

# **PERCEPTION 4000**

## **ACD and ACD/MIS SUPERVISOR'S GUIDE**

**Release 2.0**

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**Issue 2, December 1993  
SECTION 4000-027-000**

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PERCEPTION 4000

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## GENERAL DESCRIPTION

Companies that receive a large volume of incoming calls can handle them quickly and easily with the Automatic Call Distribution (ACD) features available on Toshiba's PERCEPTION 4000 system. Designated incoming calls can bypass the attendant and go directly to an answering pool of ACD agents. From there, calls will be evenly distributed to individual agents.

To make it easier for an ACD supervisor to detect problems and assist agents, specific keys on the supervisor's telephone are pre-programmed as supervisor feature keys.

The PERCEPTION 4000 ACD/MIS system also provides ACD supervisors with Automatic Call Distribution/Management Information System (ACD/MIS) displays and reports. The ACD supervisor can access this menu-driven system via a CRT terminal. Real-time displays, which are regularly updated, show statistical information on the status and activities of ACD groups and individual agents.

By using the ACD/MIS reporting capability, supervisors can generate reports for current data, accumulated statistics, or for a specific historical period.

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## PURPOSE

This guide is designed to provide instruction for the ACD supervisor. It explains how to use the ACD supervisor keys on the 20-key digital telephone, and also documents how to access the ACD/MIS displays and print reports.

Other related Perception 4000 documents:

- *ACD Agent User Guide*
- *ACD/MIS Installation and Maintenance Manual.*

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## ORGANIZATION

Chapter 1, "Supervisor Telephone Procedures," explains how to use the supervisor feature keys on the PERCEPTION 20-key HDT digital telephone.

Chapter 2, "Getting Around in the ACD/MIS System," provides general information about using the ACD/MIS system.

Chapter 3, "Display Menu," details how to access the information available on the ACD/MIS displays.

Chapters 4 through 7 (listed below, respectively) document the types of ACD/MIS reports that are available. Chapter 4 also includes instructions for defining the time intervals that the reports will be based on. The titles of these chapters are:

Chapter 4—"Printing Reports"

Chapter 5—"ACD Report Menu"

Chapter 6—"ACD Spectrum Menu"

Chapter 7—"Work Unit Report Menu"

Chapter 8, "Forecasting," covers an optional feature which provides estimates of future traffic growth, and calculates the number of agents and trunks required to meet those needs.

---

## HOW TO USE THIS MANUAL

The ACD Supervisor's Guide provides detailed equipment and feature operation information. We recommend that you become familiar with all of the material in this document.

To assist you, this guide is divided into distinct areas of content. Instructions for various procedures, called Action Text, appear in the left-hand column in a numbered sequence enabling you to quickly perform a task. More detailed descriptions of these procedures, or explanations of their effects, can be found in the right-hand column. The following illustration shows the structure of each chapter.



**ACTION TEXT**

SPECIFIC INSTRUCTIONS ON HOW TO PERFORM A PROCEDURE ARE NUMBERED AND ENTERED IN THE LEFT-HAND COLUMN.

**RESULTS OR DETAILS**  
EXPLANATIONS OR  
DETAILS OF THE  
ACTION TEXT.

**NOTES AND  
WARNING  
MESSAGES**

**PERCEPTION 4000**
**REPORTS MENU**

**REPORT PERIOD SELECTION**

Each time you request a report, a sub-menu will appear which offers selections for defining the time period covered by the report, and also includes the option to print.

**PRINTING REPORTS**

The command to print a report is listed under step five of the following section.

**Report Selection Screens**

Select the appropriate time period for your report from the Report Selection Sub-menu shown in Figure 5-2.

**Report Selection:**

- 1) Period
- 2) Shift
- 3) Daily
- 4) Weekly
- 5) Monthly
- 6) Yearly
- 7) EXIT to Report Menu

Select Menu Item:

**Figure 5-2**  
**Report Selection Sub-menu**

*NOTE:*  
*The ACD/MIS system closes out the 24-hour daily, weekly, monthly, and yearly totals according to the database parameters which are established when the system is installed.*

**The default values for report control are:**

- A 24-hour period begins at 12:00 a.m. and ends at midnight.
- Weekly periods begin on Sunday.
- Monthly periods begin with the first day of the month.

**CHAPTER TITLES**

**FIRST LEVEL HEADINGS**

**SECOND LEVEL HEADINGS**

**THIRD LEVEL HEADINGS**

**FIGURE NUMBERS AND TITLES**

**FIRST LEVEL BULLETS**

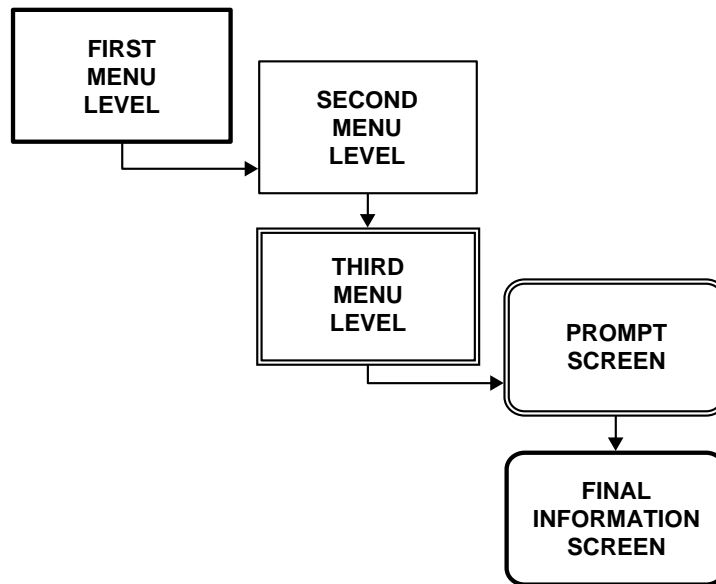
**SECOND LEVEL BULLETS**

**THIRD LEVEL DASHES**

**Figure I-1**  
**Sample Page**

## ACD/MIS HIERARCHY CONVENTIONS

Throughout this guide, subordinate menus will be shown in the following format. The outside border of the menu being discussed will indicate the level of the menu or sub-menu that is being addressed. The following illustration shows the hierarchy of the ACD/MIS Supervisor's screens.



**Figure I-2**  
**ACD/MIS Screen Hierarchy Conventions**

The First Menu Level is the Supervisor's Main Menu. Menu choices can be selected via the menu number or by entering the mnemonic to go directly to another menu.

The Second Menu Level refers to the Displays and Reports Menus.

The Third Menu Level refers to submenus from the Reports Menu. This border also refers to the Report Period Selection screens, which are presented every time you select a report from the third menu level.

Prompts appear in this document with a double-line border and rounded corners.

The Final Information Screen refers to displayed information which is the last display in the hierarchy of a particular database section.

## SUPERVISOR TELEPHONE PROCEDURES

The PERCEPTION 4000 Automatic Call Distribution/Management Information System (ACD/MIS) includes a PERCEPTION 20-key HDT digital telephone paired with a data terminal as standard station equipment for ACD supervisors.

With the PERCEPTION 20-key HDT digital telephone, you will have most of the feature keys that are available to ACD agents. In addition, you are given unique keys for assisting agents and performing certain supervisory functions.

This section contains instructions for using the ACD Supervisor Telephone keys on the PERCEPTION 20-key HDT digital telephone. For help with the standard ACD agents' feature keys, see the *ACD Agent User Guide*.

This chapter contains instructions for the following supervisory procedures and feature keys:

- Login and Logout Procedure
- Supervisor Line key
- Agent Assistance
- Alarm key
- Intra-Group Tap key (Monitoring)
- Inter-Group Tap key
- Intra-Group Pickup key
- Inter-Group Pickup key
- Remote ACD Logout key

---

## LOGIN

To initiate a PERCEPTION 20-key HDT digital telephone as a supervisor station set, you must first login with a valid password. After logging in, you can access all of the ACD supervisor feature keys.

### To Login:

1. Press the **LOG** key.
  
2. Dial the 2-digit **ACD group number**.

The phone must be in the on-hook state when you login. After the **LOG** key is pressed, the green LED flashes ON and OFF. The message "ENTER GRP# & ID CODE:" appears on the LCD display.

Example: Dial "01" for Group 1.

3. Enter the **password**, then press the **#** key.

Enter your assigned password. The LED turns solid green and the LCD returns to its original mode once you have successfully logged in.

Passwords are limited to a maximum of eight digits. The **#** key indicates that the last digit of the password has been entered.

#### **IF THE LOGIN FAILS**

The LOG key LED goes OFF and the message "LOGIN FAILS" will appear momentarily on the LCD display.

To start over, press the LOG key again to obtain the flashing green light.

---

## **LOGOUT**

#### **To Logout:**

1. Press the **LOG** key.

To logout, verify that the LOG key LED is solid green. When the LOG key is pressed, its LED turns off.

---

## **ACD SUPERVISOR LINE KEY**

The PERCEPTION 20-key HDT digital telephone can have a single line dedicated to ACD supervisor functions. This line is used for assisting ACD agents and performing supervisory functions.

Direct calls to you from anyone outside of the ACD group will be directed to your prime line and not to the ACD line.

The ACD supervisor line is associated with only one line key on the supervisor station (multiple appearances are not allowed).

You cannot use your supervisor station as an ACD agent station. If you wish to answer ACD calls arriving at an agent's station, use the **Inter-** or **Intra-Group Call Pickup** keys, described later in this chapter.

#### **ASSISTING AN AGENT**

When an agent calls you for help, the supervisor line key's LED flashes green. Audible ringing will accompany the call.

#### **To assist an agent:**

1. Press the **Supervisor Line** key.

The NAME of the agent requesting assistance, the agent's ID code, and the words "ASSIST PLEASE" appear on the LCD display.

When you press the **Supervisor line** key, the LED turns solid green and you will be connected to the agent in the Talk state. The speaker and the MIC keys are automatically turned on.

---

## ALARM KEY

When the number of ACD calls waiting in queue reaches a certain level (threshold 1), an alarm is generated. A continual buzz tone will sound at your phone set and the **Alarm (ALRM)** key LED will flash in red.

### To turn off the queue Alarm:

1. When the alarm sounds, press the **ALRM** key.

The audible alarm stops once the **ALRM** key is pressed, but the LED will continue to blink red until the queue size drops below a defined lower threshold level (threshold 2).

Once this level is reached, the LED light goes off and the alarm status is removed until the upper threshold limit is exceeded again.

During queuing operation, the number of ACD calls waiting in the queue to be answered is constantly monitored. Customers may specify the number of calls represented by threshold 1 (an alarm state) and threshold 2 (the lower threshold, which represents what the customer specifies as an acceptable number of waiting calls.)

---

## INTRA-GROUP TAP KEY

You can monitor a conversation between a caller and an ACD agent within your group by using the **Intra-group Tap (TAP)** key.

If the agent is engaged in an ACD call and in the Talk mode, then a one-way, listen-only path is established for you. The word "MONITORED" will appear on the agent's LCD display. The agent may also hear a continual, low-frequency monitoring tone indicating supervisory monitoring (customer option).

### To monitor an ACD call within your group:

1. Press the **TAP** key.
2. Dial the 3-digit **agent ID number**.

The **TAP** key LED lights solid green and the feature entry tone is given.

Once the Intra-Group Tap feature is engaged, you will be able to listen to the conversation between the agent and the ACD caller.

**ACCESS DENIED**

If **TAP** key access is denied, reorder tone sounds and the **TAP** key LED light goes off. Access will be denied if:

1. The agent was not engaged with an ACD call, or was not in the talk state.
2. The conference hardware is not available.

When you hang up, you will be released from the conference tie and the agent and caller will return to a two-way conversation. If either the caller or agent hangs up while you are still on the line, the system terminates the call and releases all three parties.

---

**INTER-GROUP TAP KEY**

You can monitor a conversation between a caller and an ACD agent who is outside of your group by using the **Inter-group Tap (INTM)** key.

If the agent is engaged in an ACD call and in the Talk mode, then a one-way, listen-only path is established for you.

**To monitor an ACD call in another group:**

1. Press the **INTM** key.
2. Dial the 2-digit **ACD group number**.
3. Dial the 3-digit **agent ID number**.

The **INTM** key LED lights solid green and the feature entry tone is given.

The 2-digit ACD group number tells the system which group to access.

After dialing the agent's identification number, you'll be able to listen to the conversation between the agent and the ACD caller.

The word "MONITORED" will appear on the agent's LCD display. The agent may also hear a continual, low-frequency monitoring tone indicating supervisory monitoring (customer option).

## INTRA-GROUP CALL PICKUP KEY

This feature allows you to pick up any agent's ACD calls within your ACD group.

### To pickup a call within your ACD group:

1. Press the **ACDP** key.
2. Dial the 3-digit **agent ID code**.

Upon hearing an agent's phone ringing, you may press the **Intra-Group Call Pickup (ACDP)** key and receive feature entry tone.

You will be connected to the calling party after entering the agent's identification code. If Call Pickup is denied, reorder tone is given.

---

## INTER-GROUP CALL PICKUP KEY

This feature allows you to pick up ACD calls for agents outside of your ACD group.

### To pickup an ACD call in another group:

1. Press the **INTP** key.
2. Dial the 2-digit **ACD group number**
3. Dial the 3-digit **agent ID code** to connect to the ringing ACD party.

Upon hearing an agent's phone ringing, you may press the **Inter-Group Call Pickup (INTP)** key and receive feature entry tone.

The 2-digit ACD group number specifies to the system which group to access.

The call will be connected and your phone enters the Talk state. If Call Pickup is denied, reorder tone is given.

---

## REMOTE ACD LOGOUT KEY

This feature allows you to logout a single agent or an entire group of agents known to still be active. You must be logged in to perform these functions.

### To perform a remote agent logout:

1. From the idle or ringing state, press the **RLOG** key.
2. Dial the 3-digit **agent ID code** to logout the agent.

The **RLOG** key flashes green, and the LCD display will prompt for entry of the agent ID code or the group logout code.

The **RLOG** key will extinguish immediately, and the LCD display will show the "RLOGOUT ACCEPT" message for approximately three seconds.

If agent is logged in and is involved in an ACD activity, the agent's LOG key will flash red, and the agent's LCD (if so equipped) will show "LOGOUT PENDING".

#### IF THE REMOTE AGENT LOGOUT FAILS

If the LCD shows "INVALID AGT ID" and the **RLOG** key will extinguish immediately, then start over by pressing the **RLOG** key again to initiate remote agent logout. "INVALID AGT ID" occurs if an incorrect agent ID code was entered or if you waited too long to enter a code and the system "TIMED OUT" (either permanent or interdigit timeout).

*NOTE:*

*Only the digits 0 ~ 9 are valid when entering an agent ID code.*

#### To perform a remote group logout:

1. From the idle or ringing state, press the **RLOG** key.
2. Dial the remote group logout code (\* #).

The **RLOG** key flashes green, and the LCD display will prompt for entry of the agent ID code or the group logout code.

The **RLOG** key will extinguish immediately, and the LCD display will show the "RLOGOUT ACCEPT" message for approximately three seconds.

If agent is logged in and is involved in an ACD activity, the agent's LOG key will flash red, and the agent's LCD (if so equipped) will show "LOGOUT PENDING".

*NOTE:*

*The \* and # keys are the only allowable combination for group logout.*



# Chapter 2

## ACD/MIS SYSTEM

The PERCEPTION 4000 Automatic Call Distribution/Management Information System (ACD/MIS) provides you with access to a series of status, statistics and traffic displays on ACD agents and groups. These real-time displays will show you what type of work agents are involved in, how efficiently the group is handling a large influx of calls, or how quickly calls were answered and how many were lost.

### REQUIRED EQUIPMENT

The Automatic Call Distribution (ACD) supervisor or administrator of a PERCEPTION 4000 system should have a CRT and a PERCEPTION 20-key digital telephone as standard station equipment. The ACD/MIS system can accommodate a combination of up to 24 supervisory CRTs and printers.

### MIS TOTALS AND AVERAGES

The numbers shown in the display screens have been rounded off, which accounts for slight discrepancies in some of the "total" or "average" columns.

