE*]

   OR

   [*DATABASE ITEM*] [*RELATIONAL OPERATOR*] [*FIELD LABEL=*] [*"BLANK"*]

   Relational operators are:

   EQ Equal to

   NE Not equal to

   LT Less than

   GT Greater than

   LE Less than or equal to

   GE Greater than or equal to

   Use the logical operators **AND** and **OR** to connect two or more criteria statements.

11 Enter one of the following types of repeat items in the Repeat Item field:

A database item   This tells CMS to display a column of multiple values in ascending order of values found for the database item. **For historical report items only.**

The word *LOOP*   This tells CMS to display a column of multiple values in the order in which records are stored in the database. **For historical report items only.**

A number   This tells CMS to display a specific number of multiple values per page of the report. **For real-time report items only.**

Leave this field blank if CMS will display just one value for the data item.

12 **For historical reports only.** Enter one of the following start date statements in the Start Date field to tell CMS from what day in the past to start the display of data:

Relative Day   A negative number (*-1* for yesterday, *-7* for this day last week, etc.).

Absolute Date   A specific date (*02/11/88*, *10/22/87*, etc.)

Variable Date   A statement to create a Report Parameters field for a user-defined start date (*START DAY=-7*, *REPORT DAY=-1*). Use the following format:

                [FIELD_LABEL=] [NEGATIVE NUMBER]

13 **For historical reports only.** Enter one of the following statements in the Number of Days field to tell CMS how many days of data to display, starting from the start date.

A number   A fixed number of days of data to be included in the report (*1* for a daily report, *7* for a weekly report, *31* for a monthly report, etc.).

Variable number   A statement to create a Report Parameters field for a user-defined number of days (*NUMBER OF DAYS=1, NUMBER OF DAYS=7*, etc.). Use the following format:

                [FIELD_LABEL=] [NUMBER]

14 Press RETURN when you have completed the Data Item Window.

[The Data Item Window disappears, and the cursor returns to the data item field on the Screen Painter.]

15 To add another data item to the report, move the cursor where you want the next data item to start and press [DATA ITEM].

| NOTE | For this new data item, all fields except the ''Item,'' ''Justify,'' and ''Fill'' fields will be filled with values from the previous data item. |

16 Repeat Steps 3 through 15 for each data item you want to add.

17 Press [RESUME] to redisplay the first tier of SLKs on the Screen Painter and to stop adding data items.

You can now rearrange or change any report display items, if necessary, or press [EXIT] to exit the Screen Painter and display the Compile screen (see Chapter 7 for final procedures).

Changing a Data Item

1   Move the cursor to the data item field, which consists of the *x*'s defining the length of the field.

2   Press `DATA ITEM`.

    [CMS displays the following message: `Please enter the data and punctuation, press RETURN when done.`]

3   Press `CTRL` + z to erase the *x*'s in the field, and enter the new number of *x*'s and punctuation you want for the data item field, if any.

4   Press `RETURN`.

    [The Data Item Window appears.]

5   Overtype entries in any of the Data Item Window fields you want to change.

    You may press `CTRL` + z to erase the entry in a field before typing a new entry.

6   Press `RETURN`.

    [The Data Item Window disappears, and the cursor returns to the data item field.]

7   Repeat Steps 1 through 6 for each data item you want to change.

8   Press `RESUME` to redisplay the first tier of SLKs on the Screen Painter, or press `EXIT` to exit the Screen Painter and display the Compile screen (see Chapter 7 for final procedures).

Using the Dictionary From the Data Item Window

The Screen Painter displays the [DICTNARY ACCESS] SLK while you are completing the fields on the Data Item Window. When you press [DICTNARY ACCESS], CMS automatically displays the Dictionary menu. CMS gives you this express access so you can quickly complete the following tasks, if necessary:

Ordering Dictionary reports on calculations, constants, database items, or groups

Creating or changing a calculation or constant

Looking up an existing calculation or constant to check its suitability for use in your custom report design

Looking up a database item to check its meaning or to check the files containing the database item

Looking up agent or extension groups.

After you complete your Dictionary task(s), you will return directly to the Data Item Window on the Screen Painter simply by pressing [EXIT] once or twice.

The entry of data items into your custom report design will be easier if you complete the tasks in the preceding list as part of your preliminary design tasks. You can perform any of these tasks ahead of time by accessing the Dictionary from the Main Menu. However, as you become accustomed to using the [DICTNARY ACCESS] SLK, you may find it a useful tool in designing custom reports at your terminal.

> **NOTE** Refer to Chapter 5, "Dictionary," in the *3B Call Management System Administration* (585-215-504) for illustrations and descriptions of the Dictionary screens and menus.

Ordering a Dictionary Report

1   On the Dictionary menu, place the cursor in the brackets for the part of the Dictionary for which you want the report.

>   If you want a report on the whole Dictionary, skip this step and leave the cursor in the line at the top of the screen.

2   Press the [REPORT] SLK.

[The Dictionary report will be sent to the system printer.]

Sample Dictionary Report

The following are the first two items from a Dictionary Report on Calculations :

```
Dictionary Report Fri Aug 29, 1988 at 13:54:12


Data Dictionary -- Calculations file


CALCULATION NAME                       ACCURACY        PRECISION

_____                    _____      _____

AGENT_CALL_OUT                         x.xx            integer
DESCRIPTION: number of agents on outgoing calls
EQUATION: ACWOUTCOUNT+AUXOUTCOUNT
AUX_WORK_TIME                          x.xx     1      integer
DESCRIPTION: time on auxiliary work
EQUATION: AUXTIME-AUXOUTTIME-AUXINTIME
```

NOTE	''Accuracy'' means the number of decimal spaces specified in the Calculations screen. ''Precision'' refers to the type of number: integer or floating point.

Searching for Items in the Dictionary

If you know the name of the item you want to check:

1   Select the appropriate Dictionary screen, and press RETURN.

    [The selected screen will appear.]

2   Type the name (or a unique, leading portion of the name) of the item in the Item field.

3   Press RETURN.

    [A description of the item will appear on the screen.]

If you do not know the name of the item:

1   Select the appropriate Dictionary screen, and press [RETURN].

    [The selected screen will appear.]

2   Press [NEXT ITEM] to scroll through the listing of items until you find the item you want.

If you do not know the name of the item, but think the item begins with a particular letter or letters:

1   Select the appropriate Dictionary screen, and press [RETURN].

    [The selected screen will appear.]

2   Type the letter(s) in the Item field, and press [RETURN].

    [An item beginning with the letter(s) and a description of the item will appear on the screen.]

3   Press [NEXT ITEM] to scroll through the items until the item you want appears.

Using the ITEM LOOKUP Key:

On the Dictionary menu and on the Data Base Items screen, the [ITEM LOOKUP] SLK is available on the first tier of SLKs. On the other screens, you must press [MORE KEYS] to see the [ITEM LOOKUP] SLK.

1   On the Agent Group, Extension Group, Constant, or Calculation screens, press [MORE KEYS] to display the [ITEM LOOKUP] SLK.

2   Type the item to be looked up in the Item field. Type the complete item name, or any leading portion of the name.

    NOTE   In the Dictionary menu, the field at the top of the screen functions as an Item field for lookup purposes.

3   Press [ITEM LOOKUP].

    [A "Search" screen will appear listing and describing the item or items that satisfy the lookup criteria.]

| NOTE | Use $\boxed{\text{PREV ITEM}}$ in all search procedures to scroll backward towards the top of the alphabet. |

| NOTE | All database items and standard calculations are in upper-case letters. Constants and custom calculations may be in upper- or lower-case. Because the Dictionary is case-sensitive, be sure your entries are in the appropriate case for the items you want. |

Adding a Calculation

| CAUTION | Calculations that you create will coexist with standard CMS calculations in the Dictionary. Therefore, you should identify your own calculations with an all-lower-case letter format to distinguish them from standard calculations, which have an all-upper-case letter format. |

1   On the DICTIONARY menu, select the Calculations option and press $\boxed{\text{RETURN}}$.

   [The blank Calculations screen appears.]

2   In the Item field, type the name of the new calculation you want added to the database.

3   In the Formula field, type the formula.

> Formulas can consist of database items, constants, and the following arithmetic operators: +, -, *, / , and ( ), which stand for: add, subtract, multiply, divide, and do first, respectively.

> Do not separate the elements in a formula with blanks.

4   In the Precision field, specify the precision desired using *x*'s.

5   Press $\boxed{\text{ADD}}$.

   [The new calculation will be added to the Dictionary.]

NOTE All division-type formulas are automatically carried two decimal places in CMS reports, regardless of what precision you specify.

Creating a New Calculation by Copying an Existing One

1   On the DICTIONARY menu, select the Calculations option and press RETURN.

    [The blank calculations screen appears.]

2   Type the name of the calculation to be copied in the Item field and press RETURN.

3   Type any changes you want over the existing data, including the name, formula, and description. If you type a new name, be sure to use all lower-case letters.

4   Press ADD.

    [The modified, new calculation will be added to the Dictionary.]

Changing a Calculation

CAUTION   While there is no restriction on administering any calculation (your own or standard calculations), care should be used in changing standard calculations because standard reports could be adversely affected.

1   On the DICTIONARY menu, select the Calculations option and press RETURN.

    [The blank Calculations screen appears.]

2   In the Item field, type the name of the calculation being changed.

3   Press RETURN.

    [CMS will return the data on the calculation to the screen.]

4   Make any desired changes to the displayed data by overtyping the name, formula, precision, or description.

5   Press [CHANGE].

[The change will be made in the database.]

Deleting a Calculation

| NOTE | You cannot delete standard calculations (identified by their all-upper-case letter format). This procedure applies only to calculations you have created. |

1   On the DICTIONARY menu, select the Calculations option and press [RETURN].

[The blank Calculations screen appears.]

2   Type the item to be deleted in the Item field, and press [RETURN].

[The item will be displayed.]

3   Press the [DELETE] SLK.

[The item will be deleted from the Dictionary.]

Adding a Constant

1   On the DICTIONARY menu, select the Constants option and press [RETURN].

[The blank Constants screen appears.]

2   In the Item field, type the name of the new constant you want added to the database. Use a small number of letters to make the name easy to manipulate.

3   Type the numerical value of the constant in the Value field. Use a decimal point if desired and any desired number of decimal places.

4   **Optional.** Type a description of the constant in the Description field. It is recommended that you limit this description to 40 alphanumeric characters.

5   Press ADD.

[The new constant will be added to the database.]

Changing a Constant

1   On the DICTIONARY menu, select the Constants option and press RETURN.

[The blank Constants screen appears.]

2   Type the name of the constant to be changed in the Item field, and press RETURN.

[CMS will return the data on the constant to the screen.]

3   Make any desired changes to the displayed data by overtyping it.

4   Press CHANGE.

[The Dictionary will be updated on the item.]

Deleting a Constant

1   On the DICTIONARY menu, select the Constants option and press RETURN.

[The blank Constants screen appears.]

2   In the Item field, type the name of the constant to be deleted.

3   Press RETURN.

[CMS will display the constant's data.]

4   Press DELETE.

[The item will be deleted from the Dictionary.]

Searching for a Database Item

1   On the DICTIONARY menu, select the Database-Items option in the Dictionary menu, and press RETURN.

[The blank Data Base Items screen appears.]

2   Type the name (or unique, leading portion of the name) of the item in the `Item` field.

NOTE   All database items are in all-capital letters: ACDTIME, ACDCALLS, etc.

3   Press RETURN.

[The database will be searched for the item, and the screen will display the files where the item appears and a definition for that item.]

NOTE   No administration is done on the database items. Items cannot be added, changed, or deleted: they can only be searched for.

NOTES

General Information

After you have added all of your labels, data items, and time stamps to your report design and have arranged these display items the way you want them displayed, you must **compile** the report design into computer source code so that you can actually run the report with call center data. Compiling a report design is the last task you must complete before your report is ready to use.

To successfully compile your report design, you may have to return to the Screen Painter one or more times to change your data item selections in some way or to rearrange some display items. Even after you have compiled your report, you may want to return to the Screen Painter later to change it.

This chapter describes the procedures for compiling a new report, changing an existing report, or deleting an old report.

The Custom Reports Compile Screen

You compile your report using the Compile screen (Figure 7-1). You also use the Compile screen to define your report as global (other users can order the report and copy the report design for their own modifications) or private (other users will never see your report, either in the Reports or the Custom Reports Creation subsystems).
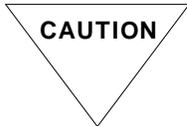
<div style="border:1px solid">CAUTION</div> If a CMS user's ID is removed, that user's private custom reports will also be removed. That user's global custom reports will be placed under the ownership of the CMS administrator's ID for the switch (that is, *acd1, acd2*, etc.).

The Compile screen appears only when you exit the Screen Painter. Although you can save your report design on the Compile screen by pressing [WRITE] or [EXIT], you must compile the report (by pressing [COMPILE]) without error to make the report available to order in the Reports subsystem.

```
 ┌────────────────────────────────────────────────────────────────────────────────┐
 │ ┌──────────────────────────────────────────────────────────────────────────────┐ │
 │ │ Call Management System                              Switch_Name:Up        Time │ │
 │ └──────────────────────────────────────────────────────────────────────────────┘ │
 │                      CALL MANAGEMENT SYSTEM                                        │
 │                                                                                    │
 │                    CUSTOM REPORTS - COMPILE                                        │
 │     ┌─┐                                                                            │
 │     │1│  Report Location (global, private): g                                      │
 │     │2│  Report Description: _____                       │
 │     └─┘                                                                            │
 │                                                                                    │
 │                                                                                    │
 │                                                                                    │
 │                                                                                    │
 │                                                                                    │
 │  ┌──────┐ ┌────────┐ ┌────────┐  ┌──────┐  ┌────────┐  ┌──────┐ ┌────────┐ ┌──────┐ │
 │  │WRITE │ │COMPILE │ │DISPLAY │  │ EDIT │  │DISCARD │  │ EXIT │ │PRINT   │ │HELP  │ │
 │  │      │ │REPORT  │ │ERRORS  │  │      │  │CHANGES │  │      │ │SCREEN  │ │KEYS  │ │
 │  └──────┘ └────────┘ └────────┘  └──────┘  └────────┘  └──────┘ └────────┘ └──────┘ │
 └────────────────────────────────────────────────────────────────────────────────┘
```

Figure 7 1   The Compile Screen

Definition of Fields

Field ☐1 Report Location

This field specifies whether the report is global g or private p.

Default: g

Field ☐2 Report Description

This field lets you enter a short description of the report. This description will appear with the report name on the appropriate Copy...Custom Reports menu. Completing this field is optional.

SLKs in the Custom Reports Compile Screen

WRITE This SLK saves the report you have created and leaves you on the Compile screen so you can immediately return to the Screen Painter for additional changes. Use ⌜WRITE⌝ if your report design requires a lot of time and you want to ensure that all of your changes are not lost by a system shutdown or by accidentally entering the wrong command.

After pressing ⌜WRITE⌝, your report will appear on the appropriate Copy...Custom Reports menu so you can access it later for further editing. However, the report will not be compiled and will not be available to actually run with call center data.

COMPILE REPORT This SLK checks your report for errors and compiles your report in programming code so that the computer can actually run the report with call center data. Your report will be available to order on the appropriate menu in the Reports subsystem and will also appear on the appropriate Copy...Custom Reports menu so you can access it for copying or modification.

Your report will need to be compiled without error before it can be run.

DISPLAY ERRORS This SLK displays the Compilation Errors screen, which displays compiler error messages and the screen location of the errors.

EDIT This SLK returns you to the Screen Painter for correcting errors or continued editing in your current report.

DISCARD CHANGES   This SLK erases any changes just made to a report design. CMS will display the following message to acknowledge that you want to discard changes.

```
Do you really want to discard the changes
made in the last editing session? _
```

If you are creating a new report design and have not yet saved or compiled it, DISCARD CHANGES will not work. You must save the report design first.

EXIT   This SLK saves the report design and displays either the Copy...Custom Reports menu or the Copy...Standard Reports menu, depending on which menu you last used. After pressing EXIT, your report will appear on the "Copy...Custom Reports" menu so you can access it for further editing. However, the report will not be available to actually run with call center data until it has been compiled without error.

PRINT SCREEN   This SLK prints the contents of the screen.

HELP KEYS   This SLK displays the Help SLKs.

The Compilation Errors Screen

If you get an error message when you try to compile a report on the Compile screen, you must access the following screen (Figure 7-2) to get a description of the error. To access the screen, you press DISPLAY ERRORS. In some cases, the whole error description will not appear, but will be truncated (cut off). When this happens, refer to Appendix C, "Compiler Error Messages," for the complete description.

CMS may not display all of the errors in your report after the first compile. You may correct the errors displayed, but then find you have other errors when you try to compile the next time. Also, CMS checks for data item errors in the same order in which you entered the items, not in the order in which the items appear on the Screen Painter. Therefore, if you add data items at the bottom of the Screen Painter and later add data items at the top, CMS may first flag an error that appears at the bottom of the Screen Painter, even if other errors are present at the top.

```
┌─────────────────────────────────────────────────────────────────────────────┐
│                                                                               │
│  ┌─────────────────────────────────────────────────────────────────────────┐ │
│  │Call Management System                      Switch_Name:Up         Time   │ │
│  └─────────────────────────────────────────────────────────────────────────┘ │
│                          CALL MANAGEMENT SYSTEM                               │
│                                                                               │
│             CUSTOM REPORTS - COMPILATION ERRORS FOR REPORT: _____     │
│        ┌───┐           ┌───┐  ┌───┐                                           │
│        │ 1 │           │ 2 │  │ 3 │                                           │
│        └───┘           └───┘  └───┘                                           │
│        Sect:Row:Col    type                                                   │
│           1  19  35    (w)    message .   .   .                               │
│           1  12  1     (w)    message .   .   .                               │
│                                                                               │
│                                                                               │
│                                                                               │
│                                   [Page 1 of n]                               │
│  ┌─────┐  ┌─────┐  ┌─────┐  ┌──────┐ ┌──────┐    ┌──────┐ ┌──────┐ ┌──────┐  │
│  │     │  │     │  │     │  │PREV  │ │NEXT  │    │EXIT  │ │PRINT │ │HELP  │  │
│  │     │  │     │  │     │  │PAGE  │ │PAGE  │    │      │ │SCREEN│ │KEYS  │  │
│  └─────┘  └─────┘  └─────┘  └──────┘ └──────┘    └──────┘ └──────┘ └──────┘  │
│                                                                               │
└─────────────────────────────────────────────────────────────────────────────┘
```
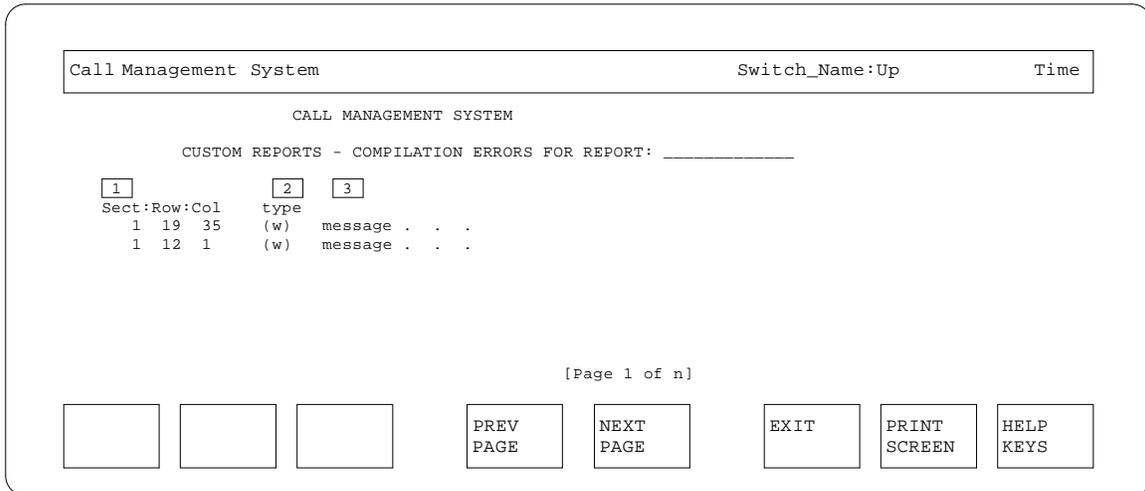
Figure 7 2   The Compilation Errors Screen

Definition of Fields

Field $\boxed{1}$ Sect:Row:Col

"Sect," "Row," and "Col" locate the error on the Screen Painter. "Quad" appears instead of "Sect" for real-time reports.

Use these screen coordinates to find the error on the Screen Painter. The 4425 and 5425 terminals show, in the lower right corner of the screen, the coordinates of the cursor's position and the current quad or section number. The 600 series of terminals show only the quad or section number. The 6500 series terminals show neither coordinates nor quad/ section numbers.

Field $\boxed{2}$ type

"Type" defines the magnitude of the error. E (error) indicates that the error prevents your report from compiling. W indicates that your report will compile, but that actual report data will not appear or will be incorrect.

Field $\boxed{3}$ Message

This field displays the message(s) describing the error(s).

You can move through a multipage listing of errors using the PREV PAGE and NEXT PAGE SLKs. EXIT returns you to the "Custom Reports - Compile" screen.

Saving or Compiling Your Report

Follow this procedure to compile a new or modified custom report. The procedure begins at the Screen Painter.

1 When you have finished an editing session on the Screen Painter, press $\boxed{\text{EXIT}}$.

   [The COMPILE screen appears.]

2 Enter *g* (for global) or leave the default p (for private) in the Report Location field.

3 Enter a description of the report in the Report Description field. This description will appear on the Copy...Custom Reports menu to help you remember what is on the report.

4 Press $\boxed{\text{COMPILE}}$ to compile your report or press $\boxed{\text{WRITE}}$ to save your report entries for compiling at a later time.

   [CMS displays a confirmation message if your report has been successfully compiled or written. CMS will notify you if one or more errors cause the compile to fail.]

   You can view explanations of the errors by pressing $\boxed{\text{DISPLAY ERRORS}}$. You can immediately return to the Screen Painter to fix errors by pressing $\boxed{\text{EDIT}}$.

Modifying an Existing Custom Report

After you have successfully created a custom report, you may want to return to the Screen Painter to change it. Follow this procedure if you want to change display items on the report.

1   Access either the Copy...Custom Real-time Reports or the Copy...Custom Historical Reports menu, depending on what kind of report you are modifying.

2   Place the cursor in the brackets next to the report you want to change or type enough of the report's name to identify it to CMS. You can only change reports that you own.

Use [NEXT PAGE] and [PREV PAGE] to page through the listing of reports, if necessary.

3   Press [CREATE/MODIFY].

[The Screen Painter appears with the selected report design displayed on it.]

4   Change the report display items (see Chapter 6) or their arrangement on the Screen Painter (see Chapter 4).

5   Press [EXIT] when you have finished your changes.

[The Compile screen appears.]

6   Press [COMPILE] to compile the report.

[CMS displays a confirmation message if your report has been successfully compiled. CMS will notify you if one or more errors cause the compile to fail.]

You can view explanations of the errors by pressing [DISPLAY ERRORS]. You can immediately return to the Screen Painter to fix the errors by pressing [EDIT].

Deleting a Report

Follow this procedure to delete reports you no longer need. Deleting unnecessary reports will save disk space and clean up your Report menus.

1   Access either the Copy...Custom Real-time Reports or the Copy...Custom Historical Reports menu, depending on what kind of report you are deleting.

2   Place the cursor in the brackets next to the report you want to delete.

3   Press DELETE .

    [CMS asks you to confirm that you want to delete the report.]

4   Type *y* and press RETURN .

| NOTE | To delete a report, you must be the owner. |

General Information

After you or another CMS user has created a custom report, you can order the report through the Reports subsystem. The procedures for ordering custom reports are almost identical to those for ordering standard reports. You begin by selecting the Custom Real-Time or Custom Historical option on the Reports menu (Figure 8-1).

```
Call Management  System                              Switch_Name:Up or Down     Time


    _____
                                    REPORTS

                            Standard
                            [ ] Real-Time
                            [ ] Historical

                            Custom
                            [ ] Real-Time
                            [ ] Historical

      Error and confirmation messages appear in this field.

   ┌──────┐ ┌──────┐ ┌────────┐  ┌────────┐ ┌────────┐ ┌──────┐ ┌──────┐ ┌──────┐
   │      │ │      │ │        │  │        │ │        │ │EXIT  │ │PRINT │ │HELP  │
   │      │ │      │ │        │  │        │ │        │ │      │ │SCREEN│ │KEYS  │
   └──────┘ └──────┘ └────────┘  └────────┘ └────────┘ └──────┘ └──────┘ └──────┘
```

Figure 8 1   The Reports Menu

Custom Real-Time Reports Menu

You select the specific real-time custom report you want using the Custom Real-Time Reports menu, (Figure 8-2).

Global reports are reports that you and any other CMS user can view or copy. Private reports are reports that only the creator can view, and they will only be listed on the Custom Real-Time Reports menu if you are the creator.

```
 _____
|                                                                                |
| ┌────────────────────────────────────────────────────────────────────────────┐|
| │ Call Management  System                    Switch_Name:Up or Down     Time   ││
| └────────────────────────────────────────────────────────────────────────────┘|
|                                                                                |
|                                                                                |
|                      CUSTOM REAL-TIME REPORTS                                   |
|        ┌─┐                                                                      |
|        │1│                                                                      |
|        └─┘                                                                      |
|        _____                                        |
|                                                                                |
|        ┌───┐                                                                    |
|        │2-n│                                                                    |
|        └───┘                                                                    |
|        GLOBAL                                                                   |
|        [ ] Report_1                                                             |
|        [ ] Report_2                                                             |
|                                                                                |
|        PRIVATE                                                                  |
|        [ ] Report_3                                                             |
|        [ ] Report_4                                                             |
|                                                                                |
|     ┌──────────────────────────────────────────────────────────────────┐       |
|     │   Error and confirmation messages appear in this field.           │       |
|     └──────────────────────────────────────────────────────────────────┘       |
| ┌───────┐ ┌───────┐ ┌─────────┐ ┌──────┐ ┌──────┐ ┌──────┐ ┌──────┐ ┌──────┐   |
| │       │ │       │ │         │ │      │ │      │ │ EXIT │ │PRINT │ │HELP  │   |
| │       │ │       │ │         │ │      │ │      │ │      │ │SCREEN│ │KEYS  │   |
| └───────┘ └───────┘ └─────────┘ └──────┘ └──────┘ └──────┘ └──────┘ └──────┘   |
|_____|
```

Figure 8 2   Custom Real-Time Reports Screen

Definition of Fields

Field $\boxed{1}$ Report Selection (string)

This field is used to enter the name of a report.

Fields $\boxed{2 - n}$ Report Selection (cursor)

This field is used to select a report by positioning the cursor in the desired brackets.

Ordering a Custom Real-Time Report

1   Select the `REPORTS` option in the CMS main menu and press `RETURN`.

[The `REPORTS` menu appears, similar to the one at the beginning of the "Reports" section of this chapter.]

2   Select the `Custom [ ] Real-Time` option in the Reports menu and press `RETURN`.

[A Custom Reports menu similar to Figure 8-2 appears.]

3   Select the desired report by typing a unique string of letters from the report name. Or, select the report by placing the cursor in the correct bracket.

4   Press `RETURN.`

[A Report Parameters screen appears.]

The following example is typical of what the screen looks like. However, the contents of a Report Parameters screen is wholly under the control of the person creating the report. The screen may contain parameter fields that are blank or that have default values that the user can overtype. However, if the report creator assigns specific values to all selection parameters on the report, the Report Parameters screen for a custom report will have no parameter fields and will be blank, except for the `UPDATE INTERVAL` field. Just press `RETURN` (and adjust the Update Interval, if necessary) when the blank Report Parameters screen appears.

CAUTION Multiple quad reports can affect the refresh rate of real-time reports, as well as the overall performance of CMS. Each quad in a multi-quad report counts as one user terminal for CMS. Thus, if you are currently viewing a 4-quad real-time report, CMS will count 4 terminals against the maximum number of terminals that can simultaneously be logged into your computer. With two terminals, each displaying a 4-quad report, CMS will count 8 terminals logged in against the allowable maximum. Since the report refresh rate can be slowed by the addition of logged-in terminals, viewing multi-quad reports may slow the refresh rate for all real-time reports currently displayed.

```
┌────────────────────────────────────────────────────────────────────────┐
│  ┌──────────────────────────────────────────────────────────────────┐   │
│  │ Call Management  System              Switch_Name:Up or Down   Time │   │
│  └──────────────────────────────────────────────────────────────────┘   │
│                    INTERVAL: 00      PAGE 1 of 1    QUAD: 1              │
│                        REPORT PARAMETERS                                 │
│                                                                          │
│            [first_parameter]=                                            │
│            [second_parameter]=                                           │
│            UPDATE INTERVAL (10 - 300)= 30                                │
│        ┌───────────────────────────────────────────────────────┐        │
│        │ Error and confirmation messages appear in this field.  │        │
│        └───────────────────────────────────────────────────────┘        │
│  ┌─────┐ ┌─────┐ ┌───────┐  ┌───────┐ ┌───────┐ ┌──────┐┌───────┐┌──────┐│
│  │     │ │     │ │       │  │       │ │       │ │EXIT  ││PRINT  ││HELP  ││
│  │     │ │     │ │       │  │       │ │       │ │      ││SCREEN ││KEYS  ││
│  └─────┘ └─────┘ └───────┘  └───────┘ └───────┘ └──────┘└───────┘└──────┘│
└────────────────────────────────────────────────────────────────────────┘
```

┌──────────┐
│ **NOTE** │ Strings within the brackets vary depending on how the report was
│   │ designed.
│   │
└──────────┘

5   Next to the [first parameter]=, type the number or the synonym of the
    item to be covered in the report. Follow this procedure for all parameters required
    by this report.

6   Specify how quickly you would like the screen to refresh. You can type over the
    30 (seconds) in the UPDATE INTERVAL field to make a change, or leave it as it
    is.

┌──────────┐
│ **NOTE** │ A faster update interval uses more system resources and can slow down
│   │ operations in other areas of 3B CMS.
│   │
└──────────┘

7   Press [RETURN] .

    [After a few seconds, the report will appear on your screen, or if the report fails,
    you will see an error message.]

    If you get an error message, you will have to return to the Custom Reports Creation
    subsystem to fix the error before ordering the report.

    If the report has more than one quad, move among quads using the arrow keys.

| NOTE | If your report displays zeros, the selected call center components had no activity. |

| NOTE | If your report is blank or your report displays system errors (for example, `Signal 10` or `Signal 14`), your custom report design may have exceeded limits. If so, you must modify the custom report design and compile it again. Refer to Appendix C. |

If you cannot resolve a system error, assistance is available from the **AT&T Call Center Helpline** at **1-800-344-9670**.

SLKs in Real-Time Custom Reports

The [UPDATE] refreshes the display with the latest call and agent data.

The [REPORT PARAMS] key returns you to the Report Parameters screen.

The [NEXT PAGE] and [PREV PAGE] keys allow you to page through multipage reports.

The [EXIT] key returns you to the custom real-time reports menu.

The [PRINT SCREEN] key prints the contents of the screen on the system printer.

The [EXCEPT] SLK (present only when an exception has occurred) displays a list of the exceptions logged during the current session viewing a real-time report. The list is started over any time you exit from the real-time report. Press [EXIT] to return to the real-time report from the exceptions list.

Custom Historical Reports Menu

After you have selected the Custom Historical Reports option on the Reports menu, select the specific historical report you want using the Custom Historical Reports menu (Figure 8-3).

```
┌─────────────────────────────────────────────────────────────────────────────┐
│  ┌──────────────────────────────────────────────────────────────────────┐    │
│  │ Call Management  System                    Switch_Name:Up or Down   Time │ │
│  └──────────────────────────────────────────────────────────────────────┘    │
│                        CUSTOM HISTORICAL REPORTS                              │
│      ┌─┐ _____                                                   │
│      │1│                                                                      │
│      └─┘                                                                      │
│      ┌─────┐                                                                  │
│      │2 - n│                                                                  │
│      └─────┘                                                                  │
│      GLOBAL                                                                   │
│      [ ] Report_1                                                             │
│      [ ] Report_2                                                             │
│                                                                               │
│      PRIVATE                                                                  │
│      [ ] Report_3                                                             │
│      [ ] Report_n                                                             │
│                                                                               │
│                                                                               │
│      ┌────────────────────────────────────────────────────────────────┐      │
│      │ Error and confirmation messages appear in this field.           │      │
│      └────────────────────────────────────────────────────────────────┘      │
│  ┌─────┐┌─────┐┌─────┐   ┌─────┐┌─────┐ ┌─────┐┌──────┐┌─────┐               │
│  │     ││     ││     │   │     ││     │ │EXIT ││PRINT ││HELP │               │
│  │     ││     ││     │   │     ││     │ │     ││SCREEN││KEYS │               │
│  └─────┘└─────┘└─────┘   └─────┘└─────┘ └─────┘└──────┘└─────┘               │
└─────────────────────────────────────────────────────────────────────────────┘
```

Figure 8 3   Custom Historical Reports Screen

Definition of Fields

Field ⌐1⌐ Report Selection (string)

This field is used to enter the name of a report or enough leading characters to form a unique string.

Fields ⌐2 - n⌐ Report Selection (cursor)

This field is used to select a report by positioning the cursor in the desired brackets.

Ordering a Custom Historical Report

1   Select the `REPORTS` option in the CMS main menu and press RETURN.

   [The `REPORTS` menu appears.]

2   Select the `Custom [ ] Historical` option in the Reports menu, and press RETURN.

   [A `CUSTOM HISTORICAL REPORTS` menu similar to Figure 8-3 appears.]

3   Select the report you want.

4   Press RETURN.

   [The Report Parameters screen appears.]

   The following examples present some typical custom Report Parameter screens. However, the contents of a Report Parameters screen is wholly under the control of the person creating the report. Indeed, it is possible for a Report Parameters screen for a custom report to be blank. This occurs when the creator of the report specifies all options in the creation process. In this case, just press RETURN when the blank Report Parameters screen appears.

```
Call Management  System                          Switch_Name:Up  or Down     Time

          REPORT PARAMETERS

            [report_name]

       [first_parameter]=
       [second_parameter]=
       FIRST_INTERVAL= 1
       LAST_INTERVAL= 48



  Error and confirmation messages appear in this field.

 ┌──────┐ ┌──────┐ ┌──────┐ ┌──────┐ ┌──────┐ ┌──────┐ ┌──────┐ ┌──────┐
 │      │ │COMMAND│ │     │ │      │ │      │ │EXIT │ │PRINT │ │HELP │
 │      │ │LINE  │ │     │ │      │ │      │ │     │ │SCREEN│ │KEYS │
 └──────┘ └──────┘ └──────┘ └──────┘ └──────┘ └──────┘ └──────┘ └──────┘
```

Figure 8 4   Report Parameters Screen for Daily Custom Reports

```
Call Management  System                          Switch_Name:Up or Down      Time

                        REPORT PARAMETERS

                        [report_name]

             START_DAY= -7 [-31]
             NUMBER_OF_DAYS= 7 [31]
             [first_parameter]=
             [second_parameter]=


      Error and confirmation messages appear in this field.

            COMMAND                                   EXIT    PRINT    HELP
            LINE                                              SCREEN   KEYS
```

Figure 8 5   Report Parameters Screen for Weekly/ Monthly Custom Reports

The first format (Figure 8-4) is for reports with half-hour data (primarily Daily reports); the second (Figure 8-5) is for reports with daily historical data (Weekly, Monthly, and Summary reports). The parameter fields vary depending on the design of the report.

5   Enter the parameters for your report.

For daily reports, refer to the following table for the correct numbers to enter in the FIRST_INTERVAL= and LAST_INTERVAL= fields.

Interval		Clocktime		Interval
1	AM	12:00-12:30	PM	25
2	AM	12:30-01:00	PM	26
3	AM	01:00-01:30	PM	27
4	AM	01:30-02:00	PM	28
5	AM	02:00-02:30	PM	29
6	AM	02:30-03:00	PM	30
7	AM	03:00-03:30	PM	31
8	AM	03:30-04:00	PM	32
9	AM	04:00-04:30	PM	33
10	AM	04:30-05:00	PM	34
11	AM	05:00-05:30	PM	35
12	AM	05:30-06:00	PM	36
13	AM	06:00-06:30	PM	37
14	AM	06:30-07:00	PM	38
15	AM	07:00-07:30	PM	39
16	AM	07:30-08:00	PM	40
17	AM	08:00-08:30	PM	41
18	AM	08:30-09:00	PM	42
19	AM	09:00-09:30	PM	43
20	AM	09:30-10:00	PM	44
21	AM	10:00-10:30	PM	45
22	AM	10:30-11:00	PM	46
23	AM	11:00-11:30	PM	47
24	AM	11:30-12:00	PM	48

For weekly/ monthly or summary reports, type the relative or MM/ DD/ YY-format date in the space next to `START_DAY =`. This will be the earliest data contained in the report. Daily data is available for reports up to 387 days in the past. The -7 and the -31 are the defaults on the Report Parameters screen.

For weekly or monthly reports, type an integer in the space next to `NUMBER_OF_DAYS =`. This represents the number of days to be covered by the report. The 7 and 31 are the defaults for reports using daily files. It is recommended that a single report cover no more than 120 days.

6   Press RETURN to generate the report immediately, or press COMMAND LINE to schedule the report for a later time.

[The Report Destination screen appears.]

7   Follow the directions on the Report Destination screen to finish ordering the report, and press RETURN again.

[If you pressed RETURN in Step 6, the report is generated immediately. If you pressed COMMAND LINE in Step 6, the Program Editor in the Schedule subsystem appears so you can schedule the report.]

NOTE   If, in viewing a terminal output of a report, you want to move among sections, you can scroll line-by-line with the up and down arrow keys and move page-by-page by pressing PREV PAGE and NEXT PAGE.

NOTE   If your report displays the message "`No records were found for specified parameters`," either your selected call center components had no activity or your custom report design exceeded limits on Data Item Window parameters.

NOTE   If your report displays system errors (for example, `Signal 10` or `Signal 14`), your custom report design exceeded limits. In this case, you must modify the custom report design and compile it again. Refer to Appendix C.

If you cannot resolve a system error, assistance is available from the **AT&T Call Center Helpline** at **1-800-344-9670**.

NOTES

CMS Database Items

Table A-1 presents the CMS database items, the databases and files each item appears in, the items' classification as call- or interval-based items, and their definitions. (See Chapter 5 for an explanation of call-based and interval-based items.) The real-time database identification in the table indicates that the item appears in both Current and Previous real-time databases.

Table A 1   3B CMS Database Items

ITEM	DATABASE	FILE	CALL/ INTERVAL BASED	DESCRIPTION
ABANDON1	DAILY	SPLIT	CALL	Number of abandoned calls (by time in queue)
ABANDON1	HALF HOUR	SPLIT	CALL	Number of abandoned calls (by time in queue)
ABANDON1	REALTIME	SPLIT	CALL	Number of abandoned calls (by time in queue)
ABANDON2	DAILY	SPLIT	CALL	Number of abandoned calls (by time in queue)
ABANDON2	HALF HOUR	SPLIT	CALL	Number of abandoned calls (by time in queue)
ABANDON2	REALTIME	SPLIT	CALL	Number of abandoned calls (by time in queue)
ABANDON3	DAILY	SPLIT	CALL	Number of abandoned calls (by time in queue)
ABANDON3	HALF HOUR	SPLIT	CALL	Number of abandoned calls (by time in queue)
ABANDON3	REALTIME	SPLIT	CALL	Number of abandoned calls (by time in queue)
ABANDON4	DAILY	SPLIT	CALL	Number of abandoned calls (by time in queue)
ABANDON4	HALF HOUR	SPLIT	CALL	Number of abandoned calls (by time in queue)
ABANDON4	REALTIME	SPLIT	CALL	Number of abandoned calls (by time in queue)
ABANDON5	DAILY	SPLIT	CALL	Number of abandoned calls (by time in queue)
ABANDON5	HALF HOUR	SPLIT	CALL	Number of abandoned calls (by time in queue)
ABANDON5	REALTIME	SPLIT	CALL	Number of abandoned calls (by time in queue)
ABANDON6	DAILY	SPLIT	CALL	Number of abandoned calls (by time in queue)
ABANDON6	HALF HOUR	SPLIT	CALL	Number of abandoned calls (by time in queue)
ABANDON6	REALTIME	SPLIT	CALL	Number of abandoned calls (by time in queue)
ABANDON7	DAILY	SPLIT	CALL	Number of abandoned calls (by time in queue)
ABANDON7	HALF HOUR	SPLIT	CALL	Number of abandoned calls (by time in queue)
ABANDON7	REALTIME	SPLIT	CALL	Number of abandoned calls (by time in queue)
ABANDON8	DAILY	SPLIT	CALL	Number of abandoned calls (by time in queue)
ABANDON8	HALF HOUR	SPLIT	CALL	Number of abandoned calls (by time in queue)
ABANDON8	REALTIME	SPLIT	CALL	Number of abandoned calls (by time in queue)
ABANDON9	DAILY	SPLIT	CALL	Number of abandoned calls (by time in queue)
ABANDON9	HALF HOUR	SPLIT	CALL	Number of abandoned calls (by time in queue)
ABANDON9	REALTIME	SPLIT	CALL	Number of abandoned calls (by time in queue)

Table A 1 3B CMS Database Items (Contd)

ITEM	DATABASE	FILE	CALL/ INTERVAL BASED	DESCRIPTION
ABANDON10	DAILY	SPLIT	CALL	Number of abandoned calls (by time in queue)
ABANDON10	HALF HOUR	SPLIT	CALL	Number of abandoned calls (by time in queue)
ABANDON10	REALTIME	SPLIT	CALL	Number of abandoned calls (by time in queue)
ABANDONS*	DAILY	DN	CALL	Total number of abandoned calls
ABANDONS*	HALF HOUR	DN	CALL	Total number of abandoned calls
ABANDONS*	REALTIME	DN	CALL	Total number of abandoned calls
ABANDONS	DAILY	SPLIT	CALL	Total number of abandoned calls
ABANDONS	HALF HOUR	SPLIT	CALL	Total number of abandoned calls
ABANDONS	REALTIME	SPLIT	CALL	Total number of abandoned calls
ABANDONS	DAILY	TRKGRP	CALL	Total number of abandoned calls
ABANDONS	HALF HOUR	TRKGRP	CALL	Total number of abandoned calls
ABANDONS	REALTIME	TRKGRP	CALL	Total number of abandoned calls
ABANDONS	DAILY	TRUNK	CALL	Total number of abandoned calls
ABANDONS	HALF HOUR	TRUNK	CALL	Total number of abandoned calls
ABANDONS	REALTIME	TRUNK	CALL	Total number of abandoned calls
ABANDONS*	DAILY	VECTOR	CALL	Total number of abandoned calls
ABANDONS*	HALF HOUR	VECTOR	CALL	Total number of abandoned calls
ABANDONS*	REALTIME	VECTOR	CALL	Total number of abandoned calls
ABANTIME*	DAILY	DN	CALL	Total time before calls abandoned
ABANTIME*	HALF HOUR	DN	CALL	Total time before calls abandoned
ABANTIME*	REALTIME	DN	CALL	Total time before calls abandoned
ABANTIME	DAILY	SPLIT	CALL	Total time before calls abandoned
ABANTIME	HALF HOUR	SPLIT	CALL	Total time before calls abandoned
ABANTIME	REALTIME	SPLIT	CALL	Total time before calls abandoned
ABANTIME*	DAILY	VECTOR	CALL	Total time before calls abandoned
ABANTIME*	HALF HOUR	VECTOR	CALL	Total time before calls abandoned
ABANTIME*	REALTIME	VECTOR	CALL	Total time before calls abandoned
ACDCALLS	DAILY	AGENT	INTERVAL	Total number of calls answered by an agent
ACDCALLS	HALF HOUR	AGENT	INTERVAL	Total number of calls answered by an agent
ACDCALLS	REALTIME	AGENT	INTERVAL	Total number of calls answered by an agent
ACDCALLS	DAILY	SPLIT	INTERVAL	Total number of calls answered by agents
ACDCALLS	HALF HOUR	SPLIT	INTERVAL	Total number of calls answered by agents
ACDCALLS	REALTIME	SPLIT	INTERVAL	Total number of calls answered by agents
ACDCOUNT	REALTIME	SPLIT	INTERVAL	Number of agents currently on ACD calls
ACDTIME	DAILY	AGENT	INTERVAL	Total time on ACD calls
ACDTIME	HALF HOUR	AGENT	INTERVAL	Total time on ACD calls
ACDTIME	REALTIME	AGENT	INTERVAL	Total time on ACD calls

* Can be used only when 3B CMS Call Vectoring feature is active.