---

## LOGIN

To access the ACD/MIS Displays and Reports, you must first login to the ACD/MIS system with a valid password. Password assignments are made by the ACD system administrator.

### To Login:

1. Enter the assigned **supervisor name** and press **<RETURN>**.

The "Supervisor Name:" prompt should appear after you turn on your terminal. If it doesn't, press the **<RETURN>** key to retrieve the prompt:

Supervisor Name:

Supervisor names consist of one to eight alphanumeric characters. Once the name has been entered, you will be prompted to enter a password:

Password:

2. Enter the **password**, then press **<RETURN>**.

An asterisk will appear for each alphanumeric character entered at the password prompt. Passwords consist of a maximum of eight alphanumeric characters. They are assigned by the system administrator.

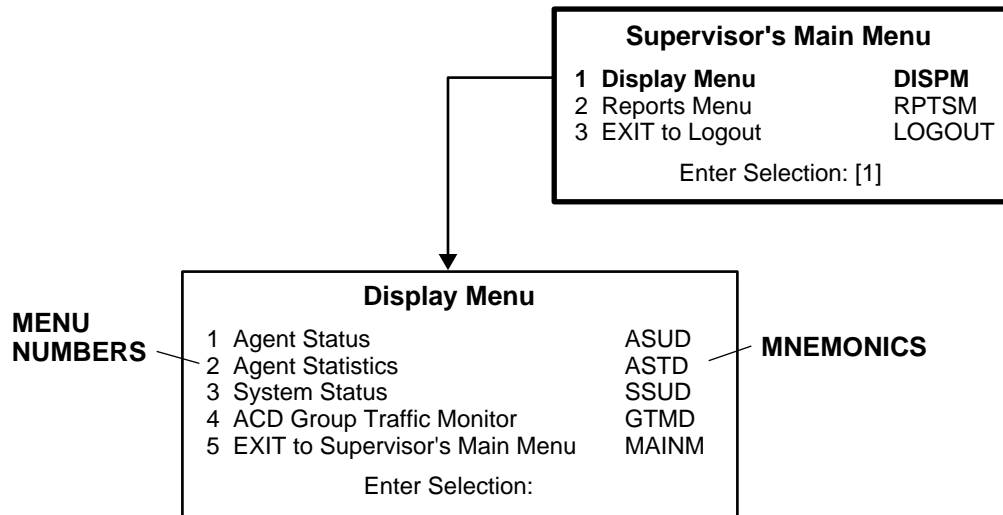
## GETTING AROUND IN THE ACD/MIS SYSTEM

The ACD/MIS system is based on a menu “tree,” where there is one top level menu (called the Main Menu) from which other menus can be accessed. An overview of the menu “tree” system is shown in Figure 2-2.

Within this “tree” system, you navigate from screen to screen by using:

- Menu Selections
- Mnemonics

The following figure exemplifies the following navigational examples.



**Figure 2-1**  
**Example of Menu Selections and Mnemonics**

**To select a menu item:**

1. Enter the menu number.
  2. Press **<RETURN>**.
- ...or...

**USING MENU ITEMS TO NAVIGATE**

The menu number appears to the left of the menu title (see Figure 2-1).

Example: To select the Display Menu from the **Supervisor's Main Menu**, you would enter **1** and **<RETURN>**.

### USING MNEMONICS TO NAVIGATE

Mnemonics can be used on any menu screen as a short cut to a particular menu or screen.

#### To use mnemonics to navigate:

1. Enter the letters (in all caps) to the right of the menu item.
2. Press <RETURN>.

Example: To select Display Menu, enter DISPM, followed by <RETURN>. Mnemonics for menu items are shown on the right in capital letters. (Figure 2-1)

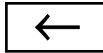
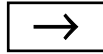
Once you become familiar with the system, you can use menu numbers or mnemonics to quickly move from screen to screen.

## ACD/MIS MAIN MENU (MAINM)

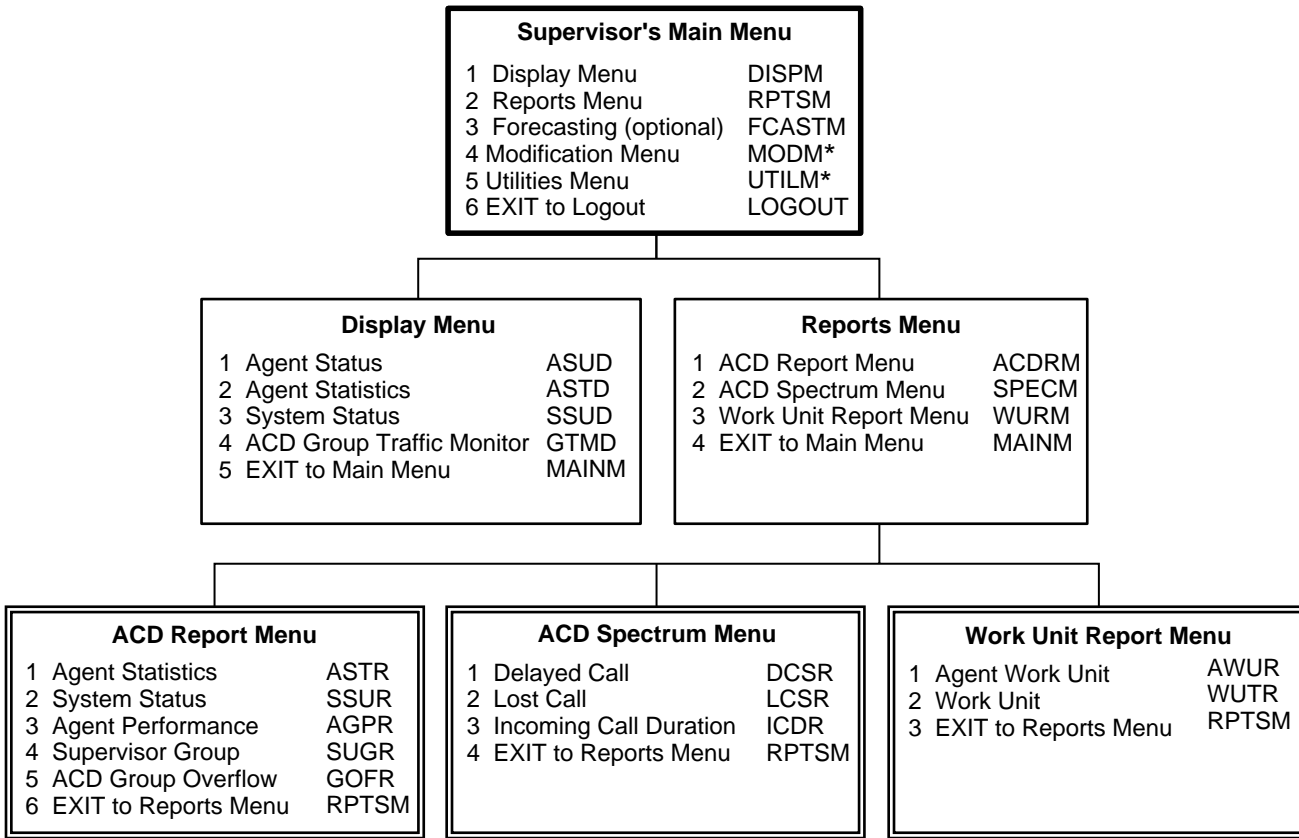
After successfully logging in, you will be presented with the ACD/MIS Supervisor's Main Menu. For the remainder of this book, the Supervisor's Main Menu will be referred to as simply the Main Menu. The organization of the displays and reports available are shown in Figure 2-2.

## COMPUTER KEYBOARD CURSOR CONTROLS

These commands allow you to move from screen to screen, or from field to field in the ACD Management Information System.

<SPACE BAR>	Exit from the display, return to the parent menu.
<ESCAPE>	Exit from menu screen, return to the previously displayed screen.
	Move the cursor one character space to the left.
	Move the cursor one character space to the right.
<b>Control + S</b>	Press the <b>Control</b> key and <b>S</b> at the same time to stop the screen scrolling.
<b>Control + Q</b>	Press the <b>Control</b> key and <b>Q</b> at the same time to resume scrolling.

**Invalid entries** cause the system to display the message: "Not a Valid Entry." At this prompt, press <RETURN> and re-enter the information.



\* These are considered Administrative menus, which may or may not be available to you. If the Modification or Utilities menus appear on your Supervisor's Main Menu, refer to the PERCEPTION 4000 ACD Administrator's Guide for more information. Access to Modification and Utilities Menus is determined by the ACD Administrator.

**Figure 2-2**  
ACD/MIS Displays and Reports Hierarchy

**To Exit from a Screen or Menu:**

1. Press the <ESC> (Escape) key.

**To Return to the Main Menu:**

1. Press the <ESC> key as many times as necessary until the Main Menu is displayed.

...or...

1. Press <ESC> until you reach a menu screen.
2. Enter **MAINM**.
3. Press <RETURN>

**To Exit from the ACD/MIS System (LOGOUT):**

1. Press <ESC> until you are on any menu screen.
2. Enter **LOGOUT**.
3. Press <RETURN>.

...or...

1. Press <ESC> until you are on any menu screen.
2. Enter **LOGOUT**.
3. Press <RETURN>.

## EXITING TO THE PREVIOUS MENU

You can exit from one screen or menu and return to the previous screen/menu, or you can exit to the Main Menu level, or you can exit from the program altogether by logging out of the system. Instructions for exiting are described in the right-hand, action text, column.

**IMPORTANT NOTE:**

*Exiting to the Supervisor's Main Menu is not the same thing as exiting from the ACD/MIS program. To exit from the program, use the Logout procedures in the following section. You should log out whenever you finish using the MIS features.*

---

## LOGOUT

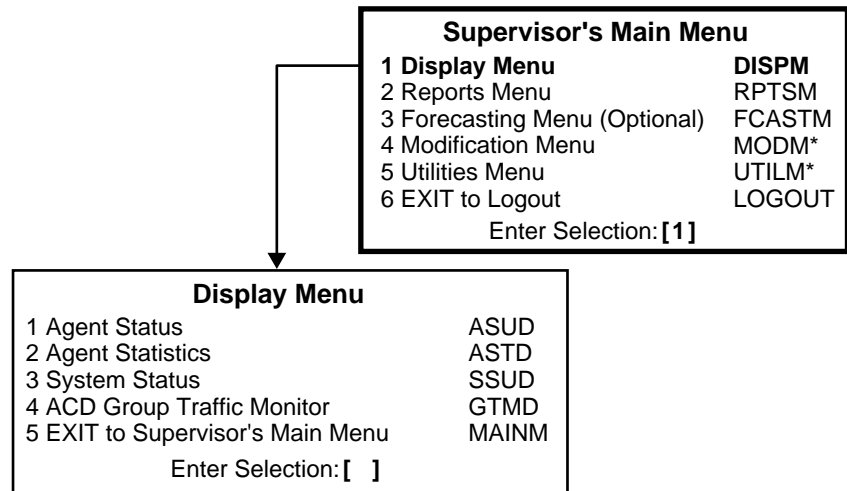
The ACD/MIS screens display information which is considered proprietary, so you should always logout when you are done using the ACD/MIS screens and reports. When logout is complete, the supervisor login prompt appears.

Supervisor Name:



## DISPLAY MENU (DISPM)

The PERCEPTION 4000 Automatic Call Distribution/Management Information System (ACD/MIS) provides you with access to a series of status, statistics and traffic displays on ACD agents and groups. These real-time displays will show you what type of work agents are involved in, how efficiently the group is handling a large influx of calls, or how quickly calls were answered and how many were lost. The display screens are listed on the Display Menu, Figure 3-1.



*\*Item is discussed in the "ACD and ACD/MIS Administrator's Guide."*

**Figure 3-1**  
**Display Menu**

Information is displayed in real time and updated on a regular basis. Update time can be defined by the customer from the Report Selection menu (see Chapter 4, "Printing Reports"). To obtain historical information, use the Reports Menu.

---

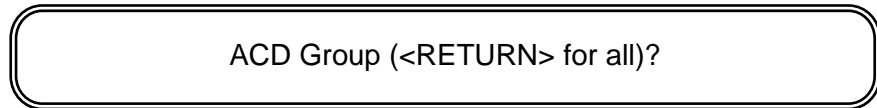
## AGENT STATUS DISPLAY (ASUD)

The Agent Status Display shows whether agents are available to take calls, in the process of receiving incoming calls, etc. The group information is updated regularly. If the supervisor has access to more than one ACD group, the system will cycle through to display each group of agents.

**To display statistics for an ACD agent or group:**

1. Press any key except the **<SPACE BAR>** or the **<esc>** key.
2. Enter the number of the ACD group you wish to see and press **<return>**

Once you've accessed the Agent Status Display (Figure 3-2), you can display statistics for one or all of the ACD groups assigned to you. To view the statistics, follow the instructions on the left. After pressing the **<SPACE BAR>** or **<esc>** key, the following prompt will appear:



**To display statistics for all ACD groups assigned to you:**

Press **<return>** once to select all ACD groups.

If you've selected all ACD groups, the system will display a different ACD group every few seconds. To hold the current display on the screen, stop the scrolling.

**To stop the screen scrolling:**

Press the **<control>** and **S** keys at the same time.

**To resume the screen scrolling:**

Press the **<control>** and **Q** keys at the same time.

09:25		11/22/94		Tuesday		<b>Agent Status Display</b>				ACD Group: 1	
----- Agents -----			Stat	Work	----- Agents -----			Stat	Work		
No.	Name	Status	Time	Unit	No.	Name	Status	Time	Unit		
401	Jane	Ringing	0:26		402	Robert	ACD Talk	0:03	55		
403	Alan	Unavail	6:33		404	Jeff	Unavail	9:40			
405	Judy	Avail	2:36		406	Tom	ACD Talk	3:15			
407	Ted	Org Ext	8:49		409	Ron	Aft Call	0:45			
414	Erin	Org Int	4:45								

**Figure 3-2**  
**Agent Status Display**



**FIELD HEADINGS** The headings of the Agent Status Display are defined below:

— Agents —

<b>No.</b>	(Agent Identification Number) A unique three-digit identification code which the agent enters when logging in.																						
<b>Name</b>	(Agent Name) The agent's name, limited to eight alphanumeric characters.																						
<b>Status</b>	(Work Status) The activity in which the agent is engaged. Status abbreviations are defined below: <table style="margin-left: 40px;"> <tr> <td><b>ACD Talk</b></td> <td>(ACD Talk Time) The agent is either talking to or on hold with an ACD caller. Hold time is not recorded as a separate statistical category.</td> </tr> <tr> <td><b>Aft Call</b></td> <td>(After Call) The agent is processing paperwork related to a previous ACD call.</td> </tr> <tr> <td><b>Avail</b></td> <td>(Available) The agent is available to receive an ACD call.</td> </tr> <tr> <td><b>Help</b></td> <td>The agent is requesting assistance from the supervisor and supervisor's phone is ringing.</td> </tr> <tr> <td><b>Logged Out</b></td> <td>This agent has logged out.</td> </tr> <tr> <td><b>Org Ext</b></td> <td>(Originated External Call) The agent is connected to an originated (placed) call to an external location.</td> </tr> <tr> <td><b>Org Int</b></td> <td>(Originated Internal Call) The agent is connected to an originated (placed) call to an internal location.</td> </tr> <tr> <td><b>Ringling</b></td> <td>The agent's station is currently ringing.</td> </tr> <tr> <td><b>Supervsr</b></td> <td>(Supervisor) The agent has activated the Assist feature and is now connected to the supervisor.</td> </tr> <tr> <td><b>Unavail</b></td> <td>(Unavailable) The agent is still logged in, but is unavailable to accept ACD calls.</td> </tr> <tr> <td><b>Stat Time</b></td> <td>(Current Status Time) The period of time that the agent has been engaged in the current activity, in minutes and seconds.</td> </tr> </table>	<b>ACD Talk</b>	(ACD Talk Time) The agent is either talking to or on hold with an ACD caller. Hold time is not recorded as a separate statistical category.	<b>Aft Call</b>	(After Call) The agent is processing paperwork related to a previous ACD call.	<b>Avail</b>	(Available) The agent is available to receive an ACD call.	<b>Help</b>	The agent is requesting assistance from the supervisor and supervisor's phone is ringing.	<b>Logged Out</b>	This agent has logged out.	<b>Org Ext</b>	(Originated External Call) The agent is connected to an originated (placed) call to an external location.	<b>Org Int</b>	(Originated Internal Call) The agent is connected to an originated (placed) call to an internal location.	<b>Ringling</b>	The agent's station is currently ringing.	<b>Supervsr</b>	(Supervisor) The agent has activated the Assist feature and is now connected to the supervisor.	<b>Unavail</b>	(Unavailable) The agent is still logged in, but is unavailable to accept ACD calls.	<b>Stat Time</b>	(Current Status Time) The period of time that the agent has been engaged in the current activity, in minutes and seconds.
<b>ACD Talk</b>	(ACD Talk Time) The agent is either talking to or on hold with an ACD caller. Hold time is not recorded as a separate statistical category.																						
<b>Aft Call</b>	(After Call) The agent is processing paperwork related to a previous ACD call.																						
<b>Avail</b>	(Available) The agent is available to receive an ACD call.																						
<b>Help</b>	The agent is requesting assistance from the supervisor and supervisor's phone is ringing.																						
<b>Logged Out</b>	This agent has logged out.																						
<b>Org Ext</b>	(Originated External Call) The agent is connected to an originated (placed) call to an external location.																						
<b>Org Int</b>	(Originated Internal Call) The agent is connected to an originated (placed) call to an internal location.																						
<b>Ringling</b>	The agent's station is currently ringing.																						
<b>Supervsr</b>	(Supervisor) The agent has activated the Assist feature and is now connected to the supervisor.																						
<b>Unavail</b>	(Unavailable) The agent is still logged in, but is unavailable to accept ACD calls.																						
<b>Stat Time</b>	(Current Status Time) The period of time that the agent has been engaged in the current activity, in minutes and seconds.																						
<b>Work Unit</b>	(Last Work Unit Entered) A two-digit number that identifies the agent's last work unit entered. The work unit allows an agent to tag a call.																						

### AGENT STATISTICS DISPLAY (ASTD)

The Agent Statistics Display allows you to monitor the amount of work being handled by members of the group. The ACD groups assigned to you will be automatically displayed.

09:25		11/22/94 Tuesday		<b>Agent Statistics Display</b>					ACD Group: 1				
Number of Agents – Manned: 9 Busy: 5 Avail: 2 Unavail: 2													
CW: 1 TM: 10													
---	Agent	---	Current	Stat	Work	Call	---- Average ----			Avail	Aux.	Non-	%
No.	Name		Status	Time	Unit	Hndld	Talk	ACALL	Hndl	Time	Work	ACD	Prod
401	Jane		Ringing	0:26		0	0	0	0	0:26	0:00	0	100
402	Robert		ACD Talk	0:03	55	0	0	0	0	0:18	0:00	0	32
403	Alan		Unavail	6:33		1	565	44	609	1:30	0:00	0	64
404	Jeff		Unavail	9:40		2	240	25	265	0:00	0:00	0	48
405	Judy		Avail	2:36		1	465	44	509	0:00	0:00	0	100
406	Tom		ACD Talk	3:15		1	189	67	256	2:48	0:00	0	75
407	Ted		Org Ext	8:49		0	0	0	0	0:00	0:00	0	100
409	Ron		Aft Call	:45		2	485	0	485	1:53	0:00	0	93
414	Erin		Org Int	4:45		3	320	23	343	4:40	0:00	0	81
-----													
Totals:						10	251	22	273	1:16	0:00	0	77

**Figure 3-3**  
**Agent Statistics Display**

**FIELD HEADINGS:** The headings of the Agent Statistics Display are defined below:

**— Number of Agents —**

**Manned** (Number of Manned Stations) This shows how many agents in this group are currently logged in. The total number of busy, available and unavailable agents who are logged in equals the number of manned positions.

- Busy** (Number of Busy Stations) The number of agents involved in a call or in After Call Work mode.
- Avail** (Available) The number of agents who are logged in and in the available mode.
- Unavail** (Unavailable) The number of agents who are logged in, but unavailable to take calls.
- CW** (Calls Waiting) The number of calls waiting to be answered in this group.
- TM** (Longest Call Waiting Time) This shows the longest amount of time, in seconds, that a call in this group has been waiting to be answered.

— Agent —

- No.** (Agent ID number) A unique three-digit identification code which the agent enters when logging in.
- Name** (Agent Name) The agent's name, limited to eight alphanumeric characters.
- Current Status** (Current Activity) The activity in which the agent is engaged. Status abbreviations are defined below:
- ACD Talk** (ACD Talk Time) The agent is either talking to or on hold with an ACD caller. Hold time is not recorded as a separate statistical category.
  - Aft Call** (After Call Work Time) The agent is processing paperwork related to a previous ACD call.
  - Avail** (Available) The agent is available to receive an ACD call.
  - Help** (Agent Requests Help) The agent is requesting assistance from the supervisor, and the supervisor's phone is ringing.
  - Logd Out** (Logged Out) This agent has logged out.
  - Org Ext** (Originated External Call) The agent is connected to an originated (placed) call to an external location.
  - Org Int** (Originated Internal Call) The agent is connected to an originated (placed) call to an internal location.
  - Ringing** (Ringing) The agent's station is currently ringing.
  - Supervsr** (Supervisor) The agent has activated the Assist feature and is now connected to the supervisor.

**Unavail** (Unavailable) The agent is logged in, but is unavailable to accept ACD calls.

**Stat Time** (Activity Statistic Time) The period of time that the agent has been engaged in the current activity, in minutes and seconds.

**Work Unit** (Work Identification) A two-digit number that identifies the agent's last work unit entered. The work unit allows an agent to tag a call.

**Calls Hndl** (Calls Handled) This represents the number of ACD calls an agent has handled during the current report period.

— Average —

**Talk** (Average Talk Time) Average time, in seconds, that the Agent is connected to ACD calls.

**ACALL** (Average After Call Work Time) The average amount of time an agent is in After Call Work mode, processing work related to each ACD call, in seconds.

**Hndl** (Average Handling Time) Average handling time represents the average of talk time plus After Call Work time, in seconds.

**AVAIL TIME** (Available Time) The amount of time, in seconds, the agent has been ready to accept an ACD call.

**Aux. Work** (Auxiliary Work) The amount of time, in minutes and second, the agent has spent performing non-ACD related (auxiliary) work.

**Non-ACD** (Non-ACD Calls Handled) The total number of non-ACD related calls handled by the agent.

**% PROD** (Productivity Percentage) The productivity percentage which is calculated by the following equation:

$$\text{PRODUCTIVITY \%} = \frac{\text{TOTAL TALK TIME} + \text{TOTAL AFTER CALL WORK TIME} + \text{TOTAL AVAILABLE TIME}}{\text{TOTAL LOGIN TIME}} \times 100$$

**Totals** Totals appear at the bottom of each Agent Statistics Display under the appropriate column. Generally, the total is the sum of all entries shown in the column with the following exceptions:

- Columns that report an average or a percent are recalculated using the actual amounts from the current period.

**WARNING** The warning message is shown if the number of calls waiting, the service level, or the ASA (average speed of answer) go above or below the values set in the database for the displayed group.

Warning: ACD Group: 31 Calls Waiting: 0 Service Level: 72% ASA: 10

The warning message categories are defined as follows:

**Warning** represents the display title.

**Group** shows the number of the ACD group being reported on.

**Calls Waiting** shows the number of calls waiting in the queue.

**Service Level** reveals the percentage of ACD calls answered within a specified time (the amount of time considered reasonable for a call to wait for an answer).\*

**ASA** stands for the average speed of answer, in seconds.

\*Service Level is calculated by the following formula:

$$\text{SERVICE LEVEL} = \frac{\text{CALLS OFFD} - [\text{CALLS DELY} (>\text{QUALITY TIME}) + \text{CALLS LOST}]}{\text{CALLS OFFD}} \times 100$$

---

## SYSTEM STATUS DISPLAY (SSUD)

A summary of an ACD group's call handling characteristics for the current report period is shown in the System Status Display. This display reports the activity associated with incoming ACD calls. Only ACD calls originally sent to the ACD group are reported here. Calls which were overflowed to this group from another group will not be included in these statistics.

You cannot view a System Status Display for any ACD groups other than those assigned to you.

10:15 11/22/94 Tuesday System Status Display													
INCOMING CALL DISTRIBUTION													
Grp No.	Srv Lvl	Calls Offd	-- Handled --		----- Calls -----			----- Avg -----			----- Waiting -----		
			Prim	Oflo	Dvtd	Lost	Dely	Talk	Hndl	Dely	Curr	Max	Long
1	82	11	10	0	0	1	1	47	48	46	1	2	89
2	50	5	4	1	0	0	2	73	73	65	0	3	97
-----													
Totl	66	16	14	1	0	1	3	60	60	55	1	3	97

Figure 3-4 System Status Display

**FIELD HEADINGS:** The headings of the System Status Display are defined below:

**Grp No.** (Group Number) The number of the group on which the statistics are being reported.

**Srv Lvl** (Service Level) The percentage of ACD calls answered within a specified quality time is the service level. Quality time is the amount of time considered reasonable for a call to wait for an answer.

If the group does not answer a call within the quality time, the service level is decreased. (Quality time is configurable). Service level is calculated by the following equation.

$$\text{SERVICE LEVEL} = \frac{\text{CALLS OFFD} - [\text{CALLS DELY (>QUALITY TIME)} + \text{CALLS LOST}]}{\text{CALLS OFFD}} \times 100$$

**NOTE:**

For each call that is not answered immediately, the amount of the delay is calculated. If that amount exceeds the quality time, that call is included in the count of "Delayed Calls." As the number of delayed or lost (abandoned) calls increases, the numerator decreases, thus lowering the service level.

**CALLS OFFD** (Calls Offered) The number of ACD calls offered to each group during the current report period. Incoming ACD calls are included in the Calls Offered figure, but it does not include calls overflowed from another group.

— **Handled** —

**Prim** (Primary Calls) The number of ACD calls offered to this group which were answered during the current report period. Incoming ACD calls are included, but not calls overflowed to this group.

**Oflo** (Overflowed Calls) The total number of calls overflowed from this group to another group. (An overflowed call is always considered an answered call.)

— **Calls** —

**Lost** (Abandoned or Lost Calls) The number of ACD calls that were sent to this group, but were not answered.

**Dely** (Delayed Calls) The number of ACD calls that waited longer than the quality time before they were answered. This includes answered calls only.

— **Avg** —

The Average statistics include Primary and Overflowed calls.

**Talk** (Average Talk Time) The average time, in seconds, agents were connected to ACD calls during the report period. At the end of each call, the value is updated.

**Hndl** (Average Handling Time) The average time, in seconds, of all ACD calls processed up to this time in the report period. (After Call Work time is included.)

**Dely** (Average Delay Time) The average delay time, in seconds, that ACD callers waited before their call was answered.

— **Waiting** —

The Waiting statistics include Primary and Overflowed calls.

**Curr** (Calls Currently Waiting) The current number of ACD calls waiting in the queue to be answered.

- Max** (Maximum Wait Time) The maximum number of ACD calls that have waited at any one time in the current report period.
- Long** (Longest Wait Time) The longest time, in seconds, any one ACD call waited during the current report period.
- Totl** (Column Total) Totals appear at the bottom of each System Status Display under the appropriate column. Generally, the total is the sum of all entries shown in the column with the following exceptions:
- Columns that report a Max amount report the maximum recorded entry for the report period and not the total.
  - Columns that report an average or a percent are recalculated using the actual amounts from the current period.

#### WARNING MESSAGE DISPLAY

Any of three different warning messages may appear at the bottom of the display screen, when appropriate. See the following examples.

WARNING: ACD Group XX Service Level Offered is Too Low: Srv Lev Off= XX%

WARNING: Group XX Average Delay Excessive: XX (Sec.)

WARNING: ACD Group XX Excessive Number of Calls Waiting: CW\* = XX CALLS

\* CW = Calls waiting.  
XX = The ACD group number

---

## ACD GROUP TRAFFIC MONITOR DISPLAY (GTMD)

The ACD Group Traffic Monitor Display provides real time information for evaluating ACD staffing requirements. You can see at a glance the level of service (the percentage of calls answered within a specified time) of various ACD groups. Warning messages will call attention to service quality that is less than acceptable.



11:16 11/22/94 Tuesday **ACD Group Traffic Display**

ACD Group	1	2	3	4
Offered	3	8	3	6
Answerd	3	6	3	6
Oflo Ans	0	0	0	0
Diverted				
Lost	0	2	0	0
Serv Lev	100	86	100	100
A.S.A.	26	16	18	10
Long Wait	31	28	10	135
Calls Wait	0	2	1	0
Agnt Group				
Manned	3	6	2	3
Busy	1	3	2	0
Available	2	0	0	3
Unavail	0	3	0	0

**Figure 3-5**  
**ACD Group Traffic Monitor Display**

Three warning messages will appear at the bottom of the display under certain conditions:

- ACD Group XX service level is unacceptable, must be improved
- ACD Group XX service level is bad, should be improved
- ACD Group XX service level is low

XX = The ACD group number

— **ACD Group** —

The number of the group on which the statistics are being reported.

**Offered** (Offered Calls) The number of ACD calls offered to each group during the current report period. This includes incoming ACD calls originally offered to the group, but does not include overflowed calls to this group.

- Answered** (Answered Calls) The number of ACD calls which were originally sent to this group and answered, but does not include overflowed calls to this group.
- Oflo Ans** (Overflowed Calls) The number of calls offered to this group which overflowed to another group.
- Lost** (Lost or Abandoned Calls) The number of calls that were offered to this group, but were abandoned by the callers.
- Diverted** (Diverted Calls) The number of calls that waited in the group's queue until the overflow timer expired and the calls were routed to a non-ACD destination. For the PERCEPTION 4000, calls recorded as diverted are: calls overflowing (after timer expires) to a UCD group, or ringing ACD calls which are picked up by any ACD Supervisor.
- Serv Level** (Service Level) The service level is the percentage of ACD calls answered within a specified quality time. If the group fails to answer a call within the quality time, the service level is decreased. It is calculated by the following equation:

$$\text{SERVICE LEVEL} = \frac{\text{CALLS OFFD} - [\text{CALLS DELY (>QUALITY TIME)} + \text{CALLS LOST}]}{\text{CALLS OFFD}} \times 100$$

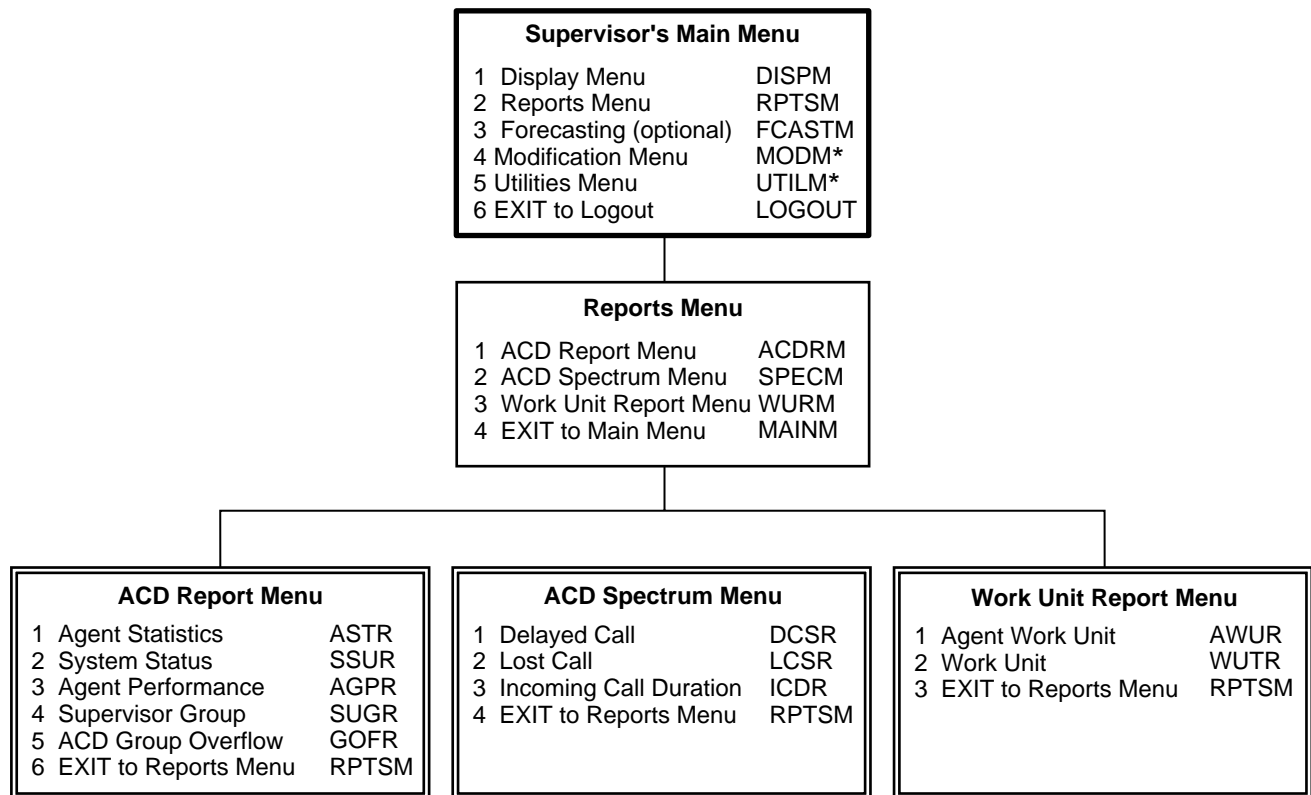
**NOTE:**

*For each call that is not answered immediately, the amount of the delay is calculated. If that amount exceeds the quality time, that call is included in the count of "Delayed Calls." As the number of delayed or lost (abandoned) calls increases, the numerator decreases, thus lowering the service level.*

- A.S.A** (Average Speed of Answer) The average speed in which calls were answered, in seconds.
- Long Wait** (Longest Call Waiting Time) The longest time, in seconds, any one ACD call waited during the current report period.
- Calls Wait** (Number of Calls Waiting) The number of calls waiting in the ACD Group queue to be answered.
- Manned** (Positions Manned) The number of agents logged in.
- Busy** (Positions Busy) The number of agents handling calls.
- Available** (Number of Available Agents) The number of agents logged in and Available to accept an ACD call.
- Unavail** (Number of Unavailable Agents) The number of agents logged in, but Unavailable to accept an ACD call.