Table A 1   3B CMS Database Items (Contd)

ITEM	DATABASE	FILE	CALL/INTERVAL BASED	DESCRIPTION
ACDTIME	DAILY	SPLIT	INTERVAL	Total time on ACD calls
ACDTIME	HALF HOUR	SPLIT	INTERVAL	Total time on ACD calls
ACDTIME	REALTIME	SPLIT	INTERVAL	Total time on ACD calls
ACWCOUNT	REALTIME	SPLIT	INTERVAL	Number of agents currently in ACW mode
ACWINCALLS	DAILY	AGENT	INTERVAL	Total number of ACW incoming calls
ACWINCALLS	HALF HOUR	AGENT	INTERVAL	Total number of ACW incoming calls
ACWINCALLS	REALTIME	AGENT	INTERVAL	Total number of ACW incoming calls
ACWINCALLS	DAILY	SPLIT	INTERVAL	Total number of ACW incoming calls
ACWINCALLS	HALF HOUR	SPLIT	INTERVAL	Total number of ACW incoming calls
ACWINCALLS	REALTIME	SPLIT	INTERVAL	Total number of ACW incoming calls
ACWINCOUNT	REALTIME	SPLIT	INTERVAL	Number of agents currently on ACW incoming calls
ACWINTIME	DAILY	AGENT	INTERVAL	Total time on ACW incoming calls
ACWINTIME	HALF HOUR	AGENT	INTERVAL	Total time on ACW incoming calls
ACWINTIME	REALTIME	AGENT	INTERVAL	Total time on ACW incoming calls
ACWINTIME	DAILY	SPLIT	INTERVAL	Total time on ACW incoming calls
ACWINTIME	HALF HOUR	SPLIT	INTERVAL	Total time on ACW incoming calls
ACWINTIME	REALTIME	SPLIT	INTERVAL	Total time on ACW incoming calls
ACWOUTCALLS	DAILY	AGENT	INTERVAL	Total number of ACW outgoing calls
ACWOUTCALLS	HALF HOUR	AGENT	INTERVAL	Total number of ACW outgoing calls
ACWOUTCALLS	REALTIME	AGENT	INTERVAL	Total number of ACW outgoing calls
ACWOUTCALLS	DAILY	SPLIT	INTERVAL	Total number of ACW outgoing calls
ACWOUTCALLS	HALF HOUR	SPLIT	INTERVAL	Total number of ACW outgoing calls
ACWOUTCALLS	REALTIME	SPLIT	INTERVAL	Total number of ACW outgoing calls
ACWOUTCOUNT	REALTIME	SPLIT	INTERVAL	Number of agents currently on ACW outgoing calls
ACWOUTTIME	DAILY	AGENT	INTERVAL	Total time on ACW outgoing calls
ACWOUTTIME	HALF HOUR	AGENT	INTERVAL	Total time on ACW outgoing calls
ACWOUTTIME	REALTIME	AGENT	INTERVAL	Total time on ACW outgoing calls
ACWOUTTIME	DAILY	SPLIT	INTERVAL	Total time on ACW outgoing calls
ACWOUTTIME	HALF HOUR	SPLIT	INTERVAL	Total time on ACW outgoing calls
ACWOUTTIME	REALTIME	SPLIT	INTERVAL	Total time on ACW outgoing calls
ACWTIME	DAILY	AGENT	INTERVAL	Total time in ACW (including time on incoming and outgoing calls)
ACWTIME	HALF HOUR	AGENT	INTERVAL	Total time in ACW (including time on incoming and outgoing calls)
ACWTIME	REALTIME	AGENT	INTERVAL	Total time in ACW (including time on incoming and outgoing calls)
ACWTIME	DAILY	SPLIT	INTERVAL	Total time in ACW (including time on incoming and outgoing calls)
ACWTIME	HALF HOUR	SPLIT	INTERVAL	Total time in ACW (including time on incoming and outgoing calls)
ACWTIME	REALTIME	SPLIT	INTERVAL	Total time in ACW (including time on incoming and outgoing calls)

Table A 1   3B CMS Database Items (Contd)

ITEM	DATABASE	FILE	CALL/ INTERVAL BASED	DESCRIPTION
AGENTS	REALTIME	SPLIT	INTERVAL	Number of agents assigned to a split
AGHOUR	HALF HOUR	AGENT	INTERVAL	The hour an agent last logged in or out (military time)
AGMINUTE	HALF HOUR	AGENT	INTERVAL	The minute an agent last logged in or out
AGTIME*	DAILY	DN	INTERVAL	Total time VDN calls were at agent position
AGTIME*	HALF HOUR	DN	INTERVAL	Total time VDN calls were at agent position
AGTIME*	REALTIME	DN	INTERVAL	Total time VDN calls were at agent position
ALLINUSE	DAILY	TRKGRP	INTERVAL	Total time all trunks in the group were on calls
ALLINUSE	HALF HOUR	TRKGRP	INTERVAL	Total time all trunks in the group were on calls
ALLINUSE	REALTIME	TRKGRP	INTERVAL	Total time all trunks in the group were on calls
ALLTRKSBUSY	REALTIME	TRKGRP	INTERVAL	Flag indicating all trunks are busy (* or blank)
ANSBACK*	DAILY	VECTOR	CALL	Total calls answered in backup split
ANSBACK*	HALF HOUR	VECTOR	CALL	Total calls answered in backup split
ANSBACK*	REALTIME	VECTOR	CALL	Total calls answered in backup split
ANSDELAY*	DAILY	DN	CALL	Total time before calls were answered
ANSDELAY*	HALF HOUR	DN	CALL	Total time before calls were answered
ANSDELAY*	REALTIME	DN	CALL	Total time before calls were answered
ANSDELAY	DAILY	SPLIT	CALL	Total time before calls were answered
ANSDELAY	HALF HOUR	SPLIT	CALL	Total time before calls were answered
ANSDELAY	REALTIME	SPLIT	CALL	Total time before calls were answered
ANSDELAY*	DAILY	VECTOR	CALL	Total time before calls were answered
ANSDELAY*	HALF HOUR	VECTOR	CALL	Total time before calls were answered
ANSDELAY*	REALTIME	VECTOR	CALL	Total time before calls were answered
ANSMAIN*	DAILY	VECTOR	CALL	Total calls answered in main split
ANSMAIN*	HALF HOUR	VECTOR	CALL	Total calls answered in main split
ANSMAIN*	REALTIME	VECTOR	CALL	Total calls answered in main split
ANSWERED*	DAILY	DN	CALL	Total ACD calls answered (based on trunk status).
ANSWERED*	HALF HOUR	DN	CALL	Total ACD calls answered (based on trunk status).
ANSWERED*	REALTIME	DN	CALL	Total ACD calls answered (based on trunk status).
ANSWERED	DAILY	SPLIT	CALL	Total ACD calls answered (based on trunk status).
ANSWERED	HALF HOUR	SPLIT	CALL	Total ACD calls answered (based on trunk status).
ANSWERED	REALTIME	SPLIT	CALL	Total ACD calls answered (based on trunk status).
ANSWERED	DAILY	TRKGRP	CALL	Total ACD calls answered (based on trunk status).
ANSWERED	HALF HOUR	TRKGRP	CALL	Total ACD calls answered (based on trunk status).
ANSWERED	REALTIME	TRKGRP	CALL	Total ACD calls answered (based on trunk status).

* Can be used only when 3B CMS Call Vectoring feature is active.

Table A 1 3B CMS Database Items (Contd)

ITEM	DATABASE	FILE	CALL/INTERVAL BASED	DESCRIPTION
ANSWERED	DAILY	TRUNK	CALL	Total ACD calls answered (based on trunk status).
ANSWERED	HALF HOUR	TRUNK	CALL	Total ACD calls answered (based on trunk status).
ANSWERED	REALTIME	TRUNK	CALL	Total ACD calls answered (based on trunk status).
ASSISTS	DAILY	AGENT	INTERVAL	Total number of supervisor assisted calls
ASSISTS	HALF HOUR	AGENT	INTERVAL	Total number of supervisor assisted calls
ASSISTS	REALTIME	AGENT	INTERVAL	Total number of supervisor assisted calls
ASSISTS	DAILY	SPLIT	INTERVAL	Total number of supervisor assisted calls
ASSISTS	HALF HOUR	SPLIT	INTERVAL	Total number of supervisor assisted calls
ASSISTS	REALTIME	SPLIT	INTERVAL	Total number of supervisor assisted calls
ASSOCIATION	REALTIME	TRUNK	INTERVAL	Agent or split association with a trunk (agent login id, split number, or "NONE")
ASTATE	REALTIME	AGENT	INTERVAL	The current agent state (UNSTAF, AVAIL, RING*, ACD, ACW, AUX, ACWOUT, ACWIN, AUXOUT, AUXIN, INIT). To enter ASTATE values as criteria for record selection, numerical values must be used in lieu of names. See Table A-22.
ATAGENT**	REALTIME	DN	INTERVAL	Number of calls currently at an agent position
AUXCOUNT	REALTIME	SPLIT	INTERVAL	Number of agents currently in AUX work mode
AUXINCALLS	DAILY	AGENT	INTERVAL	Total number of AUX work incoming calls
AUXINCALLS	HALF HOUR	AGENT	INTERVAL	Total number of AUX work incoming calls
AUXINCALLS	REALTIME	AGENT	INTERVAL	Total number of AUX work incoming calls
AUXINCALLS	DAILY	SPLIT	INTERVAL	Total number of AUX work incoming calls
AUXINCALLS	HALF HOUR	SPLIT	INTERVAL	Total number of AUX work incoming calls
AUXINCALLS	REALTIME	SPLIT	INTERVAL	Total number of AUX work incoming calls
AUXINCOUNT	REALTIME	SPLIT	INTERVAL	Number of agents currently on AUX work incoming calls
AUXINTIME	DAILY	AGENT	INTERVAL	Total time on AUX work incoming calls
AUXINTIME	HALF HOUR	AGENT	INTERVAL	Total time on AUX work incoming calls
AUXINTIME	REALTIME	AGENT	INTERVAL	Total time on AUX work incoming calls
AUXINTIME	DAILY	SPLIT	INTERVAL	Total time on AUX work incoming calls
AUXINTIME	HALF HOUR	SPLIT	INTERVAL	Total time on AUX work incoming calls
AUXINTIME	REALTIME	SPLIT	INTERVAL	Total time on AUX work incoming calls
AUXOUTCALLS	DAILY	AGENT	INTERVAL	Total number of AUX work outgoing calls
AUXOUTCALLS	HALF HOUR	AGENT	INTERVAL	Total number of AUX work outgoing calls
AUXOUTCALLS	REALTIME	AGENT	INTERVAL	Total number of AUX work outgoing calls
AUXOUTCALLS	DAILY	SPLIT	INTERVAL	Total number of AUX work outgoing calls
AUXOUTCALLS	HALF HOUR	SPLIT	INTERVAL	Total number of AUX work outgoing calls
AUXOUTCALLS	REALTIME	SPLIT	INTERVAL	Total number of AUX work outgoing calls

* Appears only on a Generic 2 switch with ring-state enabled.
** Can be used only when 3B CMS Call Vectoring feature is active.

Table A 1 3B CMS Database Items (Contd)

ITEM	DATABASE	FILE	CALL/ INTERVAL BASED	DESCRIPTION
AUXOUTCOUNT	REALTIME	SPLIT	INTERVAL	Number of agents currently on AUX work outgoing calls
AUXOUTTIME	DAILY	AGENT	INTERVAL	Total time on AUX work outgoing calls
AUXOUTTIME	HALF HOUR	AGENT	INTERVAL	Total time on AUX work outgoing calls
AUXOUTTIME	REALTIME	AGENT	INTERVAL	Total time on AUX work outgoing calls
AUXOUTTIME	DAILY	SPLIT	INTERVAL	Total time on AUX work outgoing calls
AUXOUTTIME	HALF HOUR	SPLIT	INTERVAL	Total time on AUX work outgoing calls
AUXOUTTIME	REALTIME	SPLIT	INTERVAL	Total time on AUX work outgoing calls
AUXTIME	DAILY	AGENT	INTERVAL	Total time in AUX work (including time on incoming and outgoing calls)
AUXTIME	HALF HOUR	AGENT	INTERVAL	Total time in AUX work (including time on incoming and outgoing calls)
AUXTIME	REALTIME	AGENT	INTERVAL	Total time in AUX work (including time on incoming and outgoing calls)
AUXTIME	DAILY	SPLIT	INTERVAL	Total time in AUX work (including time on incoming and outgoing calls)
AUXTIME	HALF HOUR	SPLIT	INTERVAL	Total time in AUX work (including time on incoming and outgoing calls)
AUXTIME	REALTIME	SPLIT	INTERVAL	Total time in AUX work (including time on incoming and outgoing calls)
BABANDONS	DAILY	TRKGRP	INTERVAL	Number of abandoned calls during busy hour
BALLINUSE	DAILY	TRKGRP	INTERVAL	Time all trunks were on calls during busy hour
BFAILURES	DAILY	TRKGRP	INTERVAL	Number of trunk hardware failures during busy hour
BHANDLEDIN	DAILY	TRKGRP	INTERVAL	Number of ACD calls handled during busy hour
BINCALLS	DAILY	TRKGRP	INTERVAL	Number of incoming calls during busy hour
BINTIME	DAILY	TRKGRP	INTERVAL	Total time on incoming calls during busy hour
BMBUSYTIME	DAILY	TRKGRP	INTERVAL	Time trunks were maintenance busy during busy hour
BNONACD	DAILY	TRKGRP	INTERVAL	Number of non-ACD calls during busy hour
BOUTCALLS	DAILY	TRKGRP	INTERVAL	Number of outgoing calls during busy hour
BOUTTIME	DAILY	TRKGRP	INTERVAL	Total time on outgoing calls during busy hour
BSOFTFAILS	DAILY	TRKGRP	INTERVAL	Number of software failures during busy hour (incorrect trunk state transitions or link interruptions)

Table A 1   3B CMS Database Items (Contd)

ITEM	DATABASE	FILE	CALL/INTERVAL BASED	DESCRIPTION
BUSYHOUR	DAILY	TRKGRP	INTERVAL	Busy hour interval (e.g. "09:00-10:00AM")
CABINET	DAILY	TRUNK	INTERVAL	The physical trunk cabinet location
CABINET	HALF HOUR	TRUNK	INTERVAL	The physical trunk cabinet location
CABINET	REALTIME	TRUNK	INTERVAL	The physical trunk cabinet location
CALLATAGENT	REALTIME	TRUNK	INTERVAL	Flag indicating call is at an agent (YES, NO)
CALLPROFCHG	DAILY	SPLIT	INTERVAL	Flag indicating a call profile parameter changed (YES,NO)
CALLPROFCHG	HALF HOUR	SPLIT	INTERVAL	Flag indicating a call profile parameter changed (YES,NO)
CALLPROFCHG	REALTIME	SPLIT	INTERVAL	Flag indicating a call profile parameter changed (YES,NO)
CALLS1	DAILY	SPLIT	CALL	Number of ACD calls answered (by time in queue)
CALLS1	HALF HOUR	SPLIT	CALL	Number of ACD calls answered (by time in queue)
CALLS1	REALTIME	SPLIT	CALL	Number of ACD calls answered (by time in queue)
CALLS10	DAILY	SPLIT	CALL	Number of ACD calls answered (by time in queue)
CALLS10	HALF HOUR	SPLIT	CALL	Number of ACD calls answered (by time in queue)
CALLS10	REALTIME	SPLIT	CALL	Number of ACD calls answered (by time in queue)
CALLS2	DAILY	SPLIT	CALL	Number of ACD calls answered (by time in queue)
CALLS2	HALF HOUR	SPLIT	CALL	Number of ACD calls answered (by time in queue)
CALLS2	REALTIME	SPLIT	CALL	Number of ACD calls answered (by time in queue)
CALLS3	DAILY	SPLIT	CALL	Number of ACD calls answered (by time in queue)
CALLS3	HALF HOUR	SPLIT	CALL	Number of ACD calls answered (by time in queue)
CALLS3	REALTIME	SPLIT	CALL	Number of ACD calls answered (by time in queue)
CALLS4	DAILY	SPLIT	CALL	Number of ACD calls answered (by time in queue)
CALLS4	HALF HOUR	SPLIT	CALL	Number of ACD calls answered (by time in queue)
CALLS4	REALTIME	SPLIT	CALL	Number of ACD calls answered (by time in queue)
CALLS5	DAILY	SPLIT	CALL	Number of ACD calls answered (by time in queue)

Table A 1   3B CMS Database Items (Contd)

ITEM	DATABASE	FILE	CALL/ INTERVAL BASED	DESCRIPTION
CALLS5	HALF HOUR	SPLIT	CALL	Number of ACD calls answered (by time in queue)
CALLS5	REALTIME	SPLIT	CALL	Number of ACD calls answered (by time in queue)
CALLS6	DAILY	SPLIT	CALL	Number of ACD calls answered (by time in queue)
CALLS6	HALF HOUR	SPLIT	CALL	Number of ACD calls answered (by time in queue)
CALLS6	REALTIME	SPLIT	CALL	Number of ACD calls answered (by time in queue)
CALLS7	DAILY	SPLIT	CALL	Number of ACD calls answered (by time in queue)
CALLS7	HALF HOUR	SPLIT	CALL	Number of ACD calls answered (by time in queue)
CALLS7	REALTIME	SPLIT	CALL	Number of ACD calls answered (by time in queue)
CALLS8	DAILY	SPLIT	CALL	Number of ACD calls answered (by time in queue)
CALLS8	HALF HOUR	SPLIT	CALL	Number of ACD calls answered (by time in queue)
CALLS8	REALTIME	SPLIT	CALL	Number of ACD calls answered (by time in queue)
CALLS9	DAILY	SPLIT	INTERVAL	Number of ACD calls answered (by time in queue)
CALLS9	HALF HOUR	SPLIT	INTERVAL	Number of ACD calls answered (by time in queue)
CALLS9	REALTIME	SPLIT	INTERVAL	Number of ACD calls answered (by time in queue)
CARRIED*	DAILY	DN	INTERVAL	Total number of calls carried
CARRIED*	HALF HOUR	DN	INTERVAL	Total number of calls carried
CARRIED*	REALTIME	DN	INTERVAL	Total number of calls carried
CARRIED*	DAILY	VECTOR	INTERVAL	Total number of calls carried
CARRIED*	HALF HOUR	VECTOR	INTERVAL	Total number of calls carried
CARRIED*	REALTIME	VECTOR	INTERVAL	Total number of calls carried
CARRIER	DAILY	TRUNK	INTERVAL	The physical trunk carrier location
CARRIER	HALF HOUR	TRUNK	INTERVAL	The physical trunk carrier location
CARRIER	REALTIME	TRUNK	INTERVAL	The physical trunk carrier location
CIRCUIT	DAILY	TRUNK	INTERVAL	The physical trunk circuit location
CIRCUIT	HALF HOUR	TRUNK	INTERVAL	The physical trunk circuit location
CIRCUIT	REALTIME	TRUNK	INTERVAL	The physical trunk circuit location

* Can be used only when 3B CMS Call Vectoring feature is active.

Table A 1   3B CMS Database Items (Contd)

ITEM	DATABASE	FILE	CALL/INTERVAL BASED	DESCRIPTION
CMODE	HALF HOUR	AGENT	INTERVAL	Flag indicating agent logged in or out (YES, NO)
CUMACW	HALF HOUR	SPLIT	CALL	Total time in completed ACW sessions
CUMACW	REALTIME	SPLIT	CALL	Total time in completed ACW sessions
CUMRING**	REALTIME	AGENT	CALL	Cumulative time the agent spent in the ring-state.
CUMRING**	REALTIME	SPLIT	CALL	Cumulative time the split's agents spent in the ring-state.
CUMTALK	HALF HOUR	SPLIT	CALL	Total time on completed ACD calls
CUMTALK	REALTIME	SPLIT	CALL	Total time on completed ACD calls
DIRECTION	REALTIME	TRUNK	INTERVAL	The direction of the current call (IN, OUT). To enter DIRECTION values as criteria for record selection, numerical values must be used in lieu of names. See Table A-22.
DNCALL*	REALTIME	TRUNK	INTERVAL	Flag indicating a call is a VDN call (YES, NO)
DNEXT*	DAILY	DN	INTERVAL	VDN extension number
DNEXT*	HALF HOUR	DN	INTERVAL	VDN extension number
DNEXT*	REALTIME	DN	INTERVAL	VDN extension number
DNEXT*	REALTIME	TRKGRP	INTERVAL	VDN extension number
DNEXT*	REALTIME	TRUNK	INTERVAL	VDN extension number
DNS*	REALTIME	VECTOR	INTERVAL	Number of VDNs assigned to vector
DNSTARTDATE*	REALTIME	TRUNK	INTERVAL	The date the VDN call started (MM/DD/YY)
DNSTARTTIME*	REALTIME	TRUNK	INTERVAL	Time the VDN call started in military time format (HR:MN)
DNWAITTIME*	DAILY	DN	INTERVAL	VDN call time excluding time at agent position
DNWAITTIME*	HALF HOUR	DN	INTERVAL	VDN call time excluding time at agent position
DNWAITTIME*	REALTIME	DN	INTERVAL	VDN call time excluding time at agent position
EQLOCATION	REALTIME	TRUNK	INTERVAL	The physical trunk equipment location
EVENT	REALTIME	AGENT	INTERVAL	The type of event for the call (MCT, ASSIST). To enter EVENT values as criteria for record selection, numerical values must be used in lieu of names. See Table A-22.
EXTCALL	REALTIME	AGENT	INTERVAL	The type of extension call (ACWOUT, ACWIN, AUXOUT, AUXIN). To enter EXTCALL values as criteria for record selection, numerical values must be used in lieu of names. See Table A-22.

* Can be used only when 3B CMS Call Vectoring feature is active.
** Data appears only on a Generic 2 switch with the ring-state enabled.

Table A 1   3B CMS Database Items (Contd)

ITEM	DATABASE	FILE	CALL/ INTERVAL BASED	DESCRIPTION
EXTCALLDATE	REALTIME	AGENT	INTERVAL	The date the extension call started (MM/ DD/ YY)
EXTCALLTIME	REALTIME	AGENT	INTERVAL	Time the extension call started in military time format (HR:MN)
EXTENSION	DAILY	AGENT	INTERVAL	Agent position extension number
EXTENSION	HALF HOUR	AGENT	INTERVAL	Agent position extension number
EXTENSION	REALTIME	AGENT	INTERVAL	Agent position extension number
FAILURES	DAILY	TRKGRP	INTERVAL	Total number of trunk hardware failures
FAILURES	HALF HOUR	TRKGRP	INTERVAL	Total number of trunk hardware failures
FAILURES	REALTIME	TRKGRP	INTERVAL	Total number of trunk hardware failures
FAILURES	DAILY	TRUNK	INTERVAL	Total number of trunk hardware failures
FAILURES	HALF HOUR	TRUNK	INTERVAL	Total number of trunk hardware failures
FAILURES	REALTIME	TRUNK	INTERVAL	Total number of trunk hardware failures
FBUSYCALLS*	DAILY	DN	INTERVAL	Total number of calls forced busy
FBUSYCALLS*	HALF HOUR	DN	INTERVAL	Total number of calls forced busy
FBUSYCALLS*	REALTIME	DN	INTERVAL	Total number of calls forced busy
FBUSYCALLS*	DAILY	VECTOR	INTERVAL	Total number of calls forced busy
FBUSYCALLS*	HALF HOUR	VECTOR	INTERVAL	Total number of calls forced busy
FBUSYCALLS*	REALTIME	VECTOR	INTERVAL	Total number of calls forced busy
FBUSYTIME*	DAILY	DN	INTERVAL	Total time before calls were forced busy
FBUSYTIME*	HALF HOUR	DN	INTERVAL	Total time before calls were forced busy
FBUSYTIME*	REALTIME	DN	INTERVAL	Total time before calls were forced busy
FBUSYTIME*	DAILY	VECTOR	INTERVAL	Total time before calls were forced busy
FBUSYTIME*	HALF HOUR	VECTOR	INTERVAL	Total time before calls were forced busy
FBUSYTIME*	REALTIME	VECTOR	INTERVAL	Total time before calls were forced busy
FDISCCALLS*	DAILY	DN	INTERVAL	Total number of calls force disconnected
FDISCCALLS*	HALF HOUR	DN	INTERVAL	Total number of calls force disconnected
FDISCCALLS*	REALTIME	DN	INTERVAL	Total number of calls force disconnected
FDISCCALLS*	DAILY	VECTOR	INTERVAL	Total number of calls force disconnected
FDISCCALLS*	HALF HOUR	VECTOR	INTERVAL	Total number of calls force disconnected
FDISCCALLS*	REALTIME	VECTOR	INTERVAL	Total number of calls force disconnected
FDISCTIME*	DAILY	DN	INTERVAL	Total time before calls were force disconnected
FDISCTIME*	HALF HOUR	DN	INTERVAL	Total time before calls were force disconnected
FDISCTIME*	REALTIME	DN	INTERVAL	Total time before calls were force disconnected
FDISCTIME*	DAILY	VECTOR	INTERVAL	Total time before calls were force disconnected
FDISCTIME*	HALF HOUR	VECTOR	INTERVAL	Total time before calls were force disconnected
FDISCTIME*	REALTIME	VECTOR	INTERVAL	Total time before calls were force disconnected

* Can be used only when 3B CMS Call Vectoring feature is active.

Table A 1   3B CMS Database Items (Contd)

ITEM	DATABASE	FILE	CALL/ INTERVAL BASED	DESCRIPTION
FLOWTIME*	DAILY	DN	INTERVAL	Total time before calls outflowed
FLOWTIME*	HALF HOUR	DN	INTERVAL	Total time before calls outflowed
FLOWTIME*	REALTIME	DN	INTERVAL	Total time before calls outflowed
FLOWTIME*	DAILY	VECTOR	INTERVAL	Total time before calls outflowed
FLOWTIME*	HALF HOUR	VECTOR	INTERVAL	Total time before calls outflowed
FLOWTIME*	REALTIME	VECTOR	INTERVAL	Total time before calls outflowed
GROUP	DAILY	AGENT	INTERVAL	List of extensions or login ids
GROUP	HALF HOUR	AGENT	INTERVAL	List of extensions or login ids
GROUP	REALTIME	AGENT	INTERVAL	List of extensions or login ids
GROUPSIZE	DAILY	TRKGRP	INTERVAL	Number of trunks assigned to the trunk group
GROUPSIZE	HALF HOUR	TRKGRP	INTERVAL	Number of trunks assigned to the trunk group
GROUPSIZE	REALTIME	TRKGRP	INTERVAL	Number of trunks assigned to the trunk group
HOLDABANS†	DAILY	SPLIT	INTERVAL	Total number of calls abandoned while on hold
HOLDABANS†	HALF HOUR	SPLIT	INTERVAL	Total number of calls abandoned while on hold
HOLDABANS†	REALTIME	SPLIT	INTERVAL	Total number of calls abandoned while on hold
HOLDABANTIME†	DAILY	SPLIT	INTERVAL	Total time abandonded calls were on hold
HOLDABANTIME†	HALF HOUR	SPLIT	INTERVAL	Total time abandonded calls were on hold
HOLDABANTIME†	REALTIME	SPLIT	INTERVAL	Total time abandonded calls were on hold
HOLDS†	DAILY	SPLIT	INTERVAL	Total number of calls that were placed on hold
HOLDS†	HALF HOUR	SPLIT	INTERVAL	Total number of calls that were placed on hold
HOLDS†	REALTIME	SPLIT	INTERVAL	Total number of calls that were placed on hold
HOLDTIME†	DAILY	SPLIT	INTERVAL	Total time calls were on hold
HOLDTIME†	HALF HOUR	SPLIT	INTERVAL	Total time calls were on hold
HOLDTIME†	REALTIME	SPLIT	INTERVAL	Total time calls were on hold
IDLETIME	DAILY	AGENT	INTERVAL	Total time agent(s) were available. Includes time the agent's voice terminal was ringing.
IDLETIME	HALF HOUR	AGENT	INTERVAL	Total time agent(s) were available. Includes time agent's voice terminal was ringing.
IDLETIME	REALTIME	AGENT	INTERVAL	Total time agent(s) were available. On Generic 2 with ring-state enabled, **does not** include time calls were ringing at the agent's voice terminal.
IDLETIME	DAILY	SPLIT	INTERVAL	Total time agent(s) were available. Includes time agent voice terminals were ringing.
IDLETIME	HALF HOUR	SPLIT	INTERVAL	Total time agent(s) were available. Includes time agent voice terminals were ringing.
IDLETIME	REALTIME	SPLIT	INTERVAL	Total time agent(s) were available. On Generic 2 with ring-state enabled, **does not** include time calls were ringing at agent voice terminals.
INCALLS	DAILY	TRKGRP	INTERVAL	Total number of incoming calls
INCALLS	HALF HOUR	TRKGRP	INTERVAL	Total number of incoming calls
INCALLS	REALTIME	TRKGRP	INTERVAL	Total number of incoming calls

* Can be used only when 3B CMS Call Vectoring feature is active.
† Can be used only when the "multiple call handling" feature is active.

Table A 1 3B CMS Database Items (Contd)

ITEM	DATABASE	FILE	CALL/ INTERVAL BASED	DESCRIPTION
INCALLS	DAILY	TRUNK	INTERVAL	Total number of incoming calls
INCALLS	HALF HOUR	TRUNK	INTERVAL	Total number of incoming calls
INCALLS	REALTIME	TRUNK	INTERVAL	Total number of incoming calls
INCOUNT	REALTIME	TRKGRP	INTERVAL	Number of trunks currently on incoming calls
INFLOW*	DAILY	DN	INTERVAL	Total number of intraflowed incoming calls
INFLOW*	HALF HOUR	DN	INTERVAL	Total number of intraflowed incoming calls
INFLOW*	REALTIME	DN	INTERVAL	Total number of intraflowed incoming calls
INFLOW	DAILY	SPLIT	INTERVAL	Total number of intraflowed incoming calls
INFLOW	HALF HOUR	SPLIT	INTERVAL	Total number of intraflowed incoming calls
INFLOW	REALTIME	SPLIT	INTERVAL	Total number of intraflowed incoming calls
INFLOW*	DAILY	VECTOR	INTERVAL	Total number of intraflowed incoming calls
INFLOW*	HALF HOUR	VECTOR	INTERVAL	Total number of intraflowed incoming calls
INFLOW*	REALTIME	VECTOR	INTERVAL	Total number of intraflowed incoming calls
INPOOL	REALTIME	SPLIT	INTERVAL	Number of available agents. On Generic 2 with ring-state enabled, **does not** include agents whose voice terminals are ringing.
INPROGRESS*	REALTIME	DN	INTERVAL	Number of calls currently in progress
INPROGRESS*	REALTIME	VECTOR	INTERVAL	Number of calls currently in progress
INTERVAL	HALF HOUR	AGENT	INTERVAL	The 30 minute time period data was collected (e.g. " 09:00-09:30AM")
INTERVAL*	HALF HOUR	DN	INTERVAL	The 30 minute time period data was collected (e.g. " 09:00-09:30AM")
INTERVAL	HALF HOUR	SPLIT	INTERVAL	The 30 minute time period data was collected (e.g. " 09:00-09:30AM")
INTERVAL	HALF HOUR	TRKGRP	INTERVAL	The 30 minute time period data was collected (e.g. " 09:00-09:30AM")
INTERVAL	HALF HOUR	TRUNK	INTERVAL	The 30 minute time period data was collected (e.g. " 09:00-09:30AM")
INTERVAL*	HALF HOUR	VECTOR	INTERVAL	The 30 minute time period data was collected (e.g. " 09:00-09:30AM")
INTIME	DAILY	TRKGRP	INTERVAL	Total time on incoming calls
INTIME	HALF HOUR	TRKGRP	INTERVAL	Total time on incoming calls
INTIME	REALTIME	TRKGRP	INTERVAL	Total time on incoming calls
INTIME	DAILY	TRUNK	INTERVAL	Total time on incoming calls
INTIME	HALF HOUR	TRUNK	INTERVAL	Total time on incoming calls
INTIME	REALTIME	TRUNK	INTERVAL	Total time on incoming calls
INVECTOR*	REALTIME	DN	INTERVAL	Number of calls currently in vector processing
JDATE	DAILY	AGENT	INTERVAL	Date (MM/ DD/ YY)
JDATE	HALF HOUR	AGENT	INTERVAL	Date (MM/ DD/ YY)

 * Can be used only when 3B CMS Call Vectoring feature is active.

Table A 1   3B CMS Database Items (Contd)

ITEM	DATABASE	FILE	CALL/ INTERVAL BASED	DESCRIPTION
JDATE*	DAILY	DN	INTERVAL	Date (MM/ DD/ YY)
JDATE*	HALF HOUR	DN	INTERVAL	Date (MM/ DD/ YY)
JDATE	DAILY	SPLIT	INTERVAL	Date (MM/ DD/ YY)
JDATE	HALF HOUR	SPLIT	INTERVAL	Date (MM/ DD/ YY)
JDATE	DAILY	TRKGRP	INTERVAL	Date (MM/ DD/ YY)
JDATE	HALF HOUR	TRKGRP	INTERVAL	Date (MM/ DD/ YY)
JDATE	DAILY	TRUNK	INTERVAL	Date (MM/ DD/ YY)
JDATE	HALF HOUR	TRUNK	INTERVAL	Date (MM/ DD/ YY)
JDATE*	DAILY	VECTOR	INTERVAL	Date (MM/ DD/ YY)
JDATE*	HALF HOUR	VECTOR	INTERVAL	Date (MM/ DD/ YY)
LOGDATE	REALTIME	AGENT	INTERVAL	The date an agent logged in/ out (MM/ DD/ YY)
LOGID	DAILY	AGENT	INTERVAL	Login id associated with an agent
LOGID	HALF HOUR	AGENT	INTERVAL	Login id associated with an agent
LOGID	REALTIME	AGENT	INTERVAL	Login id associated with an agent
LOGMODE	HALF HOUR	AGENT	INTERVAL	Agent position status flag (LOG OUT, LOG IN). To enter LOGMODE values as criteria for record selection, numerical values must be used in lieu of names. See Table A-22.
LOGMODE	REALTIME	AGENT	INTERVAL	Agent position status flag (LOG OUT, LOG IN). To enter LOGMODE values as criteria for record selection, numerical values must be used in lieu of names. See Table A-22.
LOGTIME	REALTIME	AGENT	INTERVAL	The time an agent logged in or out
MAXAGENTS	DAILY	SPLIT	INTERVAL	Largest number of agents staffed
MAXAGENTS	HALF HOUR	SPLIT	INTERVAL	Largest number of agents staffed
MAXAGENTS	REALTIME	SPLIT	INTERVAL	Largest number of agents staffed
MAXCALLSWAIT	DAILY	SPLIT	INTERVAL	Largest number of calls that waited in queue
MAXCALLSWAIT	HALF HOUR	SPLIT	INTERVAL	Largest number of calls that waited in queue
MAXCALLSWAIT	REALTIME	SPLIT	INTERVAL	Largest number of calls that waited in queue
MAXOLDCW	DAILY	SPLIT	CALL	Longest time a call waited in queue
MAXOLDCW	HALF HOUR	SPLIT	CALL	Longest time a call waited in queue
MAXOLDCW	REALTIME	SPLIT	CALL	Longest time a call waited in queue
MBUSYCOUNT	REALTIME	TRKGRP	INTERVAL	Number of trunks currently maintenance busy
MBUSYTIME	DAILY	TRKGRP	INTERVAL	Total time trunks were maintenance busy
MBUSYTIME	HALF HOUR	TRKGRP	INTERVAL	Total time trunks were maintenance busy
MBUSYTIME	REALTIME	TRKGRP	INTERVAL	Total time trunks were maintenance busy
MBUSYTIME	DAILY	TRUNK	INTERVAL	Total time trunks were maintenance busy
MBUSYTIME	HALF HOUR	TRUNK	INTERVAL	Total time trunks were maintenance busy
MBUSYTIME	REALTIME	TRUNK	INTERVAL	Total time trunks were maintenance busy

* Can be used only when 3B CMS Call Vectoring feature is active.

Table A 1   3B CMS Database Items (Contd)

ITEM	DATABASE	FILE	CALL/ INTERVAL BASED	DESCRIPTION
MODULE	DAILY	TRUNK	INTERVAL	The physical trunk module location
MODULE	HALF HOUR	TRUNK	INTERVAL	The physical trunk module location
MODULE	REALTIME	TRUNK	INTERVAL	The physical trunk module location
NONACD*	DAILY	DN	INTERVAL	Total number of non-ACD calls
NONACD*	HALF HOUR	DN	INTERVAL	Total number of non-ACD calls
NONACD*	REALTIME	DN	INTERVAL	Total number of non-ACD calls
NONACD	DAILY	TRKGRP	INTERVAL	Total number of non-ACD calls
NONACD	HALF HOUR	TRKGRP	INTERVAL	Total number of non-ACD calls
NONACD	REALTIME	TRKGRP	INTERVAL	Total number of non-ACD calls
NONACD	DAILY	TRUNK	INTERVAL	Total number of non-ACD calls
NONACD	HALF HOUR	TRUNK	INTERVAL	Total number of non-ACD calls
NONACD	REALTIME	TRUNK	INTERVAL	Total number of non-ACD calls
NONACD*	DAILY	VECTOR	INTERVAL	Total number of non-ACD calls
NONACD*	HALF HOUR	VECTOR	INTERVAL	Total number of non-ACD calls
NONACD*	REALTIME	VECTOR	INTERVAL	Total number of non-ACD calls
NUMACW	HALF HOUR	SPLIT	CALL	Total number of completed ACW sessions
NUMACW	REALTIME	SPLIT	CALL	Total number of completed ACW sessions
NUMRING**	REALTIME	AGENT	CALL	Number of split calls that rang at the agent's voice terminal.
NUMRING**	REALTIME	SPLIT	CALL	Number of split calls that rang at agent voice terminals.
NUMTALK	HALF HOUR	SPLIT	CALL	Total number of completed ACD calls
NUMTALK	REALTIME	SPLIT	CALL	Total number of completed ACD calls
OCW	REALTIME	SPLIT	INTERVAL	Oldest call currently waiting in queue
ONHOLD†	REALTIME	SPLIT	INTERVAL	Number of calls currently on hold
OUTCALLS	DAILY	TRKGRP	INTERVAL	Total number of outgoing calls
OUTCALLS	HALF HOUR	TRKGRP	INTERVAL	Total number of outgoing calls
OUTCALLS	REALTIME	TRKGRP	INTERVAL	Total number of outgoing calls
OUTCALLS	DAILY	TRUNK	INTERVAL	Total number of outgoing calls
OUTCALLS	HALF HOUR	TRUNK	INTERVAL	Total number of outgoing calls
OUTCALLS	REALTIME	TRUNK	INTERVAL	Total number of outgoing calls
OUTCOUNT	REALTIME	TRKGRP	INTERVAL	Number of trunks currently on outgoing calls
OUTFLOW*	DAILY	DN	INTERVAL	Total number of intraflowed outgoing calls
OUTFLOW*	HALF HOUR	DN	INTERVAL	Total number of intraflowed outgoing calls
OUTFLOW*	REALTIME	DN	INTERVAL	Total number of intraflowed outgoing calls

* Can be used only when 3B CMS Call Vectoring feature is active.
† Can be used only when the ''multiple call handling'' feature is active.
** Data appears only on a Generic 2 switch with the ring-state enabled.

Table A 1   3B CMS Database Items (Contd)

ITEM	DATABASE	FILE	CALL/ INTERVAL BASED	DESCRIPTION
OUTFLOW	DAILY	SPLIT	INTERVAL	Total number of intraflowed/ interflowed calls
OUTFLOW	HALF HOUR	SPLIT	INTERVAL	Total number of intraflowed/ interflowed calls
OUTFLOW	REALTIME	SPLIT	INTERVAL	Total number of intraflowed/ interflowed calls
OUTFLOW*	DAILY	VECTOR	INTERVAL	Total number of intraflowed outgoing calls
OUTFLOW*	HALF HOUR	VECTOR	INTERVAL	Total number of intraflowed outgoing calls
OUTFLOW*	REALTIME	VECTOR	INTERVAL	Total number of intraflowed outgoing calls
OUTFLOWTIME	REALTIME	SPLIT	CALL	Total time calls that were forwarded/ intraflowed from the split waited before they were forwarded/ intraflowed.
OUTTIME	DAILY	TRKGRP	INTERVAL	Total time on outgoing calls
OUTTIME	HALF HOUR	TRKGRP	INTERVAL	Total time on outgoing calls
OUTTIME	REALTIME	TRKGRP	INTERVAL	Total time on outgoing calls
OUTTIME	DAILY	TRUNK	INTERVAL	Total time on outgoing calls
OUTTIME	HALF HOUR	TRUNK	INTERVAL	Total time on outgoing calls
OUTTIME	REALTIME	TRUNK	INTERVAL	Total time on outgoing calls
OVERFLOWS	REALTIME	TRKGRP	INTERVAL	Total number of trunk group overflows
PRICALLS	DAILY	SPLIT	INTERVAL	Total number of priority calls
PRICALLS	HALF HOUR	SPLIT	INTERVAL	Total number of priority calls
PRICALLS	REALTIME	SPLIT	INTERVAL	Total number of priority calls
PRILEVEL*	REALTIME	TRUNK	INTERVAL	Priority level for vector calls (LOW, MED, HIGH, TOP). To enter PRILEVEL values as criteria for record selection, numerical values must be used in lieu of names. See Table A-22.
PRIORITY†	REALTIME	TRUNK	INTERVAL	Flag indicating call is a priority call (YES, NO)
QUALITY	DAILY	AGENT	INTERVAL	Flag indicating data is complete (OK, ***)
QUALITY	HALF HOUR	AGENT	INTERVAL	Flag indicating data is complete (OK, ***)
QUALITY*	DAILY	DN	INTERVAL	Flag indicating data is complete (OK, ***)
QUALITY*	HALF HOUR	DN	INTERVAL	Flag indicating data is complete (OK, ***)
QUALITY	DAILY	SPLIT	INTERVAL	Flag indicating data is complete (OK, ***)
QUALITY	HALF HOUR	SPLIT	INTERVAL	Flag indicating data is complete (OK, ***)
QUALITY	DAILY	TRKGRP	INTERVAL	Flag indicating data is complete (OK, ***)
QUALITY	HALF HOUR	TRKGRP	INTERVAL	Flag indicating data is complete (OK, ***)
QUALITY	DAILY	TRUNK	INTERVAL	Flag indicating data is complete (OK, ***)
QUALITY	HALF HOUR	TRUNK	INTERVAL	Flag indicating data is complete (OK, ***)
QUALITY*	DAILY	VECTOR	INTERVAL	Flag indicating data is complete (OK, ***)
QUALITY*	HALF HOUR	VECTOR	INTERVAL	Flag indicating data is complete (OK, ***)

* Can be used only when 3B CMS Call Vectoring feature is active.
 On Generic 3i, may also include calls that simultaneously queued to more than one split and were answered in another split.

Table A 1   3B CMS Database Items (Contd)

ITEM	DATABASE	FILE	CALL/INTERVAL BASED	DESCRIPTION
QUECALLS*	REALTIME	DN	INTERVAL	Number of calls currently in queue
QUECALLS	REALTIME	SPLIT	INTERVAL	Number of calls currently in queue
QUECALLS*	REALTIME	VECTOR	INTERVAL	Number of calls currently in queue
RINGABANDON**	REALTIME	AGENT	CALL	Number of ACD calls that abandoned while ringing at the agent's terminal.
RINGABANDON**	REALTIME	SPLIT	CALL	Number of calls to the split that abandoned while ringing at an agent's terminal.
RINGABNTIME**	REALTIME	AGENT	CALL	Total time abandoned calls spent ringing at the agent's terminal before abandoning.
RINGABNTIME**	REALTIME	SPLIT	CALL	Total time abandoned calls spent ringing at an agent's terminal before abandoning.
RINGANSWER**	REALTIME	AGENT	CALL	Number of ACD calls the agent answered.
RINGANSWER**	REALTIME	SPLIT	CALL	Number of ACD calls the split's agents answered.
RINGANSTIME**	REALTIME	AGENT	CALL	Total time ACD calls spent ringing before the agent answered.
RINGANSTIME**	REALTIME	SPLIT	CALL	Total time calls to the split spent ringing before an agent answered.
RINGASSOC**	REALTIME	TRUNK	INTERVAL	Extension at which call is ringing.
RINGCALLS**	REALTIME	AGENT	INTERVAL	Number of calls that rang at the agent's voice terminal.
RINGCALLS**	REALTIME	SPLIT	INTERVAL	Number of calls to the split that rang at an agent's voice terminal.
RINGCOUNT**	REALTIME	SPLIT	CALL	Number of agents currently in the ring-state.
RINGTIME**	REALTIME	AGENT	INTERVAL	Total time the agent spent in the ring-state.
RINGTIME**	REALTIME	SPLIT	INTERVAL	Total time the split's agents spent in the ring-state.
ROUTEDCALLS*	DAILY	VECTOR	INTERVAL	Total number of interflowed outgoing calls
ROUTEDCALLS*	HALF HOUR	VECTOR	INTERVAL	Total number of interflowed outgoing calls
ROUTEDCALLS*	REALTIME	VECTOR	INTERVAL	Total number of interflowed outgoing calls
ROUTETIME*	DAILY	VECTOR	INTERVAL	Total time before calls interflowed
ROUTETIME*	HALF HOUR	VECTOR	INTERVAL	Total time before calls interflowed
ROUTETIME*	REALTIME	VECTOR	INTERVAL	Total time before calls interflowed
SERIAL	DAILY	AGENT	INTERVAL	Unique serial number for a database record
SERIAL	HALF HOUR	AGENT	INTERVAL	Unique serial number for a database record

* Can be used only when 3B CMS Call Vectoring feature is active.
† Can be used only when 3BCMS Call Vectoring is not active.
** Data appears only on a Generic 2 switch with the ring-state enabled.

Table A 1   3B CMS Database Items (Contd)

ITEM	DATABASE	FILE	CALL/INTERVAL BASED	DESCRIPTION
SERIAL*	DAILY	DN	INTERVAL	Unique serial number for a database record
SERIAL*	HALF HOUR	DN	INTERVAL	Unique serial number for a database record
SERIAL	DAILY	SPLIT	INTERVAL	Unique serial number for a database record
SERIAL	HALF HOUR	SPLIT	INTERVAL	Unique serial number for a database record
SERIAL	DAILY	TRKGRP	INTERVAL	Unique serial number for a database record
SERIAL	HALF HOUR	TRKGRP	INTERVAL	Unique serial number for a database record
SERIAL	DAILY	TRUNK	INTERVAL	Unique serial number for a database record
SERIAL	HALF HOUR	TRUNK	INTERVAL	Unique serial number for a database record
SERIAL*	DAILY	VECTOR	INTERVAL	Unique serial number for a database record
SERIAL*	HALF HOUR	VECTOR	INTERVAL	Unique serial number for a database record
SLOT	DAILY	TRUNK	INTERVAL	The physical trunk slot location
SLOT	HALF HOUR	TRUNK	INTERVAL	The physical trunk slot location
SLOT	REALTIME	TRUNK	INTERVAL	The physical trunk slot location
SOFTFAIL	DAILY	TRKGRP	INTERVAL	Total number of software failures (incorrect trunk state transitions or link interruptions)
SOFTFAIL	HALF HOUR	TRKGRP	INTERVAL	Total number of software failures (incorrect trunk state transitions or link interruptions)
SOFTFAIL	REALTIME	TRKGRP	INTERVAL	Total number of software failures (incorrect trunk state transitions or link interruptions)
SOFTFAIL	DAILY	TRUNK	INTERVAL	Total number of software failures (incorrect trunk state transitions or link interruptions)
SOFTFAIL	HALF HOUR	TRUNK	INTERVAL	Total number of software failures (incorrect trunk state transitions or link interruptions)
SOFTFAIL	REALTIME	TRUNK	INTERVAL	Total number of software failures (incorrect trunk state transitions or link interruptions)
SPLIT	DAILY	AGENT	INTERVAL	Split number
SPLIT	HALF HOUR	AGENT	INTERVAL	Split number
SPLIT	REALTIME	AGENT	INTERVAL	Split number
SPLIT	DAILY	SPLIT	INTERVAL	Split number
SPLIT	HALF HOUR	SPLIT	INTERVAL	Split number
SPLIT	REALTIME	SPLIT	INTERVAL	Split number
SPLIT†	REALTIME	TRKGRP	INTERVAL	Split number
STAFCOUNT	REALTIME	SPLIT	INTERVAL	Number of agents currently staffed
STAFTIME	DAILY	AGENT	INTERVAL	Total time agent(s) were staffed
STAFTIME	HALF HOUR	AGENT	INTERVAL	Total time agent(s) were staffed
STAFTIME	REALTIME	AGENT	INTERVAL	Total time agent(s) were staffed
STAFTIME	DAILY	SPLIT	INTERVAL	Total time agent(s) were staffed

* Can be used only when 3B CMS Call Vectoring feature is active.
† Can be used only when 3B CMS Call Vectoring feature is not active.