## REPORTS MENU (RPTSM)

The PERCEPTION 4000 Automatic Call Distribution/Management Information System (ACD/MIS) offers a series of reports which provide information and statistics on individual agents, ACD groups, or the system status. The reports are based on the time period specifically requested by the supervisor. Figure 4-1 shows the subordinate menus that are available from the Reports Menu.



\* These are considered Administrative menus, which may or may not be available to you. If the Modification or Utilities menus appear on your Supervisor's Main Menu, refer to the PERCEPTION 4000 ACD Administrator's Guide for more information. Access to Modification and Utilities Menus is determined by the ACD Administrator.

**Figure 4-1**  
**ACD/MIS Reports Hierarchy**

## PRINTING REPORTS

Each time you request a report, a submenu will appear which offers selections for defining the time period covered by the report, and also includes the option to print.

### REPORT SELECTION SCREENS

Select the appropriate time period for your report from the Report Selection Submenu shown as follows.

#### To request a report display or printout:

1. Enter the desired menu number and press **<RETURN>**.

**Report Selection**

1 Period  
2 Shift  
3 Daily  
4 Weekly  
5 Monthly  
6 Yearly  
7 EXIT to Report Menu

Enter Selection:

**Figure 4-2**  
**Report Selection Submenu**

The ACD/MIS system closes out the 24-hour daily, weekly, monthly, and yearly totals according to the database parameters which are established when the system is installed. (See the *PERCEPTION 4000 ACD/MIS Administrator's Guide* for more details.)

#### The default values for reports are:

- A 24-hour period begins at 12:00 a.m. and ends at midnight.
- Weekly periods begin on Sunday.
- Monthly periods begin with the first day of the month.
- Yearly periods begin on January 1.

#### Shift Selection Prompt

If you have not selected "Shift," continue to step 2 of the action text, for instructions on the Current or Previous time period prompt.

If the **Shift** time period was chosen from the Report Selection Submenu, the prompt shown appears. At the prompt, enter a Shift number (1-4) and press **<RETURN>**.

Enter Shift Number:

- 2. Enter **1** for Current or **2** for *Previous* and press **<RETURN>**.

**CURRENT OR PREVIOUS TIME PERIOD**

After a Report Selection has been made, select either the current or previous time period to be reported on. The following is a sample of the Time Period Selection Screen.

Current Period is from HH:MM MM/DD/YY to HH:MM MM/DD/YY  
 Previous Period is from HH:MM MM/DD/YY to HH:MM MM/DD/YY

1 Current  
 2 Previous

Enter Selection:

- 3. At the Range prompt, enter a **Y** or **N**.

**REPORT RANGE PROMPT**

Once a current or previous time period has been selected, the report range prompt appears. The following is an example of the Report Range prompt.

Do You Wish To Report On Entire Range? (Y/N)

If you enter **(Y)es**, then proceed to the next step. If you enter **(N)o** the system will provide one or more of the following sets of prompts so that you can specify the time range that the report will cover. Enter the beginning and end of the time period that the report should cover.

Enter Begin Time (HHMM):  
 Enter End Time (HHMM):

Enter Begin Date (MMDD):  
 Enter End Date (MMDD):

**Time** must be entered in the 24-hour clock format (0000 - 2359).

**Date** must be entered with two-digits designating the month, followed by two digits for the day of the month (MMDD).

To include all accumulated data for the selected period, enter a single **<RETURN>**. Minute or day entries are optional. Press the **<RETURN>** key after each entry to proceed through the prompts.

The system will display either the ACD group prompt or the agent prompt, depending on which report you selected.

4. Enter the number of an **ACD group** or **agent**, then press **<RETURN>**.

Each time the prompt appears, you can enter another agent or group number. When you have finished viewing the data press **<RETURN>** again.

#### ACD Group Prompt

#### Agent Number Prompt

You can request reports on one group, several different groups, or all groups. However, you can only obtain reports for ACD groups that are assigned to you.

**A single group:** If you request a report on only one ACD group, the report will be displayed immediately. The system will repeatedly prompt you so that you can enter numerous ACD groups or agents. Enter only one group or agent per prompt, then press **<RETURN>**.

**All ACD groups:** To see all of the ACD groups or agents assigned to you, press **<RETURN>**. (Do not enter a specific group at the prompt.)

5. At the Hardcopy prompt, **Y** (for Yes) to print a report, or **N** (No) to display the report only.

#### TO PRINT OR DISPLAY A REPORT

After selecting the report range in Step 4, the hardcopy prompt appears.

Hardcopy? (Y/N)

For more information on setting up printer ports, or for scheduling report printing, see the *PERCEPTION 4000 ACD/MIS Administrator's User Guide*.

---

### REPORT SCREEN CONTROL

If the reports are too large to fit on the CRT screen, use control keys to scroll or page to view all sections of the report. When the following prompt appears at the bottom of the screen, you can use these

<return> = continue; L,R = scroll left/right, Q = quit, S = summary:

commands for viewing or navigating:

- <return>** Advances to the next page or ends the report.
- L** Displays the portion of the report to the left of what's currently on the screen.
- R** Displays the portion of the report to the right of what's currently on the screen.
- S** Goes directly to the summary line.
- Q** Returns to the Report Selection Menu.

**BEGINNING TIME AND DATE RANGE OF REPORT**  
**ENDING TIME AND DATE RANGE OF REPORT**

05:00 11/22/94  
 15:59 11/22/94

**ACD Group Overflow Report - Daily**  
 ACD Group: 0

Page 1

**THE NUMBER OF THE GROUP FOR WHICH  
 STATISTICS ARE BEING REPORTED**

**REPORT TIME PERIOD** (See "Report Selection Submenu" in this chapter for options.)

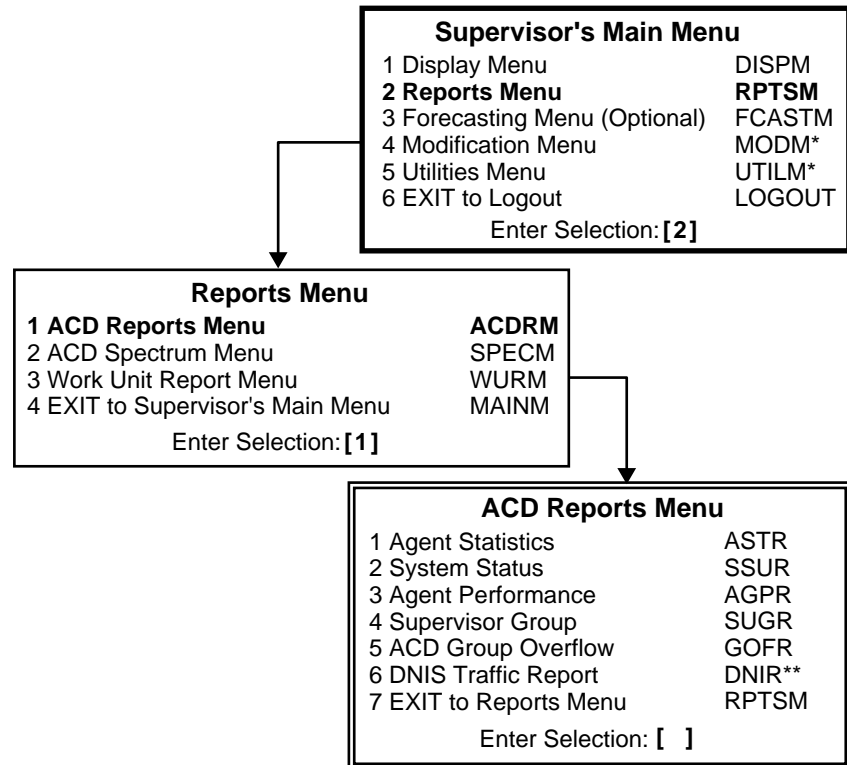
Time HHMM	Calls Offered	Primary Handled (%)	Calls Lost (%)	1st Ovfl (%)
500	0			
600	6	100.00	0.00	0.00
700	21	100.00	0.00	0.00
800	17	88.24	11.76	0.00
900	20	95.00	5.00	0.00
1000	20	95.00	5.00	0.00
1100	17	100.00	0.00	0.00
1200	24	87.50	12.50	0.00
1300	12	100.00	0.00	0.00
1400	18	44.44	55.56	0.00
1500	13	76.92	23.08	0.00
-----				
Totl	168	88.71	11.29	0.00

**Figure 4-3**  
**Example of a Printed Report**



## ACD REPORT MENU (ACDRM)

This menu can be accessed from the Reports Menu and offers access to the following ACD reports: the Agent Statistics, System Status, Agent Performance, Supervisor Group, and ACD Group Overflow reports.



*\*Item is discussed in the "ACD and ACD/MIS Administrator's Guide."*

*\*\*Future feature.*

**Figure 5-1**  
**ACD Report Menu**

---

## AGENT STATISTICS REPORT (ASTR)

Data for the Agent Statistics Report is accumulated on a period, shift, daily, weekly, monthly, and yearly basis. This report provides a summary of the performance of individual agents, which is helpful in determining the most efficient group assignments for ACD call processing. Report selection is by ACD group.

05:00 11/22/94		Agent Statistics Report—Daily				Page 6			
15:59 11/22/94									
Agent # :	4106	Name:	JUNE	ACD Group:	1	Customer Service			
Prod % :	88.48	ACD Calls/hr :	4.8	WU PEG Cnt:	14	Supv PEG Cnt: 2			
Hours Breakdown									
----- ACD Group Related Work -----					----- PBX Work -----				
Login Time	Talk Time	After Call	Avail Time	Unav Time	Aux. Work	----- Originated -----			
-----	-----	-----	-----	-----	-----	Intern	Extern	Hold	
8.2	3.4	0.4	3.1	0.9	0.3	0.0	0.3	0.0	
	41.0%	5.3%	38.1%	11.5%	4.2%	0.0%	4.2%	0.0%	
Call Analysis									
----- ACD Group Related Work -----					----- PBX Work -----				
Calls Handled	Avg Talk Sec.	Avg Work Sec.	Avg Hndlng Sec.	----- Originated -----		----- Internal ----- External -----			
-----	-----	-----	-----	Number	Sec.	Number	Sec.		
39	309	40	349	0	0	13	94		

**Figure 5-2**  
**Agent Statistics Report**

**FIELD HEADINGS:** Headings for the Agent Statistics Report are defined as follows:

**HH:MM MM/DD/YY** Beginning time/date range for the report.  
**HH:MM MM/DD/YY** Ending time/date range for the report.

**— Agent Statistics Report —**

**Agent #** (Agent Number) A unique number which identifies the agent. This number is entered on the ACD set when the agent performs the login procedure.

**Name** (Agent Name) A maximum of eight alphanumeric characters used to identify the agent. Generally, the agent's first or last name, plus an initial.

**ACD Group** The number and name of the group to which the agent is assigned.

**Prod %** (Productivity Percentage) The productivity percentage is calculated by the following equation:

$$\text{PRODUCTIVITY \%} = \frac{\text{TOTAL TALK TIME} + \text{TOTAL AFTER CALL WORK TIME} + \text{TOTAL AVAILABLE TIME}}{\text{TOTAL LOGIN TIME}} \times 100$$

- ACD Calls/hr** (ACD Calls per Hour) The average number of ACD calls received per hour.
- WU PEG Cnt** (Work Unit Stroke Count) Number of times work units were recorded.
- Supv PEG Cnt** Number of times the agent requested assistance from the supervisor.

**— ACD Group Related Work —**

**HOURS BREAKDOWN:**

- Login Time** (Total Login Time) Total time that the agent was logged in, in hours, during the report period.
- Talk Time** (Total Talk Time) Total time, in hours, and percent of the login time the agent spent on, or connected to ACD calls.
- After Call** (Total After Call Work Time) Total time, in hours, and percent of login time that the agent spent in the After Call Work mode.
- Avail Time** (Total Available Time) Total time, in hours, and percent of login time that the agent was in the Available mode, ready to accept ACD calls.
- Unav Time** (Total Unavailable Time) Total time, in hours, and percent of login time that the agent was in the Unavailable mode.

**— PBX Work —**

- Aux. Work** (Auxiliary Work Time) Total time, in hours, and percent of the login time that an agent spent performing PBX related (non-ACD) work.

**— Originated —**

- Intern** (Originated Internal Call Time) Total time, in hours, and percent of the login time that an agent spent on, or connected to, originated internal PBX calls.
- Extern** (Originated External Call Time) Total time, in hours, and percent of the login time that an agent spent on, or connected to, originated external PBX calls.
- Hold** (Hold Time) Total time, in hours, and percent of the login time that an agent spent on hold while connected to originated PBX calls.

**CALL ANALYSIS:**

**— ACD Group Related Work —**

- Calls Handled** (Total Calls Handled) Total number of ACD calls the agent handled.

- Avg Talk Sec.** (Average Talk Time) Average ACD connect time, in seconds.
- Avg Work Sec.** (Average Work Time) Average After Call Work time, in seconds.
- Avg Hndlng Sec.** (Average Handling Time) The average ACD handling time. Handling Time is defined as Talk Time plus After Call Work Time, in seconds.
- **PBX Work** —  
— **Originated** —
- Internal Number** (Total Internal Calls) Total number of originated internal calls the agent handled.
- Internal Sec.** (Average Internal Connect Time) Average time the agent was connected to originated internal calls, in seconds.
- External Number** (Total External Calls) Total number of originated external calls the agent handled.
- External Sec.** (Average External Connect Time) Average time the agent was connected to originated external calls, in seconds.

### SYSTEM STATUS REPORT (SSUR)

The System Status Report summarizes information which may be used to determine the call handling characteristics of a group during the current report interval. Data is accumulated on all calls originally offered to the group. This does not include calls overflowed to the group.

00:00 11/22/94		<b>System Status Report – Daily</b>										Page 1		
23:59 11/22/94		Incoming Call Distribution												
		ACD Group: 1												
		----- Number of Calls -----			-- Avg Length --			---- Delayed Call Information ----						
Time	----- Handled -----		Talk After Hndlng			Calls Serv.		Avg		Max		Max In Agents		
HHMM	Offered	Primary	Overflow	Diverted	Lost	Time	Call	Time	Delayed	Level	Delay	Delay	Queue	Requird
						(sec.)	(sec.)	(sec.)		(%)	(sec.)	(sec.)		
600	9	8	0	1	1	314	30	344	7	11.1	190	323	3	N.A
700	10	10	0	0	0	378	26	404	7	30.0	133	289	3	N.A
800	27	25	0	0	2	703	17	720	15	37.0	100	369	4	N.A
900	24	24	0	0	0	641	32	673	16	33.3	78	473	4	N.A
1000	26	26	0	3	0	396	21	417	15	42.3	64	261	3	N.A
1100	23	19	0	1	4	404	25	429	6	56.5	53	309	5	N.A
1200	20	20	0	1	0	441	31	472	13	35.0	149	370	3	N.A
1300	16	13	0	0	3	391	23	414	9	25.0	250	678	8	N.A
1400	23	20	0	0	3	614	20	634	18	8.7	438	1116	4	N.A
1500	14	12	0	0	2	622	24	646	7	35.7	73	220	3	N.A
1600	1	1	0	0	0	694	1	695	0	0.0	15	15	0	N.A
TOTL	193	178	0	6	15	514	23	539	113	33.7	145	1116	8	N.A

**Figure 5-3**  
**System Status Report**

**FIELD HEADINGS:** Headings for the System Status Report are defined as follows:

**Time (HHMM)/Date (MMDD)** The beginning of the interval during which the statistics were obtained. Either the time or the date will be shown in this field, depending upon the length of the interval.

**— Number of Calls Handled —**

**Offered** (Calls Offered) Number of calls originally offered to this group. This does not include calls overflowed to this group.

- Primary** (Originally Offered Calls) Number of ACD calls originally offered to the group that were answered. This does not include calls overflowed to this group.
- Overflow** (Overflowed Calls) Number of calls offered to this group which were overflowed to another group.
- Diverted** (Diverted Calls) Number of calls offered to this group which were diverted to another group.
- Lost** (Abandoned or Lost Calls) Number of calls that were offered to the group but were abandoned by the callers.

#### — Average Length —

This section includes primary and overflowed calls.

- Talk Time (sec.)** (Average Talk Time) The average time, in seconds, an agent spent connected to each ACD call during the report period. This will include hold time.
- After Call (sec.)** (Average After Call Work Time) The average time that an agent spends in After Call Work mode.
- Handling Time (sec)** (Average Handling Time) The average handling time of all ACD calls processed during this report period. Talk Time plus After Call Work Time equals Handling Time.

#### — Delayed Call Information —

This includes primary and overflowed calls.

- Calls Delayed** The number of calls that waited longer than the quality time to be answered. Includes answered calls only.
- Serv. Level (%)** (Service Level Percentage) The percentage of calls handled within a specified quality time. Service level is calculated by the following:
- Avg Delay (sec.)** (Average Wait Time) The amount of time an ACD call waited before being answered. This is also the average speed of answer.
- Max Delay (sec.)** (Maximum Wait Time) The maximum amount of time any one call waited during the report period. (Includes answered and lost calls.)
- Max in Queue** (Maximum Calls in Queue) Maximum number of calls simultaneously waiting in the queue to be answered. This includes both original calls and overflowed calls sent to the group.

**Agt Req** (Agents Required) The number of agents required to handle the current traffic load based on the defined quality time. This information is applicable for the period and shift reports only. Other report period selections will display N.A. (Not Applicable) in this column.

**TOTL** Totals appear at the bottom of the System Status Report. In most cases, the total is the sum of all entries in the column, with the following exceptions:

- Columns that report a Max amount will have the maximum recorded entry for the report period and not a total.
- Columns that report an average or a percent are recalculated using the actual amounts from the current period. Therefore, the total amount will not be an average of averages.

### AGENT PERFORMANCE REPORT (AGPR)

The Agent Performance Report provides call processing and After Call activity information for each agent within your group. This report can be used for evaluating the performance of each agent.

Agent Performance Report—Daily												Page 1
05:00 11/22/94												
15:59 11/22/94												
ACD Group: 1 Customer Service												
----- PBX Work -----												
----- ACD Group Related Work -----												
----- Originated -----												
Agent No.	Agent Name	Login Time (Hrs)	Calls Handled	Avg Talk (Sec.)	Avg Work (Sec.)	Avg Hndng (Sec.)	Avail Time (Hr.)	Aux. Work (Hr.)	Agnt Prod (%)	Calls	Avg Dur (Sec.)	
4104	Ed	7.1	19	254	44	298	1.3	1.1	56.46	3	1347	
4105	June	7.7	17	272	36	308	0.7	0.8	38.96	6	509	
4106	Tom	8.2	39	309	40	349	3.1	0.3	88.48	13	94	
4108	Keith	7.8	33	300	31	331	1.3	0.0	55.96	1	15	
4114	Sally	7.9	42	411	5	416	1.5	0.0	80.65	0	0	
Totals:		38.7	150	309	31	340	8.0	2.3	62.45	23	491	
Grand:		38.7	150	309	31	340	8.0	2.3	62.45	23	491	

**Figure 5-4**  
Agent Performance Report

**FIELD HEADINGS:** Headings for the Agent Performance Report are defined as follows:

- Agent Name** A maximum of eight alphanumeric characters are assigned to identify the agent. Generally, this is the agent's first or last name, plus an initial.
- Login Time (Hrs)** The total time an agent was logged in, in hours, during the report period. To ensure accuracy of the total login time, and dependent productivity calculations, the agent must be in the login mode during ACD activities and in the logout mode during periods of inactivity (i.e., breaks, lunch).

**— ACD Group Related Work —**

- Calls Handled** The number of ACD calls answered by the agent during the report interval, no matter how the call got to the agent.
- Avg Talk (Sec.)** (Average Talk Time) The average time, in seconds, that the agent was involved in talking to an ACD caller during the report period. The value is updated at the completion of each incoming ACD call.
- Avg Work (Sec.)** (Average Work Time) Average time, in seconds, that the agent was in After Call Work mode, processing paperwork related to the preceding ACD call.
- Avg. Hndlng (Sec.)** (Average Handling Time) Average time, in seconds, that the agent spent handling ACD calls. Handling time is defined as Talk time plus After Call Work time.
- Avail Time (Hr.)** (Available Time) The total time, in hours, that the agent has been available to accept ACD calls during the current report interval. The value is updated when the agent changes status to receive a call or manually exits the available mode.
- Aux. Work (Hr.)** (Auxiliary Work Time) The total time, in hours, that the agent spent performing non-ACD related auxiliary work (PBX work). The value is updated at the completion of each originated PBX call.
- Agnt Prod (%)** (Productivity Percentage) The agent productivity which is predefined as the percentage of total time that the agent was performing ACD related activities while logged in. The value is calculated by the following equation:

$$\text{PRODUCTIVITY \%} = \frac{\text{TOTAL TALK TIME} + \text{TOTAL AFTER CALL WORK TIME} + \text{TOTAL AVAILABLE TIME}}{\text{TOTAL LOGIN TIME}} \times 100$$



— PBX Work —  
— Originated —

- Calls** (Originated PBX Calls Handled) The number of originated internal and external PBX calls handled by the agent during the report interval.
- Avg Dur (Sec.)** (Average Duration) The average time, in seconds, that the agent was connected to an originated PBX call during the report period. The value is updated at the completion of each originated PBX call.
- Totals** Totals appear at the bottom of each Agent Performance Report. In most cases, the total is the sum of all entries in the column, with the following exceptions:
- Columns that report a Max amount will have the maximum recorded entry for the report period and not a total.
  - Columns that report an average or a percent are recalculated using the actual amounts from the current period. Therefore, the total amount will not be an average of averages.
- Grand** (Grand Totals) The total of the sub-totals when reporting on multiple agents or groups.

### ACD SUPERVISOR'S GROUP REPORT (SUGR)

Summaries of call processing and After Call activities of ACD groups are provided in the Supervisor's Group Report. Essentially, it is the same as the Agent Performance Report except that it details the activities of an ACD group instead of individual agents. Report selection is made by ACD group.

05:00 11/22/94		ACD Supervisors Group Report—Daily							Page 1			
15:59 11/22/94		ACD Group: 1										
----- ACD Group Related Work -----											----- PBX Work -----	
----- Originated -----											-----	
Time	Login	Calls	Avg	Avg	Avg	Avail	Aux.	Agnt	Agnt	Avg Dur	Total	
HHMM	Time	Handled	Talk	Work	Handing	Time	Work	Prod	Prod	(Sec.)	Agents	
	(Hrs)		(Sec.)	(Sec.)	(Sec.)	(Hrs.)	(Hrs.)				Manned	
500	1.0	0	0	0	0	0.0	0.0	0.00	0	0.0	1	
600	2.3	6	298	44	342	1.2	0.0	84.51	1	123.0	4	
700	3.0	21	242	40	282	1.2	0.0	96.86	1	62.0	3	
800	4.7	15	373	27	400	0.8	1.4	89.51	7	736.0	5	
900	5.0	20	329	31	360	1.2	0.6	70.69	3	682.0	5	
1000	5.0	19	354	33	387	0.9	0.0	61.50	1	169.0	5	
1100	5.0	17	311	23	334	0.9	0.0	49.61	2	74.0	5	
1200	5.0	21	328	24	352	0.3	0.0	49.61	1	76.0	5	
1300	4.7	13	195	34	229	1.2	0.2	47.72	7	79.0	5	
1400	2.4	8	564	4	568	0.0	0.0	55.96	0	0.0	3	
1500	2.0	10	370	10	380	0.1	0.0	54.43	0	0.0	2	
Totals:	40.0	150	326	27	363	7.8	2.2	65.74%	23	200.1	43	

**Figure 5-5**  
**ACD Supervisor's Group Report**

**FIELD HEADINGS:** Headings for the Supervisor's Group Report are defined as follows:

**Time (HHMM)/Date (MMDD)** The beginning of the interval during which the statistics were obtained. Either the time or the date will be shown in this field, depending upon the length of the interval.

**Login Time Hrs** The total time agents were logged in during the report period.

— **ACD Group Related Work** —

**Calls Handled** The number of ACD calls answered by an agent during the report interval.

**Avg Talk Sec.** (Average Talk Time) Average time, in seconds, that agents were talking to ACD callers during the report interval. Average Talk time does not include: delays or other connect time before reaching an ACD group.

- Avg Work Sec.** (Average Work Time) Average time, in seconds, that agents were in After Call Work, processing paperwork related to the preceding ACD call.
- Avg. Hndlng Sec.** (Average Handling Time) Average time, in seconds, that agents spent handling ACD calls. Handling time is defined as the Talk time plus After Call Work time.
- Avail Time Hrs** (Total Available Time) The total time, in hours, that agents have been available to accept incoming ACD calls during the current report interval. The value is updated when an agent changes status to receive a call, make a call, or manually exits the available mode.
- Aux. Work Hr.** (Auxiliary Work Time) The total time, in hours, that agents spent performing non-ACD related auxiliary work (PBX work).
- Agnt Prod (%)** (Productivity Percentage) The agent productivity which is predefined as the percentage of total time that the ACD group was logged in and performing ACD related activities. The value is calculated by the following equation:

$$\text{PRODUCTIVITY \%} = \frac{\text{TOTAL TALK TIME} + \text{TOTAL AFTER CALL WORK TIME} + \text{TOTAL AVAILABLE TIME}}{\text{TOTAL LOGIN TIME}} \times 100$$

— PBX Work —  
 — Originated —

- Calls** (Originated PBX Calls Handled) The number of originated internal and external PBX calls handled by the group during the report interval.
- Avg Dur Sec** (Average Duration) The average time, in seconds, that agents were connected to originated internal or external PBX calls during the report period.
- Total Agents Manned** (Manned Positions) The number of agents that were logged in during the report period.

Totals appear at the bottom of each Supervisor's Group Report. In most cases, the total is the sum of all entries in the column, with the following exceptions:

- Columns that report a Max amount will have the maximum recorded entry for the report period and not a total.
- Columns that report an average or a percent are recalculated using the actual amounts from the current period. Therefore, the total amount will not be an average of averages.

### ACD GROUP OVERFLOW REPORT (GOFR)

The ACD Group Overflow Report provides a means to determine understaffing and overstaffing conditions. The report is a summary of calls to the group and displays primary and secondary traffic for comparison purposes. Report selection is by group. Group overflow information is available for periodic, shift, daily, weekly, monthly, and yearly intervals.

05:00 11/22/94		<b>ACD Group Overflow Report – Daily</b>				Page 1
15:59 11/22/94		ACD Group: 0				
Time HHMM	Calls Offered	Primary Handled (%)	Calls Dvtd (%)	Calls Lost (%)	1st Ovfl (%)	
500	0					
600	6	100.00	0.00	0.00	0.00	
700	21	100.00	0.00	0.00	0.00	
800	17	88.24	0.00	11.76	0.00	
900	20	95.00	0.00	5.00	0.00	
1000	20	95.00	0.00	5.00	0.00	
1100	17	100.00	0.00	0.00	0.00	
1200	24	87.50	0.00	12.50	0.00	
1300	12	100.00	0.00	0.00	0.00	
1400	18	44.44	0.00	55.56	0.00	
1500	13	76.92	0.00	23.08	0.00	
Totl	168	88.71	0.00	11.29	0.00	

**Figure 5-6**  
**ACD Group Overflow Report**

**FIELD HEADINGS:** Headings for the ACD Group Overflow Report are defined as follows:

**Time (HHMM)/Date (MMDD)** The beginning of the interval during which the statistics were obtained. Either the time or the date will be shown in this field, depending upon the length of the interval.

**Calls Offered** The number of ACD calls originally offered to this group, not calls overflowed to this group from another group.

- Primary Handled (%)** (Percentage of Calls Handled) The percent of calls offered to the group that have been answered. These calls may have been answered in another group due to overflow.
- Calls Lost (%)** (Percentage of Lost Calls) The percent of calls that were offered to the group but were abandoned by the caller.
- 1st Ovfl (%)** (Percentage of Overflowed Calls) The percent of calls which were overflowed from this group to the first overflow group and subsequently answered. Overflow groups are those groups other than the group being reported on.
- Totl** Totals appear at the bottom of each ACD Group Overflow Report. Usually, the total is the sum of all entries in the column, except in the following cases:
- Columns that report a Max amount will have the maximum recorded entry for the report period and not a total.
  - Columns that report an average or a percent are recalculated using the actual amounts from the current period. Therefore, the total amount will not be an average of averages.

### DNIS TRAFFIC REPORT (DNIR)

- FUTURE FEATURE
- REPORT CONTENT MAY CHANGE DURING DEVELOPMENT

The DNIS Traffic Report summarizes information which may be used to determine the call handling characteristics for a specific DNIS number during the current report interval. Data is accumulated on all calls made to the DNIS number.

00:00 11/22/94		DNIS Traffic Report – Daily										Page 1			
23:59 11/22/94		DNIS No: 12345 DNIS Name													
		----- Number of Calls -----				-- Avg Length --			----- Delayed Call Information -----						
Time	Handled	Primary	Overflow	Diverted	Lost	Talk Time	After Call	Hndng Time	Calls Delayed	Serv. Level (%)	Avg Delay (sec.)	Max Delay (sec.)	Max In Queue	Agents Requird	
HHMM	Offered					(sec.)	(sec.)	(sec.)							
600	9	8	0	1	1	314	30	344	7	11.1	190	323	3	N.A	
700	10	10	0	0	0	378	26	404	7	30.0	133	289	3	N.A	
800	27	25	0	0	2	703	17	720	15	37.0	100	369	4	N.A	
900	24	24	0	0	0	641	32	673	16	33.3	78	473	4	N.A	
1000	26	26	0	3	0	396	21	417	15	42.3	64	261	3	N.A	
1100	23	19	0	1	4	404	25	429	6	56.5	53	309	5	N.A	
1200	20	20	0	1	0	441	31	472	13	35.0	149	370	3	N.A	
1300	16	13	0	0	3	391	23	414	9	25.0	250	678	8	N.A	
1400	23	20	0	0	3	614	20	634	18	8.7	438	1116	4	N.A	
1500	14	12	0	0	2	622	24	646	7	35.7	73	220	3	N.A	
1600	1	1	0	0	0	694	1	695	0	0.0	15	15	0	N.A	
TOTL	193	178	0	6	15	514	23	539	113	33.7	145	1116	8	N.A	

**Figure 5-7**  
**DNIS Traffic Report**

**FIELD HEADINGS:** Headings for the DNIS Traffic Report are defined as follows:

**Time (HHMM)/Date (MMDD)** The beginning of the interval during which the statistics were obtained. Either the time or the date will be shown in this field, depending upon the length of the interval.