Table A 1   3B CMS Database Items (Contd)

ITEM	DATABASE	FILE	CALL/ INTERVAL BASED	DESCRIPTION
STAFTIME	HALF HOUR	SPLIT	INTERVAL	Total time agent(s) were staffed
STAFTIME	REALTIME	SPLIT	INTERVAL	Total time agent(s) were staffed
STATE DATE	REALTIME	AGENT	INTERVAL	The date the current state was entered (MM/ DD/ YY)
STATE DATE	REALTIME	TRUNK	INTERVAL	The date the current state was entered (MM/ DD/ YY)
STROKE1	DAILY	AGENT	INTERVAL	Peg count of stroke 1 depressions
STROKE1	HALF HOUR	AGENT	INTERVAL	Peg count of stroke 1 depressions
STROKE1	REALTIME	AGENT	INTERVAL	Peg count of stroke 1 depressions
STROKE1	DAILY	SPLIT	INTERVAL	Peg count of stroke 1 depressions
STROKE1	HALF HOUR	SPLIT	INTERVAL	Peg count of stroke 1 depressions
STROKE1	REALTIME	SPLIT	INTERVAL	Peg count of stroke 1 depressions
STROKE2	DAILY	AGENT	INTERVAL	Peg count of stroke 2 depressions
STROKE2	HALF HOUR	AGENT	INTERVAL	Peg count of stroke 2 depressions
STROKE2	REALTIME	AGENT	INTERVAL	Peg count of stroke 2 depressions
STROKE2	DAILY	SPLIT	INTERVAL	Peg count of stroke 2 depressions
STROKE2	HALF HOUR	SPLIT	INTERVAL	Peg count of stroke 2 depressions
STROKE2	REALTIME	SPLIT	INTERVAL	Peg count of stroke 2 depressions
STROKE3	DAILY	AGENT	INTERVAL	Peg count of stroke 3 depressions
STROKE3	HALF HOUR	AGENT	INTERVAL	Peg count of stroke 3 depressions
STROKE3	REALTIME	AGENT	INTERVAL	Peg count of stroke 3 depressions
STROKE3	DAILY	SPLIT	INTERVAL	Peg count of stroke 3 depressions
STROKE3	HALF HOUR	SPLIT	INTERVAL	Peg count of stroke 3 depressions
STROKE3	REALTIME	SPLIT	INTERVAL	Peg count of stroke 3 depressions
STROKE4	DAILY	AGENT	INTERVAL	Peg count of stroke 4 depressions
STROKE4	HALF HOUR	AGENT	INTERVAL	Peg count of stroke 4 depressions
STROKE4	REALTIME	AGENT	INTERVAL	Peg count of stroke 4 depressions
STROKE4	DAILY	SPLIT	INTERVAL	Peg count of stroke 4 depressions
STROKE4	HALF HOUR	SPLIT	INTERVAL	Peg count of stroke 4 depressions
STROKE4	REALTIME	SPLIT	INTERVAL	Peg count of stroke 4 depressions
STROKE5	DAILY	AGENT	INTERVAL	Peg count of stroke 5 depressions
STROKE5	HALF HOUR	AGENT	INTERVAL	Peg count of stroke 5 depressions
STROKE5	REALTIME	AGENT	INTERVAL	Peg count of stroke 5 depressions
STROKE5	DAILY	SPLIT	INTERVAL	Peg count of stroke 5 depressions
STROKE5	HALF HOUR	SPLIT	INTERVAL	Peg count of stroke 5 depressions
STROKE5	REALTIME	SPLIT	INTERVAL	Peg count of stroke 5 depressions
STROKE6	DAILY	AGENT	INTERVAL	Peg count of stroke 6 depressions
STROKE6	HALF HOUR	AGENT	INTERVAL	Peg count of stroke 6 depressions
STROKE6	REALTIME	AGENT	INTERVAL	Peg count of stroke 6 depressions

Table A 1   3B CMS Database Items (Contd)

ITEM	DATABASE	FILE	CALL/ INTERVAL BASED	DESCRIPTION
STROKE6	DAILY	SPLIT	INTERVAL	Peg count of stroke 6 depressions
STROKE6	HALF HOUR	SPLIT	INTERVAL	Peg count of stroke 6 depressions
STROKE6	REALTIME	SPLIT	INTERVAL	Peg count of stroke 6 depressions
STROKE7	DAILY	AGENT	INTERVAL	Peg count of stroke 7 depressions
STROKE7	HALF HOUR	AGENT	INTERVAL	Peg count of stroke 7 depressions
STROKE7	REALTIME	AGENT	INTERVAL	Peg count of stroke 7 depressions
STROKE7	DAILY	SPLIT	INTERVAL	Peg count of stroke 7 depressions
STROKE7	HALF HOUR	SPLIT	INTERVAL	Peg count of stroke 7 depressions
STROKE7	REALTIME	SPLIT	INTERVAL	Peg count of stroke 7 depressions
STROKE8	DAILY	AGENT	INTERVAL	Peg count of stroke 8 depressions
STROKE8	HALF HOUR	AGENT	INTERVAL	Peg count of stroke 8 depressions
STROKE8	REALTIME	AGENT	INTERVAL	Peg count of stroke 8 depressions
STROKE8	DAILY	SPLIT	INTERVAL	Peg count of stroke 8 depressions
STROKE8	HALF HOUR	SPLIT	INTERVAL	Peg count of stroke 8 depressions
STROKE8	REALTIME	SPLIT	INTERVAL	Peg count of stroke 8 depressions
STROKE9	DAILY	AGENT	INTERVAL	Peg count of stroke 9 depressions
STROKE9	HALF HOUR	AGENT	INTERVAL	Peg count of stroke 9 depressions
STROKE9	REALTIME	AGENT	INTERVAL	Peg count of stroke 9 depressions
STROKE9	DAILY	SPLIT	INTERVAL	Peg count of stroke 9 depressions
STROKE9	HALF HOUR	SPLIT	INTERVAL	Peg count of stroke 9 depressions
STROKE9	REALTIME	SPLIT	INTERVAL	Peg count of stroke 9 depressions
SVCLVL	DAILY	SPLIT	INTERVAL	Call profile parameter - acceptable service level (seconds)
SVCLVL	HALF HOUR	SPLIT	INTERVAL	Call profile parameter - acceptable service level (seconds)
SVCLVL	REALTIME	SPLIT	INTERVAL	Call profile parameter - acceptable service level (seconds)
TIMEMARK	REALTIME	AGENT	INTERVAL	The time the current state was entered in military time format (HR:MN)
TIMEMARK	REALTIME	TRUNK	INTERVAL	The time the current state was entered in military time format (HR:MN)
TRAFFIC	DAILY	SPLIT	CALL	Number of calls answered within the service level
TRAFFIC	HALF HOUR	SPLIT	CALL	Number of calls answered within the service level
TRAFFIC	REALTIME	SPLIT	CALL	Number of calls answered within the service level
TRKGRP	DAILY	TRKGRP	INTERVAL	Trunk group number
TRKGRP	HALF HOUR	TRKGRP	INTERVAL	Trunk group number
TRKGRP	REALTIME	TRKGRP	INTERVAL	Trunk group number
TRKGRP	DAILY	TRUNK	INTERVAL	Trunk group number

Table A 1   3B CMS Database Items (Contd)

ITEM	DATABASE	FILE	CALL/INTERVAL BASED	DESCRIPTION
TRKGRP	HALF HOUR	TRUNK	INTERVAL	Trunk group number
TRKGRP	REALTIME	TRUNK	INTERVAL	Trunk group number
TRKSINUSE	REALTIME	TRKGRP	INTERVAL	Number of trunks currently on calls
TRK NDX	DAILY	TRUNK	INTERVAL	Internal trunk number from switch
TRK NDX	HALF HOUR	TRUNK	INTERVAL	Internal trunk number from switch
TRK NDX	REALTIME	TRUNK	INTERVAL	Internal trunk number from switch
TRUNKASSOC	REALTIME	AGENT	INTERVAL	Trunk association with an agent position
TSTATE	REALTIME	TRUNK	INTERVAL	The current trunk state (QUEUED, CONN, SIEZED, IDLE, FWRD, MBUSY, HOLD, INIT). To enter TSTATE values as criteria for record selection, numerical values must be used in lieu of names. See Table A-22.
VECCALL*	REALTIME	TRUNK	INTERVAL	Flag indicating call is a vector call (YES, NO)
VECSTARTDATE*	REALTIME	TRUNK	INTERVAL	The date the vector call started (MM/DD/YY)
VECSTARTTIME*	REALTIME	TRUNK	INTERVAL	Time the vector call started in military time format (HR:MN)
VECTIME*	DAILY	VECTOR	INTERVAL	Total time calls were in vector processing
VECTIME*	HALF HOUR	VECTOR	INTERVAL	Total time calls were in vector processing
VECTIME*	REALTIME	VECTOR	INTERVAL	Total time calls were in vector processing
VECTOR*	DAILY	DN	INTERVAL	Vector number
VECTOR*	HALF HOUR	DN	INTERVAL	Vector number
VECTOR*	REALTIME	DN	INTERVAL	Vector number
VECTOR*	REALTIME	TRUNK	INTERVAL	Vector number
VECTOR*	DAILY	VECTOR	INTERVAL	Vector number
VECTOR*	HALF HOUR	VECTOR	INTERVAL	Vector number
VECTOR*	REALTIME	VECTOR	INTERVAL	Vector number
WINDOW	DAILY	SPLIT	INTERVAL	Call profile parameter - interval size (seconds)
WINDOW	HALF HOUR	SPLIT	INTERVAL	Call profile parameter - interval size (seconds)
WINDOW	REALTIME	SPLIT	INTERVAL	Call profile parameter - interval size (seconds)

* Can be used only when 3B CMS Call Vectoring feature is active.

Database Items For Outbound Call Management

The database items listed in the following table are available only if your system uses the Outbound Call Management feature.

Table A 2   Database Items for OCM

ITEM	DATABASE	FILE	CALL/INTERVAL BASED	DESCRIPTION
COMPLETED	DAILY	TRKGRP	CALL	Total number of completed outgoing calls
COMPLETED	HALF HOUR	TRKGRP	CALL	Total number of completed outgoing calls
COMPLETED	REALTIME	TRKGRP	CALL	Total number of completed outgoing calls
COMPLETED	DAILY	TRUNK	CALL	Total number of completed outgoing calls
COMPLETED	HALF HOUR	TRUNK	CALL	Total number of completed outgoing calls
COMPLETED	REALTIME	TRUNK	CALL	Total number of completed outgoing calls
OCMCALLS	DAILY	TRKGRP	CALL	Total number of calls distributed by OCM
OCMCALLS	HALF HOUR	TRKGRP	CALL	Total number of calls distributed by OCM
OCMCALLS	REALTIME	TRKGRP	CALL	Total number of calls distributed by OCM
OCMCALLS	DAILY	TRUNK	CALL	Total number of calls distributed by OCM
OCMCALLS	HALF HOUR	TRUNK	CALL	Total number of calls distributed by OCM
OCMCALLS	REALTIME	TRUNK	CALL	Total number of calls distributed by OCM
OCMCOUNT	REALTIME	TRKGRP	CALL	Number of trunks currently on OCM calls
OCMTIME	DAILY	TRKGRP	CALL	Total time on calls distributed by OCM
OCMTIME	HALF HOUR	TRKGRP	CALL	Total time on calls distributed by OCM
OCMTIME	REALTIME	TRKGRP	CALL	Total time on calls distributed by OCM
OCMTIME	DAILY	TRUNK	CALL	Total time on calls distributed by OCM
OCMTIME	HALF HOUR	TRUNK	CALL	Total time on calls distributed by OCM
OCMTIME	REALTIME	TRUNK	CALL	Total time on calls distributed by OCM

Call Data Files and Database Items Cross-Reference

The tables in this section list database items by database and file. The tables also identify the type of data each database item contains and whether the database item is call-based or interval-based. (See Chapter 5 for an explanation of types of data base items.)

Real-Time Database

Table A 3   Database Items in the Current and Previous Agent Files

DATABASE ITEM	TYPE	CALL/ INTERVAL BASED
ACDCALLS	EVENT	INTERVAL
ACDTIME	TIME	INTERVAL
ACWINCALLS	EVENT	INTERVAL
ACWINTIME	TIME	INTERVAL
ACWOUTCALLS	EVENT	INTERVAL
ACWOUTTIME	TIME	INTERVAL
ACWTIME	TIME	INTERVAL
ASSISTS	EVENT	INTERVAL
ASTATE	STATUS	INTERVAL
AUXINCALLS	EVENT	INTERVAL
AUXINTIME	TIME	INTERVAL
AUXOUTCALLS	EVENT	INTERVAL
AUXOUTTIME	TIME	INTERVAL
AUXTIME	TIME	INTERVAL
CMODE	STATUS	INTERVAL
CUMRING	TIME	CALL
EVENT	STATUS	INTERVAL
EXTCALL	STATUS	INTERVAL
EXTCALLDATE	STATUS	INTERVAL
EXTCALLTIME	STATUS	INTERVAL
EXTENSION	IDENTIFIER	INTERVAL
GROUP	IDENTIFIER	INTERVAL
IDLETIME	TIME	INTERVAL
LOGDATE	STATUS	INTERVAL
LOGID	IDENTIFIER	INTERVAL
LOGMODE	STATUS	INTERVAL
LOGTIME	STATUS	INTERVAL

Table A 3   Database Items in the Current and Previous Agent Files (Contd)

DATABASE ITEM	TYPE	CALL/ INTERVAL BASED
NUMRING	EVENT	CALL
RINGABANDON	EVENT	CALL
RINGABNTIME	TIME	CALL
RINGANSWER	EVENT	CALL
RINGANSTIME	TIME	CALL
RINGCALLS	EVENT	INTERVAL
RINGTIME	TIME	INTERVAL
SPLIT	IDENTIFIER	INTERVAL
STAFTIME	TIME	INTERVAL
STATE DATE	STATUS	INTERVAL
STROKE1	EVENT	INTERVAL
STROKE2	EVENT	INTERVAL
STROKE3	EVENT	INTERVAL
STROKE4	EVENT	INTERVAL
STROKE5	EVENT	INTERVAL
STROKE6	EVENT	INTERVAL
STROKE7	EVENT	INTERVAL
STROKE8	EVENT	INTERVAL
STROKE9	EVENT	INTERVAL
TIMEMARK	STATUS	INTERVAL
TRUNKASSOC	IDENTIFIER	INTERVAL

Table A 4   Database Items in the Current and Previous VDN Files

DATABASE ITEM	TYPE	CALL/ INTERVAL BASED
ABANDONS	EVENT	CALL
ABANTIME	TIME	CALL
AGTIME	TIME	CALL
ANSDELAY	TIME	CALL
ANSWERED	EVENT	CALL
ATAGENT	STATUS	INTERVAL
CARRIED	EVENT	CALL
DNEXT	IDENTIFIER	INTERVAL
DNWAITTIME	TIME	CALL
FBUSYCALLS	EVENT	CALL
FBUSYTIME	TIME	CALL
FDISCCALLS	EVENT	CALL
FDISCTIME	TIME	CALL
FLOWTIME	TIME	CALL
INFLOW	EVENT	CALL
INPROGRESS	STATUS	INTERVAL
INVECTOR	STATUS	INTERVAL
NONACD	EVENT	CALL
OUTFLOW	EVENT	CALL
QUECALLS	STATUS	INTERVAL
VECTOR	IDENTIFIER	INTERVAL

Table A 5   **Database Items in the Current and Previous Split Files**

DATABASE ITEM	TYPE	CALL/ INTERVAL BASED
ABANDON1	EVENT	CALL
ABANDON10	EVENT	CALL
ABANDON2	EVENT	CALL
ABANDON3	EVENT	CALL
ABANDON4	EVENT	CALL
ABANDON5	EVENT	CALL
ABANDON6	EVENT	CALL
ABANDON7	EVENT	CALL
ABANDON8	EVENT	CALL
ABANDON9	EVENT	CALL
ABANDONS	EVENT	CALL
ABANTIME	TIME	CALL
ACDCALLS	EVENT	INTERVAL
ACDCOUNT	STATUS	INTERVAL
ACDTIME	TIME	INTERVAL
ACWCOUNT	STATUS	INTERVAL
ACWINCALLS	EVENT	INTERVAL
ACWINCOUNT	STATUS	INTERVAL
ACWINTIME	TIME	INTERVAL
ACWOUTCALLS	EVENT	INTERVAL
ACWOUTCOUNT	STATUS	INTERVAL
ACWOUTTIME	TIME	INTERVAL
ACWTIME	TIME	INTERVAL
AGENTS	STATUS	INTERVAL
ANSDELAY	TIME	CALL
ANSWERED	EVENT	CALL
ASSISTS	EVENT	INTERVAL
AUXCOUNT	STATUS	INTERVAL
AUXINCALLS	EVENT	INTERVAL
AUXINCOUNT	STATUS	INTERVAL
AUXINTIME	TIME	INTERVAL
AUXOUTCALLS	EVENT	INTERVAL
AUXOUTCOUNT	STATUS	INTERVAL
AUXOUTTIME	TIME	INTERVAL
AUXTIME	TIME	INTERVAL
CALLPROFCHG	STATUS	INTERVAL
CALLS1	EVENT	CALL
CALLS10	EVENT	CALL
CALLS2	EVENT	CALL
CALLS3	EVENT	CALL
CALLS4	EVENT	CALL
CALLS5	EVENT	CALL

Table A 5   **Database Items in the Current and Previous Split Files (Contd)**

DATABASE ITEM	TYPE	CALL/ INTERVAL BASED
CALLS6	EVENT	CALL
CALLS7	EVENT	CALL
CALLS8	EVENT	CALL
CALLS9	EVENT	CALL
CUMACW	TIME	CALL
CUMRING	TIME	CALL
CUMTALK	TIME	CALL
HOLDABANS	EVENT	CALL
HOLDABANTIME	TIME	CALL
HOLDS	EVENT	CALL
HOLDTIME	TIME	CALL
IDLETIME	TIME	INTERVAL
INFLOW	EVENT	INTERVAL
INPOOL	STATUS	INTERVAL
MAXAGENTS	EVENT	INTERVAL
MAXCALLSWAIT	EVENT	INTERVAL
MAXOLDCW	TIME	CALL
NUMACW	EVENT	CALL
NUMRING	EVENT	CALL
NUMTALK	EVENT	CALL
OCW	STATUS	INTERVAL
ONHOLD	STATUS	INTERVAL
OUTFLOW	EVENT	INTERVAL
PRICALLS	EVENT	INTERVAL
QUECALLS	STATUS	INTERVAL
RINGABANDON	EVENT	CALL
RINGABNTIME	TIME	CALL
RINGANSWER	EVENT	CALL
RINGANSTIME	TIME	CALL
RINGCALLS	EVENT	INTERVAL
RINGCOUNT	STATUS	INTERVAL
RINGTIME	TIME	INTERVAL
SPLIT	IDENTIFIER	INTERVAL
STAFCOUNT	STATUS	INTERVAL
STAFTIME	TIME	INTERVAL
STROKE1	EVENT	INTERVAL
STROKE2	EVENT	INTERVAL
STROKE3	EVENT	INTERVAL
STROKE4	EVENT	INTERVAL
STROKE5	EVENT	INTERVAL
STROKE6	EVENT	INTERVAL
STROKE7	EVENT	INTERVAL
STROKE8	EVENT	INTERVAL
STROKE9	EVENT	INTERVAL
SVCLVL	STATUS	INTERVAL
TRAFFIC	EVENT	CALL
WINDOW	STATUS	INTERVAL

Table A 6   Database Items in the Current and Previous Trunk Group Files

DATABASE ITEM	TYPE	CALL/ INTERVAL BASED
ABANDONS	EVENT	CALL
ALLINUSE	TIME	INTERVAL
ALLTRKSBUSY	STATUS	INTERVAL
ANSWERED	EVENT	CALL
DNEXT	IDENTIFIER	INTERVAL
FAILURES	EVENT	CALL
GROUPSIZE	STATUS	INTERVAL
INCALLS	EVENT	INTERVAL
INCOUNT	STATUS	INTERVAL
INTIME	TIME	INTERVAL
MBUSYCOUNT	STATUS	INTERVAL
MBUSYTIME	TIME	INTERVAL
NONACD	EVENT	CALL
OUTCALLS	EVENT	INTERVAL
OUTCOUNT	STATUS	INTERVAL
OUTTIME	TIME	INTERVAL
OVERFLOWS	EVENT	INTERVAL
SOFTFAIL	EVENT	CALL
SPLIT	IDENTIFIER	INTERVAL
TRKGRP	IDENTIFIER	INTERVAL
TRKSINUSE	STATUS	INTERVAL

Table A 7   **Database Items in the Current and Previous Trunk Files**

DATABASE ITEM	TYPE	CALL/ INTERVAL BASED
ABANDONS	EVENT	CALL
ANSWERED	EVENT	CALL
ASSOCIATION	STATUS	INTERVAL
CABINET	STATUS	INTERVAL
CALLATAGENT	STATUS	INTERVAL
CARRIER	STATUS	INTERVAL
CIRCUIT	STATUS	INTERVAL
DIRECTION	STATUS	INTERVAL
DNCALL	STATUS	INTERVAL
DNEXT	IDENTIFIER	INTERVAL
DNSTARTDATE	STATUS	INTERVAL
DNSTARTTIME	STATUS	INTERVAL
EQLOCATION	STATUS	INTERVAL
FAILURES	EVENT	CALL
INCALLS	EVENT	INTERVAL
INTIME	TIME	INTERVAL
MBUSYTIME	TIME	INTERVAL
MODULE	STATUS	INTERVAL
NONACD	EVENT	CALL
OUTCALLS	EVENT	INTERVAL
OUTTIME	TIME	INTERVAL
PRILEVEL	STATUS	INTERVAL
PRIORITY	STATUS	INTERVAL
RINGASSOC	IDENTIFIER	INTERVAL
SLOT	STATUS	INTERVAL
SOFTFAIL	EVENT	CALL
STATE DATE	STATUS	INTERVAL
TIMEMARK	STATUS	INTERVAL
TRKGRP	IDENTIFIER	INTERVAL
TRK NDX	IDENTIFIER	INTERVAL
TSTATE	STATUS	INTERVAL
VECCALL	STATUS	INTERVAL
VECSTARTDATE	STATUS	INTERVAL
VECSTARTTIME	STATUS	INTERVAL
VECTOR	IDENTIFIER	INTERVAL

Table A 8   **Database Items in the Current and Previous Vector Files**

DATABASE ITEM	TYPE	CALL/ INTERVAL BASED
ABANDONS	EVENT	CALL
ABANTIME	TIME	CALL
ANSBACK	EVENT	CALL
ANSDELAY	TIME	CALL
ANSMAIN	EVENT	CALL
CARRIED	EVENT	CALL
DNS	STATUS	INTERVAL
FBUSYCALLS	EVENT	CALL
FBUSYTIME	TIME	CALL
FDISCCALLS	EVENT	CALL
FDISCTIME	TIME	CALL
FLOWTIME	TIME	CALL
INFLOW	EVENT	CALL
INPROGRESS	STATUS	INTERVAL
NONACD	EVENT	CALL
OUTFLOW	EVENT	CALL
QUECALLS	STATUS	INTERVAL
ROUTEDCALLS	EVENT	CALL
ROUTETIME	TIME	CALL
VECTIME	TIME	CALL
VECTOR	IDENTIFIER	INTERVAL

Historical Database

Table A 9   Database Items in the Half-Hour Agent File

DATABASE ITEM	TYPE	CALL/ INTERVAL BASED
ACDCALLS	EVENT	INTERVAL
ACDTIME	TIME	INTERVAL
ACWINCALLS	EVENT	INTERVAL
ACWINTIME	TIME	INTERVAL
ACWOUTCALLS	EVENT	INTERVAL
ACWOUTTIME	TIME	INTERVAL
ACWTIME	TIME	INTERVAL
AGHOUR	STATUS	INTERVAL
AGMINUTE	STATUS	INTERVAL
ASSISTS	EVENT	INTERVAL
AUXINCALLS	EVENT	INTERVAL
AUXINTIME	TIME	INTERVAL
AUXOUTCALLS	EVENT	INTERVAL
AUXOUTTIME	TIME	INTERVAL
AUXTIME	TIME	INTERVAL
CMODE	STATUS	INTERVAL
EXTENSION	IDENTIFIER	INTERVAL
GROUP	IDENTIFIER	INTERVAL
IDLETIME	TIME	INTERVAL
INTERVAL	STATUS	INTERVAL
JDATE	STATUS	INTERVAL
LOGID	IDENTIFIER	INTERVAL
LOGMODE	STATUS	INTERVAL
QUALITY	STATUS	INTERVAL
SERIAL	STATUS	INTERVAL
SPLIT	IDENTIFIER	INTERVAL
STAFTIME	TIME	INTERVAL
STROKE1	EVENT	INTERVAL
STROKE2	EVENT	INTERVAL
STROKE3	EVENT	INTERVAL
STROKE4	EVENT	INTERVAL
STROKE5	EVENT	INTERVAL
STROKE6	EVENT	INTERVAL
STROKE7	EVENT	INTERVAL
STROKE8	EVENT	INTERVAL
STROKE9	EVENT	INTERVAL

Call Data Files and Database Items Cross-Reference

Table A 10   Database Items in the Half-Hour VDN File

DATABASE ITEM	TYPE	CALL/ INTERVAL BASED
ABANDONS	EVENT	CALL
ABANTIME	TIME	CALL
AGTIME	TIME	CALL
ANSDELAY	TIME	CALL
ANSWERED	EVENT	CALL
CARRIED	EVENT	CALL
DNEXT	IDENTIFIER	INTERVAL
DNWAITTIME	TIME	CALL
FBUSYCALLS	EVENT	CALL
FBUSYTIME	TIME	CALL
FDISCCALLS	EVENT	CALL
FDISCTIME	TIME	CALL
FLOWTIME	TIME	CALL
INFLOW	EVENT	CALL
INTERVAL	STATUS	INTERVAL
JDATE	STATUS	INTERVAL
NONACD	EVENT	CALL
OUTFLOW	EVENT	CALL
QUALITY	STATUS	INTERVAL
SERIAL	STATUS	INTERVAL
VECTOR	IDENTIFIER	INTERVAL

Table A 11   Database Items in the Half-Hour Split File

DATABASE ITEM	TYPE	CALL/ INTERVAL BASED
ABANDON1	EVENT	CALL
ABANDON10	EVENT	CALL
ABANDON2	EVENT	CALL
ABANDON3	EVENT	CALL
ABANDON4	EVENT	CALL
ABANDON5	EVENT	CALL
ABANDON6	EVENT	CALL
ABANDON7	EVENT	CALL
ABANDON8	EVENT	CALL
ABANDON9	EVENT	CALL
ABANDONS	EVENT	CALL
ABANTIME	TIME	CALL
ACDCALLS	EVENT	INTERVAL
ACDTIME	TIME	INTERVAL
ACWINCALLS	EVENT	INTERVAL
ACWINTIME	TIME	INTERVAL
ACWOUTCALLS	EVENT	INTERVAL
ACWOUTTIME	TIME	INTERVAL
ACWTIME	TIME	INTERVAL
ANSDELAY	TIME	CALL
ANSWERED	EVENT	CALL
ASSISTS	EVENT	INTERVAL
AUXINCALLS	EVENT	INTERVAL
AUXINTIME	TIME	INTERVAL
AUXOUTCALLS	EVENT	INTERVAL
AUXOUTTIME	TIME	INTERVAL
AUXTIME	TIME	INTERVAL
CALLPROFCHG	STATUS	INTERVAL
CALLS1	EVENT	CALL
CALLS10	EVENT	CALL
CALLS2	EVENT	CALL
CALLS3	EVENT	CALL
CALLS4	EVENT	CALL
CALLS5	EVENT	CALL
CALLS6	EVENT	CALL
CALLS7	EVENT	CALL
CALLS8	EVENT	CALL
CALLS9	EVENT	CALL

Table A 11   Database Items in the Half-Hour Split File (Contd)

DATABASE ITEM	TYPE	CALL/ INTERVAL BASED
CUMACW	TIME	CALL
CUMTALK	TIME	CALL
HOLDABANS	EVENT	CALL
HOLDABANTIME	TIME	CALL
HOLDS	EVENT	CALL
HOLDTIME	TIME	CALL
IDLETIME	TIME	INTERVAL
INFLOW	EVENT	INTERVAL
INTERVAL	STATUS	INTERVAL
JDATE	STATUS	INTERVAL
MAXAGENTS	EVENT	INTERVAL
MAXCALLSWAIT	EVENT	CALL
MAXOLDCW	TIME	CALL
NUMACW	EVENT	CALL
NUMTALK	EVENT	CALL
OUTFLOW	EVENT	INTERVAL
PRICALLS	EVENT	INTERVAL
QUALITY	STATUS	INTERVAL
SERIAL	STATUS	INTERVAL
SPLIT	IDENTIFIER	INTERVAL
STAFTIME	TIME	INTERVAL
STROKE1	EVENT	INTERVAL
STROKE2	EVENT	INTERVAL
STROKE3	EVENT	INTERVAL
STROKE4	EVENT	INTERVAL
STROKE5	EVENT	INTERVAL
STROKE6	EVENT	INTERVAL
STROKE7	EVENT	INTERVAL
STROKE8	EVENT	INTERVAL
STROKE9	EVENT	INTERVAL
SVCLVL	STATUS	INTERVAL
TRAFFIC	EVENT	INTERVAL
WINDOW	STATUS	INTERVAL

Table A 12   Database Items in the Half-Hour Trunk Group File

DATABASE ITEM	TYPE	CALL/ INTERVAL BASED
ABANDONS	EVENT	CALL
ALLINUSE	TIME	INTERVAL
ANSWERED	EVENT	CALL
FAILURES	EVENT	CALL
GROUPSIZE	STATUS	INTERVAL
INCALLS	EVENT	INTERVAL
INTERVAL	STATUS	INTERVAL
INTIME	TIME	INTERVAL
JDATE	STATUS	INTERVAL
MBUSYTIME	TIME	INTERVAL
NONACD	EVENT	CALL
OUTCALLS	EVENT	INTERVAL
OUTTIME	TIME	INTERVAL
QUALITY	STATUS	INTERVAL
SERIAL	STATUS	INTERVAL
SOFTFAIL	EVENT	CALL
TRKGRP	IDENTIFIER	INTERVAL

Table A 13   Database Items in the Half-Hour Trunk File

DATABASE ITEM	TYPE	CALL/ INTERVAL BASED
ABANDONS	EVENT	CALL
ANSWERED	EVENT	CALL
CABINET	STATUS	INTERVAL
CARRIER	STATUS	INTERVAL
CIRCUIT	STATUS	INTERVAL
FAILURES	EVENT	CALL
INCALLS	EVENT	INTERVAL
INTERVAL	STATUS	INTERVAL
INTIME	TIME	INTERVAL
JDATE	STATUS	INTERVAL
MBUSYTIME	TIME	INTERVAL
MODULE	STATUS	INTERVAL
NONACD	EVENT	CALL
OUTCALLS	EVENT	INTERVAL
OUTTIME	TIME	INTERVAL
QUALITY	STATUS	INTERVAL
SERIAL	STATUS	INTERVAL
SLOT	STATUS	INTERVAL
SOFTFAIL	EVENT	CALL
TRKGRP	IDENTIFIER	INTERVAL
TRK NDX	IDENTIFIER	INTERVAL

Table A 14   Database Items in the Half-Hour Vector File

DATABASE ITEM	TYPE	CALL/ INTERVAL BASED
ABANDONS	EVENT	CALL
ABANTIME	TIME	CALL
ANSBACK	EVENT	CALL
ANSDELAY	TIME	CALL
ANSMAIN	EVENT	CALL
CARRIED	EVENT	CALL
FBUSYCALLS	EVENT	CALL
FBUSYTIME	TIME	CALL
FDISCCALLS	EVENT	CALL
FDISCTIME	TIME	CALL
FLOWTIME	TIME	CALL
INFLOW	EVENT	CALL
INTERVAL	STATUS	INTERVAL
JDATE	STATUS	INTERVAL
NONACD	EVENT	CALL
OUTFLOW	EVENT	CALL
QUALITY	STATUS	INTERVAL
ROUTEDCALLS	EVENT	CALL
ROUTETIME	TIME	CALL
SERIAL	STATUS	INTERVAL
VECTIME	TIME	CALL
VECTOR	IDENTIFIER	INTERVAL

Table A 15   **Database Items in the Daily Agent File**

DATABASE ITEM	TYPE	CALL/ INTERVAL BASED
ACDCALLS	EVENT	INTERVAL
ACDTIME	TIME	INTERVAL
ACWINCALLS	EVENT	INTERVAL
ACWINTIME	TIME	INTERVAL
ACWOUTCALLS	EVENT	INTERVAL
ACWOUTTIME	TIME	INTERVAL
ACWTIME	TIME	INTERVAL
ASSISTS	EVENT	INTERVAL
AUXINCALLS	EVENT	INTERVAL
AUXINTIME	TIME	INTERVAL
AUXOUTCALLS	EVENT	INTERVAL
AUXOUTTIME	TIME	INTERVAL
AUXTIME	TIME	INTERVAL
EXTENSION	IDENTIFIER	INTERVAL
GROUP	IDENTIFIER	INTERVAL
IDLETIME	TIME	INTERVAL
JDATE	STATUS	INTERVAL
LOGID	IDENTIFIER	INTERVAL
QUALITY	STATUS	INTERVAL
SERIAL	STATUS	INTERVAL
SPLIT	IDENTIFIER	INTERVAL
STAFTIME	TIME	INTERVAL
STROKE1	EVENT	INTERVAL
STROKE2	EVENT	INTERVAL
STROKE3	EVENT	INTERVAL
STROKE4	EVENT	INTERVAL
STROKE5	EVENT	INTERVAL
STROKE6	EVENT	INTERVAL
STROKE7	EVENT	INTERVAL
STROKE8	EVENT	INTERVAL
STROKE9	EVENT	INTERVAL

Table A 16   Database Items in the Daily VDN File

DATABASE ITEM	TYPE	CALL/ INTERVAL BASED
ABANDONS	EVENT	CALL
ABANTIME	TIME	CALL
AGTIME	TIME	CALL
ANSDELAY	TIME	CALL
ANSWERED	EVENT	CALL
CARRIED	EVENT	CALL
DNEXT	IDENTIFIER	INTERVAL
DNWAITTIME	TIME	CALL
FBUSYCALLS	EVENT	CALL
FBUSYTIME	TIME	CALL
FDISCCALLS	EVENT	CALL
FDISCTIME	TIME	CALL
FLOWTIME	TIME	CALL
INFLOW	EVENT	CALL
JDATE	STATUS	INTERVAL
NONACD	EVENT	CALL
OUTFLOW	EVENT	CALL
QUALITY	STATUS	INTERVAL
SERIAL	STATUS	INTERVAL
VECTOR	IDENTIFIER	INTERVAL

Table A 17   Database Items in the Daily Split File

DATABASE ITEM	TYPE	CALL/ INTERVAL BASED
ABANDON1	EVENT	CALL
ABANDON10	EVENT	CALL
ABANDON2	EVENT	CALL
ABANDON3	EVENT	CALL
ABANDON4	EVENT	CALL
ABANDON5	EVENT	CALL
ABANDON6	EVENT	CALL
ABANDON7	EVENT	CALL
ABANDON8	EVENT	CALL
ABANDON9	EVENT	CALL
ABANDONS	EVENT	CALL
ABANTIME	TIME	CALL
ACDCALLS	EVENT	INTERVAL
ACDTIME	TIME	INTERVAL
ACWINCALLS	EVENT	INTERVAL
ACWINTIME	TIME	INTERVAL
ACWOUTCALLS	EVENT	INTERVAL
ACWOUTTIME	TIME	INTERVAL
ACWTIME	TIME	INTERVAL
ANSDELAY	TIME	CALL
ANSWERED	EVENT	CALL
ASSISTS	EVENT	INTERVAL
AUXINCALLS	EVENT	INTERVAL
AUXINTIME	TIME	INTERVAL
AUXOUTCALLS	EVENT	INTERVAL
AUXOUTTIME	TIME	INTERVAL
AUXTIME	TIME	INTERVAL
CALLPROFCHG	STATUS	INTERVAL
CALLS1	EVENT	CALL
CALLS10	EVENT	CALL
CALLS2	EVENT	CALL
CALLS3	EVENT	CALL
CALLS4	EVENT	CALL
CALLS5	EVENT	CALL
CALLS6	EVENT	CALL
CALLS7	EVENT	CALL
CALLS8	EVENT	CALL
CALLS9	EVENT	CALL

Table A 17   Database Items in the Daily Split File (Contd)

DATABASE ITEM	TYPE	CALL/ INTERVAL BASED
HOLDABANS	EVENT	CALL
HOLDABANTIME	TIME	CALL
HOLDS	EVENT	CALL
HOLDTIME	TIME	CALL
IDLETIME	TIME	INTERVAL
INFLOW	EVENT	INTERVAL
JDATE	STATUS	INTERVAL
MAXAGENTS	EVENT	INTERVAL
MAXCALLSWAIT	EVENT	INTERVAL
MAXOLDCW	TIME	CALL
OUTFLOW	EVENT	INTERVAL
PRICALLS	EVENT	INTERVAL
QUALITY	STATUS	INTERVAL
SERIAL	STATUS	INTERVAL
SPLIT	IDENTIFIER	INTERVAL
STAFTIME	TIME	INTERVAL
STROKE1	EVENT	INTERVAL
STROKE2	EVENT	INTERVAL
STROKE3	EVENT	INTERVAL
STROKE4	EVENT	INTERVAL
STROKE5	EVENT	INTERVAL
STROKE6	EVENT	INTERVAL
STROKE7	EVENT	INTERVAL
STROKE8	EVENT	INTERVAL
STROKE9	EVENT	INTERVAL
SVCLVL	STATUS	INTERVAL
TRAFFIC	EVENT	INTERVAL
WINDOW	STATUS	INTERVAL

Table A 18 **Database Items in the Daily Trunk Group File**

DATABASE ITEM	TYPE	CALL/ INTERVAL BASED
ABANDONS	EVENT	CALL
ALLINUSE	TIME	INTERVAL
ANSWERED	EVENT	CALL
BABANDONS	EVENT	CALL
BALLINUSE	TIME	INTERVAL
BFAILURES	EVENT	CALL
BHANDLEDIN	EVENT	INTERVAL
BINCALLS	EVENT	INTERVAL
BINTIME	TIME	INTERVAL
BMBUSYTIME	TIME	INTERVAL
BNONACD	EVENT	CALL
BOUTCALLS	EVENT	INTERVAL
BOUTTIME	TIME	INTERVAL
BSOFTFAILS	EVENT	CALL
BUSYHOUR	STATUS	INTERVAL
FAILURES	EVENT	CALL
GROUPSIZE	STATUS	INTERVAL
INCALLS	EVENT	INTERVAL
INTIME	TIME	INTERVAL
JDATE	STATUS	INTERVAL
MBUSYTIME	TIME	INTERVAL
NONACD	EVENT	CALL
OUTCALLS	EVENT	INTERVAL
OUTTIME	TIME	INTERVAL
QUALITY	STATUS	INTERVAL
SERIAL	STATUS	INTERVAL
SOFTFAIL	EVENT	CALL
TRKGRP	IDENTIFIER	INTERVAL

Table A 19   Database Items in the Daily Trunk File

DATABASE ITEM	TYPE	CALL/ INTERVAL BASED
ABANDONS	EVENT	CALL
ANSWERED	EVENT	CALL
CABINET	STATUS	INTERVAL
CARRIER	STATUS	INTERVAL
CIRCUIT	STATUS	INTERVAL
FAILURES	EVENT	CALL
INCALLS	EVENT	INTERVAL
INTIME	TIME	INTERVAL
JDATE	STATUS	INTERVAL
MBUSYTIME	TIME	INTERVAL
MODULE	STATUS	INTERVAL
NONACD	EVENT	CALL
OUTCALLS	EVENT	INTERVAL
OUTTIME	TIME	INTERVAL
QUALITY	STATUS	INTERVAL
SERIAL	STATUS	INTERVAL
SLOT	STATUS	INTERVAL
SOFTFAIL	EVENT	CALL
TRKGRP	IDENTIFIER	INTERVAL
TRK NDX	IDENTIFIER	INTERVAL

Table A 20   Database Items in the Daily Vector File

DATABASE ITEM	TYPE	CALL/ INTERVAL BASED
ABANDONS	EVENT	CALL
ABANTIME	TIME	CALL
ANSBACK	EVENT	CALL
ANSDELAY	TIME	CALL
ANSMAIN	EVENT	CALL
CARRIED	EVENT	CALL
FBUSYCALLS	EVENT	CALL
FBUSYTIME	TIME	CALL
FDISCCALLS	EVENT	CALL
FDISCTIME	TIME	CALL
FLOWTIME	TIME	CALL
INFLOW	EVENT	CALL
JDATE	STATUS	INTERVAL
NONACD	EVENT	CALL
OUTFLOW	EVENT	CALL
QUALITY	STATUS	INTERVAL
ROUTEDCALLS	EVENT	CALL
ROUTETIME	TIME	CALL
SERIAL	STATUS	INTERVAL
VECTIME	TIME	CALL
VECTOR	IDENTIFIER	INTERVAL

CMS Calculations and Formulas

The following table lists every standard calculation and the associated formula used by CMS. Do not change or delete standard calculations because you may invalidate CMS reports. Standard calculations are written in all capital letters. Therefore, if you decide to create other calculations for use in custom reports, identify them with names in lower-case letters so you can differentiate your calculations from standard calculations.

Table A 21   Calculation and Formula Cross-Reference

CALCULATION	FORMULA	DESCRIPTION
AGENT CALL OUT	ACWOUTCOUNT+AUXOUTCOUNT	Number of agents on outgoing calls
AUX WORK TIME	AUXTIME-AUXOUTTIME-AUXINTIME	Time in auxiliary work
AVG ABANDON TIME	ABANTIME/ABANDONS	Average abandon time
AVG ABANDON TIME SUM	SUM(ABANTIME)/SUM(ABANDONS)	Average abandon time summary
AVG ACD TALK TIME	ACDTIME/ACDCALLS	Average talk time for ACD calls
AVG ACD TALK TIME HH	CUMTALK/NUMTALK	Average talk time for completed ACD calls
AVG ACD TALK TIM SUM	SUM(ACDTIME)/SUM(ACDCALLS)	Average talk time for ACD calls summary
AVG ACD TT HH SUM	SUM(CUMTALK)/SUM(NUMTALK)	Average talk time for completed ACD calls summary
AVG ACW TIME	(ACWTIME-ACWOUTTIME-ACWINTIME)/ACDCALLS	Average after call work time
AVG ACW TIME SUM	SUM(ACWTIME-ACWOUTTIME-ACWINTIME)/SUM(ACDCALLS)	Average after call work time summary
AVG ANSWER SPEED	ANSDELAY/ANSWERED	Average speed of answer
AVG ANSWER SPEED SUM	SUM(ANSDELAY)/SUM(ANSWERED)	Average speed of answer summary
AVG COMP ACW TIME	CUMACW/NUMACW	Average time spent in completed after call work sessions
AVG COM TALK TIME	CUMTALK/NUMTALK	Average of time on completed ACD calls
AVG HOLD TIME IN	INTIME/INCALLS	Average trunk usage time on incoming calls
AVG HOLD TIME IN SUM	SUM(INTIME)/SUM(INCALLS)	Average trunk usage time on incoming calls summary
AVG HOLD TIME OUT	OUTTIME/OUTCALLS	Average trunk usage time on outgoing calls
AVG HOLD TIM OUT SUM	SUM(OUTTIME)/SUM(OUTCALLS)	Average trunk usage time on outgoing calls summary

Table A 21   Calculation and Formula Cross-Reference (Contd)

CALCULATION	FORMULA	DESCRIPTION
AVG HUNTABN TIME*	(ABANTIME-RINGABNTIME)/ (ABANDONS-RINGABANDON)	Average time calls waited in a split queue before ringing an agent's voice terminal.
AVG HUNTANS TIME*	(ANSDELAY/ ANSWERED)-(RINGANSTIME/ RINGANSWER)	Average time calls waited in a split queue before an agent answered.
AVG INIT RING TIME*	RINGTIME/ RINGCALLS	Average time agents spent in the ring-state per call ringing the agent voice terminals (interval-based).
AVG RINGABN TIME*	RINGABNTIME/ RINGABANDON	Average ring time for calls that abandoned while ringing at the agent's voice terminal.
AVG RINGANS TIME*	RINGANSTIME/ RINGANSWER	Average ring time for ACD calls that rang at the agent's voice terminal.
AVG TALK TIME IN	(ACWINTIME+ AUXINTIME)/ (ACWINCALLS+ AUXINCALLS)	Average talk time on ACW and AUX work incoming calls
AVG TALK TIME IN SUM	SUM(ACWINTIME+ AUXINTIME)/ SUM (ACWINCALLS+ AUXINCALLS)	Average talk time on ACW and AUX work incoming calls summary
AVG TALK TIME OUT	(ACWOUTTIME+ AUXOUTTIME)/ (ACWOUTCALLS+ AUXOUTCALLS)	Average talk time on ACW and AUX work outgoing calls
AVG TALK TIM OUT SUM	SUM(ACWOUTTIME+ AUXOUTTIME)/ SUM (ACWOUTCALLS+ AUXOUTCALLS)	Average talk time on ACW and AUX work outgoing calls summary
AVG TERM RING TIME*	CUMRING/ NUMRING	Average time agents spent in the ring-state per call ringing agent voice terminals (call-based).
AVG WORK TIME	(ACDTIME+ ACWTIME-ACWOUTTIME-ACWINTIME)/ ACDCALLS	Average work time
AVG WORK TIME SUM	SUM(ACDTIME+ ACWTIME-ACWOUTTIME-ACWINTIME)/ SUM(ACDCALLS)	Average work time summary
CALLS OFFERED	ANSWERED+ ABANDONS+ OUTFLOW	Total calls offered to a split
DNTIME	DNWAITTIME+ AGTIME	Total VDN call time
EXT CALL IN	ACWINCALLS+ AUXINCALLS	Number of incoming extension calls
FULLTIME AGENT	STAFTIME/ 1800	Average number of agent positions staffed during half hour
FULL AG NUM CALL	1800*(ACDCALLS/ STAFTIME)	Average number of calls handled by staffed agents during half hour
HR STAFF TIME	STAFTIME/ 3600	Staffed time (in hours)

* Data appears only on a Generic 2 switch with ring-state enabled.

Table A 21 Calculation and Formula Cross-Reference (Contd)

CALCULATION	FORMULA	DESCRIPTION
HUNTABANDON*	ABANDONS-RINGABANDON	Total number of calls that abandoned while in the split queue (**before** ringing an agent voice terminal).
HUNTANSTIME*	ANSDELAY-RINGANSTIME	Total time answered ACD calls waited in the split queue before ringing an agent's voice terminal.
INCOMING CCS	INTIME/ 100	Incoming CCS
MIN STAFF TIME	STAFTIME/ 60	Staffed time (in minutes)
NUM CALL IN	ACDCALLS/ MAXAGENTS	Number of incoming calls
NUM CALL OUT1	1800*((AUXOUTCALLS+ ACWOUTCALLS)/ (STAFTIME-AUXTIME))	Average number of outgoing calls made by staffed agents
NUM CALL OUT2	ACWOUTCALLS+ AUXOUTCALLS	Number of outgoing calls
OUTGOING CCS	OUTTIME/ 100	Outgoing CCS
PERCENT ACD TIME	100*((ACDTIME+ ACWTIME)/ STAFTIME)	Percent of time on ACD call and in ACW
PERCENT ACD TIME SUM	100*(SUM(ACDTIME+ ACWTIME)/ SUM(STAFTIME))	Percent of time on ACD and in ACW summary
PERCENT AUX WORK	100*(AUXTIME/ STAFTIME)	Percent of staffed time spent in auxiliary work
PERCENT AUX WORK SUM	100*(SUM(AUXTIME)/ SUM(STAFTIME))	Percent of staffed time spent in auxiliary work summary
PERCENT BUSY ALL	ALLINUSE/ 18	Percent of time all trunks in trunk group are busy
PERCENT BUSY ALL SUM	SUM(ALLINUSE)/ SUM(18)	Percent of time all trunks in trunk group are busy summary
PERCENT CALL ABAN	100*(ABANDONS/ (ANSWERED+ ABANDONS+ OUTFLOW))	Percent of calls abandoned

 * Data appears only on a Generic 2 switch with ring-state enabled.

Table A 21   Calculation and Formula Cross-Reference (Contd)

CALCULATION	FORMULA	DESCRIPTION
PERCENT CALL ANS	100*(ACDCALLS/ (ACDCALLS+ ABANDONS))	Percent of calls answered
PERCENT CALL ANS SUM	100*(SUM(ACDCALLS)/ SUM(ACDCALLS+ ABANDONS))	Percent of calls answered summary
PERCENT MAINT TIM	MBUSYTIME/ (18*GROUPSIZE)	Percent of time trunks were maintenance busy
PERCENT MAINT TM SUM	SUM(MBUSYTIME)/ SUM(18*GROUPSIZE)	Percent of time trunks were maintenance busy summary
PERCENT SERV LEVL	100*(TRAFFIC/ (ANSWERED+ ABANDONS+ OUTFLOW))	Percent of calls answered within service level
PERCENT STAFF IN	100*((ACDTIME+ ACWTIME-ACWINTIME-ACWOUTTIME)/ STAFTIME)	Percent of time on ACD and in ACW excluding ACW calls
PERCENT STAFF OUT	100*((ACWOUTTIME+ AUXOUTTIME)/ STAFTIME)	Percent of time on outgoing extension calls
SEC STAFF TIME	STAFTIME	Staffed time (in seconds)
TRKBUSY	INTIME+ OUTTIME	Total time trunk is in use
V AVG ANS SPEED SUM	SUM(ANSDELAY)/ SUM(ANSMAIN+ ANSBACK)	Vector average speed of answer summary

Criteria Statement Values for CMS State Names

The following table lists status database items that generate state names in reports. If, in a custom report, you want to select data from records based on a particular state, you must enter a numerical value for the state, **not** the name. The following table lists the numerical values that coincide with state names.