**DNIS No. and Name** (Dialed Number Identification Service Number) Each DNIS number is reported on a separate report page.

## — Number of Calls Handled —

- Offered** (Calls Offered) Number of DNIS calls originally offered to this group. This does not include calls overflowed to this group.
- Primary** (Originally Offered Calls) Number of DNIS calls originally offered to the group that were answered. This does not include calls overflowed to this group.
- Overflow** (Overflowed Calls) Number of DNIS calls offered to this group which were overflowed to another group.
- Diverted** (Diverted Calls) Number of DNIS calls offered to this group which were diverted to another non-ACD destination.
- For the PERCEPTION 4000 system, the following are recorded as Diverted calls: Calls which waited in the group's queue until the overflow timer expired and were routed to an overflow UCD group, or calls which were ringing and picked up by any ACD Supervisor (before they overflowed).
- Lost** (Abandoned or Lost Calls) Number DNIS of calls that were offered to the group but were abandoned by the callers.

## — Average Length —

This section includes primary and overflowed calls.

- Talk Time (sec.)** (Average Talk Time) The average time, in seconds, an agent spent connected to each DNIS call during the report period. This will include hold time.
- After Call (sec.)** (Average After Call Work Time) The average time that an agent spends in After Call Work mode.
- Handling Time (sec.)** (Average Handling Time) The average handling time of all DNIS calls processed during this report period. Talk Time plus After Call Work Time equals Handling Time.

## — Delayed Call Information —

This includes primary and overflowed calls.

- Calls Delayed** (Number of Calls Waiting Beyond Quality Time) The number of DNIS calls that waited longer than the quality time to be answered. Includes answered calls only.

**Serv. Level (%)** (Service Level Percentage) The percentage of DNIS calls handled within a specified quality time. Service level is calculated by the following:

$$\text{SERVICE LEVEL} = \frac{\text{CALLS OFFD} - [\text{CALLS DELY (>QUALITY TIME)} + \text{CALLS LOST}]}{\text{CALLS OFFD}} \times 100$$

**Avg Delay (sec.)** (Average Wait Time) The amount of time a DNIS call waited before being answered. This is also the average speed of answer.

**Max Delay (sec.)** (Maximum Wait Time) The maximum amount of time any one DNIS call waited during the report period. (Includes answered and lost calls.)

**Max in Queue** (Maximum Calls in Queue) Maximum number of DNIS calls simultaneously waiting in the queue to be answered. This includes both original calls and overflowed calls sent to the group.

**Agt Req** (Agents Required) The number of agents required to handle the current traffic load based on the defined quality time. This information is applicable for the period and shift reports only. Other report period selections will display N.A. (Not Applicable) in this column.

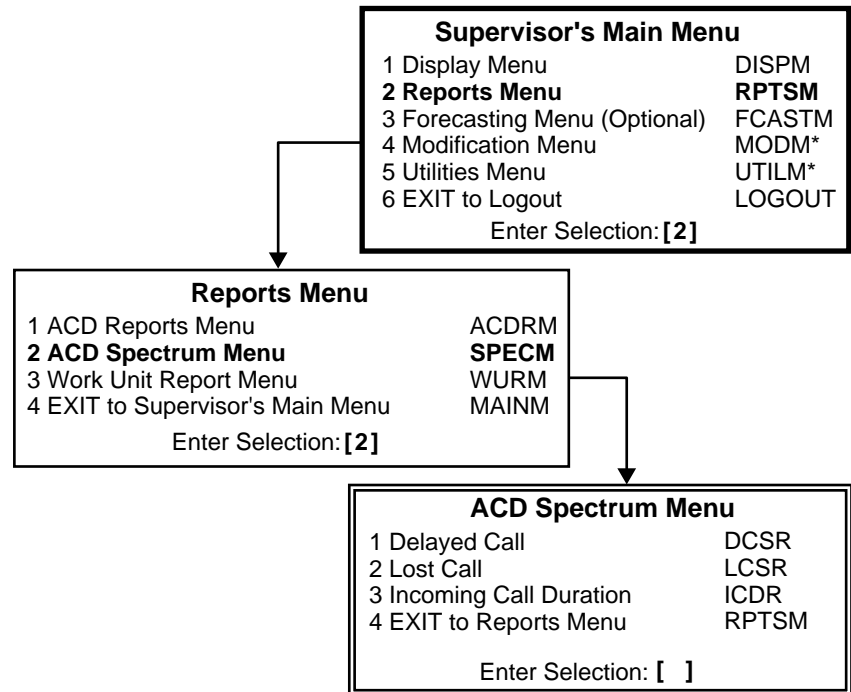
**TOTL** Totals appear at the bottom of the System Status Report. In most cases, the total is the sum of all entries in the column, with the following exceptions:

- Columns that report a Max amount will have the maximum recorded entry for the report period and not a total.
- Columns that report an average or a percent are recalculated using the actual amounts from the current period. Therefore, the total amount will not be an average of averages.



## ACD SPECTRUM MENU (SPECM)

The ACD Spectrum Menu offers access to the spectrum reports which can be used for evaluating the ACD call handling characteristics of each group.



*\*Item is discussed in the "ACD and ACD/MIS Administrator's Guide."*

**Figure 6-1**  
**ACD Spectrum Menu**

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## DELAYED CALL SPECTRUM REPORT (DCSR)

This report provides a summary of the calls that were delayed and shows how long callers had to wait for an answer from each ACD group. The group being reported on may or may not have answered the call, but the call was answered by some agent group. This report shows how long customers are willing to wait for an answer. The number of trunks or agents may be increased to reduce the number of delayed calls or the delay time that callers have to wait.

Comparing this report with the Agent Statistics and System Status Reports will show if too many agents are going on breaks simultaneously, or if After Call Work is requiring too much time, or if any other conditions are causing unreasonable delays.

The Delayed Call Spectrum is available for periodic, shift, daily, weekly, monthly, and yearly intervals. The spectrum consists of 13 time ranges in which counters accumulate the number of calls which were answered within the specified time range.

05:00 11/22/94		Delayed Call Spectrum - Daily													Page 1					
15:59 11/22/94		ACD Group: 1 Customer Service																		
Time	No	No	No		Avg	Max	Percent Calls Handled Within x sec.													
HHMM	Calls	Calls	Calls	%	Dly	Dly	2	4	6	8	13	18	23	28	33	43	53	63	63+	
Offrd	Hndld	Dlyd	Dlyd																	
5:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00	6	6	6	100	8	12	0	0	0	50	50	0	0	0	0	0	0	0	0	0
7:00	21	21	21	100	76	376	0	5	10	10	0	10	14	5	0	5	10	0	31	
8:00	17	15	15	100	104	330	0	0	7	7	0	0	7	0	0	7	7	13	52	
9:00	20	19	19	100	58	326	0	0	0	26	16	11	5	5	0	16	5	0	16	
10:00	20	19	18	95	67	339	5	11	5	5	16	11	0	0	5	5	0	5	32	
11:00	17	17	17	100	81	371	0	6	12	0	6	12	12	6	0	6	0	0	40	
12:00	24	21	21	100	140	529	0	5	5	10	0	5	5	0	5	0	10	0	55	
13:00	12	12	12	100	37	133	0	8	0	0	17	8	25	0	0	0	8	25	9	
14:00	18	8	8	100	410	1284	0	0	0	0	0	13	0	0	0	13	0	0	74	
15:00	13	10	10	100	1340	2132	0	0	0	0	0	0	0	10	0	0	0	0	90	
Total	168	148	147	99	211	2132	1	4	5	9	8	7	7	3	1	5	5	4	41	

Figure 6-2  
Delayed Call Spectrum Report

**FIELD HEADINGS:** Headings for the Delayed Call Spectrum Report are defined below:

**Time (HHMM)/Date (MMDD)** The beginning of the interval during which the statistics were obtained. Either the time or the date will be shown in this field, depending upon the length of the interval.

<b>No Calls Offrd</b>	(Number of Offered Calls) The number of ACD calls originally offered to this group, but not calls overflowed to this group.
<b>No Calls Hndld</b>	(Number of Handled Calls) The number of ACD calls which were originally offered to the group that were answered during the report interval.
<b>No Calls Dlyd</b>	(Number of Delayed Calls) The total number of calls that were not answered immediately by an agent upon ring-in. All delayed calls, regardless of the group's quality time, are included in this report.
<b>% Dlyd</b>	(Percentage of Delayed Calls) The percent of ACD calls that were not answered immediately.
<b>Avg Dly</b>	(Average Delay Time) The average delay time (in seconds) that an ACD caller had to wait before being answered. This is also the average speed of answer.
<b>Max Dly</b>	(Maximum Delay Time) The maximum amount of time (in seconds) any one ACD call waited during the report period.

— **Percent Calls Handled Within x sec.** —

ACD delayed calls are distributed across predetermined time slots which are incremented according to how long the calls waited for an answer. The number of calls within each time slot shows the efficiency of call handling by the group.

The duration of delays, measured in seconds, indicates how effective delay announcements were in preventing caller termination.

**Total** Totals appear at the bottom of the Delayed Call Spectrum Report. Usually, the total is the sum of all entries in the column, except in the following cases:

- Columns that report a MAX amount will have the maximum recorded entry for the report period and not a total.
- Columns that report an average or a percent are recalculated using the actual amounts from the current period. Therefore, the total amount will not be an average of averages.

### LOST CALL SPECTRUM REPORT (LCSR)

The Lost Call Spectrum Report displays information about ACD callers who hung up or were terminated by the network before being answered.

The report is available for periodic, shift, daily, weekly, monthly, and yearly intervals. The spectrum consists of 13 time ranges in which counters accumulate the number of calls which hung up or were terminated within the specified time range.

The Lost Call Report is useful for determining how long to wait before playing delay announcements, or when it may be necessary to establish Call Overflow Routing based on the amount of time calls waited in queue.

05:00 11/22/94		Lost Call Spectrum - Daily													Page 1				
15:59 11/22/94		ACD Group: 1 Customer Service																	
Time	No	No	Avg	Max	Percent Calls Lost Within x Seconds														
HHMM	Calls	Calls	%	Lost	Lost	2	4	6	8	13	18	23	28	33	43	53	63	63+	
	Offrd	Lost	Lost	Dly	Dly														
5:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00	17	2	12	69	121	0	0	0	0	0	50	0	0	0	0	0	0	0	50
9:00	20	1	5	32	32	0	0	0	0	0	0	0	0	100	0	0	0	0	0
10:00	20	1	5	98	98	0	0	0	0	0	0	0	0	0	0	0	0	0	100
11:00	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00	24	3	13	280	445	0	0	0	0	0	0	0	0	0	0	0	0	0	100
13:00	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00	18	10	56	333	609	0	0	0	0	0	0	0	10	0	0	0	0	0	90
15:00	13	3	23	386	852	0	0	0	0	0	0	0	0	0	0	0	0	0	100
Totl	168	20	12	109	852	0	0	0	0	0	5	0	5	5	0	0	0	0	85

Figure 6-3  
Lost Call Spectrum Report

<b>FIELD HEADINGS:</b>	Headings for the Delayed Call Spectrum Report are defined below:
<b>Time (HHMM)/Date (MMDD)</b>	The beginning of the interval during which the statistics were obtained. Either the time or the date will be shown in this field, depending upon the length of the interval.
<b>No. Calls Offrd</b>	(Number of Offered Calls) The number of ACD calls originally offered to this group during the report interval. This includes ACD calls which were answered, delayed, or lost. It does not include calls overflowed to this group from another group.
<b>No. Calls Lost</b>	(Number of Lost Calls) The number of ACD calls which were originally offered to the group that were not answered during the report period.
<b>% Lost</b>	(Percentage of Lost Calls) The percentage of calls offered to the group that were abandoned by the caller before they were answered. This value should help ACD supervisors to quickly identify Call Traffic Delay problems.
<b>Avg Lost Dly</b>	(Average Delay Time of Lost Calls) The average delay time (in seconds) that lost calls waited before terminating. This value does not include calls which overflowed from another group to this group. Lost calls are counted against the group to which they were originally offered.
<b>Max Lost Dly</b>	(Maximum Delay Time of Lost Calls) The maximum amount of time (in seconds) any one ACD call waited in the group queue and terminated before being answered.

— Percent Calls Lost Within x Seconds —

This spectrum distributes ACD calls across predetermined time slots which are incremented according to how long the calls waited before terminating. The number of calls within each time slot shows the efficiency of the group's handling of calls.

The duration of wait before termination indicates how effective delay announcements are in preventing caller termination.

Calls counted in the one to five second slots should be observed to determine if faulty trunks may be contributing to a lost call problem.

- Totl** Totals appear at the bottom of the Lost Call Spectrum Report. Usually, the total is the sum of all entries in the column, except in the following cases:
- Columns that report a MAX amount will have the maximum recorded entry for the report period and not a total.
  - Columns that report an average or a percent are recalculated using the actual amounts from the current period. Therefore, the total amount will not be an average of averages.

### INCOMING CALL DURATION REPORT (ICDR)

This report shows the duration of ACD calls that were answered by each group. The Incoming Call Duration Report provides a summary for periodic, shift, daily, weekly, monthly, and yearly intervals.

Different ACD groups are generally assigned particular types of calls. Each type may have an optimum duration which is reflected in the Call Duration Spectrum as peaks in the number of calls at certain time values. If some groups are handling more than one type of call, more than one peak may be shown and may indicate the need for an additional group to handle some of the calls.

Peaks of abnormally short time durations may indicate bad trunks or other important call anomalies. After a period of time, normal call durations will become evident. Variance from these norms may signal the need for an investigation into the possible causes.

11/22/94 05:00		<b>Incoming Call Duration Spectrum – Tuesday</b>														Page 1
11/22/94 15:59		ACD Group: 1 Customer Service														
Time	No	Avg	Max	----- Percent Calls Lasting Less Than x sec. -----												
HHMM	Calls	Dur	Dur	10	20	30	40	60	80	100	120	140	170	200	230	230+
	Hndld	(sec)	(sec)													
5:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00	6	298	521	0	0	0	0	0	17	17	0	0	0	0	0	66
7:00	21	241	848	5	0	5	0	10	0	10	0	10	5	0	14	41
8:00	15	372	979	0	0	0	0	7	7	7	0	0	0	7	7	65
9:00	19	345	1453	0	0	0	0	5	11	0	11	5	5	11	11	41
10:00	19	353	1334	0	0	0	5	5	5	5	5	0	11	0	0	64
11:00	17	311	1143	6	0	12	0	6	0	0	6	12	0	0	0	58
12:00	21	328	1046	0	0	0	0	0	5	10	10	0	0	14	5	56
13:00	12	210	441	0	0	0	8	0	0	0	8	25	0	8	8	43
14:00	8	563	1429	0	0	0	0	0	0	0	0	13	13	0	0	74
15:00	10	369	811	0	0	0	0	0	10	0	10	0	10	0	10	60
<b>Total</b>	<b>148</b>	<b>329</b>	<b>1453</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>4</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>6</b>	<b>56</b>

**Figure 6-4**  
**Incoming Call Duration Spectrum Report**

<b>FIELD HEADINGS:</b>	Headings for the Incoming Call Duration Report are defined below:
<b>Time (HHMM)/Date (MMDD)</b>	The beginning of the interval during which the statistics were obtained. Either the time or the date will be shown in this field, depending upon the length of the interval.
<b>No Calls Hndld</b>	(Number of Handled Calls) The number of ACD calls which were originally offered to the group that were answered during the report interval. This includes incoming ACD calls originally offered to the group, but not calls which were overflowed to this group.
<b>Avg Dur (sec)</b>	(Average Talk Time)The average talk time (in seconds) of each incoming ACD call that was answered in the group during the report interval.
<b>Max Dur (sec)</b>	(Maximum Talk Time) The maximum talk time, to the nearest second, of the longest call handled in the group during the report period.