Table A 22 State Names and Criteria Statement Values Cross-Reference

Status Database Items	State Names	Numerical Values For Criteria
ASTATE	UNSTAF	0
	AVAIL	1
	ACD	2
	ACW	3
	AUX	4
	ACWO (*ACW outgoing call*)	5
	ACWI (*ACW incoming call*)	6
	AUXO (*AUX outgoing call*)	7
	AUXI (*AUX incoming call*)	8
	RING	18
TSTATE	IDLE	0
	SEIZED	1
	QUEUED	2
	CONN	3
	ABAN	4
	FWRD	5
	MBUSY	6
	HOLD	15
EXTCALL	(none)	0
	ACWOUT	1
	ACWIN	2
	AUXOUT	3
	AUXIN	4
DIRECTION	OUT	0
	IN	1
LOGMODE	UNSTAF	0
	LOGIN	1
EVENT	(none)	0
	MCT	1
	ASSIST	2
PRILEVEL	LOW	0
	MED	1
	HIGH	2
	TOP	3

Criteria Statement Values for CMS State Names

NOTES

Introduction to Standard Reports Descriptions

Each standard report description in this appendix contains:

A reproduction of the report's output with sample data

A table describing each **report item** (each piece of output data in the report), including:

— A definition of each item
— The units the output values represent (for example, calls, seconds, percent)
— The database item or calculation for the report item.
— The formula for each calculation as defined in the Dictionary.

Database items, formulas, and calculations are presented in the report descriptions for quick reference should you decide to create custom reports.

NOTE	Some real-time reports contain averages and totals. These are for current half-hour intervals, and are reset to zero at the beginning of each 3B computer clock half-hour.

NOTE	For all **formulas** (averages and percentages) that contain division operators, the formula for the summary line item is of the form SUM(numerator) / SUM (denominator). Other summary line items take the form SUM(item).

Standard Real-Time Reports Descriptions

Split Status Report

Files Used   /CURRENT/SPLIT, /CURRENT/TRKGRP
              If vectoring active, does not use / CURRENT/ TRKGRP file.

```
Call Management System                                    Switch_Name:Up           Time

                        INTERVAL: 36  PAGE 1 of 1             QUAD:1
                                SPLIT STATUS
        SPLIT: 1                            TRUNK GROUP STATUS
                                         TRUNK GROUP  NO. BUSY  TOTAL NO.
        NUMBER OF CALLS WAITING        5
        OLDEST CALL WAITING            6       21        12        12
        AVERAGE SPEED OF ANSWER     5.01       22         6         6
                                               23         1         1
        NUMBER OF ABANDONED CALLS     60       24        33        34
        AVERAGE TIME TO ABANDON    11.00       27         4         4

        NUMBER OF ACD CALLS          349
        AVERAGE ACD TALK TIME      26.12
        AVERAGE AFTER CALL WORK TIME 11.02

        NUMBER OF OUTGOING CALLS       1
        AVERAGE OUTGOING TALK TIME 89.93

        NUMBER AGENTS STAFFED     20   NUMBER OF AGENTS AVAILABLE    0
        NUMBER ON ACD CALLS       17   NUMBER IN AFTER CALL WORK     3
        NUMBER IN AUX WORK         0   NUMBER ON OUTGOING CALLS      0

Confirmation, error, and exception messages appear in this line

        UPDATE    REPORT                            EXIT     PRINT
                  PARAMS                                     SCREEN
```

Figure B 1   Split Status Real-Time Report

NOTE

The Split Status report may momentarily show a call waiting with agents available if the report updates while the call is still ringing at an agent's terminal.

However, if your switch is a Generic 2 with ring-state enabled, the "Number of Agents Available" item does **not** include agents whose voice terminals are ringing. That is, an agent whose voice terminal is ringing is not counted as available. Conversely, the "Number of Calls Waiting" item **does** include calls that are ringing.

If you want to customize this report to show the number of calls ringing (which also represents agents with calls ringing) or additional ring-state data, see "Ring State Reports" in this appendix for a list of ring-state database items and calculations.

Table B 1   Item Reference for the Split Status Real-Time Report

Report Item	What It Measures	Units	Database Item Or Calculation Formula
SPLIT	Split number or synonym.		SYN(SPLIT)
NUMBER OF CALLS WAITING	Number of calls in this split's queue.	Calls	QUECALLS
OLDEST CALL WAITING	Time the first call in queue has been waiting.	Seconds	OCW
AVERAGE SPEED OF ANSWER	Average time to answer all calls that have been answered in the current half-hour.	Seconds	AVG ANSWER SPEED ANSDELAY/ANSWERED
NUMBER OF ABANDONED CALLS	Number of queued calls in which the caller hangs up before being answered during the current half-hour.	Calls	ABANDONS
AVERAGE TIME TO ABANDON	The average time a caller who hung up without receiving an answer waited before doing so.	Seconds	AVG ABANDON TIME ABANTIME/ABANDONS
NUMBER OF ACD CALLS	ACD calls answered by this split's agents during this half hour. (This item also contains intraflowed/ interflowed calls answered in this split.)	Calls	ACDCALLS
AVERAGE ACD TALK TIME	Average length of ACD calls handled by this split's agents in the current half-hour.	Seconds	AVG COM TALK TIME CUMTALK/NUMTALK
AVERAGE AFTER CALL WORK TIME	Average length of after-call work sessions by agents in this split for current half-hour.	Seconds	AVG COMP ACW TIME CUMACW/NUMACW
NUMBER OF OUTGOING CALLS	Number of outdialed calls by this split's agents in this half hour.	Calls	NUM CALL OUT2 ACWOUTCALLS+AUXOUTCALLS
AVERAGE OUTGOING TALK TIME	Length of average extension-out calls for this split in this half hour.	Seconds	AVG TALK TIME OUT (ACWOUTTIME + AUXOUTTIME) / (ACWOUTCALLS + AUXOUTCALLS)

Table B 1   Item Reference for the Split Status Real-Time Report (Contd)

Report Item	What It Measures	Units	Database Item Or Calculation Formula
NUMBER OF AGENTS STAFFED	Number of agents logged in at this split's extensions.	Agents	STAFCOUNT
NUMBER ON ACD CALLS	Agent positions currently connected to ACD calls.	Agents	ACDCOUNT
NUMBER IN AUX WORK	Agents currently in the auxiliary work state.	Agents	AUXCOUNT
NUMBER OF AGENTS AVAILABLE	Agents available for ACD calls; idle agents. On Generic 2 with ring-state enabled, does not include agents whose terminals are ringing.	Agents	INPOOL
NUMBER IN AFTER CALL WORK	Agents currently in the ACW state.	Agents	ACWCOUNT
NUMBER ON OUTGOING CALLS	Agents making extension-out calls.	Agent	AGENT CALL OUT `ACWOUTCOUNT+AUXOUTCOUNT`
TRUNK GROUP	Numbers or synonyms of the trunk groups assigned to this split.	Trunk group number	SYN(TRKGRP)
NO. BUSY	Number of trunks in this group that are seized, connected, or queued.	Trunks	TRKSINUSE
TOTAL NO.	Total number of trunks in each trunk group.	Trunks	GROUPSIZE

Group Status Report

Data Files Used   /CURRENT/AGENT

```
Call Management System                              Switch_Name:Up              Time

                        INTERVAL: 36  PAGE 1 of 1               QUAD:1
                                   GROUP STATUS

         GROUP: Team A                          GROUP: Team B
    AGENT            EXT      STATE  TIME    AGENT          EXT    STATE  TIME

    Patsy You        1201     ACD    15:00   Gene Green     1301   ACW    15:01
    Barry McGee      1203     ACD    15:01   Bob McCaw      1304   AUX    15:20
    Elinore McClusk  1209     ACW    15:06   Katsu Masada   1401   AVAIL  15:06
    April Lucelli    1490     ACD    15:01   Terry Overly   1450   AVAIL  15:01
    Bing Gretsch     1509     ACD    15:01   Kern Salida    1512   AVAIL  15:12
    Talullah Screen  1506     ACD    15:05   12099          1503   AVAIL  15:04


    Confirmation, error, and exception messages appear in this line
```

```
┌──────┐ ┌────────┐ ┌────────┐   ┌────────┐ ┌────────┐   ┌────────┐ ┌────────┐ ┌──────┐
│      │ │ UPDATE │ │ REPORT │   │ NEXT   │ │ PREV   │   │ EXIT   │ │ PRINT  │ │      │
│      │ │        │ │ PARAMS │   │ PAGE   │ │ PAGE   │   │        │ │ SCREEN │ │      │
└──────┘ └────────┘ └────────┘   └────────┘ └────────┘   └────────┘ └────────┘ └──────┘
```

Figure B 2   Group Status Report

NOTE	You must create both agent and extension groups using the Dictionary. Groups are not created at the switch.

NOTE	You should use the Group Status report sparingly because it puts a heavy load on computer processing resources. Also, you should avoid excessive use of the UPDATE screen-labeled key when viewing the report.

NOTE	If you have a Generic 2 switch with the ring-state enabled, the STATE column will show RING when a call is ringing at an agent's voice terminal.

Table B 2   Item Reference for the Reporting Group Real-Time Report

Report Item	What It Measures	Units	Database Item Or Calculation Formula
GROUP	The name of the groups selected for this report.	Group name	GROUP
AGENT	Synonym or ID of agent-members of the group (if the group is based on agents) or agents logged in at extensions (if the group is based on extensions).	Synonym or login ID	SYN(LOGID)
EXT	Extension number where the agent is logged in.	The extension number	EXTENSION
STATE	Current state this agent is in (UNSTAF, AVAIL, RING*, ACD, ACW, AUX, ACWOUT, ACWIN, AUXOUT, AUXIN, INIT).	Agent state name	ASTATE
TIME	Time agent entered this state.	Military notation time, hours and minutes.	TIMEMARK

* The RING state is available only if your switch is a Generic 2 with the ring-state enabled.

Split Summary Report

Data Files Used   /CURRENT/SPLIT, /CURRENT/AGENT

```
Call Management System                              Switch_Name:Up              Time

                           INTERVAL: 36  PAGE 1 of 1              QUAD:1
                                   SPLIT SUMMARY
          SPLIT: 1 (Sales)
                                                 ACD      EXT IN   EXT OUT
          AGENT NAME          EXT   STATE   TIME  CALLS    CALLS    CALLS

          Larry O'Leary       1299  ACD     08:20  19       0        0
          Neal  Patruski      1278  ACD     08:21  20       3        3
          Allerdyce Nichol    1340  ACW     08:21  22       1        1
          Pete Ohshima        1290  ACD     08:21  21       2        4
          Ellen Rubin         1277  ACD     08:21  22       4        5
          Patsy You           1201  ACD     08:21  19       3        1




          NUMBER OF AGENTS STAFFED   20      NUMBER OF AGENTS AVAILABLE    0
          NUMBER ON ACD CALLS        18      AVERAGE ACD TALK TIME      26.16
          NUMBER OF CALLS WAITING     2      AVERAGE SPEED OF ANSWER     5.00
          OLDEST CALL WAITING         0      AVERAGE TIME TO ABANDON    11.00

Confirmation, error, and exception messages appear in this line

          ┌─────┐  ┌───────┐  ┌───────┐  ┌─────┐  ┌─────┐  ┌─────┐  ┌───────┐  ┌─────┐
          │     │  │UPDATE │  │REPORT │  │     │  │     │  │EXIT │  │PRINT  │  │     │
          │     │  │       │  │PARAMS │  │     │  │     │  │     │  │SCREEN │  │     │
          └─────┘  └───────┘  └───────┘  └─────┘  └─────┘  └─────┘  └───────┘  └─────┘
```

Figure B 3   Split Summary Real-Time Report

NOTE Extensions assigned to a split, but currently unstaffed, will appear in the report, with "UNSTAF" in the STATE column. To prevent these extensions from showing up, you can create a custom report and assign the following criteria statement to each data item in the report: ASTATE NE 0 (0 represents the "UNSTAF" state).

NOTE The Split Summary report may momentarily show a call waiting with agents available if the report updates while the call is still ringing at an agent's terminal.

If your switch is a Generic 2 with the ring-state enabled, the STATE column will show RING if a call is ringing at the agent's voice terminal. Also, on Generic 2 with ring-state, the item "Number of Agents Available" does **not** include agents whose voice terminals are ringing. "Number of Calls Waiting" **does** include calls ringing. To see a separate item for number of calls ringing (which also represents the number of agents with calls ringing), use the parallel Split Summary Report available as a global custom report. See the "Ring State Reports" section.

> **NOTE** The Split Summary Report displays a maximum of 10 agents per page.

Table B 3   Item Reference for the Split Summary Report

Report Item	What It Measures	Units	Database Item Or Calculation Formula
SPLIT	Split number or synonym.		SYN(SPLIT)
AGENT	Split member login ID or synonym.	Synonym, login ID	SYN(LOGID)
EXT	Extension at which the agent is logged in.	Extension number	EXTENSION
STATE	Current state this agent is in (UNSTAF, AVAIL, RING*, ACD, ACW, AUX, ACWOUT, ACWIN, AUXOUT, AUXIN, INIT).	Agent state name	ASTATE
TIME	Time agent entered the current state.	Military notation time	TIMEMARK
ACD CALLS	Number of ACD calls answered by this agent in the current half hour. Some of the calls counted may have intraflowed/ interflowed into the agent's split.	Calls	ACDCALLS
EXT IN CALLS	Direct dialed calls to this agent (extension) in the current half-hour.	Calls	EXT CALL IN ACWINCALLS + AUXINCALLS
EXT OUT CALLS	Extension-out calls placed by this agent (extension) during the current half-hour	Calls	NUM CALL OUT2 ACWOUTCALLS + AUXOUTCALLS
NUMBER OF AGENTS STAFFED	Currently logged-in agents in this split.	Agents	STAFCOUNT

* The RING state appears only if your switch is a Generic 2 with the ring-state enabled.

Table B 3   Item Reference for the Split Summary Report (Contd)

Report Item	What It Measures	Units	Database Item Or Calculation Formula
NUMBER ON ACD CALLS	Current number of split's agents on ACD calls.	Agents	ACDCOUNT
NUMBER OF CALLS WAITING	Number of unanswered calls in this split's queue.	Calls	QUECALLS
OLDEST CALL WAITING	Time that the first call in queue has been waiting.	Seconds	OCW
NUMBER OF AGENTS AVAILABLE	Agents available for ACD calls; idle agents. On Generic 2 with the ring-state enabled, does not include agents whose terminals are ringing.	Agents	INPOOL
AVERAGE ACD TALK TIME	Average length of ACD calls handled by this split's agents in the current half-hour.	Seconds	AVG COM TALK TIME CUMTALK/NUMTALK
AVERAGE SPEED OF ANSWER	Average time to answer all calls that have been answered in the current half-hour.	Seconds	AVG ANSWER SPEED ANSDELAY/ANSWERED
AVERAGE TIME TO ABANDON	The average wait time for callers who hung up before connecting with an agent.	Seconds	AVG ABANDON TIME ABANTIME/ABANDONS

System Status Report

Data File Used   /CURRENT/SPLIT

```
┌──────────────────────────────────────────────────────────────────────────┐
│ ┌────────────────────────────────────────────────────────────────────┐   │
│ │ Call Management System                    Switch_Name:Up      Time │   │
│ └────────────────────────────────────────────────────────────────────┘   │
│                                                                            │
│                        INTERVAL: 36  PAGE 1 of 1          QUAD:1           │
│                              SYSTEM STATUS                                 │
│                                                                            │
│       SPLIT                   1 (sales) 2 (servc) 3 (admin) 4 (wrnty)   5 ()│
│                                                                            │
│       NO. OF CALLS WAITING         3        5        3        3        3  │
│       OLDEST CALL WAITING          5       12       15       18       18  │
│       AVERAGE SPEED OF ANSWER   5.04     6.40    10.31    15.27    17.37  │
│                                                                            │
│       NO. ABANDONED CALLS         73       35       18       10        9  │
│       AVERAGE TIME TO ABANDON  11.00    15.06    20.00    25.00    30.00  │
│                                                                            │
│       NO. OF ACD CALLS           423      208      143      108       86  │
│       AVERAGE ACD TALK TIME    26.17    57.52    81.12   107.55   144.47  │
│       AVG. AFTER CALL WORK TIME 11.01    16.00    24.00    36.00    34.00  │
│                                                                            │
│       NO. OF AGENTS AVAILABLE      0        0        0        0        0  │
│       NO. OF AGENTS ON ACD        18       19       18       19       19  │
│       NO. IN AFTER CALL WORK       1        1        2        1        1  │
│       NO. IN AUX WORK              1        0        0        0        0  │
│       NO. ON OUTGOING CALLS        0        0        0        0        0  │
│ ┌────────────────────────────────────────────────────────────────────┐   │
│ │ Confirmation, error, and exception messages appear in this line    │   │
│ └────────────────────────────────────────────────────────────────────┘   │
│ ┌─────┐ ┌───────┐ ┌───────┐ ┌─────┐ ┌─────┐ ┌──────┐ ┌───────┐ ┌─────┐    │
│ │     │ │UPDATE │ │REPORT │ │     │ │     │ │EXIT  │ │PRINT  │ │     │    │
│ │     │ │       │ │PARAMS │ │     │ │     │ │      │ │SCREEN │ │     │    │
│ └─────┘ └───────┘ └───────┘ └─────┘ └─────┘ └──────┘ └───────┘ └─────┘    │
└──────────────────────────────────────────────────────────────────────────┘
```

Figure B 4   System Status Real-Time Report

| NOTE |

The System Status report may momentarily show a call waiting with agents available if the report updates while the call is still ringing at an agent's terminal.

If your switch is a Generic 2 with the ring-state enabled, the item "No. of Agents Available" does **not** include agents whose voice terminals are ringing. "No. of Calls Waiting" **does** include calls ringing. To see the number of calls ringing (which also represents the number of agents with calls ringing), use the parallel System Status Report that is automatically available as a global custom report. See "Ring State Reports" for more information.

Table B 4   Item Reference for the System Status Report

Report Item	What It Measures	Units	Database Item Or Calculation Formula
SPLIT	Split numbers or synonyms for selected splits.		SYN(SPLIT)
NO. OF CALLS WAITING	Number of unanswered calls in the splits' queues.	Calls	QUECALLS
OLDEST CALL WAITING	Length of time the first unanswered call in each queue has been waiting.	Seconds	OCW
AVERAGE SPEED OF ANSWER	Average wait time for calls that have been answered in the current half-hour.	Seconds	AVG ANSWER SPEED ANSDELAY/ANSWERED
NO. OF ABANDONED CALLS	For current half-hour, total of queued calls for each split in which the caller hangs up before being answered.	Calls	ABANDONS
AVERAGE TIME TO ABANDON	The average wait time for callers who hung up before connecting with an agent.	Seconds	AVG ABANDON TIME ABANTIME/ABANDONS
NO. OF ACD CALLS	Queued calls that connected to an agent in the specified split during this half-hour. (This item also contains intraflowed/ interflowed calls answered in this split.)	Calls	ACDCALLS
AVERAGE ACD TALK TIME	Length of the average ACD call during this half-hour in each split.	Seconds	AVG COM TALK TIME CUMTALK/NUMTALK
AVG. AFTER CALL WORK TIME	Average length of session in after-call work for agents in each split.	Seconds	AVG COMP ACW TIME CUMACW/NUMACW

Table B 4   Item Reference for the System Status Report (Contd)

Report Item	What It Measures	Units	Database Item Or Calculation Formula
NO. OF AGENTS AVAILABLE	Agents that are currently available to receive ACD calls in each split. On Generic 2 with the ring-state enabled, does not include agents whose terminals are ringing.	Agents	INPOOL
NO. OF AGENTS ON ACD	Agents currently connected to ACD calls in each split.	Agents	ACDCOUNT
NO. IN AFTER CALL WORK	Agents now in ACW in each split.	Agents	ACWCOUNT
NO. IN AUX WORK	Agents now in auxiliary work in each split.	Agents	AUXCOUNT
NO. ON OUTGOING CALLS	Agents currently engaged in extension-out calls in each split.	Agents	AGENT CALL OUT ACWOUTCOUNT+AUXOUTCOUNT

Agent/Split Comparison (Previous Half Hour) Report

Data Files Used   /PREVIOUS/SPLIT, /PREVIOUS/AGENT

```
Call Management System                              Switch_Name:Up              Time

                              INTERVAL: 36  PAGE 1 of 1              QUAD:1
                         AGENT/SPLIT COMPARISON (PREVIOUS HALF HOUR)

         AGENT:  charlie_o                          SPLIT: 1 (sales)

                                    AGENT                 SPLIT AVERAGE
                               ACD        OUT           ACD        OUT

         NUMBER OF CALLS         59          0         59.30       0.00
         AVERAGE TALK TIME     27.88       0.00        26.31       0.00
         AVERAGE AFTER CALL WORK 2.61                   3.92
         PERCENT OF STAFFED TIME 99.94     0.00        99.59       0.00

                                    AGENT                    SPLIT

         TIME IN AUX WORK           0                        134
         PERCENT AUX WORK TIME    0.00                       0.37
         NO. EXTENSION CALLS IN     0                          0
         NO. ASSIST CALLS           1                          9
         TOTAL TIME STAFFED      1800

Confirmation, error, and exception messages appear in this line

    ┌─────┐  ┌─────┐  ┌─────┐  ┌─────┐  ┌─────┐  ┌─────┐  ┌─────┐  ┌─────┐
    │     │  │UPDATE│  │REPORT│  │     │  │     │  │EXIT │  │PRINT │  │     │
    │     │  │     │  │PARAMS│  │     │  │     │  │     │  │SCREEN│  │     │
    └─────┘  └─────┘  └─────┘  └─────┘  └─────┘  └─────┘  └─────┘  └─────┘
```

Figure B 5   Agent/ Split Comparison Report

NOTE	Data is for the previous half-hour; request the report by agent login and split number. The agent must be currently staffed.

Table B 5   Item Reference for the Agent/ Split Comparison Report (Contd)

Report Item	What It Measures	Units	Database Item Or Calculation Formula
AVERAGE TALK TIME	AGENT and SPLIT ACD = the average ACD-call length for the agent; the average single-call duration for the split.	Seconds	AVG ACD TALK TIME `ACDTIME/ACDCALLS`
	AGENT and SPLIT OUT = the average length of an extension-out call for an agent; the average length of a single extension-out call for the split.		AVG TALK TIME OUT `(ACWOUTTIME + AUXOUTTIME) / (ACWOUTCALLS + AUXOUTCALLS)`
AVERAGE AFTER CALL WORK	AGENT and SPLIT = average length of ACW per ACD call.	Seconds	AVG ACW TIME `(ACWTIME - ACWOUTTIME - ACWINTIME) / ACDCALLS`
PERCENT OF STAFFED TIME	AGENT and SPLIT AVERAGE ACD = percent of staffed (logged in) time on ACD calls and related after-call work.	Percent of time	PERCENT STAFF IN `100 * ((ACDTIME + ACWTIME - ACWINTIME - ACWOUTTIME) / STAFTIME)`
	AGENT and SPLIT AVERAGE OUT = percent of staffed time on extension-out calls.	Percent of time	PERCENT STAFF OUT `100 * ((ACWOUTTIME + AUXOUTTIME) / STAFTIME)`

Table B 5   Item Reference for the Split-Agent Comparison Report (Contd)

Report Item	What It Measures	Units	Database Item Or Calculation Formula
TIME IN AUX WORK	AGENT = agent time in auxiliary work in half-hour; SPLIT = total time the split's agents combined spent in auxiliary work in the previous half-hour. Call time accumulated within the AUX WORK state is deducted from AUX WORK totals.	Seconds	AUX WORK TIME `AUXTIME - AUXOUTTIME - AUXINTIME`
PERCENT AUX WORK	AGENT = percentage of staffed time spent in AUX WORK for previous half-hour; SPLIT = percentage of the split members' staffed time spent in AUX WORK during the previous half hour.	Percent	PERCENT AUX WORK `100 * (AUXTIME/STAFTIME)`
NO. EXTENSION CALLS IN	AGENT = direct dialed (non-ACD) calls to agent in half-hour; SPLIT = total direct dialed calls to split members in half-hour.	Calls	EXT CALL IN `ACWINCALLS + AUXINCALLS`
NO. ASSIST CALLS	AGENT = number of calls referred to split supervisor by agent in half-hour; SPLIT = number of calls referred to split supervisor by split agents during the half-hour.	Calls	ASSISTS
TOTAL TIME STAFFED	AGENT = total time agent was logged in in half-hour.	Seconds	STAFTIME

Call Profile Report

Data File Used   /CURRENT/SPLIT

```
┌─────────────────────────────────────────────────────────────────────────┐

  ┌──────────────────────────────────────────────────────────────────┐
  │ Call Management System                    Switch_Name:Up      Time │
  └──────────────────────────────────────────────────────────────────┘

                       INTERVAL: 36  PAGE 1 of 1            QUAD:1
                              CALL PROFILE
            SPLIT: 1 ()                          PARAMETERS CHANGED: NO

        TIME
        INTERVAL   00---0005---0010---0015---0020---0025---0030---0035---0040---0045+


        NUMBER
        ANSWERED   315    194    28     0      0      0      0      0      0


        NUMBER
        ABANDONED    0      0    94     0      0      0      0      0      0


        NUMBER OF CALLS CARRIED       631
        NUMBER OF CALLS ABANDONED      94    PERCENT ABANDONED       14.90%
        NUMBER OF CALLS ANSWERED      537    PERCENT ANSWERED        85.10%

        AVERAGE TIME TO ABANDON     11.01    SERVICE LEVEL              20
        AVERAGE TIME TO ANSWER       4.91    % WITHIN SERVICE LEVEL  85.10%
  ┌──────────────────────────────────────────────────────────────────┐
  │ Confirmation, error, and exception messages appear in this line    │
  └──────────────────────────────────────────────────────────────────┘

  ┌─────┐  ┌─────┐  ┌─────┐  ┌─────┐  ┌─────┐  ┌─────┐  ┌─────┐  ┌─────┐
  │     │  │UPDATE│ │REPORT│ │     │  │     │  │EXIT │  │PRINT │ │     │
  │     │  │     │  │PARAMS│ │     │  │     │  │     │  │SCREEN│ │     │
  └─────┘  └─────┘  └─────┘  └─────┘  └─────┘  └─────┘  └─────┘  └─────┘
└─────────────────────────────────────────────────────────────────────────┘
```

Figure B 6   Call Profile Real-Time Report

NOTE Set the interval lengths in the Call Profile Administration screen.

NOTE In this report, the "PERCENT ABANDONED" formula has a denominator that includes intraflowed-out calls. However, the formula for "PERCENT ANSWERED" does not include intraflowed-out calls in the denominator. To change the formula, access the associated calculation in the Dictionary subsystem and create a custom calculation. Then create a Custom Report that uses the new calculation.

Table B 6   Item Reference for the Call Profile Report

Report Item	What It Measures	Units	Database Item Or Calculation Formula
SPLIT	Split number or synonym.		SYN(SPLIT)
PARAMETERS CHANGED	Administrative changes in service level that affect this report. If any parameters were changed during the current half-hour, this half-hour's data is zeroed out.	NO/ YES	CALLPROFCHG
TIME INTERVAL	Time after entering the queue. The intervals are specified in the Configuration— Call Profile Parameters screen.	Seconds	WINDOW, WINDOW*2. .
NUMBER ANSWERED	Calls connecting to an agent in this interval.	Calls	CALLS1. . .CALLS10
NUMBER ABANDONED	Callers hanging up before receiving an answer in this interval.	Calls	ABANDON1. . .ABANDON10
NUMBER OF CALLS CARRIED	Total calls entering this split's queue in the current half hour.	Calls	CALLS OFFERED ANSWERED + ABANDONS + OUTFLOW
NUMBER OF CALLS ABANDONED	Callers hanging up in this interval.	Calls	ABANDONS
NUMBER OF CALLS ANSWERED	ACD calls connecting to an agent in the current half-hour.	Calls	ANSWERED
PERCENT ABANDONED	Percentage of calls that abandon before connecting to an agent.	Percent	PERCENT CALL ABAN 100 * (ABANDONS / (ANSWERED + ABANDONS + OUTFLOW))

Table B 6   Item Reference for the Call Profile Report (Contd)

Report Item	What It Measures	Units	Database Item Or Calculation Formula
PERCENT ANSWERED	Percentage of queued calls connecting to an agent.	Percent	PERCENT CALL ANS `100 * (ACDCALLS / (ACDCALLS + ABANDONS))`
AVERAGE TIME TO ABANDON	The average wait time for callers who hung up before connecting with an agent.	Seconds	AVG ABANDON TIME `ABANTIME/ABANDONS`
AVERAGE TIME TO ANSWER	Average time a queued call takes to connect to an agent in this half-hour.	Seconds	AVG ANSWER SPEED `ANSDELAY / ANSWERED`
SERVICE LEVEL	Time in which calls are expected to be answered. You specify this time in the Configuration— Call Profile Parameters screen.	Seconds	SVCLVL
PERCENT WITHIN SERVICE LEVEL	Percentage of calls answered within the Service Level.	Percent	PERCENT SERV LEVL `100 * (TRAFFIC / (ANSWERED + ABANDONS + OUTFLOW))`

Trunk Group Summary Report

Data File Used   /CURRENT/TRUNK, /CURRENT/TRKGRP

```
Call Management System                            Switch_Name:Up              Time

                           INTERVAL: 36    PAGE 1 of 1              QUAD:1
                           TRUNK GROUP SUMMARY

       TRUNK GROUP:  22                         NO. OF TRUNKS: 20

       TRUNK    TRUNK
       NUMBER   LOCATION        STATE    TIME    DIRECTION    EXT/SPLIT
       91       00.0.0.11.03    IDLE     17:57   --           NONE
       92       00.0.0.11.04    CONN     17:56   IN           4445
       93       00.0.0.11.05    QUEUED   17:57   IN           4
       94       00.0.0.12.00    SEIZED   17:57   IN           NONE
       95       00.0.0.12.01    CONN     17:57   IN           2087
       96       00.0.0.12.02    IDLE     17:57   --           NONE
       97       00.0.0.12.03    QUEUED   17:57   IN           4
       98       00.0.0.12.04    QUEUED   17.57   IN           4

 Confirmation, error, and exception messages appear in this line

   [    ]  [ UPDATE ]  [ REPORT ]    [ PREV ]  [ NEXT ]    [ EXIT ]  [ PRINT  ]  [    ]
                        [ PARAMS ]    [ PAGE ]  [ PAGE ]              [ SCREEN ]
```

Figure B 7   Trunk Group Summary Real-Time Report

The trunk states have the following meanings:

IDLE   Waiting for call.

SEIZED   The trunk is seized (incoming or outgoing). ACD calls go to QUEUED, then CONN, ABAN, or FWRD. Non-ACD calls remain SEIZED.

QUEUED   An ACD caller has the trunk and is waiting for an agent to answer.

CONN   Agent and caller are connected in an ACD call.

ABANDONED   A queued caller just abandoned the call.

FWRD   A queued call has been intraflowed outside the ACD or interflowed.

MBUSY   Maintenance Busy, out of service for maintenance purposes.

HOLD   The agent has put a call on hold (available with System 85 R2V4 only).

INIT   The link is down or an error has been detected. INIT remains until the condition is cleared (link comes up) *and* the current ACD call and associated ACW are complete.

Table B 7   Item Reference for the Trunk Group Summary Report

Report Item	What It Measures	Units	Database Item Or Calculation Formula
TRUNK GROUP	Number or synonym of the trunk group selected.	Trunk group number or synonym.	SYN(TRKGRP)
NO. OF TRUNKS	Number of trunks assigned to this group.	Trunks	GROUPSIZE
TRUNK NUMBER	Internal trunk number from the switch.	Internal trunk number	TRK NDX
TRUNK LOCATION	Physical location of trunk in the switch. The digits represent module, cabinet, carrier, slot, and circuit. This number is used in switch administration. Shown in the sample report is the DEFINITY* Communications System Generic 2/ System 85/ DIMENSION PBX format. The format for System 75, DEFINITY** Communications System Generic 1, Generic 3i, and Generic 2 Universal Module uses a letter to represent the carrier.	The numeric sequence that identifies the trunk's equipment location in the switch.	EQLOCATION
STATE	One of eight conditions that are possible for a trunk.	State name	TSTATE
TIME	Time when the trunk entered the current state.	Military notation time	TIMEMARK
DIRECTION	The direction of the current call — incoming or outgoing.	IN, OUT, or -- if none	DIRECTION
EXT/ SPLIT	Extension number if CONN; Split number if QUEUED; "NONE" if anything else. See state list above.	Extension or split number	ASSOCIATION

* Trademark of AT&T.
** Trademark of AT&T.

Split Performance Report

Data Files Used   /CURRENT/SPLIT, /PREVIOUS/SPLIT

```
┌─────────────────────────────────────────────────────────────────────────┐
│  ┌──────────────────────────────────────────────────────────────────┐    │
│  │ Call Management System                 Switch_Name:Up       Time  │    │
│  └──────────────────────────────────────────────────────────────────┘    │
│                                                                           │
│                        INTERVAL: 36  PAGE 1 of 1          QUAD:1          │
│          SPLIT: 1                   SPLIT PERFORMANCE                      │
│                                                                           │
│                                      CURRENT          PREVIOUS            │
│          NUMBER OF CALLS WAITING        5                                 │
│          OLDEST CALL WAITING            6                                 │
│          AVERAGE SPEED OF ANSWER        4.86            4.94              │
│                                                                           │
│          NUMBER OF ABANDONED CALLS      99              202               │
│          AVERAGE TIME TO ABANDON        11.01           10.86             │
│                                                                           │
│          NUMBER OF ACD CALLS            578             1186              │
│          AVERAGE ACD TALK TIME          26.13           26.35             │
│          AVERAGE AFTER CALL WORK TIME   11.01           11.00             │
│                                                                           │
│          NUMBER OF OUTGOING CALLS       0               0                 │
│          AVERAGE OUTGOING CALL TALK TIME 0.00           0.00              │
│                                                                           │
│          NUMBER AGENTS STAFFED    20   NUMBER AGENTS AVAILABLE    0        │
│          NUMBER ON ACD CALLS      17   NUMBER IN AFTER CALL WORK  3        │
│          NUMBER IN AUX WORK       0    NUMBER ON OUTGOING CALLS   0        │
│  ┌──────────────────────────────────────────────────────────────────┐    │
│  │ Confirmation, error, and exception messages appear in this line   │    │
│  └──────────────────────────────────────────────────────────────────┘    │
│  ┌─────┐ ┌─────┐ ┌─────┐ ┌─────┐ ┌─────┐     ┌─────┐ ┌─────┐ ┌─────┐     │
│  │     │ │UPDATE│ │REPORT│ │     │ │     │     │EXIT │ │PRINT│ │     │     │
│  │     │ │      │ │PARAMS│ │     │ │     │     │     │ │SCREEN│ │     │    │
│  └─────┘ └─────┘ └─────┘ └─────┘ └─────┘     └─────┘ └─────┘ └─────┘     │
└─────────────────────────────────────────────────────────────────────────┘
```

Figure B 8   Split Performance Real-Time Report

NOTE	The Split Performance report may momentarily, for the current interval, show a call waiting with agents available if the report updates while the call is still ringing at an agent's terminal.

However, if your switch is a Generic 2 with the ring-state enabled, the "Number of Agents Available" item does **not** include agents whose voice terminals are ringing. That is, an agent whose voice terminal is ringing is not counted as available. Conversely, the "Number of Calls Waiting" item **does** include calls that are ringing.

If you want to customize this report to show the number of calls ringing (which also represents the number of agents with calls ringing) or additional ring-state data, see "Ring State Reports" for a list of ring-state database items and calculations.

Table B 8   Item Reference for the Split Performance Report

Report Item	What It Measures	Units	Database Item Or Calculation Formula
SPLIT	Split number or synonym.		SYN(SPLIT)
NUMBER OF CALLS WAITING	Number of calls in the split's queue.	Calls	QUECALLS
OLDEST CALL WAITING	Time the call at the beginning of the queue has been waiting.	Seconds	OCW
AVERAGE SPEED OF ANSWER	Time the average, answered call waited before receiving an answer.	Seconds	AVG ANSWER SPEED ANSDELAY / ANSWERED
NUMBER OF ABANDONED CALLS	Queued calls in which the caller hangs up before receiving an answer.	Calls	ABANDONS
AVERAGE TIME TO ABANDON	The average wait time for callers who hung up before connecting with an agent.	Seconds	AVG ABANDON TIME ABANTIME / ABANDONS
NUMBER OF ACD CALLS	Queued calls that received an answer from one of the split's agents in this half-hour. (This item also contains intraflowed/interflowed calls answered in this split.)	Calls	ACDCALLS
AVERAGE ACD TALK TIME	Length of the average ACD call in this split in this half hour.	Seconds	AVG COM TALK TIME CUMTALK / NUMTALK
AVERAGE AFTER CALL WORK TIME	Length of average session in ACW state.	Seconds	AVG COMP ACW TIME CUMACW / NUMACW
NUMBER OF OUTGOING CALLS	Count of extension-out calls by this split's agents in this half hour.	Calls	NUM CALL OUT2 ACWOUTCALLS + AUXOUTCALLS

Table B 8   Item Reference for the Split Performance Report (Contd)

Report Item	What It Measures	Units	Database Item Or Calculation Formula
AVERAGE OUTGOING TALK TIME	Length of average outgoing calls made by this split's agents.	Seconds	AVG TALK TIME OUT (ACWOUTTIME + AUXOUTTIME) / (ACWOUTCALLS + AUXOUTCALLS)
NUMBER OF AGENTS STAFFED	Number of agents currently logged in at this split's extensions.	Agents	STAFCOUNT
NUMBER ON ACD CALLS	Agents currently connected to ACD calls.	Agents	ACDCOUNT
NUMBER IN AUX WORK	Agents currently in auxiliary work state.	Agents	AUXCOUNT
NUMBER OF AGENTS AVAILABLE	Number of agents able to accept an ACD call; idle agents. On Generic 2 with the ring-state enabled, does not include agents whose terminals are ringing.	Agents	INPOOL
NUMBER IN AFTER CALL WORK	Agents doing call-related work.	Agents	ACWCOUNT
NUMBER ON OUTGOING CALLS	Agents currently on extension-out calls.	Agents	AGENT CALL OUT ACWOUTCOUNT + AUXOUTCOUNT

Split Event Count Summary Report

Data File Used   /CURRENT/SPLIT, /CURRENT/AGENT

```
Call Management System                              Switch_Name:Up              Time

                              INTERVAL: 36  PAGE 1 of 1              QUAD:1
                              SPLIT EVENT COUNT SUMMARY
        SPLIT:  1 ()                              NUMBER OF AGENTS STAFFED: 7

        -----AGENT--------    ACD    ----------------EVENT COUNT---------------
                              CALLS    1    2    3    4    5    6    7    8    9

        Terry Finley           23     1    1    0    0   10    0    0    7    5
        Max Van Quiller        13     1    2    0    0    4    0    5    3    1
        Imogene Last           29     4    0    0    0    5    1    3    3    1
        O'Neill Laslo          18     1    0    0    0    6    0    9    2    0
        Quentin McCaslin       19     4    0    0    0    4    0    0    0    1
        Jerry Twill            87     1    0    0    0    5    1    1    2    0
        Trish Vanderjagt       45     0    0    0    0    0    0    0    0    0

        SPLIT TOTAL:          234    12    3    0    0   34    2   18   17    8

Confirmation, error, and exception messages appear in this line
```

	UPDATE	REPORT PARAMS			EXIT	PRINT SCREEN	

Figure B 9   Split Event Count Real-Time Report

NOTE	Event Counts are not available as a standard feature on System 75 and Generic 1. However, event counts can be provided on a Custom Work basis.

Table B 9   Item Reference for the Split Event Count Real-Time Report

Report Item	What It Measures	Units	Database Item Or Calculation Formula
SPLIT	Split number or synonym.		SYN(SPLIT)
NUMBER OF AGENTS	Agents logged in at this split's extensions.	Agents	STAFCOUNT
AGENT	Agent's name or login ID.	Synonym or login ID	SYN(LOGID)
ACD CALLS	ACD calls received by each agent and the total for the split in the current half-hour. (This item also contains intraflowed/ interflowed calls answered in this split.)	Calls	ACDCALLS
EVENT COUNTER	Each agent's subtotal for each EVENT COUNT button, and the splits total.	Button presses	STROKE1. . .STROKE9

Standard Historical Reports Descriptions

Split Report

Data Files Used   /HHOUR/SPLIT for Daily Report;
                   /DAILY/SPLIT for Weekly and Monthly Reports

4/22/88   DAY: 04/01/88

SPLIT: 1 ()

TIME	AVG SPEED ANS	AVG ABAN TIME	NO ACD CALLS	NO ABAN CALLS	MAX DELAY	FLOW IN	FLOW OUT	AVG TALK TIME	AVG AFTER CALL	% AUX	NO OUT CALLS	AVG OUT TIME	AVG POS STAFF	% ACD TIME	% ANS	CALLS/ POS STAFF
08:00-08:30AM	3.46	10.97	1183	203	11	0	0	26.15	4.13	0.40	0	0.00	20.00	99.45	85.35	59.15
08:30-09:00AM	3.54	10.92	1177	204	11	0	0	26.22	4.05	0.43	0	0.00	20.00	99.44	85.23	58.85
09:00-09:30AM	3.82	10.88	1188	204	11	0	0	26.31	3.96	0.40	0	0.00	20.00	99.53	85.34	59.40
.																
05:30-06:00PM	3.73	10.83	1190	206	12	0	0	26.43	3.83	0.40	0	0.00	20.00	99.52	85.24	59.50
	3.75	10.90	56799	9788		0	0	26.27	4.00	0.41	0	0.00		99.49	85.30	

2/11/88

SPLIT: 1 ()

DAY	AVG SPEED ANS	AVG ABAN TIME	NO. ACD CALLS	NO. ABAN CALLS	MAX DELAY	FLOW IN	FLOW OUT	AVG TALK TIME	AVG AFTER CALL WRK	% AUX	NO EXT OUT CALLS	AVG EXT OUT TIME	% ACD TIME	% ANS
01/28/88	40.83	78.00	644	33	407	0	0	141.99	0.41	55.47	1213	60.70	32.57	95.13
01/29/88	22.01	58.04	670	27	214	0	0	137.01	0.77	49.38	1119	57.62	34.38	96.13
02/01/88	36.61	35.91	2053	67	191	0	0	118.06	1.15	19.62	667	54.60	69.38	96.84
02/02/88	43.09	30.65	2613	100	328	0	0	109.75	1.59	23.80	887	51.92	73.16	96.31
02/03/88	27.80	26.83	2126	47	228	0	0	112.13	1.28	22.75	754	54.05	66.89	97.84
SUMMARY	35.52	39.68	8106	274		0	0	117.30	1.24	32.19	4640	56.32	57.85	96.73

2/11/88

SPLIT: 1 ()

DAY	AVG SPEED ANS	AVG ABAN TIME	NO. ACD CALLS	NO. ABAN CALLS	MAX DELAY	FLOW IN	FLOW OUT	AVG TALK TIME	AVG AFTER CALL WRK	% AUX	NO EXT OUT CALLS	AVG EXT OUT TIME	% ACD TIME	% ANS
01/11/88	25.86	43.31	625	13	448	0	0	156.50	0.03	24.93	576	58.61	49.10	97.96
01/12/88	39.46	74.38	511	32	415	0	0	179.87	0.32	23.41	380	53.11	57.05	94.11
01/13/88	11.49	77.88	462	8	235	0	0	154.65	1.22	41.52	988	60.29	33.46	98.30
.														
02/10/88	7.90	49.70	999	10	194	1	0	133.18	1.56	30.01	841	63.66	43.16	99.01
SUMMARY	31.96	41.53	23295	839		1	0	128.88	1.46	41.13	26018	58.76	44.73	96.52

> **NOTE** "Average Speed of Answer" reports the average time callers waited in queue before connecting to an agent. However, abandoned calls are not included in forming this average. "% ACD Time" includes both the time on ACD calls and the time in after-call work. To change a formula, access the associated calculation in the Dictionary subsystem and create a custom calculation. Then create a Custom Report that uses the new calculation.

> **NOTE** The time agents were available and waiting for an ACD call (idle time) is not shown in the Split Reports. If you want to know the percentage of time agents were available to answer calls, you can create a report item with the following formula:

$$100*(IDLETIME/STAFTIME)$$

Table B 10   Item Reference for Split Reports

Report Item	What It Measures	Units	Database Item Or Calculation Formula
09/ 14/ 87	Date report was generated.	MM/ DD/ YY format date	DATE(D)
DSPLIT, WSPLIT, MSPLIT	UNIX system file name of report.		Label
DAY (Daily only)	Day selected in the Report Parameters screen to be reported on.	MM/ DD/ YY format date	DATE(J)
SPLIT	Split selected in Report Parameters screen to be covered by the report.	Split number or synonym	SYN(SPLIT)
TIME or DAY	Intervals or days selected for report in the Report Parameters screen.	a.m./ p.m. format time, half-hour intervals or MM/ DD/ YY format dates	INTERVAL for Daily Report; DATE(DAY) for Weekly and Monthly.

Table B 10   Item Reference for Split Reports (Contd)

Report Item	What It Measures	Units	Database Item Or Calculation Formula
AVG SPEED ANS	Average speed of answer: the average wait time for callers that connected to an agent.	Seconds	AVG ANSWER SPEED ANSDELAY/ANSWERED
AVG ABAN TIME	Average abandon time: the average wait time for callers who hung up before connecting with an agent.	Seconds	AVG ABANDON TIME ABANTIME/ABANDONS
NO. ACD CALLS	Number of ACD calls: queued calls that connected to an agent in this split during the period covered. (This item also contains intraflowed/ interflowed calls answered in this split.)	Calls	ACDCALLS
NO. ABAN CALLS	Number of abandoned calls: queued calls in which the caller hung up before connecting with an agent.	Calls	ABANDONS
MAX DELAY	Maximum delay: the longest wait in queue by any call, regardless of whether the call connected to an agent or was abandoned.	Seconds	MAXOLDCW
FLOW IN*	Intraflowed calls accepted into this split during the period covered. Includes calls answered, abandoned, or intraflowed/ interflowed out of the split.	Calls	INFLOW
FLOW OUT*	Intraflowed/ interflowed calls sent to another destination by this split during the period covered.	Calls	OUTFLOW

*   With a Generic 3i switch, you could have more INFLOW/ OUTFLOW calls counted because of the Multiple Split Queuing feature. See the *CMS Vectoring Administration* (585-215-502) document for more information.

Table B 10   Item Reference for Split Reports (Contd)

Report Item	What It Measures	Units	Database Item Or Calculation Formula
AVG TALK TIME	Average talk time: average length of ACD calls for the period covered.	Seconds	AVG ACD TALK TIME HH (Daily) CUMTALK/NUMTALK AVG ACD TALK TIME (Weekly,monthly) ACDTIME/ACDCALLS
AVG AFTER CALL WORK	Average after-call work time: the average session in the ACW state.	Seconds	AVG ACW TIME (ACWTIME - ACWINTIME - ACWOUTTIME) / ACDCALLS
% AUX	Percent of time in AUX work: time spent in auxiliary work.	Percent	PERCENT AUX WORK 100 * (AUXTIME/STAFTIME)
NO. EXT OUT CALLS	Number of outgoing calls placed from within this split during the period covered.	Calls	NUM CALL OUT2 ACWOUTCALLS + AUXOUTCALLS
AVG EXT OUT TIME (weekly and monthly reports only)	Average length of extension-out calls.	Seconds	AVG TALK TIME OUT (ACWOUTTIME + AUXOUTTIME) / (ACWOUTCALLS + AUXOUTCALLS)
AVG POS STAFFED (Daily only)	The average number of agents staffing the split during a given half-hour. Calculated by logged-in seconds accumulated during the half-hour.	Agent equivalents	FULLTIME AGENT STAFTIME/1800
% ACD TIME	Percent of staffed time spent on ACD calls.	Percent	PERCENT ACD TIME 100 * ((ACDTIME + ACWTIME) / STAFTIME)
% ANS	Percentage of queued calls that connect to an agent.	Percent	PERCENT CALL ANS 100 * ((ACDCALLS / (ACDCALLS + ABANDONS)
CALLS/ POS STAFF (Daily only)	Average number of calls handled by an agent position.	Calls	FULL AG NUM CALL 1800*(ACDCALLS/STAFTIME)

Split Event Count Report

Data Files Used   /HHOUR/SPLIT for the Daily Report; /DAILY/SPLIT
for the Weekly and Monthly Reports.

```
                        DAILY SPLIT EVENT COUNT REPORT           (MENU:  DSEVENT)
    4/22/88                                                        DAY:  04/01/88
SPLIT: 1 ()

             ACD - - - - - - - - - - - - - - - - - - - EVENT COUNT- - - - - - - - - - - - - - - - - - - - - - - -
    TIME    CALLS     1      2      3      4      5      6      7      8      9
--------------------------------------------------------------------------------

08:00-08:30AM 1183    0      0      0      0     12      0      0      0      0
08:30-09:00AM 1177    0      0      0      0     12      0      0      0      0
09:00-09:30AM 1188    0      0      0      0     12      0      0      0      0
   .
   .
05:30-06:00PM 1190    0      0      0      0     12      0      0      0      0
             ---------------------------------------------------------------------
             56799    0      0      0      0    560      0      0      0      0
```

```
                        WEEKLY SPLIT EVENT COUNT REPORT          (MENU:  WSEVENT)
    2/11/88
SPLIT: 1 ()

             ACD - - - - - - - - - - - - - - - - - - - EVENT COUNT- - - - - - - - - - - - - - - - - - - - - - - -
DAY         CALLS     1      2      3      4      5      6      7      8      9
--------------------------------------------------------------------------------

02/04/88     1928     5      0      0      0      0      0      0      0      0
02/05/88     1635     1      0      1      0      0      0      0      0      0
02/08/88     1686     6      0      0      0      2      0      0      0      0
02/09/88     1552     2      0      0      0      1      0      0      0      0
02/10/88      999     7      4      6      5      3      0      0      0      0
             ---------------------------------------------------------------------
             7800     21     4      7      5      6      0      0      0      0
```

```
                        MONTHLY SPLIT EVENT COUNT REPORT         (MENU:  MSEVENT)
    2/11/88
SPLIT: 1 ()

             ACD - - - - - - - - - - - - - - - - - - - EVENT COUNT- - - - - - - - - - - - - - - - - - - - - - - -
DAY         CALLS     1      2      3      4      5      6      7      8      9
--------------------------------------------------------------------------------

01/11/88      625     8      0      0      0      0      0      0      0      0
01/12/88      511     8      0      0      0      0      0      0      0      0
01/13/88      462     3      1      0      0      0      0      0      0      0
   .
   .
02/10/88      999     7      4      6      5      3      0      0      0      0
             ---------------------------------------------------------------------
            23295    116     8     10     10     13      0      0      0      0
```

NOTE Event Counts are not available as a standard feature on System 75 and Generic 1. However, event counts can be provided on a Custom Work basis.

Table B 11   Item Reference for the Split Event Count Reports

Report Item	What It Measures	Units	Database Item Or Calculation Formula
12/ 16/ 88	Date report was output	MM/ DD/ YY format date	DATE(D)
DAY	The day or days covered by the report.	MM/ DD/ YY format	DATE(J), Daily; DATE(DAY) Weekly, Monthly
SPLIT	The split number or synonym selected in the Report Parameters screen.	Number or synonym	SYN(SPLIT)
TIME (Daily report only)	The half-hour intervals selected in the Report Parameters screen.	a.m./ p.m. format time	INTERVAL
ACD CALLS	Number of ACD calls answered by agents in this split in the period covered. (This item also contains intraflowed/ interflowed calls answered in this split.)	Calls	ACDCALLS
EVENT COUNTS	The number of button presses of the various EVENT COUNT buttons by this split's agents during the period covered.	Event counts	STROKEn for half-hour data; SUM(STROKEn) for summary data, where "n" is the number of an EVENT COUNT button.

Agent Report

Data Files Used   /HHOUR/AGENT for Daily; /DAILY/AGENT for Weekly and Monthly

DAILY AGENT REPORT   (MENU: DAGENT)

2/16/88   DAY: 02/02/88

AGENT: 7002 ()
SPLIT: 1 ()

TIME	NUMBER OF ACD CALLS	AVERAGE ACD TALK TIME	AVERAGE AFTER CALL WORK	WEIGHTED CALL VALUE	NO. OF EXT OUT CALLS	AVG EXT OUT TALK TIME	NO. OF EXT IN CALLS	AVG EXT IN TALK TIME	% AUX WORK	% ACD TIME	TOTAL MIN STAFFED	NUMBER OF ASSISTS
11:00-11:30AM	7	175.43	0.00	175.43	0	0.00	0	0.00	0.08	99.84	20.50	0
11:30-12:00PM	17	87.00	0.00	87.00	1	1.00	0	0.00	15.92	83.80	29.42	0
12:00-12:30PM	2	845.00	0.00	845.00	0	0.00	0	0.00	1.49	97.01	29.03	0
.												
.												
03:30-04:00PM	14	88.71	0.00	88.71	1	1.00	0	0.00	27.29	69.74	29.68	0
SUMMARY	91	119.55	0.00	119.55	2	1.00	0	0.00	14.84	84.37	214.90	0

WEEKLY AGENT REPORT   (MENU: WAGENT)

2/11/88

AGENT: 7002 ()
SPLIT: 1 ()

DAY	NUMBER OF ACD CALLS	AVERAGE ACD TALK TIME	AVERAGE AFTER CALL WORK	WEIGHTED CALL VALUE	NO. OF EXT OUT CALLS	AVG EXT OUT TALK TIME	NO. OF EXT IN CALLS	AVG EXT IN TALK TIME	% AUX WORK	% ACD TIME	TOTAL HOURS STAFFED	NUMBER OF ASSISTS
02/04/88	98	121.36	0.00	121.36	6	2.00	0	0.00	25.67	61.63	5.36	0
02/05/88	70	105.49	0.00	105.49	2	1.50	0	0.00	16.25	68.50	2.99	0
02/08/88	54	142.69	0.00	142.69	2	1.00	0	0.00	18.85	75.87	2.82	0
02/09/88	85	119.56	0.00	119.56	3	1.00	0	0.00	26.30	64.81	4.36	0
02/10/88	48	146.54	0.00	146.54	3	1.00	0	0.00	18.66	57.17	3.42	0
SUMMARY	355	124.45	0.00	124.45	16	1.44	0	0.00	22.05	64.76	18.95	0

MONTHLY AGENT REPORT   (MENU: MAGENT)

2/11/88

AGENT: 7002 ()
SPLIT: 1 ()

DAY	NUMBER OF ACD CALLS	AVERAGE ACD TALK TIME	AVERAGE AFTER CALL WORK	WEIGHTED CALL VALUE	NO. OF EXT OUT CALLS	AVG EXT OUT TALK TIME	NO. OF EXT IN CALLS	AVG EXT IN TALK TIME	% AUX WORK	% ACD TIME	TOTAL HOURS STAFFED	NUMBER OF ASSISTS
01/11/88	14	193.50	0.00	193.50	2	1.00	0	0.00	9.46	63.26	1.19	0
01/12/88	26	195.42	0.00	195.42	1	1.00	0	0.00	9.28	70.55	2.00	0
01/13/88	12	277.33	0.00	277.33	1	2.00	0	0.00	0.16	89.15	1.04	0
.												
.												
02/10/88	48	146.54	0.00	146.54	3	1.00	0	0.00	18.66	57.17	3.42	0
SUMMARY	909	149.82	0.00	149.82	46	1.43	0	0.00	15.52	68.79	54.99	0

NOTE	Depending on your needs, you may want to change the formula used to calculate "% ACDTIME." This item currently includes after-call-work. To change the formula, access the associated calculation in the Dictionary subsystem and create a custom calculation. Then create a Custom Report that uses the new calculation.

Table B 12   Item Reference on Agent Reports

Report Item	What It Measures	Units	Database Item Or Calculation Formula
04/11/87	Date the report was printed.	MM/DD/YY format date	DATE(D)
DAGENT, WAGENT, MAGENT File names of the reports.	UNIX system file names	Label	
DAY (Daily only)	Date covered in a daily report; beginning date of weekly or monthly reports.	MM/DD/YY format date	DATE(J)
AGENT	ID or synonym of the agent selected in the Report Parameters screen.	Synonym or Login ID	SYN(LOGID)
SPLIT	Number or synonym of the agent's split.	Number or synonym	SYN(SPLIT)
TIME (Daily report only)	Half-hour intervals selected for this report in the Report Parameters screen.	a.m./p.m. format time	INTERVAL
DATE (Weekly, Monthly)	Days selected for this report via the Report Parameters screen.	MM/DD/YY format date	DATE(DAY)
NUMBER OF ACD CALLS	ACD calls answered by this agent during the period covered.	Calls	SUM(ACDCALLS) (Daily) ACDCALLS (Weekly,monthly)

Table B 12   Item Reference on Agent Reports (Contd)

Report Item	What It Measures	Units	Database Item Or Calculation Formula

AVERAGE ACD TALK TIME	Average length of this agent's ACD calls during the period covered.	Seconds	AVG ACD TALK TIME SUM (Daily)
			`SUM(ACDTIME) /`
			`SUM(ACDCALLS)`
			AVG ACD TALK TIME (Weekly,monthly)
			`ACDTIME/ACDCALLS`

AVERAGE AFTER CALL WORK	Average length of ACW sessions by this agent.	Seconds	AVG ACW TIME SUM (Daily)
			`SUM(ACWTIME - ACWOUTTIME`
			`- ACWINTIME) /`
			`SUM(ACDCALLS)`
			AVG ACW TIME (Weekly,monthly)
			`(ACWTIME - ACWOUTTIME -`
			`ACWINTIME) / ACDCALLS`

WEIGHTED CALL VALUE	The average combined length of ACD calls and after-call work for this agent. The total elapsed time from the beginning of one call to the beginning of the next, assuming the agent's work is an unbroken series of ACD calls and ACW sessions.	Seconds	AVG WORK TIME SUM (Daily)
			`SUM(ACDTIME + ACWTIME -`
			`ACWOUTTIME - ACWINTIME) /`
			`SUM(ACDCALLS)`
			AVG WORK TIME (Weekly,Monthly)
			`(ACDTIME + ACWTIME -`
			`ACWOUTTIME - ACWINTIME) /`
			`(ACDCALLS)`

NO. OF EXT OUT CALLS	Number of extension-out calls by this agent in the period.	Calls	SUM(NUM CALL OUT2) (Daily)
			`SUM(ACWOUTCALLS +`
			`AUXOUTCALLS)`
			NUM CALL OUT2 (Weekly,monthly)
			`(ACWOUTCALLS +`
			`AUXOUTCALLS)`

AVG EXT OUT TALK TIME	The length of the average extension-out call.	Seconds	AVG TALK TIM OUT SUM (Daily)
			`SUM(ACWOUTTIME +`
			`AUXOUTTIME) /`
			`SUM(ACWOUTCALLS +`
			`AUXOUTCALLS)`
			AVG TALK TIME OUT (Weekly,monthly)
			`(ACWOUTTIME + AUXOUTTIME)`
			`/ (ACWOUTCALLS +`
			`AUXOUTCALLS)`

Table B 12   Item Reference on Agent Reports (Contd)

Report Item	What It Measures	Units	Database Item Or Calculation Formula
NO. OF EXT IN CALLS	The number of direct-dialed calls to the agent's extension during the period covered.	Calls	SUM(EXT CALL IN) (Daily) `SUM(ACWINCALLS + AUXINCALLS)` EXT CALL IN (Weekly,monthly) `(ACWINCALLS + AUXINCALLS)`
AVG EXT IN TALK TIME	Length of the average direct-dialed call to this agent's extension during the period covered.	Seconds	AVG TALK TIME IN SUM (Daily) `SUM(ACWINTIME + AUXINTIME) / SUM(ACWINCALLS + AUXINCALLS)` AVG TALK TIME IN (Weekly,monthly) `(ACWINTIME + AUXINTIME) / (ACWINCALLS + AUXINCALLS)`
% AUX WORK	Percent auxiliary work: the percent of the agent's total logged-in time spent in the AUX-WORK state.	Percent	PERCENT AUX WORK SUM (Daily) `100 * SUM(AUXTIME) / SUM(STAFTIME))` PERCENT AUX WORK (Weekly,monthly) `100 * (AUXTIME) / (STAFTIME))`
% ACD TIME	Percent ACD time: the percent of the agent's total logged-in time actually spent on ACD calls and the associated after-call work.	Percent	PERCENT ACD TIME SUM (Daily) `100 * SUM(ACDTIME + ACWTIME) / SUM(STAFTIME)` PERCENT ACD TIME (Weekly,monthly) `100 * (ACDTIME + ACWTIME) / (STAFTIME)`
TOTAL MIN/ HOURS STAFFED	Total logged-in time by this agent in the period covered.	Minutes/ hours	SUM(MIN STAFF TIME (Daily) `STAFTIME / 60` HR STAFF TIME (Weekly,monthly) `STAFTIME / 3600`
NUMBER OF ASSISTS	Number of calls referred to the supervisor by the agent using the ASSIST button during the period covered.	Calls	SUM(ASSISTS) (Daily) ASSISTS (Weekly,monthly)

Agent Event Count Report

Data Files Used   /HHOUR/AGENT used in Daily report;
                     /DAILY/AGENT used in Weekly and Monthly reports.

```
                        DAILY AGENT EVENT COUNT REPORT              (MENU: DAEVENT)
 2/16/88                                                       DAY: 02/02/88
AGENT: 7002 ()

                  ACD    ----------------------EVENT COUNT----------------------
TIME              CALLS    1      2      3      4      5      6      7      8      9
-------------------------------------------------------------------------------

11:00-11:30AM       7      0      0      0      0      0      0      0      0      0
11:30-12:00PM      17      0      0      0      0      0      0      0      0      0
12:00-12:30PM       2      0      0      0      0      0      0      0      0      0
   .
   .
03:30-04:00PM      14      0      0      0      0      0      0      0      0      0
-------------------------------------------------------------------------------
SUMMARY            91      0      0      0      0      0      0      0      0      0



                       WEEKLY AGENT EVENT COUNT REPORT             (MENU: WAEVENT)
 2/11/88
AGENT: 7003 ()

                  ACD    ----------------------EVENT COUNT----------------------
DAY               CALLS    1      2      3      4      5      6      7      8      9
-------------------------------------------------------------------------------

02/04/88           89      0      0      0      0      0      0      0      0      0
02/05/88          114      0      0      0      0      0      0      0      0      0
02/08/88          158      0      0      0      0      0      0      0      0      0
02/09/88          155      0      0      0      0      0      0      0      0      0
02/10/88           54      0      0      0      0      0      0      0      0      0
-------------------------------------------------------------------------------
SUMMARY           570      0      0      0      0      0      0      0      0      0



                      MONTHLY AGENT EVENT COUNT REPORT             (MENU: MAEVENT)
 2/11/88
AGENT: 7002 ()

                  ACD    ----------------------EVENT COUNT----------------------
DAY               CALLS    1      2      3      4      5      6      7      8      9
-------------------------------------------------------------------------------

01/11/88           14      0      0      0      0      0      0      0      0      0
01/12/88           26      0      0      0      0      0      0      0      0      0
01/13/88           12      0      0      0      0      0      0      0      0      0
   .
   .
02/10/88           48      0      0      0      0      0      0      0      0      0
-------------------------------------------------------------------------------
SUMMARY           909      0      0      0      0      0      0      0      0      0
```

| NOTE | Event Counts are not available as a standard feature on System 75 and Generic 1. However, event counts can be provided on a Custom Work basis. |

Table B 13   Item Reference for the Agent Event Count Reports

Report Item	What It Measures	Units	Database Item Or Calculation Formula
02/ 19/ 88	Date the report was generated.	MM/ DD/ YY format date	DATE(D)
DAEVENT, WAEVENT, MAEVENT	UNIX system file name of report name.		Label
DAY	The day covered by the report.	MM/ DD/ YY format	DATE(J), Daily; DATE(DAY), Weekly, Monthly
AGENT	The agent ID number or name selected in the Report Parameters screen.	ID or synonym	SYN(LOGID)
TIME (Daily report only)	The half-hour intervals selected in the Report Parameters screen.	a.m./ p.m. format time	INTERVAL
ACD CALLS	Number of ACD calls answered by this agent in the period covered.	Calls	SUM(ACDCALLS) (Daily) ACDCALLS (Weekly, Monthly)
EVENT COUNT	The number of button presses of the various EVENT COUNT buttons by this agent during the period covered.	Event counts	SUM(STROKEn) where n is the number of the EVENT COUNT button (Daily) STROKEn (Weekly and monthly)

Trunk Group Report

Data File Used   /HHOUR/TRUNKGROUP /DAILY/TRUNKGROUP

DAILY TRUNK GROUP REPORT   (MENU: DTGROUP)

4/22/88   DAY: 04/01/88

TRUNK GROUP: 22 ()
NUMBER OF TRUNKS: 20

	----------------------INCOMING----------------------					----------OUTGOING--------				
	NUMBER OF CALLS CARRIED	NUMBER OF CALLS ABANDONED	NUMBER OF CALLS ANSWERED	AVG HOLD TIME	TOTAL CCS	NUMBER OF OUT CALLS	AVG HOLD TIME	TOTAL CCS	% ALL TRUNKS BUSY	% TIME MAINT BUSY
TIME										
08:00-08:30AM	223	21	202	148.48	331.12	0	0.00	0.00	15.61	0.00
08:30-09:00AM	223	21	202	146.92	327.64	0	0.00	0.00	7.61	0.00
09:00-09:30AM	220	18	202	149.41	328.70	0	0.00	0.00	12.17	0.00
.										
05:30-06:00PM	223	19	204	149.02	332.31	0	0.00	0.00	16.67	0.00
SUMMARY	10658	947	9710	148.94	15874.35	0	0.00	0.00	13.54	0.00

WEEKLY TRUNK GROUP REPORT   (MENU: WTGROUP)

3/01/88

TRUNK GROUP: 20 ()
NUMBER OF TRUNKS: 138

	----------------------INCOMING----------------------					----------OUTGOING--------				
	NUMBER OF CALLS CARRIED	NUMBER OF CALLS ABANDONED	NUMBER OF CALLS ANSWERED	AVG HOLD TIME	TOTAL CCS	NUMBER OF OUT CALLS	AVG HOLD TIME	TOTAL CCS	% ALL TRUNKS BUSY	% TIME MAINT BUSY
DAY										
02/09/88	364	15	225	112.78	410.51	0	0.00	0.00	0.00	0.00
02/10/88	289	13	129	109.46	316.33	0	0.00	0.00	0.00	0.00
02/11/88	4	0	2	202.75	8.11	0	0.00	0.00	0.00	0.00
	657	28	356	111.86	734.95	0	0.00	0.00	0.00	0.00

MONTHLY TRUNK GROUP REPORT   (MENU: MTGROUP)

3/01/88

TRUNK GROUP: 20 ()
NUMBER OF TRUNKS: 138

	----------------------INCOMING----------------------					----------OUTGOING--------				
	NUMBER OF CALLS CARRIED	NUMBER OF CALLS ABANDONED	NUMBER OF CALLS ANSWERED	AVG HOLD TIME	TOTAL CCS	NUMBER OF OUT CALLS	AVG HOLD TIME	TOTAL CCS	% ALL TRUNKS BUSY	% TIME MAINT BUSY
DAY										
02/01/88	7221	129	2675	74.25	5361.44	0	0.00	0.00	0.00	0.00
02/02/88	9087	202	4377	89.85	8164.58	0	0.00	0.00	0.00	0.00
02/03/88	3208	79	1860	104.64	3356.84	0	0.00	0.00	0.00	0.00
.										
02/11/88	4	0	2	202.75	8.11	0	0.00	0.00	0.00	0.00
	26140	656	12153	90.45	23643.53	0	0.00	0.00	0.00	0.00

NOTE	The Weekly and Monthly Trunk Group Reports base the ''% ALL TRUNKS BUSY'' and the ''% TIME MAINT BUSY'' on a 24-hour day with 48 intervals; as a result, the summary values for these items shown in your Daily reports may not match the values shown in your Weekly/ Monthly reports. To reflect the actual hours of daily activity, create a custom report and change the denominator for these fields. For example, for 8 hours of activity, use 16 intervals; for 12 hours of activity, use 24 intervals, etc.

NOTE	The ''Number of Calls Carried'' item contains, in addition to the number of calls answered and abandoned, the number of non-ACD calls (if any) and calls lost due to hardware and software failures (if any). Therefore, ''Calls Carried'' may not always match the total of ''Calls Abandoned'' and ''Calls Answered.'' You can create a custom report with a ''Calls Carried'' item as follows — `INCALLS-FAILURES-SOFTFAIL-NONACD` — to eliminate these additional calls. Or, if desired, you can individually list data in a custom report for the `FAILURES`, `SOFTFAIL`, and `NONACD` database items.

Table B 14   Item Reference for the Trunk Group Reports

Report Item	What It Measures	Units	Database Item Or Calculation Formula
04/ 19/ 88	Date when the report was generated.	MM/ DD/ YY format date	DATE(D)
DTGROUP	UNIX system file name of report.		Label
DAY	Day selected on Report Parameters screen for the report.	MM/ DD/ YY format date	DATE(J)(Daily)
TRUNK GROUP	The number of the trunk group of which the trunk is a member.	Trunk group number	SYN(TRKGRP)
NUMBER OF TRUNKS	Number of trunks in group.	Trunks	GROUPSIZE
TIME/ DATES	The half-hour intervals or days selected in the Report Parameters screen for the report to cover.	a.m/ p.m. format time	INTERVAL (Daily) DATE(DAY) (Weekly, Monthly)
INCOMING			
NUMBER OF CALLS CARRIED	Incoming calls that seized this trunk during the period covered.	Calls	INCALLS

Table B 14   Item Reference for the Trunk Group Reports (Contd)

Report Item	What It Measures	Units	Database Item Or Calculation Formula
NUMBER OF CALLS ABANDONED	Calls in which the caller hangs up before being connected to an agent during the period covered.	Calls	ABANDONS
NUMBER OF CALLS ANSWERED	Calls that connected to an agent in this period.	Calls	ANSWERED
AVG HOLD TIME	Average length of time incoming calls last.	Seconds	AVG HOLD TIME IN `INTIME/INCALLS`
TOTAL CCS	The trunk occupancy by incoming calls that seize the trunk (includes all "carried" calls) in hundreds of call seconds.	CCS	INTIME/ 100
OUTGOING			
NUMBER OF OUT CALLS	Extension-out calls that seize this trunk during the period covered.	Calls	OUTCALLS
AVG HOLD TIME	Average holding time of all outgoing calls on this trunk.	Seconds	AVG HOLD TIME OUT `OUTTIME/OUTCALLS`
TOTAL CCS	Total outgoing-call trunk occupancy in hundreds of call seconds.	CCS	OUTGOING CCS `OUTTIME/100`
% ALL TRUNKS BUSY	The percentage of time all trunks are simultaneously busy.	Percent	PERCENT BUSY ALL (Daily) `ALLINUSE/18` SUM(PERCENT BUSY ALL) (Weekly,monthly) `ALLINUSE/18)/48`
% TIME MAINT BUSY	The percentage of time the trunk group has been busied out for maintenance.	Percent	PERCENT MAINT TIM (Daily) `MBUSYTIME/(18 *` GROUPSIZE) SUM(PERCENT MAINT TIM) (Weekly,monthly) `((MBUSYTIME) /(18 *` GROUPSIZE)) / 48

System Report

Data File Used   /DAILY/SPLIT

DAILY SYSTEM REPORT   (MENU: DSYSTEM)
2/16/88   DAY: 02/02/88

SPLIT	AVG SPEED ANS	AVG ABAN TIME	NO. ACD CALLS	NO. ABAN CALLS	MAX DELAY	FLOW IN	FLOW OUT	AVG TALK TIME	AVG AFTER CALL WRK	% AUX	NO EXT OUT CALLS	AVG EXT OUT TIME	% ACD TIME	% ANS
1 ()	43.09	30.65	2613	100	328	0	0	109.75	1.59	23.80	887	51.92	73.16	96.31
2 ()	18.39	23.66	1670	32	170	0	0	109.62	0.00	30.41	28	4.61	54.40	98.12
3 ()	62.46	34.83	2227	119	231	0	0	144.41	17.15	34.14	2135	52.51	60.84	94.93
.														
31 ()	3.36	0.00	192	0	197	0	0	452.38	0.00	56.18	351	102.94	14.64	100.00
SUMMARY	51.20	100.24	32954	1573		1123	1123	156.11	4.05	29.58	18871	65.63	45.94	95.44

WEEKLY SYSTEM REPORT   (MENU: WSYSTEM)
2/11/88   DAY: 02/04/88

SPLIT	AVG SPEED ANS	AVG ABAN TIME	NO. ACD CALLS	NO. ABAN CALLS	MAX DELAY	FLOW IN	FLOW OUT	AVG TALK TIME	AVG AFTER CALL WRK	% AUX	NO EXT OUT CALLS	AVG EXT OUT TIME	% ACD TIME	% ANS
1 ()	30.40	32.93	7800	331	462	1	0	119.72	2.26	27.43	3488	58.92	59.36	95.93
2 ()	28.95	53.01	4410	197	1783	60	0	126.43	0.06	30.41	101	6.90	50.71	95.72
3 ()	34.48	41.70	7728	233	762	90	0	144.61	15.11	34.08	7200	61.40	55.81	97.07
.														
31 ()	6.55	129.56	781	16	618	0	0	418.49	0.00	63.34	3752	91.64	13.07	97.99
SUMMARY	33.93	61.87	128368	5173		5574	5567	166.88			98350	70.82	39.97	96.13

MONTHLY SYSTEM REPORT   (MENU: MSYSTEM)
2/11/88   DAY: 01/11/88

SPLIT	AVG SPEED ANS	AVG ABAN TIME	NO. ACD CALLS	NO. ABAN CALLS	MAX DELAY	FLOW IN	FLOW OUT	AVG TALK TIME	AVG AFTER CALL WRK	% AUX	NO EXT OUT CALLS	AVG EXT OUT TIME	% ACD TIME	% ANS
1 ()	31.96	41.53	23295	839	556	1	0	128.88	1.46	41.13	26018	58.76	44.73	96.52
2 ()	35.43	67.73	15153	558	1783	60	0	127.73	0.02	42.20	5554	50.94	38.87	96.45
3 ()	42.28	52.40	24393	935	762	90	157	154.91	12.03	45.68	36443	60.63	44.90	96.31
.														
31 ()	3.13	248.00	3335	30	1182	0	0	473.87	0.00	45.21	11280	78.11	14.19	99.11
SUMMARY	35.04	79.89	565696	24569		34309	34302	167.09			566757	66.31	35.02	95.84

NOTE The time agents were available and waiting for an ACD call (idle time) is not shown in the System Reports. If you want to know the percentage of time agents were available to answer calls, you can create a report item with the following formula:

```
100*(IDLETIME/STAFTIME)
```

Table B 15   Item Reference for the System Reports

Report Item	What It Measures	Units	Database Item Or Calculation Formula
03/ 16/ 87	Date report was generated.	MM/ DD/ YY format date	DATE(D)
DSYSTEM, WSYSTEM, MSYSTEM	UNIX system file name of report.		Label
DAY (Daily report)	Day covered in the report, as specified on Report Parameters screen.	MM/ DD/ YY format date	DATE(J)
FIRST DAY (Weekly and Monthly reports)	Beginning of the period covered in the report.	MM/ DD/ YY format date	DATE(J)
SPLIT	Numbers or synonyms of measured splits covered in the report.	Split number or synonym	SYN(SPLIT)
AVG SPEED ANS	Average speed of answer: the average time to answer all ACD calls that connected to an agent in all measured splits.	Seconds	AVG ANSWER SPEED (Daily) ANSDELAY/ANSWERED AVG ANSWER SPEED SUM (Weekly,monthly) SUM (ANSDELAY)/ SUM (ANSWERED) (Weekly,monthly)
AVG ABAN TIME	Average abandon time: the average time a caller who hung up without receiving an answer waited before doing so.	Seconds	AVG ABANDON TIME SUM (Daily) ABANTIME/ABANDONS AVG ABANDON TIME SUM (Weekly,monthly) SUM(ABANTIME)/SUM(ABANDONS)
NO. ACD CALLS	Number of calls that were answered in this split during the period covered. (This item also contains intraflowed/ interflowed calls answered in the split.)	Calls	ACDCALLS (Daily) SUM(ACDCALLS) (Weekly,monthly)

Table B 15 Item Reference for the System Reports (Contd)

Report Item	What It Measures	Units	Database Item Or Calculation Formula
NO. ABAN CALLS	Number of queued calls in which the caller hung up before connecting to an agent during the period covered.	Calls	ABANDONS (Daily) SUM(ABANDONS) (Weekly,monthly)
MAX DELAY	Maximum delay: the longest queue time before being connected to an agent or being abandoned for any ACD call in the period covered.	Seconds	MAX(MAXOLDCW)
FLOW IN*	Intraflowed calls accepted into measured splits during the period covered.	Calls	INFLOW (Daily) SUM(INFLOW) (Weekly,monthly)
FLOW OUT*	Intraflowed/ interflowed calls exported by measured splits during the period covered.	Calls	OUTFLOW (Daily) SUM(OUTFLOW) (Weekly,monthly)
AVG TALK TIME	Average talk time of ACD calls for the period covered.	Seconds	AVG ACD TALK TIME (Daily) ACDTIME/ACDCALLS AVG ACD TALK TIM SUM (Weekly,monthly) SUM(ACDTIME) / SUM(ACDCALLS)
AVG AFTER CALL WORK	Average after-call work time: the average session in the ACW state.	Seconds	AVG ACW TIME (Daily) (ACWTIME - ACWOUTTIME - ACWINTIME) / ACDCALLS AVG ACW TIME SUM (Weekly,monthly) SUM(ACWTIME - ACWOUTTIME - ACWINTIME) / SUM(ACDCALLS)
% AUX	Percent of time in AUX work: time spent in auxiliary work, an agent state reached by pressing the AUX-WORK button.	Percent	PERCENT AUX WORK (Daily) 100 * (AUXTIME/STAFTIME) PERCENT AUX WORK SUM (Weekly,monthly) 100*(SUM(AUXTIME)/SUM(STAFTIME))

*   *With a Generic 3i switch, you could have more INFLOW/ OUTFLOW calls counted because of the Multiple Split Queuing feature. See the *CMS Vectoring Administration* (585-215-502) document for more information.

Table B 15   Item Reference for the System Reports (Contd)

Report Item	What It Measures	Units	Database Item Or Calculation Formula

NO. EXT OUT CALLS	Number of out calls: number of extension-out calls placed by agents in measured splits during the period covered.	Calls	NUM CALL OUT2 (Daily)
			  ACWOUTCALLS+AUXOUTCALLS
			SUM (NUM CALL OUT2)
			(Weekly,monthly)
			  SUM(ACWOUTCALLS+AUXOUTCALLS)

AVG EXT OUT TIME	Average out time: average length of extension-out calls.	Seconds	AVG TALK TIME OUT (Daily)
			  (ACWOUTTIME + AUXOUTTIME)
			/ (ACWOUTCALLS +
			AUXOUTCALLS)
			AVG TALK TIM OUT
			  SUM(ACWOUTTIME +
			AUXOUTTIME) /
			SUM(ACWOUTCALLS +
			AUXOUTCALLS)

% ACD TIME	Percent ACD time: percent of staffed time spent by all measured agents on ACD calls.	Percent	PERCENT ACD TIME (Daily)
			  100 * ((ACDTIME +
			ACWTIME) / STAFTIME)
			PERCENT ACD TIME SUM
			(Weekly,monthly)
			  100 * (SUM(ACDTIME +
			ACWTIME) / SUM(STAFTIME))

% ANS	Percent of calls queued that receive an answer.	Percent	PERCENT CALL ANS (Daily)
			  100 * (ACDCALLS /
			(ACDCALLS + ABANDONS))
			PERCENT CALL ANS SUM
			(Weekly,monthly)
			  100 * (SUM(ACDCALLS) /
			SUM(ACDCALLS + ABANDONS))

Split Summary Report

Data File Used   /DAILY/AGENT

SPLIT SUMMARY   (MENU: SPLSUM)
 2/11/88   DAY: 02/10/88

SPLIT: 1 ()

AGENT	EXT.	NUMBER OF ACD CALLS	AVERAGE ACD TALK TIME	AVERAGE AFTER CALL WRK	WEIGHTED CALL VALUE	NO. OF EXT OUT CALLS	AVG EXT OUT TALK TIME	NO. OF EXT IN CALLS	AVG EXT IN TALK TIME	% AUX WORK	% ACD TIME	TOTAL HOURS STAFFED	NUMBER OF ASSISTS
4025 ()	5013	0	0.00	0.00	0.00	221	68.32	0	0.00	100.00	0.00	5.73	0
4026 ()	5012	0	0.00	0.00	0.00	198	67.65	0	0.00	100.00	0.00	4.95	0
7018 ()	5000	32	111.13	0.00	111.13	2	1.00	0	0.00	15.88	53.43	1.85	0
.													
.													
.													
7042 ()	5001	71	75.37	19.42	94.79	2	1.00	0	0.00	5.11	50.54	3.70	0
SUMMARY		999	133.40	1.56	134.96	626	65.47	0	0.00	25.92	45.71	81.94	0

> **NOTE** Depending on your needs, you may want to change the formula used to calculate "% ACDTIME." This item currently includes after-call work. To change the formula, access the associated calculation in the Dictionary subsystem and create a custom calculation. Then create a Custom Report that uses the new calculation.

> **NOTE** The time agents were available and waiting for an ACD call (idle time) is not shown in the Split Summary report. If you want to know the percentage of time agents were available to answer calls, you can create a report item with the following formula:

$$100*(IDLETIME/STAFTIME)$$

Table B 16   Item Reference for the Split Summary

Report Item	What It Measures	Units	Database Item Or Calculation Formula
04/ 01/ 88	Date report was generated.	MM/ DD/ YY format	DATE(D)
SPLSUM	UNIX system file name of report.		Label
DAY	Day covered by the report.	MM/ DD/ YY format for day covered	DATE(J)
SPLIT	The number and (if created) the synonym of the split covered in the report.	Number and synonym	SYN(SPLIT)
AGENT	Agent synonym or login ID for members of the selected split.	Synonym or ID number	SYN(LOGID)
EXT	Extension to which the agent was logged on.	Extension Number	EXTENSION
NUMBER OF ACD CALLS	ACD calls connected to this agent during the period covered. Some of the calls counted may have intraflowed/ interflowed into the agent's split.	Calls	ACDCALLS
AVERAGE ACD TALK TIME	Average length of this agent's ACD calls during the period covered.	Seconds	AVG ACD TALK TIME ACDTIME/ACDCALLS
AVERAGE AFTER CALL WORK	Average length of ACW sessions by this agent.	Seconds	AVG ACW TIME (ACWTIME - ACWOUTTIME - ACWINTIME) / ACDCALLS

Table B 16   Item Reference for the Split Summary (Contd)

Report Item	What It Measures	Units	Database Item Or Calculation Formula
WEIGHTED CALL VALUE	The average combined length of ACD calls and after-call work for this agent. The total elapsed time from the beginning of one call to the beginning of the next, assuming the agent's work is an unbroken series of ACD calls and ACW sessions.	Seconds	AVG WORK TIME (ACDTIME + ACWTIME – ACWOUTTIME – ACWINTIME) / ACDCALLS
NO. OF EXT OUT CALLS	Number of extension-out calls by this agent in the period covered.	Calls	NUM CALL OUT ACWOUTCALLS + AUXOUTCALLS
AVG EXT OUT TALK TIME	Average extension-out talk time: the length of the average extension-out call.	Seconds	AVG TALK TIME OUT (ACWOUTTIME + AUXOUTTIME) / (ACWOUTCALLS + AUXOUTCALLS)
NO. EXT IN CALLS	The number of direct-dialed calls to the agent's extension during the period covered.	Calls	EXT CALL IN ACWINCALLS + AUXINCALLS
AVG EXT IN TALK TIME	Length of the average direct-dialed call to this agent's extension during the period covered.	Seconds	AVG TALK TIME IN (ACWINTIME + AUXINTIME) / ACWINCALLS + AUXINCALLS)
% AUX WORK	Percent auxiliary work: the percent of the agent's total logged-in time spent in the AUX-WORK state.	Percent	PERCENT AUX WORK 100 * (AUXTIME/STAFTIME)
% ACD TIME	Percent ACD time: the percent of the agent's total logged in time actually spent on ACD calls and the associated ACW time.	Percent	PERCENT ACD TIME 100 * ((ACDTIME + ACWTIME) / STAFTIME
TOTAL HOURS STAFFED	Total logged-in time by this agent in the period covered.	Hours	HR STAFF TIME STAFTIME/3600
NUMBER OF ASSISTS	Number of calls referred to the supervisor by the agent using the ASSIST button during the period covered.	Calls	ASSISTS

Group Summary Report

Data File Used   /DAILY/AGENT

2/11/88   DAY: 02/10/88

GROUP: west

AGENT	NUMBER OF ACD CALLS	AVERAGE ACD TALK TIME	AVERAGE AFTER CALL WORK	WEIGHTED CALL VALUE	NO. OF EXT OUT CALLS	AVG EXT OUT TALK TIME	NO. OF EXT IN CALLS	AVG EXT IN TALK TIME	% AUX WORK	% ACD TIME	TOTAL HOURS STAFFED	NUMBER OF ASSISTS
4025 ()	0	0.00	0.00	0.00	221	68.32	0	0.00	100.00	0.00	5.73	0
4026 ()	0	0.00	0.00	0.00	198	67.65	0	0.00	100.00	0.00	4.95	0
7018 ()	32	111.13	0.00	111.13	2	1.00	0	0.00	15.88	53.43	1.85	0
.												
.												
7042 ()	71	75.37	19.42	94.79	2	1.00	0	0.00	5.11	50.54	3.70	0
SUMMARY	999	133.40	1.56	134.96	626	65.47	0	0.00	25.92	45.71	81.94	0

NOTE	Groups are not created at the switch. You must define them in the Dictionary subsystem.

Table B 17   Item Reference for the Group Summary Report

Report Item	What It Measures	Units	Database Item Or Calculation Formula
04/ 01/ 88	Date report was generated.	MM/ DD/ YY format date	DATE
GRPSUM	UNIX system file name of the report.		Label
DAY	Day covered in the report.	MM/ DD/ YY format date	DATE(J)
GROUP	Group name.	Synonym	GROUP
AGENT	Agent synonym or login ID for members of the selected group.	Synonym or ID	SYN(LOGID)
NUMBER OF ACD CALLS	ACD calls connected to this agent during the period covered. Some of the calls counted may have intraflowed/ interflowed into the agent's split.	Calls	ACDCALLS
AVERAGE ACD TALK TIME	Average length of this agent's ACD calls during the period covered.	Seconds	AVG ACD TALK TIME ACDTIME/ACDCALLS
AVERAGE AFTER CALL WORK	Average length of ACW sessions by this agent.	Seconds	AVG ACW TIME (ACWTIME - ACWINTIME - ACWOUTTIME) / ACDCALLS
WEIGHTED CALL VALUE	The average combined length of ACD calls and after-call work for this agent.	Seconds	AVG WORK TIME (ACDTIME + ACWTIME - ACWOUTTIME - ACWINTIME) / ACDCALLS

Table B 17   Item Reference for the Group Summary Report (Contd)

Report Item	What It Measures	Units	Database Item Or Calculation Formula
NO. OF EXT OUT CALLS	Number of extension-out calls by this agent in the period covered.	Calls	NUM CALL OUT2 ACWOUTCALLS + AUXOUTCALLS
AVG EXT OUT TALK TIME	Average extension-out talk time: the length of the average extension-out call.	Seconds	AVG TALK TIME OUT (ACWOUTTIME + AUXOUTTIME) / (ACWOUTCALLS + AUXOUTCALLS)
NO. OF EXT IN CALLS	The number of direct-dialed calls to the agent's extension during the period covered.	Calls	EXT CALL IN ACWINCALLS + AUXINCALLS
AVG EXT IN TALK TIME	Length of the average direct-dialed call to this agent's extension during the period covered.	Seconds	AVG TALK TIME IN (ACWINTIME + AUXINTIME) / (ACWINCALLS + AUXINCALLS)
% AUX WORK	Percent auxiliary work: the percent of the agent's total logged-in time spent in the AUX-WORK state.	Percent	PERCENT AUX WORK 100*(AUXTIME/STAFTIME)
% ACD TIME	Percent ACD time: the percent of the agent's total logged in time actually spent on ACD calls and the associated ACW.	Percent	PERCENT ACD TIME 100 * ((ACDTIME + ACWTIME) / STAFTIME)
TOTAL HOURS STAFFED	Total logged-in time by this agent in the period covered.	Hours	HR STAFF TIME STAFTIME/3600
NUMBER OF ASSISTS	Number of calls referred to the supervisor by the agent using the ASSIST button during the period covered.	Calls	ASSISTS

Trunk Group Summary Report

Data File Used   /DAILY/TRUNK

TRUNK GROUP SUMMARY   (MENU: TGSUM)
2/15/88   DAY: 01/25/88

TRUNK GROUP: 30 ()

		----------------INCOMING----------------					-------------OUTGOING------------			
		NUMBER	NUMBER	AVG		DIRECT	NUMBER	AVG		NUMBER
PHYSICAL TRUNK	TRUNK	OF CALLS	OF CALLS	HOLD	TOTAL	IN	OF OUT	HOLD	TOTAL	OF
EQUIPMENT LOCATION	NUMBER	CARRIED	ABANDONED	TIME	CCS	CALLS	CALLS	TIME	CCS	FAILURES
8 . 1. 1. 19. 1	1627	10	1	196.80	19.68	0	0	0.00	0.00	0
8 . 1. 1. 20. 1	1639	13	0	287.77	37.41	1	0	0.00	0.00	0
8 . 1. 1. 18. 2	1640	11	0	322.82	35.51	0	0	0.00	0.00	0
.										
.										
6 . 1. 1. 14. 3	2939	16	2	261.81	41.89	1	0	0.00	0.00	0

NOTE	The "Number of Calls Carried" report item contains, in addition to the number of calls answered and abandoned, calls that are not listed in the report. These calls include the number of non-ACD calls (if any) on the trunk group and calls lost due to hardware and software failures (if any). Therefore, "Calls Carried" may not always match the total of "Calls Abandoned" and "Calls Answered." You can create a custom report with a "Calls Carried" report item as follows — INCALLS-FAILURES-SOFTFAIL-NONACD — that would not contain these additional calls. Or, if desired, you can individually list data in a custom report for the FAILURES, SOFTFAIL, and NONACD database items.

Table B 18   Item Reference for the Trunk Group Summary

Report Item	What It Measures	Units	Database Item Or Calculation Formula
04/ 16/ 88	Date report was generated.	MM/ DD/ YY format date	DATE(D)
TGSUM	UNIX system file name of report.		Label
DAY	Day selected in the Report Parameters screen for the report to cover.	MM/ DD/ YY format date	DATE(J)
TRUNK GROUP	The number or synonym of the trunk group covered in the report.	Trunk group number or synonym	SYN(TRKGRP)
PHYSICAL TRUNK EQUIPMENT LOCATION	The cabinet, module, carrier, slot, and circuit location of the trunk equipment.	* See Footnote	MODULE, CABINET, CARRIER, SLOT, CIRCUIT
TRUNK NUMBER	Internal trunk number.	Trunk number	TRK NDX
INCOMING			
NUMBER OF CALLS CARRIED	Incoming calls that seize this trunk during the period covered.	Calls	INCALLS
NUMBER OF CALLS ABANDONED	Number of abandoned calls: calls in which the caller hangs up before connecting to an agent.	Calls	ABANDONS

*   The switch administration format for trunk location. Shown in the sample report is the Generic 2/ System 85/ DIMENSION PBX format. The format for System 75, Generic 1, Generic 3i, and Generic 2 Universal Module uses a letter to represent the carrier.

Table B 18   Item Reference for the Trunk Group Summary (Contd)

Report Item	What It Measures	Units	Database Item Or Calculation Formula
AVG HOLD TIME	Average length of calls, including time in queue.	Seconds	AVG HOLD TIME IN `INTIME/INCALLS`
TOTAL CCS	The trunk occupancy by incoming calls in hundreds of call seconds.	Hundreds of call seconds	INCOMING CCS `INTIME/100`
DIRECT IN CALLS	Incoming calls on measured trunks that are directed at non-measured destinations.	Calls	NONACD
OUTGOING			
NUMBER OF OUT CALLS	Extension-out calls that seize this trunk during the period covered.	Calls	OUTCALLS
AVG HOLD TIME	Average talk time of all outgoing calls on this trunk.	Seconds	AVG HOLD TIME OUT `OUTTIME/OUTCALLS`
TOTAL CCS	Total outgoing-call trunk occupancy in hundreds of call seconds.	Hundreds of call seconds	OUTGOING CCS `OUTTIME/100`
NUMBER OF FAILURES	Trunk hardware failures.	Failures	FAILURES

Daily Login and Logout Report

Data File Used   /HHOUR/AGENT

```
                        DAILY LOGIN AND LOGOUT REPORT    (MENU: DLOG)
   2/16/88                                             DAY: 02/02/88

 SPLIT: 1 ()

 AGENT                       EXTENSION       LOG HISTORY      TIME
 -------------------------------------------------------------------
 7042 ()                        5002            LOG_IN      8 :59
 7027 ()                        5005            LOG_IN      8 :59
 7015 ()                        5009            LOG_IN      8 :58
    .
    .
 4037 ()                        5009            LOG_OUT     22:46
```

Table B 19   Item Reference for the Daily Login and Logout Report

Report Item	What It Measures	Units	Database Item Or Calculation Formula
04/ 19/ 88	Date report was generated.	MM/ DD/ YY format date	DATE(D)
DLOG	UNIX system file name of report.		Label
DAY	Day selected in the Report Parameters screen for the report to cover.	MM/ DD/ YY format date	DATE(J)
SPLIT	The number or synonym of the split covered in the report.	Split number or synonym	SYN(SPLIT)
AGENT	Agent synonym or login ID	Synonym or ID	SYN(LOGID)
EXTENSION	Measured extension where the agent logged in.	Extension number	EXTENSION
LOG HISTORY	Login and logout sequence in the system.	LOG IN or LOG OUT	LOGMODE
TIME	Time when login or logout event occurred.	a.m./ p.m. format time	AGHOUR, AGMINUTE

Daily Call Profile Report

Data Files Used   /DAILY/SPLIT

```
                              DAILY CALL PROFILE REPORT                     (MENU:  DCALLPROF)
   2/11/88                                                                   DAY:  02/10/88

SPLIT:  1  ()

SERVICE LEVEL:  34
WINDOW  8
PARAMETERS  CHANGED:  NO

TIME  INTERVAL          0   -    8 -    16 -   24 -    32 -    40 -    48 -    56 -    64 -    72 +       TOTAL

NUMBER  ANSWERED       835      28      23      20      19      10       9      13       8      32       997

NUMBER  ABANDONED        1       0       1       2       2       0       0       0       2       2        10
```

Table B 20   Item Reference for Call Profile Report

Report Item	What It Measures	Units	Database Item Or Calculation Formula
04/ 28/ 88	Date the report was generated.	MM/ DD/ YY format date	DATE(D)
DCALLPROF	UNIX system file name of report.		Label
DAY	Day selected in the Report Parameters screen to be covered in the report.	MM/ DD/ YY format date	DATE(J)
SPLIT	Number and synonym of split covered.	Number and synonym	SYN(SPLIT)
SERVICE LEVEL	Call profile acceptable service level.	Seconds	SVCLVL
WINDOW	The length of the intervals into which answered and abandoned calls fall. The length of the intervals is administrable from the Configuration — Call Profile screen. The interval represented here is the last-specified length during the day covered in this report, if the interval was changed during the day.	Seconds	WINDOW
PARAMETERS CHANGED	Flag indicating either the call profile service level or the call profile window size changed.	YES/ NO	CALLPROFCHG
TIME INTERVAL	The elapsed time after queuing.	Seconds	WINDOW, 2*WINDOW. . .9*WINDOW
NUMBER ANSWERED	The number of calls answered by the split covered during each interval.	Calls	CALLS1. . .CALLS10; TOTAL = ANSWERED
NUMBER ABANDONED	The number of calls that abandoned from this split's queue during each interval.	Calls	ABANDON1. . .ABANDON10; TOTAL = ABANDONS

Daily Trunk Report

Data File Used   /HHOUR/TRUNK

DAILY TRUNK REPORT   (MENU: DTRUNK)
4/22/88   DAY: 04/01/88

TRUNK NUMBER: 82
TRUNK LOCATION: 00.0.0.10.02
TRUNK GROUP: 22 ()

| TIME | INCOMING | | | | | OUTGOING | | | TIME BUSY | TIME MAINT BUSY |
	NUMBER OF CALLS CARRIED	NUMBER OF CALLS ABANDONED	NUMBER OF CALLS ANSWERED	AVG HOLD TIME	TOTAL CCS	NUMBER OF OUT CALLS	AVG HOLD TIME	TOTAL CCS		
08:00-08:30AM	12	1	11	143.17	17.18	0	0.00	0.00	1718	0
08:30-09:00AM	11	0	10	151.36	16.65	0	0.00	0.00	1665	0
09:00-09:30AM	11	1	11	149.64	16.46	0	0.00	0.00	1646	0
.										
.										
05:30-06:00PM	10	0	10	169.30	16.93	0	0.00	0.00	1693	0
SUMMARY	531	25	506	154.03	817.92	0	0.00	0.00	81792	0

> **NOTE** The "Number of Calls Carried" report item contains, in addition to the number of calls answered and abandoned, calls that are not listed in the report. These calls include the number of non-ACD calls (if any) on the trunk group and calls lost due to hardware and software failures (if any). Therefore, "Calls Carried" may not always match the total of "Calls Abandoned" and "Calls Answered." You can create a custom report with a "Calls Carried" report item as follows — INCALLS-FAILURES-SOFTFAIL-NONACD — that would not contain these additional calls. Or, if desired, you can individually list data in a custom report for the FAILURES, SOFTFAIL, and NONACD database items.