— **Percent Calls Lasting Less Than x sec.** —

Answered ACD calls are distributed across predetermined time slots which show the duration of each call in seconds.

To allow easy comparison between reports, the volume of calls during each time period is given as a percentage of the total number of calls handled.

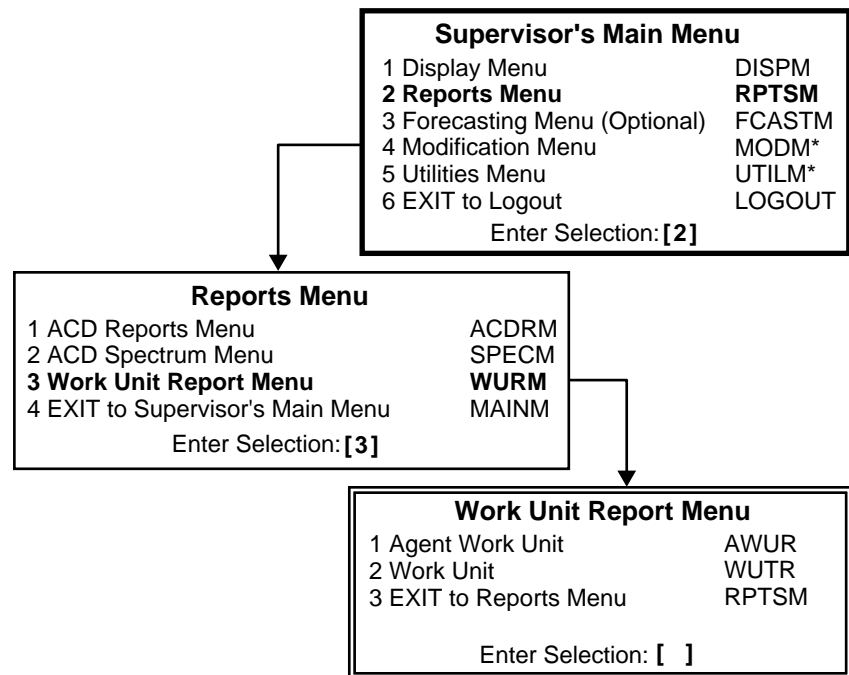
- Total** Totals appear at the bottom of the Incoming Call Duration Report. Usually, the total is the sum of all entries in the column, except in the following cases:
- Columns that report a MAX amount will have the maximum recorded entry for the report period and not a total.
  - Columns that report an average or a percent are recalculated using the actual amounts from the current period. Therefore, the total amount will not be an average of averages.





## WORK UNIT REPORT MENU (WURM)

Work unit reports show the average amount of time that agents and ACD groups spent working on specific ACD-related tasks during the report period. The Work Unit Report Menu provides access to the Agent Work Unit and Work Unit Reports.



*\*Item is discussed in the "ACD and ACD/MIS Administrator's Guide."*

**Figure 7-1**  
**Work Unit Report Menu**

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## AGENT WORK UNIT REPORT (AWUR)

Work unit code values are defined by the customer and can represent a number of different activities that an agent may be involved in. The Agent Work Unit Report provides statistics on the various work unit codes entered by an agent within the report time frame.

Work units are recorded each time an agent enters a two-digit work unit code. Agents must be logged in to enter work units.

00:00 11/22/94		Agent Work Unit Report—Daily							Page 2			
09:59 11/22/94		ACD Group: 1 Customer Service										
----- ACD Group Related Work -----											--- PBX Work ---	
Agent No.	Agent Name	Work Unit	PEG Count	Calls Handled	Avg Talk Sec.	Avg Work Sec.	Avg Hndng Sec.	Avail Time Hr.	Aux Work Hr.	Calls	Avg Dur Sec.	
522	ROBERT	07	3	1	12	0	12	0.0	0.0	0	0	
522	ROBERT	08	1	1	18	0	13	0.0	0.0	0	0	
522	ROBERT	12	4	1	130	0	130	0.0	0.0	0	0	
522	ROBERT	88	1	1	119	10	129	0.0	0.0	0	0	
522	ROBERT	99	1	0	0	29	29	8.1	0.0	0	0	
Agent Total:			10	4	55	7	62	8.1	0.0	0	0	
Group Total:			27	34	80	3	83	16.3	0.1	5	30	
Grand Total:			27	34	80	3	83	16.3	0.1	5	30	

**Figure 7-2**  
**Agent Work Unit Report**

**FIELD HEADINGS:** Headings of the Agent Work Unit Report are defined below:

**Agent No.** Agent's identification number, which is entered when the agent logs in.

**Agent Name** Usually the agent's first or last name, plus an initial. A maximum of eight alphanumeric characters can be used to identify the agent.

**Work Unit** A two-digit code entered by agents to identify the type of work they are performing. Work units are entered by agents in the Talk state.

**PEG Count** The total number of times a work unit was entered by an agent during the report period. The last entered work unit is the only one recorded for the call.

— **ACD Group Related Work** —

**Calls Handled** The number of ACD calls handled by an agent under one specific work unit during the report period. All calls originally sent to an ACD group are included, no matter how they reached the agent.

**Avg Talk Sec.** (Average Talk Time) The average time, in seconds, that an agent spent talking to callers when the specified work unit was activated.

The time counter starts when an agent answers a call identified with a specific work unit, and ends when the call is disconnected.

**Avg Work Sec.** (Average Work Time) The average time, in seconds, that the agent spent in After Call Work mode following a call for which the specified work unit was entered.

**Avg Hndlng Sec.** (Average Handling Time) The average time, in seconds, that an agent spent handling ACD calls during which work units were entered. Talk time plus After Call Work time equals handling time.

**Avail Time Hr.** (Total Available Time) The total time, in hours, that an agent remained available after a work unit was entered. If the agent's status changes, then the value is updated.

**Aux Work Hr.** (Auxiliary Work Time) The total time, in hours, that an agent spent connected to originated PBX calls during which work units were entered. therefore, will not be an average of averages.

#### — PBX Work —

**Calls** (Originated PBX Calls Handled) The number of originated internal and external PBX calls handled by the agent for which the specified work unit was entered.

**Avg Dur Sec** (Average Duration) The average time, in seconds, that the agent was connected to an originated internal or external PBX call during which the work unit was entered.

**Totals** Agent totals, group totals, and grand totals appear at the bottom of each column of the Agent Work Unit Report. Generally, the totals are the sum of all entries in a column, with the following exceptions:

- Columns that report a Max amount will have the maximum recorded entry for the report period and not a total.
- Columns that report an average or a percent are recalculated using the actual amounts from the current period. The total amount, therefore, will not be an average of averages.

## WORK UNIT REPORT (WUTR)

The Work Unit Report shows a summary of work unit counts and time accumulations for each ACD group during the report period.

00:00 11/22/94		ACD Work Unit Report—Daily				Page 1		
00:59 11/22/94		ACD Group: 1 Customer Service						
Work Unit	PEG Count	Calls Handled	----- ACD Group Related Work -----			----- PBX Work -----		
			Avg Talk Sec.	Avg Work Sec.	Avg Hndlng Sec.	Aux. Work Hr.	----- Originated -----	Avg Dur Sec.
01	1	0	57	0	57	0.0	0	0
03	1	0	71	0	71	0.0	0	0
07	1	0	12	0	12	0.0	0	0
08	1	0	18	0	18	0.0	0	0
09	1	0	73	0	73	0.0	0	0
11	4	1	46	6	52	0.0	0	0
12	5	2	145	0	145	0.0	0	0
14	1	0	16	0	16	0.0	0	0
15	1	0	68	0	68	0.0	0	0
41	1	0	63	0	63	0.0	0	0
45	1	0	15	0	15	0.0	0	0
50	1	0	147	0	147	0.0	0	0
52	2	2	106	0	106	0.0	0	0
53	1	0	168	1	169	0.0	0	0
55	1	0	71	3	74	0.0	0	0
66	1	0	314	10	324	0.0	0	0
88	1	0	119	10	129	0.0	0	0
99	2	2	36	0	36	0.0	5	30
Total:	27	7	81	2	83	0.1	5	30

**Figure 7-3**  
**ACD Work Unit Report**

**FIELD HEADINGS:** Headings of the ACD Work Unit Report are defined below:

**Work Unit** A two-digit code entered by agents to identify the type of work they are performing.

**PEG Count** The total number of times a work unit was entered by the ACD group during the report period. If an agent enters more than one work unit code for a single call, the system records only the last code entered.

**Calls Handled** The number of ACD calls handled by an ACD group under one specific work unit during the report period.

— **ACD Group Related Work** —

**Avg Talk Sec.** (Average Talk Time) The average time, in seconds, that agents spent talking to callers when a specified work unit was activated.

The time counter starts when an ACD call identified with a specific work unit is answered, and ends when the call is disconnected.

- Avg Work Sec.** (Average Work Time) The average time, in seconds, that the agent spent in After Call Work mode following a call for which the specified work unit was entered. If more than one work unit was entered during a call, after which the After Call Work mode is entered, only the last work unit entered will accumulate After Call Work time.
- Avg Hndlng Sec** (Average Handling Time) The average time during which work units were entered, in seconds, that the ACD group spent handling ACD calls. Handling time is defined as Talk time plus After Call Work Time.

— PBX Work —

- Calls** (Originated PBX Calls Handled) The number of originated internal and external PBX calls handled by the agent for which the specified work unit was entered.
- Avg Dur Sec** (Average Duration) The average time, in seconds, that the agent was connected to an originated internal or external PBX call during which the work unit was entered.
- Totals** Totals appear at the bottom of each column of the ACD Work Unit Report. Generally, the totals are the sum of all entries in a column, with the following exceptions:
- Columns that report a Max amount will have the maximum recorded entry for the report period and not a total.
  - Columns that report an average or a percent are recalculated using the actual amounts from the current period. The total amount, therefore, will not be an average of averages.



# Chapter 8

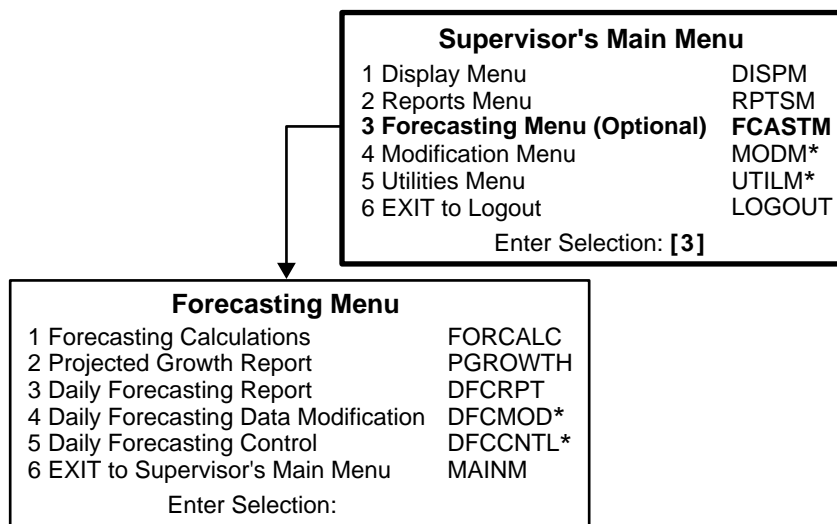
## THE FORECASTING PROGRAM (FCASTM)

The Forecasting feature is optional. If your system is not equipped with this feature, disregard this section. Also, please note that the Supervisor's Main Menu will not show Forecasting as an option if it is not on your system (Figure 8-1).

The Forecasting software resides in the Management Information System applications processor. No additional equipment is required.

Included in the Forecasting Program are:

- Forecasting Calculations, which allows entry of data in order to obtain ACD traffic, ACD group, and trunk predictions.
- Projected Growth Report, which generates a report that forecasts expected requirements for an ACD system (up to 10 years).
- Daily Forecasting Report, provides forecasting information on ACD trunks and agents, based on historical data of specific ACD groups (for each hour of the report day).



\* These are considered Administrative menus, which may or may not be available to you. If these options appear on your menu screens, refer to the PERCEPTION 4000 ACD Administrator's Guide for more information. Access to these menus is determined by the ACD Administrator.

Figure 8-1  
Forecasting Menu

The two Administrative menus which may not be available in the Supervisor's Forecasting menu contain the following features:

- Daily Forecasting Data Modification, allows modification of historical profile data. The updated data can then be used to generate a Daily Forecasting Report.
- Daily Forecasting Control, allows the Administrator to define the parameters used for generation of the Daily Forecasting Report and data storage. The parameters include previous forecasts, the number of days profiles should be kept, percent of assumed growth, number of trunks, and length of call delay time.

### ERLANG FORMULAS

The calculation results, which are based on the entered data, are then displayed. These results, as well as all other calculations in this program, are based upon Erlang B and Erlang C formulas. (See "Terms to Know" for definitions.)

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## TERMS TO KNOW

The terms listed below will be referenced throughout this section.

**Erlang** A measure of the average amount of traffic which would be expected at any given moment in a specified period of time.

$$\text{ERLANG} = \frac{\text{NUMBER OF CALLS} \times \text{AVERAGE CONNECT TIME OF ALL CALLS}}{\text{PERIOD OF TIME USED FOR THIS SAMPLE}}$$

**Erlang B Formula** A standard calculation used to determine trunkage needs for an ACD/PBX system.

**Erlang C Formula** A standard calculation used to determine agent requirements for an ACD group.

**Forecast** A prediction of the trunking requirements, agent requirements and expansion needs for an ACD group.

**Grade of Service (G.O.S.)** The amount of blockage on a trunk or trunk group due to an "all trunks busy" condition.



**Handling Time** The amount of time (in seconds) required to process an ACD call from the time the call reaches the agent until the agent completes the necessary paperwork associated with the call.

$$\text{HANDLING TIME} = \text{TALK TIME} + \text{AFTER CALL WORK TIME}$$

**Profile** A set of data for an ACD group which shows significant information about trunk and agent requirements for a given day during the last 380 days. This profile is used to generate the Daily Forecasting Report.

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## SPECIAL CONTROL KEYS

Each screen that is accessed will contain information along the bottom as to which keyboard control keys will perform which functions for that screen. The following describes the prompts that are used with the Modifications and Utilities Menu options.

### MODIFICATION MENU CONTROL KEYS

When modification screens are accessed, the following prompt will appear at the bottom of the screen. Not all of these options will apply to every screen. In this manual, the options that do apply to each screen will be identified. The following explains the purpose of these options:

(A)dd, (C)hange, (D)elete, (F)ind, (N)ext, (P)revious, (Q)uit?

- (A)dd Allows the addition of a new assignment, such as a supervisor.
- (C)hange Allows the current values displayed in a screen to be changed. Sometimes it is necessary to use a (F)ind command prior to the (C)hange.
- (D)elete Used after a (F)ind command to delete the displayed assignment. When the delete command is first selected, the screen will verify the request by asking:

"Do You Wish To Delete This Entry?"

- Entering **(Y)**es will delete the assignment from the system's database.
- (F)**ind Moves the cursor to the first position on the screen that may be used as an entry to find an assignment. After entering the selection followed by **<RETURN>**, the matching database assignment will be displayed on the CRT screen. The command line will be displayed again at the bottom of the screen, and another entry can be selected.
- (N)**ext Some assignments are displayed on more than one screen. The **(N)** command advances the CRT to the next screen associated with the command.
- (P)**revious Some assignments are displayed on more than one screen. The **(P)** command reverts the CRT to the previous screen associated with the command.
- (Q)**uit Used to leave the current screen, and return to the previous menu.

Entering the first letter of the desired function will move the cursor to the first entry location possible on the screen. After entering a value, followed by **<RETURN>**, the cursor will advance to the next location on the screen available for input.

#### COMPLETING THE INPUT

When all values are entered, the system displays the following prompt:

(A)ctivate, (C)ontinue, (D)iscontinue?