Table B 21 Item Reference for the Daily Trunk Report

Report Item	What It Measures	Units	Database Item Or Calculation Formula
04/ 18/ 87	Date report was generated.	MM/ DD/ YY format	DATE(D)
DTRUNK	UNIX system file name of report.		Label
DAY	Day selected in the Report Parameters screen for the report to cover.	MM/ DD/ YY format	DATE(J)
TRUNK NUMBER	Internal trunk number.	Trunk number, in Trunk Group Summary report.	TRK NDX
TRUNK LOCATION	The cabinet, module, carrier, slot, and circuit location of the trunk equipment.	* See Footnote.	MODULE, CABINET, CARRIER, SLOT, CIRCUIT
TRUNK GROUP	The synonym or number of the trunk group of which the trunk is a member.	Trunk group number or synonym	SYN(TRKGRP)
TIME	The half-hour intervals selected in the Report Parameters screen for the report to cover.	a.m./ p.m. format	INTERVAL
INCOMING			
NUMBER OF CALLS CARRIED	Incoming calls that seize this trunk during the period covered.	Calls	INCALLS
NUMBER OF CALLS ABANDONED	Calls in which the caller hangs up before being connected to an ACD agent during the period covered. This statistic implies that the call, and the trunk, is associated with an ACD split. Non-ACD calls will never get a peg in this category.	Calls	ABANDONS

* The switch administration format for trunk location. Shown in the sample report is the Generic 2/ System 85/ DIMENSION PBX format. The format for System 75, Generic 1, Generic 3i, and Generic 2 Universal Module uses a letter to represent the carrier.

Table B 21   Item Reference for the Daily Trunk Report (Contd)

Report Item	What It Measures	Units	Database Item Or Calculation Formula
NUMBER OF CALLS ANSWERED	Calls connected to an agent in this period. This number implies an ACD call. Non-ACD calls may get an answer from whomever gets the call but are not pegged as answered in this statistical category. Calls that go to Coverage (System 75) or are Forwarded (System 85 or DIMENSION PBX)— for night service, for example— are pegged in the Number of Calls Answered.	Calls	ANSWERED
AVG HOLD TIME	Average length of all incoming calls, including queue time.	Seconds	AVG HOLD TIME IN INTIME/INCALLS
TOTAL CCS	Total trunk occupancy by incoming calls during the current half hour.	Hundreds of call seconds	INCOMING CCS INTIME/100
OUTGOING			
NUMBER OF OUT CALLS	Extension-out calls that seized this trunk during the period covered.	Calls	OUTCALLS
AVG HOLD TIME	Average holding time of all outgoing calls on this trunk during this half-hour.	Seconds	AVG HOLD TIME OUT OUTTIME/OUTCALLS
TOTAL CCS	Total trunk occupancy by outgoing calls during the current half hour.	Hundreds of call seconds	OUTGOING CCS OUTTIME/100
TIME BUSY	The total holding time of all incoming and outgoing calls.	Seconds	TRKBUSY
TIME MAINT BUSY	The time the trunk has been busied out for maintenance.	Seconds	MBUSYTIME

Ring State Reports

If you have a Generic 2 switch with the ring-state enabled, CMS collects real-time information on calls that are ringing. For example, CMS can tell you which agents are in the RING state (that is, which agents currently have calls ringing at their voice terminals) or ho   long a particular agent has been letting calls ring before picking up the calls. For a split, CMS can also tell you things like:

> How long calls ring before agents answer.

> The time callers wait in queue before ringing an agent.

> The number of calls that abandon while ringing at an agent's terminal.

> The number of calls that abandon before ringing at an agent's terminal.

NOTE	Historical data on ringing calls is **not** available.

From the CMS Custom Reports menu, you can select two ring state reports (Split Summary and System Status) that give you some of this information. Specifically, these real-time reports track calls ringing at agent voice terminals separately from calls in queue.

These reports use some, but not all, of the database items (and calculations) associated with ringing calls. All ring state database items (Table B-22) and calculations (Table B-23) are listed on the following pages, as well as in Appendix A.

CAUTION	If you do not have a Generic 2 switch with the ring-state enabled, do not use the ring-state reports or any of the ring-state database items. Your data will be incomplete and inaccurate.

CAUTION	If an agent goes into AUX work while an ACD call is ringing, the agent's voice terminal will stop ringing. However, the caller will still hear the ringing tone. As a result, an agent should **not** make or take extension calls while calls are ringing at the agent's voice terminal.

The ring state database items are listed in Table B-22.

Table B 22   RING State Database Items

Database Item	Description
ASTATE	Shows the RING state, in addition to the other standard states such as ACD and AVAIL states. Standard reports, such as Agent reports and Split Summary reports, will show the RING state if your switch is a Generic 2 with the ring-state enabled.
CUMRING	The cumulative time any agent was in the ring-state (Agent file), or the time all agents in the split were in the ring-state (Split file). If an agent goes into AUX work while a call is ringing at the agent's voice terminal, CUMRING will count the time ringing up to the point when the agent goes into AUX work.
NUMRING	The number of ACD calls that rang at an individual agent's voice terminal (Agent file), or the number of calls that rang at voice terminals for the whole split (Split file). If an agent goes into AUX work while a call is ringing at the agent's voice terminal, NUMRING will still count the call.
RINGABANDON	Number of ACD calls that abandoned while ringing at an individual agent's voice terminal (Agent file), or the number of calls, for the whole split, that abandoned while ringing at agent voice terminals (Split file).
RINGABNTIME	The cumulative time abandoned calls spent ringing at the agent's terminal before abandoning (Agent file), or the cumulative time abandoned calls to the whole split spent ringing at agent terminals before abandoning (Split file).
RINGANSWER	The number of ACD calls an individual agent answered (Agent file), or the number of calls a split's agents answered (Split file). `RINGANSWER` equals `ACDCALLS`.
RINGANSTIME	The cumulative time all ACD calls rang at an individual agent's voice terminal (Agent file), or the time all ACD calls to the split rang at voice terminals (Split file). Includes only time for calls that were **answered**.
RINGASSOC	Agent extension that an ACD call on the trunk is ringing. (Trunk file only).
RINGCALLS	The cumulative number of ACD calls that rang at an agent's voice terminal (Agent file) or that rang for the whole split (Split file). If an agent goes into AUX work while a call is ringing at the agent's voice terminal, RINGCALLS will still count the call.
RINGCOUNT	The cumulative number of ACD calls currently ringing at split agent voice terminals (Split file only).
RINGTIME	The cumulative time the agent was in the ring-state (Agent file), or the time all agents in the split were in the ring-state (Split file). If an agent goes into AUX work while a call is ringing at the agent's voice terminal, RINGTIME will count the time ringing up to the point when the agent goes into AUX work.

NOTE | If an agent goes into AUX work while a call is ringing at the agent's voice terminal, RINGTIME and CUMRING will peg the time the call spent ringing up to the point where the agent went into AUX work. Likewise, RINGCALLS and NUMRING will peg a ringing call when the agent goes into AUX work. For these database items, the agent is no longer considered in the ring-state when the agent goes into AUX work.

However, even though the agent goes into AUX work, the caller will continue to hear ringing until the agent answers the call or the caller hangs up. So, CMS has other database items to collect ring-state data based on how long the caller continues to hear ringing. These database items are RINGANSWER, RINGANSTIME, RINGABANDON, and RINGABNTIME. RINGANSWER and RINGANSTIME peg the call and the time spent ringing respectively when the agent answers the call — **even if** the agent went into AUX work first and then later answered the call. Similarly, RINGABANDON and RINGABNTIME peg the call and the time spent ringing respectively when the caller hangs up (because the agent never answered).

The ring-state calculations are as follows:

Table B 23   RING State Calculations

Calculation	Formula	Description
AVG HUNTANS TIME	(ANSDELAY/ANSWERED) - (RINGANSTIME)/RINGANSWER	Average time ACD calls waited in a split queue before ringing at an agent voice terminal.
AVG INIT RING TIME	RINGTIME/RINGCALLS	Average ring time for all ACD calls that rang at the agent's voice terminal (agent data) or at all agent voice terminals in a split (split data). Interval-based.
AVG RINGABN TIME	RINGABNTIME/RINGABANDON	Average ring time for calls that abandoned while ringing at the agent's voice terminal (agent data) or at all agent voice terminals in a split (split data).
AVG RINGANS TIME	RINGANSTIME/RINGANSWER	Average ring time for all ACD calls that the agent answered (agent data) or were answered by all agents in a split (split data).

Table B 23   RING State Calculations (Contd)

Calculation	Formula	Description
AVG TERM RING TIME	CUMRING/NUMRING	Average ring time for all ACD calls that rang at the agent's voice terminal (agent data) or at all agent voice terminals in a split (split data).
HUNTABANDON	ABANDONS-RINGABANDON	Total number of calls that abandoned while in the split queue (before ringing at an agent voice terminal).
HUNTANSTIME	ANSDELAY-RINGANSTIME	Total time ACD calls waited in the split queue before ringing an agent's voice terminal.

How the Ring-State Affects Other Data

The real-time database item `INPOOL`, which is the number of agents available in a split, does not include agents who are in the ring-state. In addition, the real-time database item `IDLETIME`, which is the total time agents in a split have been in the available (AVAIL) state, does not include time in which agents are in ther ring-state.

However, the historical database item `IDLETIME` includes the time agents spent in the ring-state, as well as the time they were available.

Ring-State Split Summary Report

Data Files Used   /CURRENT/SPLIT, /CURRENT/AGENT

The ring-state Split Summary report differentiates between calls in queue and calls ringing at an agent's terminal. This report is listed in the Custom Real-Time Reports submenu under the Reports Main Menu option. On the Custom Real-Time Reports submenu, select the SPLIT_RING global report name.

```
Call Management System                              Switch_Name:Up          Time

                          INTERVAL: 36  PAGE 1 of 1          QUAD:1
                                SPLIT SUMMARY
       SPLIT: 1 (Sales)
                                            ACD       EXT IN    EXT OUT
       AGENT NAME          EXT   STATE  TIME  CALLS     CALLS     CALLS

       Larry O'Leary       1299  ACD    08:20  19        0         0
       Neal  Patruski      1278  ACD    08:21  20        3         3
       Allerdyce Nichol    1340  ACW    08:21  22        1         1
       Pete Ohshima        1290  ACD    08:21  21        2         4
       Ellen Rubin         1277  ACD    08:21  22        4         5
       Patsy You           1201  ACD    08:21  19        3         1




       NUMBER OF AGENTS STAFFED    20        NUMBER OF AGENTS AVAILABLE    0
       NUMBER ON ACD CALLS         18        AVERAGE ACD TALK TIME      26.16
       NUMBER OF CALLS RINGING      1        AVERAGE RING TIME TO ANSWER 3.20
       NUMBER OF CALLS WAITING      2        AVERAGE SPEED OF ANSWER     5.00
       OLDEST CALL WAITING         11        AVERAGE TIME TO ABANDON    11.00

  Confirmation, error, and exception messages appear in this line

   [      ]  [ UPDATE ] [ REPORT ] [      ]  [      ]  [ EXIT ] [ PRINT  ] [      ]
                         PARAMS                                   SCREEN
```

Figure B 10   Split Summary Real-Time Report

NOTE Extensions assigned to a split, but currently unstaffed, will appear in the report, with "UNSTAF" in the STATE column. To prevent these extensions from showing up, you can create a custom report and assign the following criteria statement to each data item in the report: ASTATE NE 0 (0 represents the "UNSTAF" state).

Table B 24   Item Reference for the Ring-State Split Summary Report

Report Item	What It Measures	Units	Database Item Or Calculation Formula
SPLIT	Split number or synonym.		SYN(SPLIT)
AGENT	Split member login ID or synonym.	Synonym, login ID	SYN(LOGID)
EXT	Extension at which the agent is logged in.	Extension number	EXTENSION
STATE	Current state this agent is in (UNSTAF, AVAIL, RING, ACD, ACW, AUX, ACWOUT, ACWIN, AUXOUT, AUXIN, INIT).	Agent state name	ASTATE
TIME	Time agent entered the current state.	Military notation time	TIMEMARK
ACD CALLS	Number of ACD calls answered by this agent in the current half hour. Some of the calls counted may have intraflowed/ interflowed into the agent's split.	Calls	ACDCALLS
EXT IN CALLS	Direct dialed calls to this agent (extension) in the current half-hour.	Calls	EXT CALL IN ACWINCALLS + AUXINCALLS
EXT OUT CALLS	Extension-out calls placed by this agent (extension) during the current half-hour	Calls	NUM CALL OUT2 ACWOUTCALLS + AUXOUTCALLS
NUMBER OF AGENTS STAFFED	Currently logged-in agents in this split.	Agents	STAFCOUNT

Table B 24   Item Reference for the Ring-State Split Summary Report (Contd)

Report Item	What It Measures	Units	Database Item Or Calculation Formula
NUMBER ON ACD CALLS	Current number of split's agents on ACD calls.	Agents	ACDCOUNT
NUMBER OF CALLS RINGING	Number of agents currently in the ring-state.	Calls	RINGCOUNT
NUMBER OF CALLS WAITING	Number of unanswered calls in this split's queue. Includes calls ringing.	Calls	QUECALLS
OLDEST CALL WAITING	Time that the first call in queue has been waiting.	Seconds	OCW
NUMBER OF AGENTS AVAILABLE	Agents available for ACD calls; idle agents. **Does not** include agents with calls ringing.	Agents	INPOOL
AVERAGE ACD TALK TIME	Average length of ACD calls handled by this split's agents in the current half-hour.	Seconds	AVG COM TALK TIME CUMTALK/NUMTALK
AVERAGE RING TIME TO ANSWER	Average ring time for calls to the split.	Seconds	AVG RINGANS TIME RINGANSTIME/RINGANSWER
AVERAGE SPEED OF ANSWER	Average time to answer all calls that have been answered in the current half-hour.	Seconds	AVG ANSWER SPEED ANSDELAY/ANSWERED
AVERAGE TIME TO ABANDON	The average wait time for callers who hung up before connecting with an agent.	Seconds	AVG ABANDON TIME ABANTIME/ABANDONS

Ring-State System Status Report

Data File Used   /CURRENT/SPLIT

The ring-state System Status report differentiates between calls in queue and calls ringing at an agent's terminal. This report is listed in the Custom Real-Time Reports submenu under the Reports Main Menu option. On the Custom Real-Time Reports submenu, select the SYS_RING global report name.

```
┌──────────────────────────────────────────────────────────────────────────────────┐
│  ┌────────────────────────────────────────────────────────────────────────────┐  │
│  │ Call Management System                         Switch_Name:Up          Time │  │
│  └────────────────────────────────────────────────────────────────────────────┘  │
│                        INTERVAL: 36  PAGE 1 of 1              QUAD:1                │
│                              SYSTEM STATUS                                          │
│                                                                                    │
│       SPLIT                   1 (sales) 2 (servc) 3 (admin) 4 (wrnty)   5 ()        │
│                                                                                    │
│       NO. OF CALLS WAITING         3        5        3        3         3          │
│       OLDEST CALL WAITING          5       12       15       18        18          │
│       AVERAGE SPEED OF ANSWER   5.04     6.40    10.31    15.27     17.37           │
│                                                                                    │
│       NO. ABANDONED CALLS         73       35       18       10         9          │
│       AVERAGE TIME TO ABANDON  11.00    15.06    20.00    25.00     30.00           │
│                                                                                    │
│       NO. OF ACD CALLS           423      208      143      108        86          │
│       AVERAGE ACD TALK TIME    26.17    57.52    81.12   107.55    144.47           │
│       AVG. AFTER CALL WORK TIME 11.01   16.00    24.00    36.00     34.00           │
│                                                                                    │
│       NO. OF AGENTS AVAILABLE      0        0        0        0         0          │
│       NO. OF CALLS RINGING         1        0        0        0         1          │
│       NO. OF AGENTS ON ACD        18       19       18       19        19          │
│       NO. IN AFTER CALL WORK       1        1        2        1         1          │
│       NO. IN AUX WORK              1        0        0        0         0          │
│       NO. ON OUTGOING CALLS        0        0        0        0         0          │
│  ┌────────────────────────────────────────────────────────────────┐              │
│  │ Confirmation, error, and exception messages appear in this line │              │
│  └────────────────────────────────────────────────────────────────┘              │
│                                                                                    │
│  ┌────┐ ┌────────┐ ┌────────┐ ┌────┐ ┌────┐ ┌────────┐ ┌────────┐ ┌────┐          │
│  │    │ │ UPDATE │ │ REPORT │ │    │ │    │ │ EXIT   │ │ PRINT  │ │    │          │
│  │    │ │        │ │ PARAMS │ │    │ │    │ │        │ │ SCREEN │ │    │          │
│  └────┘ └────────┘ └────────┘ └────┘ └────┘ └────────┘ └────────┘ └────┘          │
└──────────────────────────────────────────────────────────────────────────────────┘
```

Figure B 11   Ring-State System Status Real-Time Report

Table B 25   Item Reference for the Ring-State System Status Report

Report Item	What It Measures	Units	Database Item Or Calculation Formula
SPLIT	Split numbers or synonyms for selected splits.		SYN(SPLIT)
NO. OF CALLS WAITING	Number of unanswered calls in the splits' queues.	Calls	QUECALLS
OLDEST CALL WAITING	Length of time the first unanswered call in each queue has been waiting.	Seconds	OCW
AVERAGE SPEED OF ANSWER	Average wait time for calls that have been answered in the current half-hour.	Seconds	AVG ANSWER SPEED ANSDELAY/ANSWERED
NO. OF ABANDONED CALLS	For current half-hour, total of queued calls for each split in which the caller hangs up before being answered.	Calls	ABANDONS
AVERAGE TIME TO ABANDON	The average wait time for callers who hung up before connecting with an agent.	Seconds	AVG ABANDON TIME ABANTIME/ABANDONS
NO. OF ACD CALLS	Queued calls that connected to an agent during this half-hour. (This item also contains intraflowed/ interflowed calls answered in this split.)	Calls	ACDCALLS
AVERAGE ACD TALK TIME	Length of the average ACD call during this half-hour in each split.	Seconds	AVG COM TALK TIME CUMTALK/NUMTALK
AVG. AFTER CALL WORK TIME	Average length of session in after-call work for agents in each split.	Seconds	AVG COMP ACW TIME CUMACW/NUMACW

Table B 25   Item Reference for the Ring-State System Status Report (Contd)

Report Item	What It Measures	Units	Database Item Or Calculation Formula
NO. OF AGENTS AVAILABLE	Agents that are currently available to receive ACD calls in each split. **Does not** include agents whose voice terminals are ringing.	Agents	INPOOL
NO. OF CALLS RINGING	Number of agents currently in the ring-state.	Calls	RINGCOUNT
NO. OF AGENTS ON ACD	Agents currently connected to ACD calls in each split.	Agents	ACDCOUNT
NO. IN AFTER CALL WORK	Agents now in ACW in each split.	Agents	ACWCOUNT
NO. IN AUX WORK	Agents now in auxiliary work in each split.	Agents	AUXCOUNT
NO. ON OUTGOING CALLS	Agents currently engaged in extension-out calls in each split.	Agents	AGENT CALL OUT `ACWOUTCOUNT+AUXOUTCOUNT`

Standard Report-Item Cross-Reference

The following tables will help you find out which data items are in which standard reports.

Real-Time Report Item Cross-Reference

Table B 26   Report Items/Real-Time Report Cross-Reference

REPORT ITEMS	REAL-TIME REPORTS IN WHICH THEY APPEAR								
	Split Status	Group Status	Agent/ Split Comparison	System Status	Split Summary	Call Profile	Trunk Group Summary	Split Perform-ance	Split Event Count Summary
Number of Calls Waiting	X			X	X			X	
Oldest Call Waiting	X			X	X			X	
Average Speed of Answer (Average Time to Answer)	X			X	X	X		X	
Number of Abandoned Calls	X			X		X		X	
Average Time to Abandon	X			X	X	X		X	
Number of ACD Calls	X		X	X	X			X	X
Average ACD Talk Time	X		X	X	X			X	
Average After Call Work	X		X	X				X	
Number of Outgoing Calls	X							X	
Average Outgoing Talk Time	X		X					X	
Number of Agents Staffed	X				X			X	X
Number on ACD Calls (No. of Agents on ACD)	X			X	X			X	
Number in AUX Work	X			X				X	

Table B 26 Report Items/ Real-Time Report Cross-Reference (Contd)

REPORT ITEMS **REAL-TIME REPORTS IN WHICH THEY APPEAR**

REPORT ITEMS	Split Status	Group Status	Agent/ Split Compari- son	System Status	Split Summary	Call Profile	Trunk Group Summary	Split Perform- ance	Split Event Count Summary
Number of Agents Available	X			X	X			X	
Number in After Call Work	X			X				X	
Number on Outgoing Calls	X			X				X	
Agent State		X			X				
Ext In Calls									
(No. of Ext. Calls In)			X		X				
Number of Calls -- ACD			X						
Number of Calls -- OUT			X		X				
Average Talk Time -- ACD			X						
Percent of Staffed Time									
(ACD or Out Calls)			X						
Time in AUX Work			X						
Percent AUX Work Time			X						
Number of Calls Carried						X			
Number of Calls Answered						X			
Percent Abandoned						X			
Percent Answered						X			
Service Level						X			
% Within Service Level						X			
Trunk Group State							X		
Number of Assist Calls			X						
Total Time Staffed			X						
Event Count (1 - 9)									X
Number of Busy Trunks	X								
Total Number of Trunks	X						X		

Historical Report Item Cross-Reference

Table B-14 will help you find out which data items are in which standard reports. Some nonstatistical items such as agent name, time, and ID number are not shown in this table.

Table B 27   Report Item/ Historical Report Cross-Reference

Report Items   Historical Reports in Which They Appear

Report Items	D,W,M* Agent	Daily Split	Weekly, Monthly Split	D,W,M* System	D,W,M* Split or Agent Event Count	Split or Group Summary	Trunk Group Summary	Daily Login/ Logout	Daily Call Profile	Daily Trunk	D,W,M* Trunk Group
Average Speed of Answer (Average Time to Answer)		X	X	X							
Number of Abandoned Calls		X	X	X			X		X	X	X
Avg. Abandon Time		X	X	X							
Number of ACD Calls	X	X	X	X	X	X					
Avg. ACD Talk Time (Avg. Talk Time)	X	X	X	X		X					
Avg. After Call Work Time	X	X	X	X		X					
Percent ACD Time (% ACD Time)	X	X	X	X		X					
Total Time Staffed (Min. Staffed, Hours Staffed)	X					X					
% AUX Work	X	X	X	X		X					
% Ans		X	X	X							
No. of Ext. Out Calls	X	X	X	X		X				X	X
Avg. Ext Out Talk Time	X	X	X	X		X	X				
No. of Ext. In Calls	X					X					

*Daily, Weekly, Monthly

Table B 27   Report Item/ Historical Report Cross-Reference (Contd)

Report Items   **Historical Reports in Which They Appear**

Report Items	D,W,M* Agent	Daily Split	Weekly, Monthly Split	D,W,M* System	D,W,M* Split or Agent Event Count	Split or Group Summary	Trunk Group Summary	Daily Login/ Logout	Daily Call Profile	Daily Trunk	D,W,M* Trunk Group
Avg. Ext In Talk Time (Time on Non-ACD Calls -- Incoming)	X					X					
Weighted Call Value (WCV)	X					X					
Number of Assists	X					X					
Max Delay		X	X	X							
Flow In		X	X	X							
Flow Out		X	X	X							
Avg. Pos. Staffed		X									
Event Count (1 - 9)					X						
Total CCS (Incoming, Outgoing)							X			X	X
Number of Failures							X				
Number of Calls Carried - Incoming, Outgoing							X			X	X
Time Busy										X	
Time Maint. Busy										X	
% All Trunks Busy											X
% Time Maint. Busy											X
Number Answered									X	X	X
Avg. Hold Time (Incoming/ Outgoing)							X			X	X
Service level									X		
Parameters Change Flag									X		
Agent Login Time								X			
Agent Logout Time								X			

*Daily, Weekly, Monthly

NOTES

Appendix C: Compiler Error Messages

The following error messages may appear on the Compilation Errors screen if you have errors in your custom report design. If any error messages appear, you will have to return to the Screen Painter to change or correct your report design.

> **NOTE** The descriptions included in this appendix are intended as general guidelines only. Because of the wide flexibility of the Custom Reports Creation subsystem, errors may occur for reasons other than those described here.

Computational function too large

Meaning: One or more of the numbers in the `Item` field is too big for the computer to process.

Recommended Action: Break the number(s) into smaller numbers with the appropriate arithmetic operators to effectively equal the number(s) causing the problem.

DVL related text exceeds internal space

Meaning: The computer does not have adequate space to process the amount of data you have specified in the report.

Recommended Action: Reduce the number of data items in the report or break up the report into two reports.

DVL text complexity has caused program to exceed internal space

Meaning: The computer does not have adequate space to process the amount of data you have specified in the report.

Recommended Action: Reduce the number of data items in the report or break up the report into two reports.

Data functions applied to item (item name) don't match, or previous appearance of item did/did not have a data function

Meaning: The same database item occurs in two or more data items, but a different data function is used with each occurrence of the database item. One of the following conditions may be true:

1   You may have used a data function in one occurrence of the database item and did not use a data function in the other occurrence.

2   You may have used different data functions for each occurrence of the database item.

This error occurs only if the record select conditions (`File, Data Base, Criteria, Repeat Item, Start Date, and Number of Days` **entries) are the same for each occurrence of the database item.**

Recommended Action: Remove the conflicting uses of the database item. As an alternative action, for each differing use of a data function with the database item, alter the criteria statement by adding a unique **OR** statement that is unlikely to ever be true (for example, *OR ACDCALLS GT 40000* or *AUXOUTCALLS EQ 7000*).

> **NOTE** If you choose to add a criteria statement, be sure the new criteria statement will not cause the report to exceed the maximum of 10 different sets of record select conditions.

Define statements and field names exceed internal space

Meaning: The computer does not have adequate space to process the amount of data you have specified in the report.

Recommended Action: Reduce the number of data items in the report or break up the report into two reports.

Define statements have exceeded internal space

Meaning: The computer does not have adequate space to process the amount of data you have specified in the report.

Recommended Action: Reduce the number of data items in the report or break up the report into two reports.

Definitions have exceeded internal space

Meaning: The computer does not have adequate space to process the amount of data you have specified in the report.

Recommended Action: Reduce the number of data items in the report or break up the report into two reports.

Definitions of IO & derived fields have exceeded internal space

Meaning: The computer does not have adequate space to process the amount of data you have specified in the report.

Recommended Action: Reduce the number of data items in the report or break up the report into two reports.

Definitions of all type fields have exceeded internal space

Meaning: The computer does not have adequate space to process the amount of data you have specified in the report.

Recommended Action: Reduce the number of data items in the report or break up the report into two reports.

Definitions of derived fields have exceeded internal space

Meaning: The computer does not have adequate space to process the amount of data you have specified in the report.

Recommended Action: Reduce the number of data items in the report or break up the report into two reports.

Definitions of repeated fields have exceeded internal space

Meaning: The computer does not have adequate space to process the amount of data you have specified in the report.

Recommended Action: Reduce the number of data items in the report or break up the report into two reports.

Field length must be specified if a default was not given

Meaning: A decimal appears in the `Item` field for a data item. Decimals cannot be used in the `Item` field.

Recommended Action: Change the decimal to a number divided by 100.

Have exceeded the maximum number of fields in a repeat area

Meaning: The computer does not have adequate space to process the amount of data you have specified in the report.

Recommended Action: Reduce the number of data items in the report or break up the report into two reports.

Invalid database item

Meaning: You entered a database item not contained in the specified file.

Recommended Action: Delete the data item or check Appendix A or the Dictionary for an alternative database item in the file.

Invalid database item to be synonymed (item name)

Meaning: You entered a constant or calculation as a data item, but the item has not been defined in the Dictionary.

Recommended Action: Check the Dictionary to see if the item has been spelled properly and to see if the item exists. If the item does not exist, create it using standard Dictionary procedures.

Invalid file area (variable)

Meaning: You have entered an invalid file name.

Recommended Action: Make sure the file (`AGENT`, `SPLIT`, `TRUNK GROUP`, `TRUNK`, `DN`, or `VECTOR`) is valid.

Invalid interval (variable)

Meaning: You have entered an invalid database name for the type of report, real-time or historical, you are creating.

Recommended Action: Check the data item identified by row and column for the proper `Data Base` entry in the Data Item Window.

Maximum number of SELECT's and REPEAT's exceeded. Maximum allowed is (variable)

Meaning: You have exceeded the limit of 10 sets of record select conditions. You may actually have fewer than 10 sets. If so, one of the following conditions may exist:

1   A large number of data items may share the same set of record select conditions. If so, CMS may count the set as two or more separate sets, thereby internally creating sets that exceed the 10 maximum.

2   Data items using different sets of conditions, including different files and/or databases, are interspersed with one another (for example, one item accesses the Split file, the next accesses the Agent file, the next the Split file, and so on). In this case, CMS may count each change as a new set of select conditions, even though you used the same set earlier in the report.

Recommended Action: Make sure that you have no more than 10 sets of record select conditions. Then do one of the following actions:

1   If you have more than 10, remove some of the data items or change the record select conditions for some data items so the conditions match conditions of earlier data items.

2   If you have fewer than 10 sets of conditions, remove some of the data items, or group them in a more consistent manner on the Screen Painter.

> **NOTE** CMS reads all data items on a single row, then jumps to the next row to read the data items on that row. Therefore, grouping data items in a "more consistent manner" means that items with different select conditions should not appear on the same line. Also, items with the same set of select conditions may be grouped on the same line.

Maximum number of data fields exceeded

Meaning: The computer does not have adequate space to process the amount of data you have specified in the report.

Recommended Action: Reduce the number of data items in the report or break up the report into two reports.

Maximum number of file items in SELECT or REPEAT exceeded

Meaning: You may get this message when you have a lengthy series of data items that share the same record select conditions. This means that the maximum of 20 data base items in the series has been exceeded.

If you exceed the maximum of 20 database items in a series, CMS normally will count the database items and internally create a new dummy set of select conditions so you do not get this message. However, if the series includes formulas or calculations, CMS cannot count the database items embedded in the formulas/calculations. Therefore, CMS will not create a dummy set of select conditions, and you will get this message.

Recommended Action: Do one of the following actions:

1   Remove some of the data items in the series.

2   Locate the data item in the series where the 20 maximum is first exceeded. Change the criteria statement for this data item and those that follow by adding a unique **OR** statement that is unlikely to ever be true (for example, *OR ACDCALLS GT 40000* or *AUXOUTCALLS EQ 7000*).

Maximum number of output fields exceeded

Meaning: The computer does not have adequate space to process the amount of data you have specified in the report.

Recommended Action: Reduce the number of data items in the report or break up the report into two reports.

Maximum number of override parameters and REPEAT indexes exceeded

Meaning: You have exceeded the limit of 10 sets of record select conditions. You may actually have fewer than 10 sets. If so, one of the following conditions may exist:

1   A large number of data items may share the same set of record select conditions. If so, CMS may count the set as two or more separate sets, thereby internally creating sets that exceed the 10 maximum.

2   Data items collectively use too many different combinations of criteria and repeat item statements. A rule of thumb is no more than 3 different combinations of criteria and repeat item statements.

Recommended Action: Make sure that you have no more than 10 sets of record select conditions. Then do one of the following actions:

1   If you have more than 10, remove some of the data items or change the record select conditions for some data items so the conditions match conditions of earlier data items.

2   If you have fewer than 10 sets of conditions, remove some of the data items, change the criteria or repeat item statements so that no more than 3 appear in the report, or group the data items in a more consistent manner on the Screen Painter.

NOTE	CMS reads all data items on a single row, then jumps to the next row to read the data items on that row. Therefore, grouping data items in a "more consistent manner" means that items with different select conditions should not appear on the same line. Also, items with the same set of select conditions may be grouped on the same line.

Maximum number of test criteria exceeded

Meaning: You have entered more than six statements in the `Criteria` field for a data item.

Recommended Action: Reduce the number of criteria statements for the data item to six or fewer.

No data found for specified parameters (appears on report output when report is run)

Meaning: This message, which appears after you try to run a report, may simply mean that the record select conditions caused CMS to search for records that do not exist (because no ACD activity occurred). However, if you are sure the select conditions you entered were correct and should have found data, the problem could be one of the following:

  1   Data items that appear on the same line have different sets of record select conditions.

  2   A SUM data function has been assigned a repeat item. (By definition, a SUM data function can only display a single value.)

Recommended Action: Check all summary items (items that are a SUM data function). Make sure that the `Repeat Item` field for these items is blank.

If data items that appear on the same line have different sets of record select conditions, move the items with different conditions to another line. You might also remedy the problem by adding spaces between the data items that have different conditions. If rearranging data items doesn't solve the problem, delete one group of data items that have the same record select conditions.

No more space left for SUM expressions

Meaning: You have too many data items that contain the SUM data function.

Recommended Action: Remove data items containing the SUM data function.

No more space left in the Sum node buffer. A large number of items within SUM functions

Meaning: You have too many data items that contain the SUM data function.

Recommended Action: Remove data items containing the SUM data function.

Number of set elements used in DVL statements up to   has exceeded internal space

Meaning: The computer does not have adequate space to process the amount of data you have specified in the report.

Recommended Action: Reduce the number of data items in the report or break up the report into two reports.

Override parameter (parameter text) cannot appear with different file item (%s)

Meaning: One possibility is that the same field name has been used in more than one variable criteria statement, but different database items have been assigned to the field name (example: `SPLIT EQ SPLIT1="BLANK"`, but also `GROUP EQ SPLIT1="BLANK"`). Another possibility is that the field names used in the `Start Date` and `Number of Days` fields have been accidentally reversed.

Recommended Action: Change the conflicting field name(s) that exist in the `Criteria`, `Start Date`, or `Number of Days` fields.

Override parameter or REPEAT index (name) too long (length)

Meaning: A field name appearing in a variable statement for either the `Criteria`, `Start Date`, or `Number of Days` field has more than 20 characters.

Recommended Action: Reduce to 20 characters or less the length of the field name that is causing the problem.

Override parameter value (parameterization) cannot be changed

Meaning: The same variable statement (in the `Criteria`, `Start Date`, or `Number of Days` field) appears for more than one data item, but with a different value (for example, `REPORT_DAY=-1` and `REPORT_DAY=-7`). For each variable statement, only one value can be assigned to the field name, regardless of how many times that statement is used in the report design.

Recommended Action: Change the conflicting variable statement values for the appropriate data items.

Override parameter value must be specified on first appearance

Meaning: The first data item in the report that uses a particular variable criteria statement does not display a value (a number or "BLANK") in the statement. This problem can also apply to variable statements in the `Start Date` or `Number of Days` fields. This error normally occurs after you copy a report design and delete the data item that displayed a complete variable statement (with a value). For example, all data items may have the criteria statement, `SPLIT EQ SPLIT_NUMBER`, but the first data item's criteria statement should display `SPLIT EQ SPLIT_NUMBER=''BLANK''`.

Recommended Action: Find the first data item with a variable statement lacking a value. Add a value to the statement.

Signal 10 or 14 (appears on report output when report is run)

Meaning: Signal errors, which appear after you try to run a report, can have several causes. The most common are as follows:

1 Data items that appear on the same line have different repeat items.

2 A SUM data function has been assigned a repeat item. (By definition, a SUM data function can only display a single value.)

Recommended Action: Check all summary items (items that are a SUM data function). Make sure that the `Repeat Item` field for these items is blank.

If data items that appear on the same line have different repeat items, move the items with different repeat items to another line. If rearranging data items doesn't solve the problem, delete one group of data items that have the same repeat item.

SUM function found within another SUM function

Meaning: A SUM function contains another SUM function. An example could be `SUM(SUM(ANSWERED)+SUM(ABANDONS))`.

Recommended Action: Remove the SUM prefix(es) and associated parentheses that are causing the problem or use two separate SUM functions connected by an arithmetic operator (other than parentheses).

Size of DVL text space has exceeded internal space

Meaning: The computer does not have adequate space to process the amount of data you have specified in the report.

Recommended Action: Reduce the number of data items in the report or break up the report into two reports.

Startday integer value must be negative or zero

Meaning: The `Start Date` statement for a data item has a positive value.

Recommended Action: Change the value of the statement to a negative number or `0`.

String (string) too long. Maximum length is (variable number of) characters

Meaning: In the `Criteria` field, too many characters follow the initial quotation marks ("). If you used the term `"BLANK"`, you may have forgotten the final quotation marks.

Recommended Action: Add quotation marks where necessary.

Syntax error before OR

Meaning: This message can be caused by several problems, the most common of which are as follows:

> You may have omitted necessary parts of a criteria statement or you may have used improper syntax (improper relational operators, improper punctuation, improper database item values, and so on).

> You may have tried to use an invalid item (a data function or a calculation) in a criteria statement.

> You may have tried to use JDATE within a criteria statement. JDATE cannot be used.

> You may have entered a criteria statement that will generate multiple values, but you forgot to enter a repeat item.

Recommended Action: Check the criteria statement for proper syntax, database items, and values. If you entered a criteria statement that generates multiple values, make sure you have a repeat item. Make any changes necessary.

Test criteria cannot be nested

Meaning: You have used parentheses in your criteria statement.

Recommended Action: Check the criteria for the data item identified by row and column. Remove any parentheses.

NOTES

Appendix D: The UNIX System Visual Editor (vi)

Further information on *vi* is available in the UNIX system user's guide published for your particular computer. You should have one of these guides available for reference, as what appears in this appendix is a subset of the total capability of *vi* editing functions.

Editing and Control Commands for vi

Moving the Cursor

COMMAND	ACTION
l	Move to the right
h	Move to the left
k	Move up
j	Move down
b	Move back to previous word
B	Move back on word past punctuation
w	Move to next word
W	Move to next word past punctuation
e	Move to end of current word
$	Move to the end of the line
0	Move to the beginning of the line
''	Move to the previous position
1G	Go to line 1
5G	Go to line 5
G	Go to last line
M	Move to middle of screen
L	Move to last line on screen
-	Move to the beginning of the previous line
RETURN	Move to the beginning of the next line

Adding Text

All of the following commands put you into an *append* or *insert* mode. You **must** press the ESC key to return to the *command* mode.

COMMAND	ACTION
a	Add text after the cursor
A	Add text at the end of the line
i	Insert text before the cursor
R	Replaces current characters
o	Open a new line below the cursor
O	Open a new line above the cursor
C	Change the text after the cursor
cw	Change current word
cc	Change current line

Leaving vi

COMMAND	ACTION
:w [RETURN]	Writes the file to disk
:q [RETURN]	Quits vi
:q!	Quits vi and changes are **not** saved
:w q	Writes and quits vi
ZZ	Writes and quits vi

Other Commands

COMMAND	ACTION
Y	Yank the current line
5Y	Yank 5 lines (could be any number of lines)
P	Put the yanked line above the cursor
p	Put the yanked line below the cursor
u	Undo the last command
U	Restore current line
J	Join the current line with the next line
/ abc	Search forward for the string "abc"
?abc	Search backward for the string "abc"

Deleting Text

COMMAND	ACTION
x	Delete a character
r	Replace a character
dw	Delete word
dd	Delete entire line
D	Delete rest of line

Scrolling/ Paging Text

COMMAND	ACTION
CNTL d	Scroll down
CNTL u	Scroll up
CNTL f	Forward page
CNTL b	Backward page
CNTL l	Refresh screen

How INFORMIX Works

The 3B CMS uses the INFORMIX Data Base Management System to control its data base files, and INFORMIX is installed during the 3B CMS software installation process. In addition, INFORMIX in available for use independent of CMS.

When a body of information becomes too large or the retrieval demands on it become too complex to manage manually, then a data base management system should be used. INFORMIX has a range of features allowing it to act as an organizer of data, including: arbitrary queries into the data base for information relationships, reports, and screen entry/update/query. Typical applications are sales data, accounting data, and inventory control. The following are some of the major INFORMIX functions:

DBBUILD   A data description language that allows you to create and modify data bases.

PERFORM   A form (or screen) builder that lets you create data input/output screens to entry and retrieval of data from a data base.

ENTER2   A subset of PERFORM's capabilities that allows you to enter, update, and retrieve data base entries on a record-by-record basis. In PERFORM, you must build a form as an interface to the data base, while with ENTER2 you call up the file directly.

ACE Reports   A report writer that allows you to create output reports from the data in your data base files.

INFORMER   A query language for data retrieval. You can use any relationship that exists among the data base files at any time. You do not have to predict the relationships in advance to build your data base.

Before attempting to use INFORMIX, you should read the INFORMIX manual, *INFORMIX Relational Database Management System User's Manual*, and you should have a basic knowledge of UNIX system commands.

Using INFORMIX in Conjunction With CMS

INFORMIX may also be used in conjunction with your CMS data to create customized reports, screens, and queries.
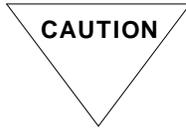
▽ **CAUTION** **Do not change** any CMS data. Do not use UPDATE, ADD, or DELETE functions in PERFORM and ENTER2 screens on CMS INFORMIX data base file. They can produce unpredictable results and may even stop your CMS from functioning. The CMS software attempts to prevent users from causing accidental damage to their CMS software, but no attempt has been made to similarly restrict the customer from changes via INFORMIX.

The lowest-risk way to use INFORMIX on CMS data is to create reports, screens, and queries that only read the data, making no change in it. To perform these tasks, you should first read the applicable portions of the INFORMIX manual, know basic UNIX system commands, and know a UNIX system editor such as *vi*.

Basically, here is how you might approach this type of INFORMIX enhancement. All of the CMS data is kept under the */cms* directory, with different data and data bases kept in different subdirectories (most are several levels down). The INFORMIX schema file for a particular CMS data-base file ends in the characters "sch." With the knowledge of where a particular data base is (i.e. the UNIX system pathname) and the INFORMIX schema file contents, you can create INFORMIX reports, screens, and queries of the CMS data. Be aware that in future releases of CMS, its INFORMIX files, schemas, and INFORMIX fields may change; also INFORMIX files may disappear and others may appear.

Another possible use of INFORMIX is to merge data from other sources in your organization (personnel files, sales files, etc.) with CMS data for use in reports, screens, and queries. If you attempt this, proceed with caution; be sure you understand something before you try it. Again, DO NOT CHANGE in any way the CMS INFORMIX files.

INFORMIX functions apply only to one data base at a time. So, first find the particular CMS data base you are interested in underneath the */cms* directory. At this point, you can add your own file or files to this data base. To do this, create your schemas and do the necessary INFORMIX DBBUILDs.

When you use INFORMIX DBSTATUS, be careful not to change INFORMIX files. Do not use ADD INDEX, AUDIT TRAIL, UNLOCK, etc. on CMS INFORMIX files. Also do not change CMS schema files.

After your schemas have been built, you can create reports via ACE reports, screens via PERFORM, and queries via INFORMER, referencing both your INFORMIX files and CMS INFORMIX files.

Again, be aware that, in a future release of the CMS, file structure and names are subject to change.

General Information

This appendix contains two procedures that take you step-by-step through the creation of custom report designs. The particular designs created in these procedures may be created in many ways. The procedures in this appendix represent only one way in which to create the design.

The goal of this appendix is to show how the procedures described earlier in this document must be linked together to create a report design.

Sample 1 — A Custom Trunk Group Summary Report

The steps that follow describe how to design a customized trunk group summary report. The report, as shown in Figure F-1, displays, for two trunk groups, the current state of trunks within each trunk group. Notice that the Trunk Number and Direction columns found in a standard Trunk Group Summary report are not included in this custom report.

```
┌──────────────────────────────────────────────────────────────────────────────────┐
│  ┌──────────────────────────────────────────────────────────────────────────┐    │
│  │ Call Management System                      Switch_Name:Up          Time   │    │
│  └──────────────────────────────────────────────────────────────────────────┘    │
│                                                                                    │
│                         INTERVAL: 36    PAGE 1 of 1              QUAD: 1            │
│                         TRUNK GROUP SUMMARY 2                                       │
│                                                                                    │
│        TRUNK GROUP:  22                 TRUNK GROUP:  23                            │
│        NO. OF TRUNKS: 20                NO. OF TRUNKS: 20                           │
│                                                                                    │
│        TRUNK                            TRUNK                                       │
│        LOCATION      STATE    TIME  EXT/SPLIT  LOCATION      STATE    TIME  EXT/SPLIT │
│                                                                                    │
│        00.0.0.11.03  IDLE    17:57  NONE   00.0.0.11.06  IDLE    17:57  NONE        │
│        00.0.0.11.04  CONN    17:56  4445   00.0.0.11.07  CONN    17:56  4445        │
│        00.0.0.11.05  QUEUED  17:57  4      00.0.0.11.09  QUEUED  17:57  4           │
│        00.0.0.12.00  SEIZED  17:57  NONE   00.0.0.12.05  SEIZED  17:57  NONE        │
│        00.0.0.12.01  CONN    17:57  2087   00.0.0.12.06  CONN    17:57  2087        │
│        00.0.0.12.02  IDLE    17:57  NONE   00.0.0.12.08  IDLE    17:57  NONE        │
│        00.0.0.12.03  QUEUED  17:57  4      00.0.0.12.10  QUEUED  17:57  4           │
│        00.0.0.12.04  QUEUED  17.57  4      00.0.0.12.11  QUEUED  17.57  4           │
│                                                                                    │
│  ┌────┐ ┌──────┐ ┌────────┐  ┌──────┐ ┌──────┐   ┌──────┐ ┌────────┐ ┌────┐       │
│  │    │ │UPDATE│ │REPORT  │  │PREV  │ │NEXT  │   │EXIT  │ │PRINT   │ │    │       │
│  │    │ │      │ │PARAMS  │  │PAGE  │ │PAGE  │   │      │ │SCREEN  │ │    │       │
│  └────┘ └──────┘ └────────┘  └──────┘ └──────┘   └──────┘ └────────┘ └────┘       │
└──────────────────────────────────────────────────────────────────────────────────┘
```

Figure F 1   Sample of a Custom Trunk Group Summary Report

Preliminary work for this report would include:

> Identifying the necessary data items by reviewing the Real-time Trunk Group Summary Report description in Appendix B.

> Drawing the report on graph paper to see exactly how it should look.

Since two trunk groups are covered in this report, we will want two different input fields on the Report Parameters screen. These fields will allow the user to select any two trunk groups for the report. An important change therefore required for this report is adding two distinct field names in the Criteria statements for the data items.

We will assume that preliminary work has been done, and we are ready to start entering the design on the Screen Painter.

1 On the CUSTOM REPORTS CREATION menu, select the Real-time
   Reports option under the Standard Reports heading.

   [The COPY STANDARD REAL-TIME REPORTS menu appears.]

2 In the New Report Name field, enter *trunkgrpsum2* for the name of the
   report we are creating.

3 Select the Trunk Group Summary option, and press [COPY].

   [The Screen Painter appears with an exact copy of the real-time Trunk Group
   Summary Report design. Notice that the last ten rows of Xs in each column
   are highlighted. These are repeated fields generated by the data items at the
   top of each column. You do not need to do anything to these fields. Any
   moving, deleting, or changing of the data item at the top of a column affects
   the rest of the fields in the column.]

```
Call Management System                          Switch_Name:Up            Time

                              TRUNK GROUP SUMMARY

        TRUNK GROUP:  XXXXXXXXXXXXXXXXXXX       NO. OF TRUNKS:  XXXX

        TRUNK      TRUNK
        NUMBER     LOCATION        STATE     TIME    DIRECTION   EXT/SPLIT

        XXXXXXX   XXXXXXXXXXX     XXXXXXX   XX:XX      XXX       XXXXXXX
        XXXXXXX   XXXXXXXXXXX     XXXXXXX   XX:XX      XXX       XXXXXXX
        XXXXXXX   XXXXXXXXXXX     XXXXXXX   XX:XX      XXX       XXXXXXX
        XXXXXXX   XXXXXXXXXXX     XXXXXXX   XX:XX      XXX       XXXXXXX
        XXXXXXX   XXXXXXXXXXX     XXXXXXX   XX:XX      XXX       XXXXXXX
        XXXXXXX   XXXXXXXXXXX     XXXXXXX   XX:XX      XXX       XXXXXXX
        XXXXXXX   XXXXXXXXXXX     XXXXXXX   XX:XX      XXX       XXXXXXX
        XXXXXXX   XXXXXXXXXXX     XXXXXXX   XX:XX      XXX       XXXXXXX
        XXXXXXX   XXXXXXXXXXX     XXXXXXX   XX:XX      XXX       XXXXXXX
        XXXXXXX   XXXXXXXXXXX     XXXXXXX   XX:XX      XXX       XXXXXXX
        XXXXXXX   XXXXXXXXXXX     XXXXXXX   XX:XX      XXX       XXXXXXX

 LABEL    DATA     TIME       MOVE     ERASE       EXIT     MORE    HELP
          ITEM     STAMP                                    KEYS    KEYS
```

We will change the report title first.

4 Using the arrow keys, move the cursor to the report title TRUNK GROUP
   SUMMARY REPORT, and press [LABEL].

   [The label TRUNK GROUP SUMMARY, shown in bold in the following
   illustration, is ready for editing.]

Sample 1 — A Custom Trunk Group Summary Report

```
┌────────────────────────────────────────────────────────────────────────┐
│ Call Management System                          Switch_Name:Up      Time │
└────────────────────────────────────────────────────────────────────────┘
                            ▌RUNK GROUP SUMMARY

        TRUNK  GROUP:  XXXXXXXXXXXXXXXXXXX          NO.  OF  TRUNKS:  XXXX

        TRUNK      TRUNK
        NUMBER     LOCATION         STATE    TIME    DIRECTION   EXT/SPLIT

        XXXXXXX   XXXXXXXXXXX       XXXXXXX  XX:XX     XXX        XXXXXXX
        XXXXXXX   XXXXXXXXXXX       XXXXXXX  XX:XX     XXX        XXXXXXX
        XXXXXXX   XXXXXXXXXXX       XXXXXXX  XX:XX     XXX        XXXXXXX
        XXXXXXX   XXXXXXXXXXX       XXXXXXX  XX:XX     XXX        XXXXXXX
        XXXXXXX   XXXXXXXXXXX       XXXXXXX  XX:XX     XXX        XXXXXXX
        XXXXXXX   XXXXXXXXXXX       XXXXXXX  XX:XX     XXX        XXXXXXX
        XXXXXXX   XXXXXXXXXXX       XXXXXXX  XX:XX     XXX        XXXXXXX
        XXXXXXX   XXXXXXXXXXX       XXXXXXX  XX:XX     XXX        XXXXXXX
        XXXXXXX   XXXXXXXXXXX       XXXXXXX  XX:XX     XXX        XXXXXXX
        XXXXXXX   XXXXXXXXXXX       XXXXXXX  XX:XX     XXX        XXXXXXX
        XXXXXXX   XXXXXXXXXXX       XXXXXXX  XX:XX     XXX        XXXXXXX

        ┌──────────────────────────────────────────────────────────────┐
        │ 1:1 7003 Please enter the label text, press RETURN when done.  │
        └──────────────────────────────────────────────────────────────┘
  ┌────┐ ┌────┐ ┌──────┐   ┌──────┐ ┌──────┐    ┌──────┐ ┌──────┐ ┌──────┐
  │    │ │    │ │      │   │      │ │      │    │      │ │      │ │ HELP │
  │    │ │    │ │      │   │      │ │      │    │      │ │      │ │ KEYS │
  └────┘ └────┘ └──────┘   └──────┘ └──────┘    └──────┘ └──────┘ └──────┘
```

    5   Move the cursor to the end of the title, add a space and type *2*. Press RETURN.

The steps that follow consist primarily of block moves and deletions. Since this report will show the same data for two trunk groups, we must make space for display items for the second trunk group.

    6   Place the cursor on the D of the DIRECTION label and press ERASE.

    7   Move the cursor to the data item below DIRECTION, and press RETURN.

        [The block we are erasing is highlighted.]

```
Call Management System                          Switch_Name:Up        Time

                            TRUNK GROUP SUMMARY 2

       TRUNK GROUP:  XXXXXXXXXXXXXXXXXXX        NO.  OF TRUNKS:  XXXX

       TRUNK     TRUNK
       NUMBER    LOCATION        STATE     TIME    DIRECTION    EXT/SPLIT

       XXXXXXX   XXXXXXXXXXX     XXXXXXX   XX:XX    XXX □        XXXXXXX
       XXXXXXX   XXXXXXXXXXX     XXXXXXX   XX:XX    XXX          XXXXXXX
       XXXXXXX   XXXXXXXXXXX     XXXXXXX   XX:XX    XXX          XXXXXXX
       XXXXXXX   XXXXXXXXXXX     XXXXXXX   XX:XX    XXX          XXXXXXX
       XXXXXXX   XXXXXXXXXXX     XXXXXXX   XX:XX    XXX          XXXXXXX
       XXXXXXX   XXXXXXXXXXX     XXXXXXX   XX:XX    XXX          XXXXXXX
       XXXXXXX   XXXXXXXXXXX     XXXXXXX   XX:XX    XXX          XXXXXXX
       XXXXXXX   XXXXXXXXXXX     XXXXXXX   XX:XX    XXX          XXXXXXX
       XXXXXXX   XXXXXXXXXXX     XXXXXXX   XX:XX    XXX          XXXXXXX
       XXXXXXX   XXXXXXXXXXX     XXXXXXX   XX:XX    XXX          XXXXXXX
       XXXXXXX   XXXXXXXXXXX     XXXXXXX   XX:XX    XXX          XXXXXXX

       Press RETURN to erase specified area or   CTRL - A to abort request.

                                                                    HELP
                                                                    KEYS
```

8   Press RETURN to erase the block.

9   Place the cursor on the E of the EXT/SPLIT label, and press MOVE.

10 Move the cursor to the data item below EXT/SPLIT, and press RETURN.

[The block we are moving is highlighted.]

Sample 1 — A Custom Trunk Group Summary Report

```
┌─────────────────────────────────────────────────────────────────┐
│ ┌─────────────────────────────────────────────────────────────┐ │
│ │ Call Management System          Switch_Name:Up        Time   │ │
│ └─────────────────────────────────────────────────────────────┘ │
│                        TRUNK GROUP SUMMARY 2                      │
│                                                                   │
│     TRUNK GROUP:  XXXXXXXXXXXXXXXXXXXX      NO. OF TRUNKS:  XXXX   │
│                                                                   │
│     TRUNK     TRUNK                                               │
│     NUMBER    LOCATION        STATE     TIME         EXT/SPLIT    │
│                                                                   │
│     XXXXXXX   XXXXXXXXXXXX    XXXXXXX   XX:XX        XXXXXX│       │
│     XXXXXXX   XXXXXXXXXXXX    XXXXXXX   XX:XX        XXXXXXX       │
│     XXXXXXX   XXXXXXXXXXXX    XXXXXXX   XX:XX        XXXXXXX       │
│     XXXXXXX   XXXXXXXXXXXX    XXXXXXX   XX:XX        XXXXXXX       │
│     XXXXXXX   XXXXXXXXXXXX    XXXXXXX   XX:XX        XXXXXXX       │
│     XXXXXXX   XXXXXXXXXXXX    XXXXXXX   XX:XX        XXXXXXX       │
│     XXXXXXX   XXXXXXXXXXXX    XXXXXXX   XX:XX        XXXXXXX       │
│     XXXXXXX   XXXXXXXXXXXX    XXXXXXX   XX:XX        XXXXXXX       │
│     XXXXXXX   XXXXXXXXXXXX    XXXXXXX   XX:XX        XXXXXXX       │
│     XXXXXXX   XXXXXXXXXXXX    XXXXXXX   XX:XX        XXXXXXX       │
│     XXXXXXX   XXXXXXXXXXXX    XXXXXXX   XX:XX        XXXXXXX       │
│                                                                   │
│                                                                   │
│ ┌─────────────────────────────────────────────────────────────┐ │
│ │ Move cursor to new position and press RETURN.                 │ │
│ └─────────────────────────────────────────────────────────────┘ │
│ ┌───┐ ┌───┐ ┌────┐ ┌────┐ ┌────┐ ┌────┐ ┌───┐ ┌──────┐          │
│ │   │ │   │ │    │ │    │ │    │ │    │ │   │ │ HELP │          │
│ │   │ │   │ │    │ │    │ │    │ │    │ │   │ │ KEYS │          │
│ └───┘ └───┘ └────┘ └────┘ └────┘ └────┘ └───┘ └──────┘          │
└─────────────────────────────────────────────────────────────────┘
```

11 Move the cursor two spaces to the right of the TIME label, and press RETURN.

[The block moves to its new location, as shown in the following illustration.]

```
Call Management System                          Switch_Name:Up          Time
                              TRUNK GROUP SUMMARY 2

         TRUNK GROUP:  XXXXXXXXXXXXXXXXXXX          NO.  OF TRUNKS:  XXXX

         TRUNK      TRUNK
         NUMBER     LOCATION          STATE     TIME   EXT/SPLIT

         XXXXXXX   XXXXXXXXXXX      XXXXXXX    XX:XX  XXXXXXX
         XXXXXXX   XXXXXXXXXXX      XXXXXXX    XX:XX  XXXXXXX
         XXXXXXX   XXXXXXXXXXX      XXXXXXX    XX:XX  XXXXXXX
         XXXXXXX   XXXXXXXXXXX      XXXXXXX    XX:XX  XXXXXXX
         XXXXXXX   XXXXXXXXXXX      XXXXXXX    XX:XX  XXXXXXX
         XXXXXXX   XXXXXXXXXXX      XXXXXXX    XX:XX  XXXXXXX
         XXXXXXX   XXXXXXXXXXX      XXXXXXX    XX:XX  XXXXXXX
         XXXXXXX   XXXXXXXXXXX      XXXXXXX    XX:XX  XXXXXXX
         XXXXXXX   XXXXXXXXXXX      XXXXXXX    XX:XX  XXXXXXX
         XXXXXXX   XXXXXXXXXXX      XXXXXXX    XX:XX  XXXXXXX
         XXXXXXX   XXXXXXXXXXX      XXXXXXX    XX:XX  XXXXXXX


  LABEL       DATA               MOVE        ERASE        EXIT      MORE      HELP
              ITEM                                                  KEYS      KEYS
```

12 Place the cursor on the S of the STATE label, and press MOVE .

13 Move the cursor to the data item below EXT/SPLIT, and press RETURN .

[The block we are moving is highlighted.]

Sample 1 — A Custom Trunk Group Summary Report

```
┌────────────────────────────────────────────────────────────────────┐
│ Call Management System                      Switch_Name:Up      Time │
│ └──────────────────────────────────────────────────────────────────┘│
│                        TRUNK GROUP SUMMARY 2                          │
│                                                                       │
│     TRUNK GROUP:  XXXXXXXXXXXXXXXXXX        NO. OF TRUNKS:  XXXX       │
│                                                                       │
│     TRUNK      TRUNK                                                  │
│     NUMBER     LOCATION         STATE      TIME   EXT/SPLIT            │
│                                                                       │
│     XXXXXXX    XXXXXXXXXXX      XXXXXX     XX:XX  XXXXXX               │
│     XXXXXXX    XXXXXXXXXXX      XXXXXX     XX:XX  XXXXXXX              │
│     XXXXXXX    XXXXXXXXXXX      XXXXXX     XX:XX  XXXXXXX              │
│     XXXXXXX    XXXXXXXXXXX      XXXXXX     XX:XX  XXXXXXX              │
│     XXXXXXX    XXXXXXXXXXX      XXXXXX     XX:XX  XXXXXXX              │
│     XXXXXXX    XXXXXXXXXXX      XXXXXX     XX:XX  XXXXXXX              │
│     XXXXXXX    XXXXXXXXXXX      XXXXXX     XX:XX  XXXXXXX              │
│     XXXXXXX    XXXXXXXXXXX      XXXXXX     XX:XX  XXXXXXX              │
│     XXXXXXX    XXXXXXXXXXX      XXXXXX     XX:XX  XXXXXXX              │
│     XXXXXXX    XXXXXXXXXXX      XXXXXX     XX:XX  XXXXXXX              │
│     XXXXXXX    XXXXXXXXXXX      XXXXXX     XX:XX  XXXXXXX              │
│                                                                       │
│     ┌────────────────────────────────────────────────────────────┐  │
│     │ Move cursor to new position and press RETURN.                │  │
│     └────────────────────────────────────────────────────────────┘  │
│  ┌────┐ ┌────┐ ┌──────┐  ┌──────┐ ┌──────┐   ┌──────┐ ┌──────┐ ┌────┐│
│  │    │ │    │ │      │  │      │ │      │   │      │ │      │ │HELP││
│  │    │ │    │ │      │  │      │ │      │   │      │ │      │ │KEYS││
│  └────┘ └────┘ └──────┘  └──────┘ └──────┘   └──────┘ └──────┘ └────┘│
└────────────────────────────────────────────────────────────────────┘
```

14 Move the cursor six spaces to the right of the LOCATION label. Press
    RETURN .

    [The block moves to its new location, as shown in the following illustration.]

```
┌─────────────────────────────────────────────────────────────────────┐
│ Call Management System                    Switch_Name:Up        Time  │
│                                                                       │
│                         TRUNK GROUP SUMMARY 2                         │
│                                                                       │
│     TRUNK GROUP:  XXXXXXXXXXXXXXXXXXX        NO. OF TRUNKS:  XXXX     │
│                                                                       │
│     TRUNK      TRUNK                                                  │
│     NUMBER     LOCATION      STATE      TIME   EXT/SPLIT              │
│                                                                       │
│     XXXXXXX  XXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX                      │
│     XXXXXXX  XXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX                      │
│     XXXXXXX  XXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX                      │
│     XXXXXXX  XXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX                      │
│     XXXXXXX  XXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX                      │
│     XXXXXXX  XXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX                      │
│     XXXXXXX  XXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX                      │
│     XXXXXXX  XXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX                      │
│     XXXXXXX  XXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX                      │
│     XXXXXXX  XXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX                      │
│     XXXXXXX  XXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX                      │
│                                                                       │
│  ┌──────┐┌──────┐┌──────┐ ┌──────┐┌──────┐ ┌──────┐┌──────┐┌──────┐  │
│  │LABEL ││DATA  ││      │ │MOVE  ││ERASE │ │EXIT  ││MORE  ││HELP  │  │
│  │      ││ITEM  ││      │ │      ││      │ │      ││KEYS  ││KEYS  │  │
│  └──────┘└──────┘└──────┘ └──────┘└──────┘ └──────┘└──────┘└──────┘  │
└─────────────────────────────────────────────────────────────────────┘
```

15 Place the cursor on the T of the TRUNK NUMBER label and press ERASE.

> **NOTE** Pressing SHIFT **b** automatically moves the cursor to the left edge of the screen.

16 Move the cursor to the data item below TRUNK NUMBER, and press RETURN.

[The block we are erasing is highlighted.]

Sample 1 — A Custom Trunk Group Summary Report

```
┌─────────────────────────────────────────────────────────────────────────────┐
│  ┌──────────────────────────────────────────────────────────────────────┐    │
│  │ Call Management System                    Switch_Name:Up        Time  │    │
│  └──────────────────────────────────────────────────────────────────────┘    │
│                            TRUNK GROUP SUMMARY 2                               │
│                                                                               │
│        TRUNK GROUP:  XXXXXXXXXXXXXXXXXXX        NO. OF TRUNKS:  XXXX           │
│                                                                               │
│        TRUNK      TRUNK                                                        │
│        NUMBER     LOCATION      STATE       TIME  EXT/SPLIT                    │
│                                                                               │
│        XXXXXX     XXXXXXXXXXX XXXXXXX     XX:XX XXXXXXX                        │
│        XXXXXXX    XXXXXXXXXXX XXXXXXX     XX:XX XXXXXXX                        │
│        XXXXXXX    XXXXXXXXXXX XXXXXXX     XX:XX XXXXXXX                        │
│        XXXXXXX    XXXXXXXXXXX XXXXXXX     XX:XX XXXXXXX                        │
│        XXXXXXX    XXXXXXXXXXX XXXXXXX     XX:XX XXXXXXX                        │
│        XXXXXXX    XXXXXXXXXXX XXXXXXX     XX:XX XXXXXXX                        │
│        XXXXXXX    XXXXXXXXXXX XXXXXXX     XX:XX XXXXXXX                        │
│        XXXXXXX    XXXXXXXXXXX XXXXXXX     XX:XX XXXXXXX                        │
│        XXXXXXX    XXXXXXXXXXX XXXXXXX     XX:XX XXXXXXX                        │
│        XXXXXXX    XXXXXXXXXXX XXXXXXX     XX:XX XXXXXXX                        │
│        XXXXXXX    XXXXXXXXXXX XXXXXXX     XX:XX XXXXXXX                        │
│                                                                               │
│      ┌─────────────────────────────────────────────────────────────────┐     │
│      │ Press RETURN to erase specified area or  CTRL - A to abort request.│    │
│      └─────────────────────────────────────────────────────────────────┘     │
│  ┌────┐ ┌────┐ ┌──────┐  ┌──────┐ ┌──────┐    ┌──────┐ ┌──────┐ ┌──────┐      │
│  │    │ │    │ │      │  │      │ │      │    │      │ │      │ │ HELP │      │
│  │    │ │    │ │      │  │      │ │      │    │      │ │      │ │ KEYS │      │
│  └────┘ └────┘ └──────┘  └──────┘ └──────┘    └──────┘ └──────┘ └──────┘      │
└─────────────────────────────────────────────────────────────────────────────┘
```

17 Press ⌈RETURN⌋ to erase the block.

18 Place the cursor on the T of the TRUNK LOCATION label, and press ⌈MOVE⌋.

19 Move the cursor to the last X of the data item below EXT/SPLIT, and press ⌈RETURN⌋.

[The block we are moving is highlighted.]

```
┌─────────────────────────────────────────────────────────────────────────┐
│ ┌───────────────────────────────────────────────────────────────────┐   │
│ │ Call Management System                        Switch_Name:Up   Time │   │
│ └───────────────────────────────────────────────────────────────────┘   │
│                        TRUNK GROUP SUMMARY 2                             │
│                                                                          │
│     TRUNK GROUP:  XXXXXXXXXXXXXXXXXXXX          NO. OF TRUNKS:  XXXX      │
│                                                                          │
│                   TRUNK                                                  │
│                   LOCATION     STATE     TIME  EXT/SPLIT                 │
│                                                                          │
│                   XXXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX                    │
│                   XXXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX                    │
│                   XXXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX                    │
│                   XXXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX                    │
│                   XXXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX                    │
│                   XXXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX                    │
│                   XXXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX                    │
│                   XXXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX                    │
│                   XXXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX                    │
│                   XXXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX                    │
│                   XXXXXXXXXXXX XXXXXXX   XX:XX XXXXXX▯                    │
│                                                                          │
│                                                                          │
│ ┌───────────────────────────────────────────────────────────────────┐   │
│ │ Move cursor to new position and press RETURN.                       │   │
│ └───────────────────────────────────────────────────────────────────┘   │
│ ┌────┐ ┌────┐ ┌────┐  ┌────┐ ┌────┐  ┌────┐ ┌────┐ ┌────────┐           │
│ │    │ │    │ │    │  │    │ │    │  │    │ │    │ │ HELP   │           │
│ │    │ │    │ │    │  │    │ │    │  │    │ │    │ │ KEYS   │           │
│ └────┘ └────┘ └────┘  └────┘ └────┘  └────┘ └────┘ └────────┘           │
└─────────────────────────────────────────────────────────────────────────┘
```

20 Place the cursor at the left edge of the screen on the same line as the
LOCATION label. Press RETURN.

[The block moves to its new location, as shown in the following illustration.]

Sample 1 — A Custom Trunk Group Summary Report

```
Call Management System                        Switch_Name:Up           Time

                              TRUNK GROUP SUMMARY 2

          TRUNK GROUP:  XXXXXXXXXXXXXXXXXX         NO.  OF TRUNKS:  XXXX


          TRUNK
          LOCATION      STATE     TIME  EXT/SPLIT

          XXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX
          XXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX
          XXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX
          XXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX
          XXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX
          XXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX
          XXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX
          XXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX
          XXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX
          XXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX
          XXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX
```

LABEL	DATA ITEM		MOVE	ERASE	EXIT	MORE KEYS	HELP KEYS

21 Place the cursor on the N of the NO. OF TRUNKS label, and press [MOVE].

22 Move the cursor to the first X in the NO. OF TRUNKS data item, and press [RETURN].

[The block we are moving is highlighted.]

```
Call Management System                          Switch_Name:Up        Time

                              TRUNK GROUP SUMMARY 2

        TRUNK GROUP:  XXXXXXXXXXXXXXXXXX        NO.  OF TRUNKS:  XXX▯


        TRUNK
        LOCATION      STATE    TIME  EXT/SPLIT

        XXXXXXXXXXX XXXXXX    XX:XX XXXXXX
        XXXXXXXXXXX XXXXXX    XX:XX XXXXXX
        XXXXXXXXXXX XXXXXX    XX:XX XXXXXX
        XXXXXXXXXXX XXXXXX    XX:XX XXXXXX
        XXXXXXXXXXX XXXXXX    XX:XX XXXXXX
        XXXXXXXXXXX XXXXXX    XX:XX XXXXXX
        XXXXXXXXXXX XXXXXX    XX:XX XXXXXX
        XXXXXXXXXXX XXXXXX    XX:XX XXXXXX
        XXXXXXXXXXX XXXXXX    XX:XX XXXXXX
        XXXXXXXXXXX XXXXXX    XX:XX XXXXXX
        XXXXXXXXXXX XXXXXX    XX:XX XXXXXX

        Move cursor to new position and press RETURN.
```

LABEL	DATA ITEM		MOVE	ERASE	EXIT	MORE KEYS	HELP KEYS

23 Move the cursor to the left edge of the screen on the line below the TRUNK
    GROUP label, and press RETURN .

    [The block moves to its new location, as shown in the following illustration.]

Sample 1 — A Custom Trunk Group Summary Report

```
┌─────────────────────────────────────────────────────────────────────┐
│  ┌──────────────────────────────────────────────────────────────┐   │
│  │ Call Management System                Switch_Name:Up      Time │   │
│  └──────────────────────────────────────────────────────────────┘   │
│                          TRUNK GROUP SUMMARY 2                        │
│                                                                       │
│         TRUNK GROUP:  XXXXXXXXXXXXXXXXXXX                              │
│         NO. OF TRUNKS:  XXXX                                          │
│                                                                       │
│         TRUNK                                                         │
│         LOCATION      STATE     TIME  EXT/SPLIT                       │
│                                                                       │
│         XXXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX                          │
│         XXXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX                          │
│         XXXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX                          │
│         XXXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX                          │
│         XXXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX                          │
│         XXXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX                          │
│         XXXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX                          │
│         XXXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX                          │
│         XXXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX                          │
│         XXXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX                          │
│         XXXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX                          │
│                                                                       │
│  ┌─────┐ ┌─────┐ ┌─────┐   ┌─────┐ ┌─────┐  ┌─────┐ ┌─────┐ ┌─────┐   │
│  │LABEL│ │DATA │ │     │   │MOVE │ │ERASE│  │EXIT │ │MORE │ │HELP │   │
│  │     │ │ITEM │ │     │   │     │ │     │  │     │ │KEYS │ │KEYS │   │
│  └─────┘ └─────┘ └─────┘   └─────┘ └─────┘  └─────┘ └─────┘ └─────┘   │
└─────────────────────────────────────────────────────────────────────┘
```

All the existing data items will retrieve data for the same trunk group. However, since this report will also contain data items for a second trunk group, the existing data items must be identified as data items for the first trunk group.

24 Place the cursor on the TRUNK GROUP data item, and press [DATA ITEM]. Press [RETURN].

[The Data Item Window appears for the field (in bold) we just selected.]

```
┌──────────────────────────────────────────────────────────────────────────────┐
│ Call Management System                        Switch_Name:Up          Time     │
├──────────────────────────────────────────────────────────────────────────────┤
                              TRUNK GROUP SUMMARY 2

         TRUNK GROUP: XXXXXXXXXXXXXXXXXXXXX
         NO. OF TRUNKS: XXXX

         TRUNK
         LOCATION      STATE    TIME EXT/SPLIT

         XXXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX
         XXXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX
         XXXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX
         XXXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX
         XXXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX
         --------------------------------------------------------------------------
         Item: SYN(TRKGRP)_____
         Justify: L Fill: _ File: TRUNK GROUP_____ Data Base: CURRENT_____
         Criteria: TRKGRP EQ TRUNK_GROUP="BLANK"_____
         _____
         Repeat Item: _____
         --------------------------------------------------------------------------
         │ 7007 Please complete the data item specification window and press RETURN │
```

```
┌───────┐ ┌───────┐ ┌───────┐ ┌───────┐ ┌───────┐ ┌───────┐ ┌───────┐ ┌───────┐
│       │ │       │ │DICTNARY│ │       │ │       │ │       │ │       │ │HELP   │
│       │ │       │ │ACCESS │ │       │ │       │ │       │ │       │ │KEYS   │
└───────┘ └───────┘ └───────┘ └───────┘ └───────┘ └───────┘ └───────┘ └───────┘
```

NOTE Notice the criteria statement, `TRKGRP EQ TRUNK_GROUP="BLANK"`. This statement tells CMS to put a blank field on the Report Parameters screen labeled `TRUNK_GROUP`. For whatever trunk group number the user enters in the field, CMS will find all records where the `TRKGRP` (trunk group) database item has that number.

25 Change `TRUNK_GROUP` in the `Criteria` statement to *TRUNK GROUP1*, and press [RETURN].

NOTE When you add the `1` in the Criteria statement, you must overtype the `=` sign. Therefore, you must also overtype the remainder of the statement exactly as it appeared before the change.

26 Repeat Steps 24 and 25 for each data item in the report.

NOTE For each data item at the top of a column, the `Repeat Item` field in the Data Item window will display `11`. This repeat item tells CMS to display a column of up to 11 values on a single page of the report. If more than 11 values are found, the user must press [NEXT PAGE] to see the other values. A number is used in the `Repeat Item` field only with real-time reports.

27 Press RESUME.

28 Place the cursor on the T of the TRUNK GROUP label, and press MORE KEYS.

29 Press COPY.

30 Move the cursor to the data item under EXT/SPLIT, and press RETURN.

[The block we are copying is highlighted.]

```
Call Management System                          Switch_Name:Up          Time

                           TRUNK GROUP SUMMARY 2

         TRUNK GROUP: XXXXXXXXXXXXXXXXXX
         NO. OF TRUNKS: XXXX

         TRUNK
         LOCATION      STATE     TIME  EXT/SPLIT

         XXXXXXXXXXXX XXXXXXX    XX:XX XXXXXX
         XXXXXXXXXXXX XXXXXXX    XX:XX XXXXXXX
         XXXXXXXXXXXX XXXXXXX    XX:XX XXXXXXX
         XXXXXXXXXXXX XXXXXXX    XX:XX XXXXXXX
         XXXXXXXXXXXX XXXXXXX    XX:XX XXXXXXX
         XXXXXXXXXXXX XXXXXXX    XX:XX XXXXXXX
         XXXXXXXXXXXX XXXXXXX    XX:XX XXXXXXX
         XXXXXXXXXXXX XXXXXXX    XX:XX XXXXXXX
         XXXXXXXXXXXX XXXXXXX    XX:XX XXXXXXX
         XXXXXXXXXXXX XXXXXXX    XX:XX XXXXXXX
         XXXXXXXXXXXX XXXXXXX    XX:XX XXXXXXX

         Move cursor to new position and press RETURN.

 LABEL   DATA              MOVE      ERASE      EXIT      MORE      HELP
         ITEM                                            KEYS      KEYS
```

31 Place the cursor two lines below the S in the TRUNK GROUP SUMMARY 2 report title, and press RETURN.

[A copy of the block appears in the specified location, as shown in the following illustration.]

```
┌──────────────────────────────────────────────────────────────────────────────┐
│ ┌───────────────────────────────────────────────────────────────────────────┐│
│ │Call Management System                          Switch_Name:Up      Time     ││
│ └───────────────────────────────────────────────────────────────────────────┘│
│                              TRUNK GROUP SUMMARY 2                             │
│                                                                                │
│     TRUNK GROUP:  XXXXXXXXXXXXXXXXXXX      TRUNK GROUP:  XXXXXXXXXXXXXXXXXXX    │
│     NO. OF TRUNKS: XXXX                    NO. OF TRUNKS: XXXX                  │
│                                                                                │
│     TRUNK                                  TRUNK                               │
│     LOCATION      STATE     TIME EXT/SPLIT LOCATION      STATE     TIME EXT/SPLIT│
│                                                                                │
│     XXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX    XXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX   │
│     XXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX    XXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX   │
│     XXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX    XXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX   │
│     XXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX    XXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX   │
│     XXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX    XXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX   │
│     XXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX    XXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX   │
│     XXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX    XXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX   │
│     XXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX    XXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX   │
│     XXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX    XXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX   │
│     XXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX    XXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX   │
│     XXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX    XXXXXXXXXXX XXXXXXX   XX:XX XXXXXXX   │
│                                                                                │
│ ┌────────┐┌────────┐┌──────┐   ┌────────┐┌────────┐   ┌──────┐┌────────┐┌──────┐│
│ │VIDEO   ││PRINT   ││COPY  │   │INSERT  ││DELETE  │   │EXIT  ││RESUME  ││HELP  ││
│ │ACCENT  ││SCREEN  ││      │   │LINE    ││LINE    │   │      ││        ││KEYS  ││
│ └────────┘└────────┘└──────┘   └────────┘└────────┘   └──────┘└────────┘└──────┘│
└──────────────────────────────────────────────────────────────────────────────┘
```

32 Press ⌈RESUME⌋.

The data items for the second trunk group must now be identified as shown in the following steps.

33 Place the cursor on the second TRUNK GROUP data item, and press ⌈DATA ITEM⌋. Press ⌈RETURN⌋.

[The Data Item Window appears for the field (in bold) we just selected.]

Sample 1 — A Custom Trunk Group Summary Report

```
Call Management System                        Switch_Name:Up          Time

                          TRUNK GROUP SUMMARY 2

    TRUNK GROUP: XXXXXXXXXXXXXXXXXX       TRUNK GROUP: XXXXXXXXXXXXXXXXXX
    NO. OF TRUNKS: XXXX                   NO. OF TRUNKS: XXXX

    TRUNK                                 TRUNK
    LOCATION     STATE    TIME EXT/SPLIT  LOCATION     STATE    TIME EXT/SPLIT

    XXXXXXXXXXXX XXXXXXX  XX:XX XXXXXXX   XXXXXXXXXXXX XXXXXXX  XX:XX XXXXXXX
    XXXXXXXXXXXX XXXXXXX  XX:XX XXXXXXX   XXXXXXXXXXXX XXXXXXX  XX:XX XXXXXXX
    XXXXXXXXXXXX XXXXXXX  XX:XX XXXXXXX   XXXXXXXXXXXX XXXXXXX  XX:XX XXXXXXX
    XXXXXXXXXXXX XXXXXXX  XX:XX XXXXXXX   XXXXXXXXXXXX XXXXXXX  XX:XX XXXXXXX
    XXXXXXXXXXXX XXXXXXX  XX:XX XXXXXXX   XXXXXXXXXXXX XXXXXXX  XX:XX XXXXXXX
    XXXXXXXXXXXX XXXXXXX  XX:XX XXXXXXX   XXXXXXXXXXXX XXXXXXX  XX:XX XXXXXXX
    ----------------------------------------------------------------------
    Item: SYN(TRKGRP)_____
    Justify: L Fill: _ File: TRUNK GROUP_____ Data Base: CURRENT_____
    Criteria: TRKGRP EQ TRUNK_GROUP1="BLANK"_____
    _____
    Repeat Item:  _____
    ----------------------------------------------------------------------
```

```
            | | |DI CTNARY| | | | | | |HELP
            | | |ACCESS  | | | | | | |KEYS
```

34 Change the 1 in the Criteria statement to *2*, and press RETURN.

35 Repeat Steps 33 and 34 for all the data items for the second trunk group.

36 Press EXIT to access the Compile screen.

    [The Compile screen appears, with the default g (global) in the Report Location field. Global means all CMS users can run the report or make a copy of the report design.]

37 Leave the g in the Report Location field so the report will be global. Press COMPILE REPORT.

    [CMS displays a confirmation message that the report was compiled successfully. The report is ready to run.]

Sample 2 — A Custom Call Profile Report

The steps that follow describe how to design a customized call profile report. The report, as shown in Figure F-2, displays, for one split, the number of calls answered and the number of calls abandoned within each of the first six call profile windows. The report also lists calls answered/abandoned for each half-hour in the day.

```
                                    CALL PROFILE BY INTERVAL
SPLIT: 1 ()                                                           DAY: 3/21/88
SERVICE LEVEL: 20
WINDOW: 8
PARAMETERS CHANGED: NO
                                          ANSWERED/ABANDONED
TIME            0    -        8    -        16    -        24    -        32    -        40    +
-------------------------------------------------------------------------------------------------
08:00-08:30AM   455 0        264 71         30 284        0 0          0 0          0 0
08:30-09:00AM   533 0        317 85         36 415        0 0          0 0          0 0
09:00-09:30AM   550 0        296 93         36 407        0 0          0 0          0 0
09:30-10:00AM   569 0        285 106        37 378        0 0          0 0          0 0
 . . .
 . . .
 . ..
05:30-06:00PM   233 0        110 47         26 178        0 0          0 0          0 0
-------------------------------------------------------------------------------------------------
NUMBER OF CALLS ABANDONED      9877
NUMBER OF CALLS ANSWERED      26233
```

Figure F 2 **Sample Custom Call Profile Report**

Preliminary work for this report would include:

> Identifying the data items that are necessary by reviewing the Daily Call Profile Report description in Appendix B.

> Checking the Half Hour Split File table (Table A-10) in Appendix A to make sure the database items for calls answered and calls abandoned in a call profile window (CALLS1, CALLS2, etc. and ABANDON1, ABANDON2, etc.) are available by half-hour interval.

> Drawing the report on graph paper to see exactly how it should look.

We will assume that preliminary work has been done, and we are ready to start entering the design on the Screen Painter.

NOTE	To show an example of troubleshooting a compiler error message, this procedure includes generation of a compiler error and the subsequent fixing of the error.

1   On the CUSTOM REPORTS CREATION menu, select the Historical
    Reports option under the Standard Reports heading.

    [The COPY STANDARD HISTORICAL REPORTS menu appears.]

2   In the New Report Name field, enter *hhrcallprof* for the name of the report we
    are creating.

3   Select the Call Profile option, and press COPY.

    [The Screen Painter appears with an exact copy of the historical Call Profile Report
    design.]

```
┌────────────────────────────────────────────────────────────────────────────────┐
│  ┌──────────────────────────────────────────────────────────────────────┐       │
│  │ Call Management  System                   Switch_Name:Up        Time   │       │
│  └──────────────────────────────────────────────────────────────────────┘       │
│                            DAILY  CALL  PROFILE  REPORT                           │
│  XX/ XX/ XX                                                    DAY:  XX/ XX/ XX   │
│                                                                                  │
│  SPLI T:  XXXXXXXXXXXXXXXXXXXX                                                    │
│                                                                                  │
│  SERVI CE  LEVEL:   XXXX                                                          │
│  WI NDOW   XXXX                                                                   │
│  PARAMETERS  CHANGED:   XXX                                                       │
│                                                                                  │
│  TI ME  I NTERVAL       0   - XXXX - XXXX - XXXX - XXXX - XXXX - XXXX - XXXX - XXXX - XXXX +    TOTAL │
│                                                                                  │
│  NUMBER  ANSWERED        XXXX  XXXX  XXXX  XXXX  XXXX  XXXX  XXXX  XXXX  XXXX  XXXX   XXXXX │
│                                                                                  │
│  NUMBER  ABANDONED       XXXX  XXXX  XXXX  XXXX  XXXX  XXXX  XXXX  XXXX  XXXX  XXXX   XXXXX │
│                                                                                  │
│  ┌──────┐ ┌──────┐ ┌──────┐   ┌──────┐ ┌──────┐   ┌──────┐ ┌──────┐ ┌──────┐     │
│  │LABEL │ │DATA  │ │TI ME │   │MOVE  │ │ERASE │   │EXI T │ │MORE  │ │HELP  │     │
│  │      │ │I TEM │ │STAMP │   │      │ │      │   │      │ │KEYS  │ │KEYS  │     │
│  └──────┘ └──────┘ └──────┘   └──────┘ └──────┘   └──────┘ └──────┘ └──────┘     │
└────────────────────────────────────────────────────────────────────────────────┘
```

Figure F 3   Call Profile Real-Time Report

We will change the title of the report first.

4   Move the cursor to the report title DAILY CALL PROFILE REPORT, and press
    LABEL.

    [The label DAILY CALL PROFILE REPORT, shown in bold in the following
    illustration, is ready for editing.]

```
┌──────────────────────────────────────────────────────────────────────────┐
│ Call Management System                    Switch_Name:Up          Time     │
└──────────────────────────────────────────────────────────────────────────┘
                          ▯AILY CALL PROFILE REPORT
XX/XX/XX                                                        DAY: XX/XX/XX

SPLIT: XXXXXXXXXXXXXXXXXXXX

SERVICE LEVEL: XXX
WINDOW: XXX
PARAMETERS CHANGED: XXX

TIME INTERVAL          0  - XXX -  XXX -  XXX -  XXX -  XXX -  XXX -  XXX -  XXX +     TOTAL

NUMBER ANSWERED          XXXX  XXXX  XXXX  XXXX  XXXX  XXXX  XXXX  XXXX  XXXX  XXXX     XXXXX

NUMBER ABANDONED         XXXX  XXXX  XXXX  XXXX  XXXX  XXXX  XXXX  XXXX  XXXX  XXXX     XXXXX



┌────────────────────────────────────────────────────────────────────┐
│  1:1 7003 Please enter the label text, press RETURN when done.       │
└────────────────────────────────────────────────────────────────────┘
┌──────┐ ┌──────┐ ┌────────┐  ┌────────┐ ┌────────┐  ┌──────────┐ ┌──────┐ ┌──────┐
│      │ │      │ │        │  │        │ │        │  │          │ │      │ │ HELP │
│      │ │      │ │        │  │        │ │        │  │          │ │      │ │ KEYS │
└──────┘ └──────┘ └────────┘  └────────┘ └────────┘  └──────────┘ └──────┘ └──────┘
```

5   Press [CTRL] **z** to erase the existing title, and type the new title, *CALL PROFILE BY INTERVAL.* Press [RETURN].

For this particular report design, the fastest way to redesign the report from TIME INTERVAL down is to erase the data items and labels, then add new data items and labels. The three steps that follow erase all items from the TIME INTERVAL label to the bottom of the report design.

6   Move the cursor to the beginning of the label TIME INTERVAL and press [ERASE].

┌──────────┐
│ **NOTE** │ Pressing [SHIFT] **b** automatically moves the cursor to the left edge of the
│   │ screen.
│   │
└──────────┘

7   Move the cursor down and to the far right so that the data item field in the lower right of the screen is to the left of the cursor, and press [RETURN].

[The block we are erasing is highlighted.]

Sample 2 — A Custom Call Profile Report

```
┌─────────────────────────────────────────────────────────────────────────┐
│ ┌───────────────────────────────────────────────────────────────────┐   │
│ │ Call Management System                        Switch_Name:Up     Time │ │
│ └───────────────────────────────────────────────────────────────────┘   │
│                          CALL PROFILE BY INTERVAL                         │
│ XX/XX/XX                                                     DAY: XX/XX/XX │
│                                                                           │
│ SPLIT: XXXXXXXXXXXXXXXXXXX                                                 │
│                                                                           │
│ SERVICE LEVEL: XXX                                                        │
│ WINDOW XXX                                                                 │
│ PARAMETERS CHANGED: XXX                                                    │
│                                                                           │
│ TIME INTERVAL        0  - XXX - XXX - XXX - XXX - XXX - XXX - XXX - XXX +    TOTAL │
│                                                                           │
│ NUMBER ANSWERED       XXXX  XXXX  XXXX  XXXX  XXXX  XXXX  XXXX  XXXX  XXXX  XXXX   XXXXX │
│                                                                           │
│ NUMBER ABANDONED      XXXX  XXXX  XXXX  XXXX  XXXX  XXXX  XXXX  XXXX  XXXX  XXXX   XXXXX│ │
│                                                                           │
│                                                                           │
│                                                                           │
│                                                                           │
│   ┌─────────────────────────────────────────────────┐                    │
│   │ Press RETURN to erase specified area or   CTRL - │                    │
│   └─────────────────────────────────────────────────┘                    │
│  ┌────┐ ┌────┐ ┌──────┐  ┌───────┐ ┌───────┐   ┌───────┐ ┌────┐ ┌──────┐  │
│  │    │ │    │ │      │  │       │ │       │   │       │ │    │ │HELP  │  │
│  │    │ │    │ │      │  │       │ │       │   │       │ │    │ │KEYS  │  │
│  └────┘ └────┘ └──────┘  └───────┘ └───────┘   └───────┘ └────┘ └──────┘  │
└─────────────────────────────────────────────────────────────────────────┘
```

8   Press RETURN again to erase the block.

9   Move the cursor to the beginning of the line below Parameters Changed:,
    and press LABEL .

10 Type *ANSWERED/ABANDONED*, and press RETURN .

11 Place the cursor on the first A of the ANSWERED/ABANDONED label, and press
     MOVE . Press RETURN .

    [The ANSWERED/ABANDONED label is highlighted.]

12 Move the cursor 35 spaces to the right, and press RETURN .

    [The ANSWERED/ABANDONED label moves to the middle of the screen. The
    Screen Painter should appear as shown in the following illustration.]

```
┌─────────────────────────────────────────────────────────────────────────────┐
│  ┌──────────────────────────────────────────────────────────────────────┐   │
│  │ Call Management System              Switch_Name:Up            Time     │   │
│  └──────────────────────────────────────────────────────────────────────┘   │
│                         CALL PROFILE BY INTERVAL                              │
│  XX/XX/XX                                                     DAY: XX/XX/XX   │
│                                                                               │
│  SPLIT: XXXXXXXXXXXXXXXXXXXX                                                   │
│                                                                               │
│  SERVICE LEVEL: XXX                                                           │
│  WINDOW XXX                                                                    │
│  PARAMETERS CHANGED: XXX                                                       │
│                              ANSWERED/ABANDONED                                │
│                                                                               │
│                                                                               │
│                                                                               │
│                                                                               │
│                                                                               │
│                                                                               │
│                                                                               │
│  ┌──────┐ ┌──────┐ ┌──────┐    ┌──────┐ ┌──────┐    ┌──────┐ ┌──────┐ ┌──────┐│
│  │LABEL │ │DATA  │ │      │    │MOVE  │ │ERASE │    │EXIT  │ │MORE  │ │HELP  ││
│  │      │ │ITEM  │ │      │    │      │ │      │    │      │ │KEYS  │ │KEYS  ││
│  └──────┘ └──────┘ └──────┘    └──────┘ └──────┘    └──────┘ └──────┘ └──────┘│
└─────────────────────────────────────────────────────────────────────────────┘
```

13 Move the cursor down one line and back to the left edge of the screen, and press LABEL.

14 Type *TIME*, and press RETURN.

15 Move the cursor 13 spaces to the right of the TIME label, and press LABEL.

16 Type *0*, press the space bar three times, then type a dash (-). Press RETURN.

17 Move the cursor down one line and back to the left edge of the screen, and press LABEL.

18 Type 52 dashes (-) across the screen so that the last dash is even with the end of the word ABANDONED above. Press RETURN.

[The following illustration shows what the Screen Painter should look like to this point.]

Sample 2 — A Custom Call Profile Report

```
┌─────────────────────────────────────────────────────────────────────────────┐
│                                                                               │
│  ┌─────────────────────────────────────────────────────────────────────────┐ │
│  │ Call Management System                      Switch_Name:Up         Time  │ │
│  └─────────────────────────────────────────────────────────────────────────┘ │
│                            CALL PROFILE BY INTERVAL                            │
│  XX/XX/XX                                                      DAY:  XX/XX/XX  │
│                                                                               │
│  SPLIT:  XXXXXXXXXXXXXXXXXXXX                                                  │
│                                                                               │
│  SERVICE LEVEL:  XXX                                                           │
│  WINDOW  XXX                                                                   │
│  PARAMETERS CHANGED:  XXX                                                      │
│                                  ANSWERED/ABANDONED                            │
│  TIME                0    -                                                    │
│  ------------------------------------------------                             │
│                                                                               │
│                                                                               │
│                                                                               │
│                                                                               │
│                                                                               │
│                                                                               │
│                                                                               │
│                                                                               │
│  ┌─────┐ ┌─────┐ ┌─────┐    ┌─────┐ ┌─────┐   ┌─────┐ ┌─────┐ ┌─────┐         │
│  │LABEL│ │DATA │ │     │    │MOVE │ │ERASE│   │EXIT │ │MORE │ │HELP │         │
│  │     │ │ITEM │ │     │    │     │ │     │   │     │ │KEYS │ │KEYS │         │
│  └─────┘ └─────┘ └─────┘    └─────┘ └─────┘   └─────┘ └─────┘ └─────┘         │
│                                                                               │
└─────────────────────────────────────────────────────────────────────────────┘
```

19 Move the cursor to the space after the last dash in the line, and press ⌊LABEL⌋.

20 Type 43 more dashes so that one continuous line appears on the design, from one side of the screen to the other. Press ⌊RETURN⌋.

┌──────┐
│ NOTE │ The line across the screen must be formed by two labels because the
└──────┘ maximum label length is 80 characters.

21 Move the cursor to the data item field beside the Split label, press ⌊DATA ITEM⌋, and then press ⌊RETURN⌋.

[The Data Item Window (shaded) for the Split field (in bold) appears, as shown in the following illustration.]

```
┌─────────────────────────────────────────────────────────────────────────┐
│ ┌───────────────────────────────────────────────────────────────────┐   │
│ │ Call Management System                     Switch_Name:Up      Time │   │
│ └───────────────────────────────────────────────────────────────────┘   │
│                            CALL PROFILE BY INTERVAL                       │
│  XX/XX/XX                                                  DAY: XX/XX/XX  │
│                                                                           │
│  SPLIT: XXXXXXXXXXXXXXXXXX                                                │
│  SERVICE LEVEL:  XXX                                                      │
│  WINDOW  XXX                                                              │
│  PARAMETERS CHANGED:  XXX                                                 │
│                                   ANSWERED/ABANDONED                      │
│  TIME            0   -                                                     │
│  ------------------------------------------------------------------------ │
│                                                                           │
│                                                                           │
│  ------------------------------------------------------------------       │
│  Item SPLIT                                                               │
│  Justify: R Fill:    File: SPLIT            Data Base: DAILY              │
│  Criteria: SPLIT EQ SPLIT NUMBER=" BLANK"                                 │
│                                                                           │
│  Repeat Item                                                             │
│  Start Date: REPORT DAY=-1   Number of Days: 1                           │
│  ------------------------------------------------------------------       │
│    ┌─────────────────────────────────────────────────────────────┐      │
│    │ 7007 Please complete the data item specification window and  │      │
│    │ press RETURN                                                 │      │
│    └─────────────────────────────────────────────────────────────┘      │
│  ┌──────┐ ┌──────┐ ┌──────┐ ┌──────┐ ┌──────┐ ┌──────┐ ┌──────┐ ┌──────┐ │
│  │      │ │      │ │DICTNARY│ │      │ │      │ │      │ │      │ │HELP  │ │
│  │      │ │      │ │ACCESS │ │      │ │      │ │      │ │      │ │KEYS  │ │
│  └──────┘ └──────┘ └──────┘ └──────┘ └──────┘ └──────┘ └──────┘ └──────┘ │
└─────────────────────────────────────────────────────────────────────────┘
```

Only the `Data Base` field must be changed for this Data Item Window. Since we want half-hour data, we must retrieve data from the Half-Hour Database. The statement in the `Criteria` field means the report will display data for the split you enter in the `SPLIT_NUMBER` field on the Report Parameters screen. The statement in the `Start Date` field means the report will display data starting from the date you enter in the `REPORT_DAY` field on the Report Parameters screen (the default will be `-1`). The `1` in the `Number of Days` field means the report will always display data for a single day.

22 Type *HALF HOUR* in the `Data Base` field, and press ⎡RETURN⎤.

23 Repeat steps 21 and 22 for the data items beside `SERVICE LEVEL`, `WINDOW`, and `PARAMETERS CHANGED`.

24 Move the cursor 5 spaces to the right of the "0   -" label, and press ⎡DATA ITEM⎤.

25 Type *XXXX*, and press ⎡RETURN⎤.

[The Data Item Window appears for the field (in bold) we just specified. Notice that all entries (except for the `Item` field) from the previous data item have been carried over to the current data item.]

Sample 2 — A Custom Call Profile Report

```
┌─────────────────────────────────────────────────────────────────────────┐
│  ┌──────────────────────────────────────────────────────────────────┐    │
│  │ Call Management System                    Switch_Name:Up     Time │    │
│  └──────────────────────────────────────────────────────────────────┘    │
│                         CALL PROFILE BY INTERVAL                          │
│   XX/XX/XX                                                  DAY: XX/XX/XX  │
│                                                                           │
│   SPLIT: XXXXXXXXXXXXXXXXXXXX                                              │
│   SERVICE LEVEL:  XXX                                                      │
│   WINDOW  XXX                                                             │
│   PARAMETERS CHANGED:  XXX                                                 │
│                              ANSWERED/ABANDONED                            │
│   TIME           0    -    XXXX                                            │
│   ----------------------------------------------------------------------- │
│                                                                           │
│                                                                           │
│   ----------------------------------------------------------------        │
│   Item:                                                                    │
│   Justify: R Fill:    File: SPLIT            Data Base: HALF HOUR          │
│   Criteria: SPLIT EQ SPLIT NUMBER=" BLANK"                                 │
│                                                                           │
│   Repeat Item:                                                            │
│   Start Date: REPORT DAY=-1    Number of Days: 1                          │
│   ----------------------------------------------------------------        │
│   ┌─────────────────────────────────────────────────────────────┐        │
│   │  7007 Please complete the data item specification window and press RETURN │ │
│   └─────────────────────────────────────────────────────────────┘        │
│   ┌─────┐ ┌─────┐ ┌─────────┐ ┌─────┐ ┌─────┐   ┌─────┐ ┌─────┐ ┌───────┐ │
│   │     │ │     │ │DICTNARY │ │     │ │     │   │     │ │     │ │HELP   │ │
│   │     │ │     │ │ACCESS   │ │     │ │     │   │     │ │     │ │KEYS   │ │
│   └─────┘ └─────┘ └─────────┘ └─────┘ └─────┘   └─────┘ └─────┘ └───────┘ │
└─────────────────────────────────────────────────────────────────────────┘
```

26 In the `Item` field, type *WINDOW*, and press [RETURN].

27 Move the cursor to the right 10 spaces, and press [DATA ITEM].

28 Type *XXXX*, and press [RETURN].

[The Data Item Window appears for the field (in bold) we just specified.]

```
┌─────────────────────────────────────────────────────────────────────────────┐
│ ┌───────────────────────────────────────────────────────────────────────┐   │
│ │ Call Management System                    Switch_Name:Up         Time  │   │
│ └───────────────────────────────────────────────────────────────────────┘   │
│                            CALL PROFILE BY INTERVAL                           │
│   XX/XX/XX                                                  DAY: XX/XX/XX      │
│                                                                               │
│   SPLIT: XXXXXXXXXXXXXXXXXXX                                                   │
│   SERVICE LEVEL: XXX                                                           │
│   WINDOW XXX                                                                   │
│   PARAMETERS CHANGED: XXX                                                      │
│                                ANSWERED/ABANDONED                              │
│   TIME          0  -   XXXX        XXXX                                        │
│   -----------------------------------------------------------------------     │
│                                                                               │
│                                                                               │
│   -------------------------------------------------------------------         │
│   Item:                                                                       │
│   Justify: R Fill:    File: SPLIT               Data Base: HALF HOUR          │
│   Criteria: SPLIT EQ SPLIT NUMBER=" BLANK"                                     │
│                                                                               │
│   Repeat Item                                                                 │
│   Start Date: REPORT DAY=-1   Number of Days: 1                               │
│   -------------------------------------------------------------------         │
│     7007 Please complete the data item specification window and press RETURN  │
│   ┌───────┐ ┌───────┐ ┌───────┐ ┌───────┐ ┌───────┐ ┌───────┐ ┌───────┐ ┌─────┐│
│   │       │ │       │ │DICTNARY│ │       │ │       │ │       │ │       │ │HELP ││
│   │       │ │       │ │ACCESS  │ │       │ │       │ │       │ │       │ │KEYS ││
│   └───────┘ └───────┘ └───────┘ └───────┘ └───────┘ └───────┘ └───────┘ └─────┘│
└─────────────────────────────────────────────────────────────────────────────┘
```

29 In the `Item` field, type *2*WINDOW*, and press `RETURN`.

30 Repeat steps 27 to 29 to add the following data items:

> *3*WINDOW*
> *4*WINDOW*
> *5*WINDOW*

[The Screen Painter should appear as shown in the following illustration.]

Sample 2 — A Custom Call Profile Report

```
┌─────────────────────────────────────────────────────────────────────────────┐
│                                                                               │
│  ┌──────────────────────────────────────────────────────────────────────┐   │
│  │ Call Management System                    Switch_Name:Up         Time  │   │
│  └──────────────────────────────────────────────────────────────────────┘   │
│                          CALL PROFILE BY INTERVAL                             │
│   XX/XX/XX                                               DAY:  XX/XX/XX       │
│                                                                               │
│   SPLIT:  XXXXXXXXXXXXXXXXXXXX                                                 │
│   SERVICE LEVEL:  XXX                                                          │
│   WINDOW  XXX                                                                  │
│   PARAMETERS CHANGED:  XXX                                                     │
│                              ANSWERED/ABANDONED                                │
│   TIME          0  -  XXXX        XXXX      XXXX      XXXX      XXXX            │
│   ------------------------------------------------------------------------    │
│                                                                               │
│                                                                               │
│                                                                               │
│                                                                               │
│   ┌──────┐ ┌──────┐ ┌────────┐ ┌──────┐ ┌──────┐   ┌──────┐ ┌──────┐ ┌──────┐│
│   │      │ │      │ │DICTNARY│ │      │ │      │   │      │ │      │ │HELP  ││
│   │      │ │      │ │ACCESS  │ │      │ │      │   │      │ │      │ │KEYS  ││
│   └──────┘ └──────┘ └────────┘ └──────┘ └──────┘   └──────┘ └──────┘ └──────┘│
│                                                                               │
└─────────────────────────────────────────────────────────────────────────────┘
```

31 Move the cursor to the left edge of the screen 2 lines below the TIME label, and press [DATA ITEM].

32 Type *XXXXXXXXXXXXX* (13 Xs) to define the field length for display of half-hour intervals, and press [RETURN].

[The Data Item Window appears for the field (in bold) we just specified.]

```
Call Management System                          Switch_Name:Up          Time

                          CALL PROFILE BY INTERVAL
XX/XX/XX                                                      DAY: XX/XX/XX

SPLIT: XXXXXXXXXXXXXXXXXX
SERVICE LEVEL: XXX
WINDOW XXX
PARAMETERS CHANGED: XXX
                              ANSWERED/ABANDONED
TIME            0  -  XXXX        XXXX        XXXX        XXXX        XXXX
-------------------------------------------------------------------------------
XXXXXXXXXXXXX


-------------------------------------------------------------------------------
Item: _____
Justify: R Fill: _ File: SPLIT_____ Data Base: HALF HOUR_____
Criteria: SPLIT EQ SPLIT_NUMBER="BLANK"_____
_____
Repeat Item: _____
Start Date: REPORT_DAY=-1_  Number of Days: 1_____
-------------------------------------------------------------------------------
  7007 Please complete the data item specification window and press RETURN
```

| | | DICTNARY ACCESS | | | | | HELP KEYS |

33 Type *INTERVAL* in the `Item` field.

34 Add to the statement in the `Criteria` field the following statements. (**Do not** overtype the existing criteria statement.)

AND INTERVAL GE FIRST INTERVAL=1 AND INTERVAL LE LAST INTERVAL=48.

NOTE This addition to the Criteria statement will create two input fields (with default values `1` and `48` respectively) on the Report Parameters screen so the report can be run for only a selected range of half-hour intervals. Typing *INTERVAL* in the `Repeat Item` field would have the same effect.

35 Type *LOOP* in the `Repeat Item` field, and press [RETURN].

NOTE We must add a repeat item because we want the `INTERVAL` data item to display a column of intervals when you run the report. `LOOP` causes the intervals to be listed in the same order they appear in the database. Since the report is only for one day, entering `INTERVAL` in the `Repeat Item` field would have the same effect, in addition to creating input fields on the Report Parameters screen.

36 Move the cursor to the right so it is below the 0, and press DATA ITEM.

37 Type *XXXX* to define the field length for display of answered calls for the first call profile window. Press RETURN.

[The Data Item Window appears for the field (in bold) we just specified.]

```
┌─────────────────────────────────────────────────────────────────────────────┐
│ Call Management System                          Switch_Name:Up         Time   │
│                                                                               │
│                          CALL PROFILE BY INTERVAL                             │
│ XX/XX/XX                                                         DAY: XX/XX/XX │
│                                                                               │
│ SPLIT: XXXXXXXXXXXXXXXXXXX                                                     │
│ SERVICE LEVEL: XXX                                                            │
│ WINDOW XXX                                                                    │
│ PARAMETERS CHANGED: XXX                                                       │
│                                ANSWERED/ABANDONED                             │
│ TIME            0   -   XXXX       XXXX      XXXX       XXXX       XXXX        │
│ -------------------------------------------------------------------------------│
│ XXXXXXXXXXXXX     XXXX                                                         │
│                                                                               │
│                                                                               │
│ -------------------------------------------------------------------------------│
│ Item: _____│
│ Justify: R Fill: _ File: SPLIT_____ Data Base: HALF HOUR_____│
│ Criteria: SPLIT EQ SPLIT_NUMBER="BLANK" AND INTERVAL GE FIRST_INTERVAL=1 AND_IN│
│ TERVAL LE LAST_INTERVAL=48_____│
│ Repeat Item: LOOP_____ │
│ Start Date: REPORT_DAY=-1_  Number of Days: 1_____ │
│ -------------------------------------------------------------------------------│
│  ┌──────────────────────────────────────────────────────────────────────┐    │
│  │ 7007 Please complete the data item specification window and press RETURN│   │
│  └──────────────────────────────────────────────────────────────────────┘    │
│                                                                               │
│  ┌────┐ ┌────┐ ┌────────┐ ┌────┐ ┌────┐    ┌────┐ ┌────┐        ┌────────┐    │
│  │    │ │    │ │DICTNARY│ │    │ │    │    │    │ │    │        │HELP    │    │
│  │    │ │    │ │ACCESS  │ │    │ │    │    │    │ │    │        │KEYS    │    │
│  └────┘ └────┘ └────────┘ └────┘ └────┘    └────┘ └────┘        └────────┘    │
└─────────────────────────────────────────────────────────────────────────────┘
```

38 Type *CALLS1* in the Item field, and press RETURN.

NOTE	CALLS1 is the database item that counts ACD calls answered in the first call profile interval, WINDOW.

39 Move the cursor to the right so it is just below the last X of the first call profile window. Press DATA ITEM.

40 Type *XXXX* to define the field length for the numbers of answered calls in the second call profile window. Press RETURN.

[The Data Item Window appears for the field (in bold) we just specified.]

```
┌─────────────────────────────────────────────────────────────────────────┐
│  ┌──────────────────────────────────────────────────────────────────┐    │
│  │ Call Management System                   Switch_Name:Up      Time │    │
│  └──────────────────────────────────────────────────────────────────┘    │
│                         CALL PROFILE BY INTERVAL                          │
│   XX/XX/XX                                            DAY: XX/XX/XX        │
│                                                                           │
│   SPLIT: XXXXXXXXXXXXXXXXXXX                                               │
│   SERVICE LEVEL: XXX                                                       │
│   WINDOW XXX                                                               │
│   PARAMETERS CHANGED: XXX                                                  │
│                              ANSWERED/ABANDONED                            │
│   TIME         0  -   XXXX        XXXX       XXXX       XXXX       XXXX     │
│   --------------------------------------------------------------------     │
│   XXXXXXXXXXXX    XXXX      XXXX                                           │
│                                                                           │
│                                                                           │
│   --------------------------------------------------------------------     │
│   Item: _____     │
│   Justify: R Fill: _ File: SPLIT_____ Data Base: HALF HOUR_____ │
│   Criteria: SPLIT EQ SPLIT_NUMBER="BLANK" AND INTERVAL GE FIRST_INTERVAL=1 AND_IN │
│   TERVAL LE LAST_INTERVAL=48_____  │
│   Repeat Item: LOOP_____  │
│   Start Date: REPORT_DAY=-1_  Number of Days: 1_____   │
│   --------------------------------------------------------------------     │
│   │  7007 Please complete the data item specification window and press RETURN │ │
│                                                                           │
│  ┌────┐ ┌────┐ ┌────────┐ ┌────┐ ┌────┐    ┌────┐ ┌────┐ ┌────────┐      │
│  │    │ │    │ │DICTNARY│ │    │ │    │    │    │ │    │ │HELP    │      │
│  │    │ │    │ │ACCESS  │ │    │ │    │    │    │ │    │ │KEYS    │      │
│  └────┘ └────┘ └────────┘ └────┘ └────┘    └────┘ └────┘ └────────┘      │
└─────────────────────────────────────────────────────────────────────────┘
```

41 Type *CALLS2* in the Item field, and press RETURN.

42 Repeat Steps 39 to 41 for the following data items:

> *CALLS3*
> *CALLS4*
> *CALLS5*

43 Move the cursor to the right so it is below the last X of the last call profile window. Press DATA ITEM.

44 Type *XXXX* to define the field length for display of all other answered calls. Press RETURN.

45 Type *CALLS6+CALLS7+CALLS8+CALLS9+CALLS10* in the Item field, and press RETURN. This data item sums all calls answered outside of the last specified call profile window, 5*WINDOW.

[The Screen Painter should now appear as shown in the following illustration.]

Sample 2 — A Custom Call Profile Report

```
┌─────────────────────────────────────────────────────────────────────┐
│  ┌─────────────────────────────────────────────────────────────────┐ │
│  │ Call Management System                  Switch_Name:Up      Time │ │
│  └─────────────────────────────────────────────────────────────────┘ │
│                       CALL PROFILE BY INTERVAL                        │
│   XX/XX/XX                                            DAY: XX/XX/XX    │
│                                                                       │
│   SPLIT: XXXXXXXXXXXXXXXXXXXX                                          │
│   SERVICE LEVEL:  XXX                                                  │
│   WINDOW  XXX                                                          │
│   PARAMETERS CHANGED:  XXX                                            │
│                            ANSWERED/ABANDONED                          │
│   TIME          0  -  XXXX         XXXX        XXXX      XXXX     XXXX  │
│   --------------------------------------------------------------------│
│   XXXXXXXXXXXX   XXXX       XXXX        XXXX      XXXX     XXXX    XXXX  │
│                                                                       │
│                                                                       │
│   ┌─────┐ ┌─────┐ ┌───────┐ ┌─────┐ ┌─────┐     ┌─────┐ ┌─────┐ ┌─────┐│
│   │     │ │     │ │DICTNARY│ │     │ │     │     │     │ │     │ │HELP ││
│   │     │ │     │ │ACCESS  │ │     │ │     │     │     │ │     │ │KEYS ││
│   └─────┘ └─────┘ └───────┘ └─────┘ └─────┘     └─────┘ └─────┘ └─────┘│
└─────────────────────────────────────────────────────────────────────┘
```

46 Move the cursor two spaces to the right of the first calls answered data item, and press DATA ITEM.

47 Type *XXXX* to define the field length for display of abandoned calls for the first call profile window. Press RETURN.

[The Data Item Window appears for the field (in bold) we just specified.]

```
Call Management System                              Switch_Name:Up              Time

                           CALL PROFILE BY INTERVAL
XX/XX/XX                                                          DAY: XX/XX/XX

SPLIT: XXXXXXXXXXXXXXXXXXXX
SERVICE LEVEL:  XXX
WINDOW  XXX
PARAMETERS CHANGED:  XXX
                                ANSWERED/ABANDONED
TIME         0  -  XXXX          XXXX      XXXX      XXXX      XXXX
-------------------------------------------------------------------------------------
XXXXXXXXXXXX    XXXX XXXX   XXXX        XXXX       XXXX      XXXX      XXXX


-------------------------------------------------------------------------
Item:
Justify: R Fill:    File: SPLIT                Data Base: HALF HOUR
Criteria: SPLIT EQ SPLIT NUMBER="BLANK"  AND INTERVAL GE FIRST INTERVAL=1 AND IN
TERVAL LE LAST INTERVAL=48
Repeat Item LOOP
Start Date: REPORT DAY=-1   Number of Days: 1
-------------------------------------------------------------------------
   7007 Please complete the data item specification window and press RETURN
```

		DICTNARY ACCESS					HELP KEYS

48 Type *ABANDON1* in the `Item` field. Also type *L* in the `Justify` field, and press RETURN.

You will left justify the abandoned calls data items so that one space always separates calls answered and calls abandoned when you run the report.

49 Move the cursor two spaces to the right of the calls answered data item for the second call profile window, and press DATA ITEM.

50 Type *XXXX* to define the field length for display of abandoned calls for the second call profile window. Press RETURN.

[The Data Item Window appears for the field (in bold) we just specified.]

Sample 2 — A Custom Call Profile Report

```
+----------------------------------------------------------------------------+
| +------------------------------------------------------------------------+ |
| | Call Management System                    Switch_Name:Up          Time | |
| +------------------------------------------------------------------------+ |
|                        CALL PROFILE BY INTERVAL                            |
|  XX/XX/XX                                                    DAY: XX/XX/XX  |
|                                                                            |
|  SPLIT: XXXXXXXXXXXXXXXXXXX                                                 |
|  SERVICE LEVEL: XXX                                                        |
|  WINDOW  XXX                                                              |
|  PARAMETERS CHANGED: XXX                                                   |
|                            ANSWERED/ABANDONED                              |
|  TIME          0  -   XXXX        XXXX        XXXX       XXXX       XXXX    |
|  --------------------------------------------------------------------------|
|  XXXXXXXXXXXX   XXXX XXXX   XXXX XXXX   XXXX       XXXX       XXXX       XXXX|
|                                                                            |
|  --------------------------------------------------------------------------|
|  Item: _____|
|  Justify: R Fill: _ File: SPLIT_____ Data Base: HALF HOUR_____|
|  Criteria: SPLIT EQ SPLIT_NUMBER="BLANK" AND INTERVAL GE FIRST_INTERVAL=1 AND_IN|
|  TERVAL LE LAST_INTERVAL=48_____|
|  Repeat Item: LOOP_____|
|  Start Date: REPORT_DAY=-1_  Number of Days: 1_____|
|  --------------------------------------------------------------------------|
|  |  7007 Please complete the data item specification window and press RETURN | |
|                                                                            |
|  +------+ +------+ +------+ +------+ +------+ +------+ +------+ +------+    |
|  |      | |      | |DICTNARY| |    | |      | |      | |      | |HELP  |    |
|  |      | |      | |ACCESS  | |    | |      | |      | |      | |KEYS  |    |
|  +------+ +------+ +------+ +------+ +------+ +------+ +------+ +------+    |
+----------------------------------------------------------------------------+
```

51 Type *ABANDON2* in the `Item` field and *L* in the `Justify` field. Press [RETURN].

52 Repeat Steps 49 to 51 for the following data items:

> *ABANDON3*
> *ABANDON4*
> *ABANDON5*

53 Move the cursor two spaces to the right of the last calls answered data item. Press [DATA ITEM].

54 Type *XXXX* to define the field length for display of all other abandoned calls. Press [RETURN].

[The Data Item Window appears for the field (in bold) we just specified.]

```
Call Management System                                    Switch_Name:Up              Time

                                CALL PROFILE BY INTERVAL
XX/XX/XX                                                                    DAY: XX/XX/XX

SPLIT: XXXXXXXXXXXXXXXXXXX
SERVICE LEVEL: XXX
WINDOW  XXX
PARAMETERS CHANGED: XXX
                                    ANSWERED/ABANDONED
TIME         0  -   XXXX          XXXX          XXXX         XXXX         XXXX
--------------------------------------------------------------------------------
XXXXXXXXXXXX   XXXX XXXX   XXXX XXXX    XXXX XXXX   XXXX XXXX   XXXX XXXX   XXXX XXXX


--------------------------------------------------------------------------------
Item: _____
Justify: L Fill: _ File: SPLIT_____ Data Base: HALF HOUR_____
Criteria: SPLIT EQ SPLIT_NUMBER="BLANK" AND INTERVAL GE FIRST_INTERVAL=1 AND_IN
TERVAL LE LAST_INTERVAL=48_____
Repeat Item: LOOP_____
Start Date: REPORT_DAY=-1_  Number of Days: 1_____
--------------------------------------------------------------------------------
   | 7007 Please complete the data item specification window and press RETURN |
```

```
┌──────┐ ┌──────┐ ┌──────────┐ ┌──────┐ ┌──────┐ ┌──────┐ ┌──────┐ ┌──────────┐
│      │ │      │ │DICTNARY  │ │      │ │      │ │      │ │      │ │HELP      │
│      │ │      │ │ACCESS    │ │      │ │      │ │      │ │      │ │KEYS      │
└──────┘ └──────┘ └──────────┘ └──────┘ └──────┘ └──────┘ └──────┘ └──────────┘
```

55 Type *ABANDON6+ABANDON7+ABANDON8+ABANDON9+ABANDON10* in the
    `Item` field and *L* in the `Justify` field. Press RETURN.

    This data item sums all calls abandoned outside of the last specified call profile
    window, `5*WINDOW`.

56 Press RESUME.

    [The first tier of screen-labeled keys, including LABEL, reappears.]

57 Move the cursor back to the line containing the call profile window data items. Use
    the LABEL key to enter a single dash (-) midway between each call profile window
    field. Also, add a plus sign (+) label 5 spaces after the last call profile window
    field.

58 Use the LABEL key to add a line of dashes across the screen below the data item
    fields. This line will provide a visual border between the interval data and the last
    two report items we will enter.

    ┌──────┐
    │ NOTE │ Remember that you will actually have to use two labels to make the
    └──────┘ bottom line.

    [The Screen Painter should now appear as shown in the following illustration.]

Sample 2 — A Custom Call Profile Report

```
┌──────────────────────────────────────────────────────────────────────────────┐
│  Call Management System                         Switch_Name:Up          Time   │
├──────────────────────────────────────────────────────────────────────────────┤
│                          CALL PROFILE BY INTERVAL                              │
│  XX/XX/XX                                                       DAY: XX/XX/XX   │
│                                                                                │
│  SPLIT: XXXXXXXXXXXXXXXXXXXX                                                    │
│  SERVICE LEVEL: XXX                                                            │
│  WINDOW XXX                                                                     │
│  PARAMETERS CHANGED: XXX                                                        │
│                               ANSWERED/ABANDONED                               │
│  TIME         0  -   XXXX  -   XXXX  -   XXXX  -   XXXX  -   XXXX   +           │
│  --------------------------------------------------------------------------    │
│  XXXXXXXXXXXX   XXXX XXXX   XXXX XXXX   XXXX XXXX   XXXX XXXX   XXXX XXXX        │
│  --------------------------------------------------------------------------    │
│                                                                                │
│                                                                                │
│                                                                                │
│  ┌───────┐ ┌───────┐ ┌───────┐   ┌───────┐ ┌───────┐   ┌───────┐ ┌───────┐ ┌───────┐ │
│  │ LABEL │ │ DATA  │ │ TIME  │   │ MOVE  │ │ ERASE │   │ EXIT  │ │ MORE  │ │ HELP  │ │
│  │       │ │ ITEM  │ │ STAMP │   │       │ │       │   │       │ │ KEYS  │ │ KEYS  │ │
│  └───────┘ └───────┘ └───────┘   └───────┘ └───────┘   └───────┘ └───────┘ └───────┘ │
└──────────────────────────────────────────────────────────────────────────────┘
```

59 Move the cursor to the left edge of the screen on the line below the bottom row of dashes. Press [LABEL].

60 Type *NUMBER OF CALLS ANSWERED*:, and press [RETURN.]

61 Move the cursor down one line and back to the left edge of the screen. Press [LABEL].

62 Type *NUMBER OF CALLS ABANDONED*:, and press [RETURN.]

NOTE	The data items for total calls answered and abandoned in a day for the split can be retrieved with ANSWERED and ABANDONS if the DAILY database is used. If the HALF HOUR database is used, calls answered and abandoned must be summed for all half-hour intervals in the report using SUM(ANSWERED) and SUM(ABANDONS).

SUM(ANSWERED) and SUM(ABANDONS) are safer items to use because only calls during the intervals in the report will be counted. Retrieving ANSWERED and ABANDONS calls from the DAILY database will display **all** calls for the day, not just calls occurring in the intervals displayed in the report.

63 Move the cursor to the `INTERVAL` data item field (with 13 Xs), and press `DATA ITEM`. Then press `RETURN` twice. This step picks up the Data Item Window entries so they can be carried over to the data items we will define in the following steps.

64 Move the cursor three spaces to the right of the `NUMBER OF CALLS ANSWERED:` label, and press `DATA ITEM`.

65 Type *XXXXXX*, and press `RETURN`.

[The Data Item Window appears for the field (in bold) we just specified.]

```
Call Management System                        Switch_Name:Up          Time

                          CALL PROFILE BY INTERVAL
XX/XX/XX                                                        DAY: XX/XX/XX

SPLIT: XXXXXXXXXXXXXXXXXX
SERVICE LEVEL: XXX
WINDOW XXX
PARAMETERS CHANGED: XXX
                          ANSWERED/ABANDONED
TIME          0  -   XXXX       XXXX       XXXX       XXXX       XXXX   +
------------------------------------------------------------------------------
XXXXXXXXXXXX  XXXX XXXX  XXXX XXXX   XXXX XXXX   XXXX XXXX   XXXX XXXX  XXXX XXXX
------------------------------------------------------------------------------
NUMBER OF CALLS ANSWERED:  XXXXXX
------------------------------------------------------------------------------
Item: _____
Justify: R Fill: _ File: SPLIT_____ Data Base: HALF HOUR_____
Criteria: SPLIT EQ SPLIT_NUMBER="BLANK" AND INTERVAL GE FIRST_INTERVAL=1 AND_IN
TERVAL LE LAST_INTERVAL=48_____
Repeat Item: LOOP_____
Start Date: REPORT_DAY=-1_  Number of Days: 1_____
------------------------------------------------------------------------------
  7007 Please complete the data item specification window and press RETURN

  [    ] [    ] [DICTNARY] [    ] [    ] [    ] [    ] [HELP]
               [ACCESS  ]                              [KEYS]
```

66 Type *SUM(ANSWERED)* in the `Item` field and *L* in the `Justify` field.

NOTE Since a SUM data item always displays a single value, we must remove the entry in the `Repeat Item` field.

67 Remove the word `LOOP` from the `Repeat Item` field, and press `RETURN`.

68 Move the cursor two spaces to the right of the `NUMBER OF CALLS ABANDONED:` label, and press `DATA ITEM`.

69 Type *XXXXXX*, and press RETURN.

[The Data Item Window appears for the field we just specified.]

70 Type *SUM(ABANDONS)* in the `Item` field and *L* in the `Justify` field. Press RETURN.

[The design of the `hhrcallprof` report **seems** to be complete. The Screen Painter should appear as shown in the following illustration.]

```
Call Management System                              Switch_Name:Up           Time

                            CALL  PROFILE  BY  INTERVAL
 XX/XX/XX                                                            DAY:  XX/XX/XX

 SPLIT:  XXXXXXXXXXXXXXXXXXXX
 SERVICE  LEVEL:  XXX
 WINDOW  XXX
 PARAMETERS  CHANGED:  XXX
                            ANSWERED/ABANDONED
 TIME           0   -   XXXX   -   XXXX   -   XXXX   -   XXXX   -   XXXX   +
 ----------------------------------------------------------------------------------
 XXXXXXXXXXXXX   XXXX XXXX   XXXX XXXX    XXXX XXXX    XXXX XXXX   XXXX XXXX   XXXX XXXX
 ----------------------------------------------------------------------------------
 NUMBER  OF  CALLS  ANSWERED:     XXXXXX
 NUMBER  OF  CALLS  ABANDONED:    XXXXXX




 ┌────────┐ ┌────────┐ ┌────────┐   ┌────────┐ ┌────────┐   ┌────────┐ ┌────────┐ ┌────────┐
 │ LABEL  │ │ DATA   │ │ TIME   │   │ MOVE   │ │ ERASE  │   │ EXIT   │ │ MORE   │ │ HELP   │
 │        │ │ ITEM   │ │ STAMP  │   │        │ │        │   │        │ │ KEYS   │ │ KEYS   │
 └────────┘ └────────┘ └────────┘   └────────┘ └────────┘   └────────┘ └────────┘ └────────┘
```

71 Press EXIT to access the Compile screen.

[The Compile screen appears, with the default `g` (global) in the `Report Location` field. Global means all CMS users can run the report or make a copy of the report design.]

```
┌──────────────────────────────────────────────────────────────────────┐
│ Call Management System                    Switch_Name:Up        Time   │
└──────────────────────────────────────────────────────────────────────┘
                        CALL MANAGEMENT SYSTEM

                        CUSTOM REPORTS - COMPILE

            Report Location (global, private): g
            Report Description: _____




   ┌────────┐ ┌────────┐ ┌────────┐   ┌──────┐ ┌────────┐   ┌──────┐ ┌────────┐ ┌──────┐
   │ WRITE  │ │COMPILE │ │DISPLAY │   │ EDIT │ │DISCARD │   │ EXIT │ │PRINT   │ │HELP  │
   │        │ │REPORT  │ │ERRORS  │   │      │ │CHANGES │   │      │ │SCREEN  │ │KEYS  │
   └────────┘ └────────┘ └────────┘   └──────┘ └────────┘   └──────┘ └────────┘ └──────┘
```

72 Leave the g in the Report Location field so the report will be global. Press
   [COMPILE REPORT].

   [CMS displays a message that the report has errors!]

73 Press [DISPLAY ERRORS].

   [The Compilation Errors screen appears.]

Sample 2 — A Custom Call Profile Report

```
┌─────────────────────────────────────────────────────────────────────────────┐
│ ┌───────────────────────────────────────────────────────────────────────┐   │
│ │ Call Management System                    Switch_Name:Up         Time   │   │
│ └───────────────────────────────────────────────────────────────────────┘   │
│                         CALL MANAGEMENT SYSTEM                               │
│                                                                               │
│            CUSTOM REPORTS - COMPILATION ERRORS FOR REPORT: hhrcallprof__     │
│                                                                               │
│                                                                               │
│     Sect:Row:Col    type                                                      │
│       1  12  90     (E)   Maximum number (20) of file items in SELECT or REPEAT exceeded. │
│                                                                               │
│                                                                               │
│                                                                               │
│                                                                               │
│                                     [Page 1 of 1]                            │
│  ┌──────┐ ┌──────┐ ┌──────┐  ┌──────┐ ┌──────┐   ┌──────┐ ┌──────┐ ┌──────┐ │
│  │      │ │      │ │      │  │PREV  │ │NEXT  │   │EXIT  │ │PRINT │ │HELP  │ │
│  │      │ │      │ │      │  │PAGE  │ │PAGE  │   │      │ │SCREEN│ │KEYS  │ │
│  └──────┘ └──────┘ └──────┘  └──────┘ └──────┘   └──────┘ └──────┘ └──────┘ │
└─────────────────────────────────────────────────────────────────────────────┘
```

The error message that appears, as shown in the preceding illustration, means that too many database items (more than 20) are listed in the report with the same set of record select conditions (the same combination of file, database, criteria statement, repeat item, start date, and number of days). CMS will normally count the database items and internally create a new dummy set of select conditions so you do not get this message. However, if the series includes calculations or formulas, CMS cannot count the database items. Therefore, you will get this message.

As indicated by the message, the trouble starts at Row 12, Column 90. An easy way to fix this problem is to insert in the Criteria field an additional **OR** statement that is unlikely to ever be true. This creates a new set of record select conditions, yet still has the same effect as the original conditions. In the steps that follow, we will fix the problem by adding an **OR** statement to the Criteria field.

74 Press [EXIT].

[The Compile screen reappears.]

75 Press [EDIT].

[The Screen Painter reappears, with the report design in place as we left it.]

```
┌─────────────────────────────────────────────────────────────────────────┐
│                                                                           │
│  ┌──────────────────────────────────────────────────────────────────┐   │
│  │ Call Management System                    Switch_Name:Up     Time  │   │
│  └──────────────────────────────────────────────────────────────────┘   │
│                          CALL PROFILE BY INTERVAL                         │
│   XX/XX/XX                                              DAY: XX/XX/XX      │
│                                                                           │
│   SPLIT: XXXXXXXXXXXXXXXXXX                                                │
│   SERVICE LEVEL:  XXX                                                      │
│   WINDOW  XXX                                                             │
│   PARAMETERS CHANGED:  XXX                                                 │
│                              ANSWERED/ABANDONED                            │
│   TIME            0  -    XXXX   -   XXXX   -   XXXX   -   XXXX   -   XXXX   +  │
│   -----------------------------------------------------------------------  │
│   XXXXXXXXXXXX    XXXX XXXX    XXXX XXXX    XXXX XXXX    XXXX XXXX    XXXX XXXX    XXXX XXXX  │
│   -----------------------------------------------------------------------  │
│   NUMBER OF CALLS ANSWERED:    XXXXXX                                      │
│   NUMBER OF CALLS ABANDONED:   XXXXXX                                      │
│                                                                           │
│                                                                           │
│                                                                           │
│                                                                           │
│  ┌──────┐ ┌──────┐ ┌──────┐  ┌──────┐ ┌──────┐  ┌──────┐ ┌──────┐ ┌──────┐ │
│  │LABEL │ │DATA  │ │TIME  │  │MOVE  │ │ERASE │  │EXIT  │ │MORE  │ │HELP  │ │
│  │      │ │ITEM  │ │STAMP │  │      │ │      │  │      │ │KEYS  │ │KEYS  │ │
│  └──────┘ └──────┘ └──────┘  └──────┘ └──────┘  └──────┘ └──────┘ └──────┘ │
│                                                                           │
└─────────────────────────────────────────────────────────────────────────┘
```

76 Move the cursor to the data item at Row 12, Column 90, which is the data item farthest to the right on the screen. Press [DATA ITEM], then press [RETURN].

[The Data Item window appears for the data item (in bold) the cursor is on.]

Sample 2 — A Custom Call Profile Report

```
┌─────────────────────────────────────────────────────────────────────────────┐
│ ┌───────────────────────────────────────────────────────────────────────┐   │
│ │ Call Management System                        Switch_Name:Up       Time │   │
│ └───────────────────────────────────────────────────────────────────────┘   │
│                            CALL PROFILE BY INTERVAL                           │
│ XX/XX/XX                                                       DAY: XX/XX/XX  │
│                                                                               │
│ SPLIT: XXXXXXXXXXXXXXXXXXX                                                    │
│ SERVICE LEVEL: XXX                                                            │
│ WINDOW XXX                                                                    │
│ PARAMETERS CHANGED: XXX                                                       │
│                              ANSWERED/ABANDONED                               │
│ TIME           0  -   XXXX        XXXX        XXXX       XXXX       XXXX    +  │
│ ----------------------------------------------------------------------------- │
│ XXXXXXXXXXXX   XXXX XXXX   XXXX XXXX    XXXX XXXX    XXXX XXXX   XXXX XXXX      │
│                                                                   XXXX **XXXX**│
│ ----------------------------------------------------------------------------- │
│ NUMBER OF CALLS ANSWERED:   XXXXXX                                            │
│ ----------------------------------------------------------------------------- │
│ Item: ABANDON6+ABANDON7+ABANDON8+ABANDON9+ABANDON10_____   │
│ Justify: L Fill: _ File: SPLIT_____ Data Base: HALF HOUR_____  │
│ Criteria: SPLIT EQ SPLIT_NUMBER="BLANK" AND INTERVAL GE FIRST_INTERVAL=1 AND_IN │
│ TERVAL LE LAST_INTERVAL=48_____   │
│ Repeat Item: LOOP_____   │
│ Start Date: REPORT_DAY=-1_  Number of Days: 1_____    │
│ ----------------------------------------------------------------------------- │
│ │ 7007 Please complete the data item specification window and press RETURN │  │
│                                                                               │
│ ┌─────┐ ┌─────┐ ┌─────────┐ ┌─────┐ ┌─────┐ ┌─────┐ ┌─────┐        ┌───────┐ │
│ │     │ │     │ │DICTNARY │ │     │ │     │ │     │ │     │        │HELP   │ │
│ │     │ │     │ │ACCESS   │ │     │ │     │ │     │ │     │        │KEYS   │ │
│ └─────┘ └─────┘ └─────────┘ └─────┘ └─────┘ └─────┘ └─────┘        └───────┘ │
└─────────────────────────────────────────────────────────────────────────────┘
```

Notice that the Item field contains a formula with several database items. CMS could not count these and adjust itself internally. We must add an extra criteria statement so that this item no longer shares the same set of record select conditions as the previous items.

77 Add the following criteria statement in the Criteria field. (**Do not** overtype any of the existing statements.)

OR ACDCALLS EQ 70000

┌──────┐
│ NOTE │ Since we want a statement that is unlikely to ever be true, this statement
└──────┘ assumes we will **never** reach 70000 ACD calls within a single half-hour interval.

78 Press ⌞RETURN⌟.

79 Press ⌞EXIT⌟ to access the Compile screen.

[The Compile screen appears, with the default g (global) in the Report Location field. Global means all CMS users can run the report or make a copy of the report design.]

80 Leave the g in the Report Location field so the report will be global. Press ⌞COMPILE REPORT⌟.

[CMS displays a confirmation message that the report was compiled successfully.
The report is ready to run.]

Glossary

ACD

Automatic Call Distribution, a switch feature. Software to channel high-volume incoming call traffic to agent groups (splits).

ACW

After Call Work, an agent state representing work related to the preceding ACD call. Going on-hook after an ACD call during MANUAL-IN operation places the call in ACW. In addition, System 75 ACW is accessible by a button on the agent's set.

ASA

Average Speed of Answer, the average amount of time a caller waits in queue before connecting to an agent.

AUX

Auxiliary work, an agent state representing work not related to a particular call; also for breaks, meetings, or lunch. The state is reached by the agent's pressing the AUX-WORK button or dialing the proper access code at his or her voice terminal. The state can also be reached by the agent's going off hook to make or answer an extension call while in AVAIL, and by the agent's placing an outgoing call.

Block

A rectangular area on the Screen Painter that you define and use for quick rearrangement of display items. You can move, copy, or delete a block.

Call-Based Item

The category of database items in CMS that are pegged after the event is complete. Their purpose is to allow the creation of more accurate averages and percentages.

Calculation

One of the features of Dictionary that gives a name to a formula for use in reports. Changing the assigned formula in Dictionary changes that formula in any report that currently uses the name.

Command Line

An SLK that allows you to schedule an activity at a later time or on a recurring basis. Also, the text of the user's specifications for the scheduled activity.

Compile

The conversion of a report design into programming code so that the computer can run the report with call center data.

Constant

A name, as defined in Dictionary, for a fixed numerical value. The name can be used within a formula for any custom report. CMS will then substitute the assigned value for that name when it executes the formula. Changing the value for a constant in the Dictionary changes the value in any formula that currently uses the name.

Current Interval

The current half-hour, a portion of the real-time CMS database. Event messages cause items in this portion of the database to be altered, creating a real-time picture of conditions in the measured portion of the ACD.

Criteria Statement

A statement in the Criteria field of the Data Item Window. The statement tells CMS which records in a file should supply values to the associated data item. Up to six criteria statements can be entered in the Criteria field.

Custom Reports

Real-time or historical reports that have been customized from standard reports or created from scratch.

Daily Data

Data that has been converted to a 1-day summary.

Database

A collection of data stored by timeframe. For example, all data for the current half-hour interval is stored in the Current Real-Time database. All historical data stored by half-hour intervals is stored in the Half-Hour Historical database.

Database Item

A name for a specific type of ACD data stored in a CMS database (for example, ACDCALLS — the number of ACD calls). A database item may store ACD identifiers (login IDs, split numbers, trunk group numbers, etc.), event data (number of ACD calls, number of abandons, etc.), time data (oldest call waiting, time an agent is staffed, etc.), or status data (in the AUX state, in the SEIZED state, etc.). sends to the CMS.

Data Function

A prefix followed by a database item in parentheses. A data function is a data item that retrieves modified data for the database item. A data functions can be one of the following: SYN(database item), MIN(database item), MAX(database item), SUM(database item), or DATE(DAY).

Data Item

The definition of data that CMS should insert into a field of a report. A data item can define ACD statistics, dates, times, or identifiers (split numbers, agent login IDs, trunk group numbers, etc.). A data item can include database items, formulas, calculations, data functions, and constants.

Default Printer

One of the system printers defined as the default destination of CMS print jobs.

Display Item

Any kind of text or data defined for a report. A display item can be a data item, a label, or a time stamp.

Event Database Item

A category of database items that report the cumulative number of certain types of ACD activity.

File

A grouping of records in a database that have the same key database items (for example, all records stored by split are in the Split file, all records stored by login ID are in the Agent file, etc.).

Formula

A part of a report that combines the basic database items with arithmetic operators to produce a calculated output item in a CMS report.

Global Report

A custom report created by one user that any other user can run. Other users can also copy the design of a global report to make modifications.

Half-Hour Portion

One portion of the CMS historical database that contains half-hour-by-half-hour data for up to 31 days.

Historical Database

A database (either the Half-Hour Historical or Daily Historical database) that stores data on disk.

Historical Report

A management information report containing ACD performance data for one day or several days up to 387 days in the past. Normally output to a system printer. Can also be viewed at a terminal with 132-column capacity.

Identifier Database Item

A database item that identifies an element of the ACD (a split number, a login ID, a trunk group number, etc.)

INFORMIX

The relational database management system used to organize most of CMS's data. INFORMIX is accessible from the UNIX system option on the CMS main menu.

Interval-Based Items

A category of database items that makes up the majority of items. These items are pegged when an event begins. See call-based items.

Label

One of three types of additions the screen painter can help you make to custom reports. Text that will be the same in all report outputs, usually identifying report data.

LOOP

A command entered in the Repeat Item field in the Data Item Window. LOOP tells CMS to display multiple values for a data item in the order the data appears in a file.

MAX Data Function

A prefix added to a database item that tells CMS to display the only highest value recorded for the database item within the time frame specified for the report.

MIN Data Function

A prefix added to a database item that tells CMS to display the only lowest value recorded for the database item within the time frame specified for the report.

Number of Days

A definition in the Number of Days field in the Data Item Window. This definition tells CMS how many days of data should be included in a custom report. The number of days can be a hard-coded value for the report or a user-specified variable that appears on the Report Parameters screen when running the report. **For historical reports only.**

Previous Interval

One segment of the real-time database representing one half hour. Each half hour, the contents of the current half hour portion are copied to the previous half-hour portion.

Private Report

A custom report that can be run only by the user who created it. Other users are also prevented from copying the design of a private report.

Quad

One fourth of the total available space on the Screen Painter for designing a custom real-time report. A quad contains up to 20 lines and 80 columns and equals the size of one screen on your terminal.

Read Permission

An option in the Administration and Schedule Subsystems that grants access to view, but not change, data within portions of the CMS.

Real-Time Database

A database resident in main memory (either the Current or Previous Half-hour database). Used by real-time reports.

Real-Time Report

A formatted report that appears on a CMS terminal and displays current data about ACD activity. A real-time report refreshes periodically (10 through 300 seconds) with new data.

Record

A grouping of database item values stored together in computer memory according to their association with the value of a key database item.

Record Select Conditions

The conditions defined in the Data Item Window that tell CMS where in the CMS data to find values for the data item. Record select conditions comprise the selected file and database, the criteria and repeat item statements, and, for historical reports, the start date and number of days statements.

Repeat Item

A definition in the Repeat Item field in the Data Item Window. This definition tells CMS in what order to display multiple values found for a data item.

Report Design

The format and definition of data for a custom report as created on the Screen Painter.

Report Item

One category of output data in a CMS standard or custom report. Defined by one database item, formula, constant, or calculation.

Report Parameter

The selection of what a report will cover (which agent, etc.) and how long a period it will cover.

Relational Operators
Code statements used in specifying criteria in the Data Item Window of the Custom Reports screen painter. These statements specify database search conditions used to extract data from the database.

Screen Painter
The interactive reports creation and editing feature of the Custom Reports Subsystem.

Section
One third of the total available space on the Screen Painter for designing a custom historical report. A section contains up to 21 lines and 132 columns and equals the size of one screen on your terminal when in 132-character mode.

SLK
Screen-labeled key, a key near the top of an AT&T terminal keyboard whose definition is given in a corresponding inverse video block at the bottom of the screen. SLKs change with the screen you are working in.

Start Date
A definition in the Start Date field in the Data Item Window. This definition tells CMS from which day in the past it should begin retrieving values for the data item. The start date can be a hard-coded value for the report or a user-specified variable that appears on the Report Parameters screen when running the report. **For historical reports only.**

Status Database Item
A category of database items that report the current state of a trunk or agent, the timemark of an event, or flag the exact times certain states change.

SUM Data Function
A prefix added to a database item that tells CMS to display the total of all values recorded for the database item within the time frame specified for the report.

SYN Data Function
A prefix added to a database item that tells CMS to display a synonym defined in Dictionary instead of the numeric identifier for a split, agent, trunk group, and so on.

Synonyms
User-supplied Dictionary items that customize the names of splits and trunks for report output. Also can refer to Agent Names in the Dictionary and possibly also Calculations (which in a sense are synonyms for formulas).

Time Database Item
A database item that contains duration data on ACD events— how long certain events are lasting or did last.

Time Stamp

The definition for one of three types of time data for a custom report: the date of the data in the report, the time a report was generated, or the date a report was generated.

UNIX System

The operating system on the 3B computer on which CMS runs. A user can access the system via the UNIX system option on the CMS main menu. An AT&T trademark.

UNIX System File

A storage area for data in the UNIX operating system. A UNIX system file can be opened from the UNIX system environment. An INFORMIX file can only be viewed from INFORMIX. See INFORMIX file.

Variable Criteria Statement

A criteria statement in the Data Item Window that contains a user-specified field name. The field name then appears on the Report Parameters screen when running the report so the user can specify which records should supply values to the report.

Video Attributes

The way in which report items appear on the screen in a custom real-time report. Report items can be bright, dim, in inverse video, underlined, or normal intensity.

Write Permission

An option in the Administration and Schedule Subsystems that allows another user to change data in a portion of the CMS. See read permission.

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