- (A)**ctivate Pressing **A** activates the values entered plus enters them into the system database.
- (C)**ontinue Pressing **C** returns the cursor to the first field which can be modified.
- (D)**iscontinue Pressing **D** removes all the values displayed in the menu not previously activated and returns to the "(A)dd, (C)hange, (D)elete, (F)ind, (N)ext, (P)revious, (Q)uit ?" prompt.

#### NOTE:

*Some fields are optional and may be skipped. If the system requires entry of a mandatory field, the CRT will not move past the field until an entry is made. There will also be a prompt indicating that the field is mandatory. Display messages may vary depending on the table sizes and the system hardware for each particular system.*

**KEYBOARD SHORTCUTS**

The following commands can be used to move through the screen, and update or abort any changes:

- <RETURN>** or **Control J** Jump from current field to next.
- Backspace** or **Control H** Move cursor left 1 character with overstrike.
- Control F** Move cursor right 1 character.
- Control Z** Move cursor to start of previous field.
- Control A** Entry complete; update system database and return to command mode.
- ESC** or **Control [** Abort entry, return to previous menu.
- Control S** Stop scrolling (when XON/XOFF protocol is in use).
- Control Q** Resume scrolling (when XON/XOFF protocol is in use).

**INVALID ENTRIES**

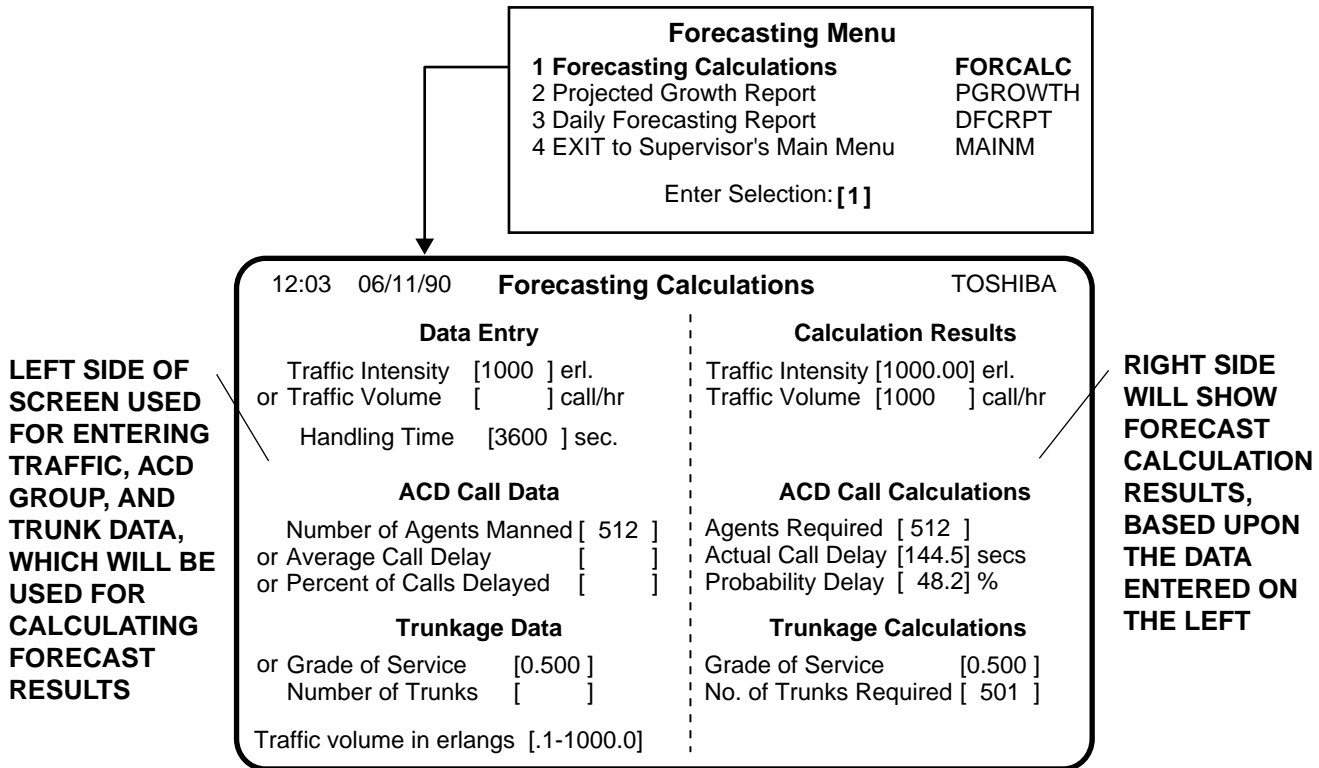
When an entry is made while selecting a menu option, but is not allowed or is out of range, the following prompt is displayed:

Not a valid entry. **<RETURN>**

Pressing **<RETURN>** will remove the invalid entry and the system will wait for another entry.

## FORECASTING CALCULATION (FORCALC)

The Forecasting Calculations program allows entry of data in order to obtain ACD traffic, ACD group, and trunk predictions. This menu is used as a quick reference to predict results based upon entered data. ACD data is entered on the left side of the screen and the calculated results, based upon the data entered, are shown on the right side of the screen. The Forecasting Calculations screen is shown in Figure 8-2.



**NOTE:**  
The values in [ ] indicate the maximum allowed entry.

**Figure 8-2**  
**Forecasting Calculations**

There are three areas of information displayed on this screen:

- Traffic information
- ACD group information
- Trunk information

When entering data, you have a choice as to which piece of data you want to fill in. Notice on the screen that there is an "or" in front of some of the entries. For example, fill in the traffic volume (per hour) in erlangs OR press the return key and enter the traffic volume (per hour) expressed as the number of calls. Use this same procedure for each of the three areas of information. The only mandatory field on this screen, without an alternate entry, is the Handling Time for ACD calls, which is expressed in seconds.

The following field headings appear in both the Entry section on the left and in the Calculation section on the right (Figure 8-2).

#### — Data Entry —

##### **Traffic Intensity and Traffic Volume**

Traffic intensity and volume are the same except for the units of measure. This is either the amount of traffic for a one hour period expressed in erlangs or the amount of traffic expressed as the number of calls per hour.

##### **Handling Time**

This is the average amount of time (in seconds) needed to handle an ACD call during the hour.

#### — ACD Call Data —

##### **Number of Agents Manned/Required**

Enter the number of agents that are logged into the ACD group. The results on the right of the screen display the number of agents needed to handle the ACD traffic for the ACD group, within the parameters listed here.

##### **Average/Actual Call Delay**

This is the delay time (seconds) a caller encounters from ring-in until connecting to an agent.

##### **Percent/Probability of Calls Delayed**

This is the percentage of calls delayed or that will be delayed in the group before being connected to an agent.

#### — Trunkage —

##### **Grade of Service**

This is the percent of blockage on the ACD trunks (actual or what will be tolerated).

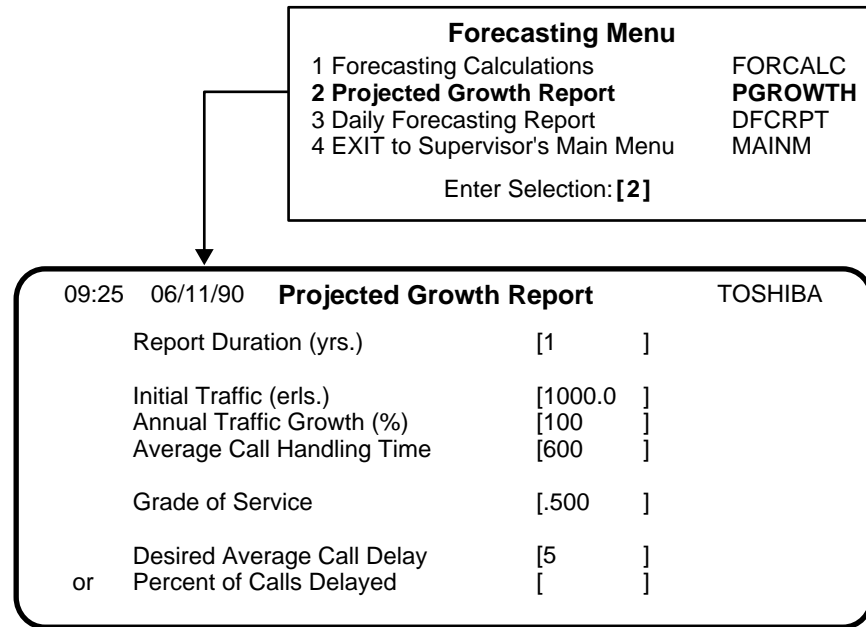
**Number of Trunks  
(Used/Required)**

This is the number of trunks used or needed in the ACD group.

---

## PROJECTED GROWTH REPORT (PGROWTH)

The Projected Growth Report Menu is used to generate a report which forecasts the expected requirements for an ACD system for up to 10 years. The report shows the growth rate for each month of the report period. Data used to predict the projected growth is entered through the menu shown in Figure 8-3.



*NOTE:*  
The values in [ ] indicate the maximum allowed entry.

**Figure 8-3**  
**Projected Growth Report Menu**

**FIELD HEADINGS:** The headings of the Projected Growth Report are defined below:

- Report Duration (yrs.)** Enter the period of time to be covered in the report.
- Initial Traffic (erls.)** Enter the traffic volume (0.1 ~ 1000, in erlangs) for the first month of this report. The first reported month will be the current month.
- Annual Traffic Growth (%)** Enter the estimated traffic growth for the year.
- Average Call Handling Time** Enter the average amount of time needed for an agent to complete an ACD call.
- HANDLING TIME = TALK TIME + AFTER CALL WORK TIME.
- Grade of Service** Enter the actual or the desired blockage on the trunks.
- Desired Average Call Delay** Enter the optimum amount of time a caller can be expected to wait before connection to an ACD agent.
- Percent of Calls Delayed** Enter the percent of delayed calls (more than 0 seconds) that will be tolerated before connection to an agent.

When the required data is entered, the following prompt will appear so that the Projected Growth Report can be displayed or printed:

Hardcopy? (Y/N)

A sample of the Projected Growth Report is displayed in Figure 8-4.

10:36 01/23/91 Wednesday <b>Projected Growth Forecasting Report</b> Page 1						
Projected Annual Growth = 100.00%    Average Call Handling Time    600						
Date MM/YY	Traffic (erls.)	No. of Trunks	G.O.S.	Agents Required	Percent Delayed	Delay (sec.)
01/91	1000.00	501	0.500	501	94.55	569.6
02/91	1083.33	543	0.500	543	94.77	570.0
03/91	1173.61	588	0.500	588	94.97	571.4
04/91	1271.41	637	0.500	637	95.16	572.3
05/91	1377.36	690	0.500	690	95.35	573.2
06/91	1492.14	748	0.499	748	95.53	573.3
07/91	1616.49	810	0.500	810	95.70	574.6
08/91	1751.19	877	0.500	877	95.86	576.0
09/91	1897.13	950	0.500	950	96.02	576.8
10/91	2055.22	1029	0.500	1029	96.17	577.7
11/91	2226.49	1115	0.500	1115	96.32	578.3
12/91	2412.03	1208	0.500	1208	96.47	578.9

**Figure 8-4**  
**Sample Projected Growth Report**

**FIELD HEADINGS:** The headings of the Projected Growth Forecasting Report are defined below:

- Projected Annual Growth**    The estimated average annual growth for the ACD.
- Average Call Handling Time**    The estimated amount of time (in seconds) needed to handle an ACD call.
- Date MM/YY**    Month and year for the projected growth statistics.
- Traffic (erls.)**    The traffic level for the month, in erlangs.
- No. of Trunks**    The total number of trunks used for ACD calls.
- G.O.S.**    The grade of service or percent of blockage that will be tolerated or expected on the trunks.
- Agents Required**    The number of agents needed to adequately handle the estimated traffic for this period of time.
- Percent Delayed**    The percentage of calls that will be delayed, for any length of time, before being answered by an agent.
- Delay (sec.)**    The average number of seconds that each caller will be delayed in the ACD group before being connected to an agent.



### DAILY FORECASTING REPORT (DFCRPT)

The Daily Forecasting Report shows the ACD trunk and agent requirements for one day, broken down by hours of the day (Figure 8-5). Since for many applications ACD call values can vary dramatically according to the time of day, this report is useful for maximizing agent efficiency and cost effectiveness.

This Forecasting Report is based on an ACD Group profile, which must be established before the report can be generated. A profile can originate from historical files (stored for up to one year) or can be manually established through profile modification by the ACD Administrator (See your Administrator or refer to the *P4000 ACD/MIS Administrator's Guide*.)

15:56 01/31/91		<b>Daily Forecasting Report</b>			TOSHIBA
Date to Base Forecast Upon [                    ]					
Group No.	Traffic Volume	Handling Time	Group No.	Traffic Volume	Handling Time
[   ]	[   ]	[   ]	[   ]	[   ]	[   ]
[   ]	[   ]	[   ]	[   ]	[   ]	[   ]
[   ]	[   ]	[   ]	[   ]	[   ]	[   ]
[   ]	[   ]	[   ]	[   ]	[   ]	[   ]
[   ]	[   ]	[   ]	[   ]	[   ]	[   ]
[   ]	[   ]	[   ]	[   ]	[   ]	[   ]
[   ]	[   ]	[   ]	[   ]	[   ]	[   ]
[   ]	[   ]	[   ]	[   ]	[   ]	[   ]
[   ]	[   ]	[   ]	[   ]	[   ]	[   ]
[   ]	[   ]	[   ]	[   ]	[   ]	[   ]
[   ]	[   ]	[   ]	[   ]	[   ]	[   ]
[   ]	[   ]	[   ]	[   ]	[   ]	[   ]

**Figure 8-5**  
Daily Forecasting Report Menu

**FIELD HEADINGS:** The headings of the Daily Forecasting Report Menu are defined below:

**Date To Base Forecast Upon  
[MMDDYY]**

A default date will display. To use the default date for this report, press the <RETURN> key. Daily Forecasting reports which are set to be generated automatically will use the default date. The ACD Administrator sets the default date in the control file. (To change this, see your ACD Administrator or refer to the P4000 ACD/MIS Administrator's Guide.

To calculate data based on historical information, enter a date in place of the default date. The historical data can be calculated from as far back as the last 380 days. If there is no historical information for the date entered, a message will appear at the bottom of the screen.

CONTROL FILE Use Data From Previous:	Today's Date	FORECAST REPORT Date to Base Forecast Upon
DAY	Fri. 5/10/90	Thurs. 5/09/90
WEEK	Fri. 5/10/90	Sat. 5/04/90
WEEK	Tues. 2/14/90	Wed. 2/08/90
YEAR	Tues. 5/02/90	Wed. 5/04/89
YEAR	Wed. 5/10/90	Thurs. 5/12/89

**Table 8-1  
Daily Forecasting Control**

An example of the Daily Forecasting Report is shown in Figure 8-6. The date based upon last week's or last year's profile will default so that when the report is automatically printed, the base date will coincide with tomorrow's date or day of the week (yearly profile).

**Allowable ACD Groups For This  
Report Are:**

This information is for display only. No entry is allowed. The system stores historical data for up to 16 ACD groups. When a date is entered in the previous entry position, all ACD groups which have historical data in the forecast file will be displayed.

**Specific ACD Group Number**

Enter the ACD group number (from the allowable ACD groups listed above) for this report.

**Percent Traffic Growth**

Enter the multiplier to be used, for the historical data for this report. An entry of 0 means that no multiplier is to be used. An entry of 20 assumes a 20% growth in traffic.

When the required data is entered, the following prompt will appear so that the report can be displayed or printed:

Hardcopy? (Y/N)

A sample of the Daily Forecasting Report is shown in Figure 8-6.

13:34		05/11/90		Thursday		<b>Daily Forecasting Report</b>		PAGE 1					
Base Date – 51089		ACD Group – 1		Total No. of Calls		7465		Average Call Handling Time		150			
Time		Traffic (erts.)		No. of Trunks		G.O.S.		Agents Required		Percent Delayed		Average Delay	
0100		0.04		28		0.000		1		4.17		6.5	
0200		0.12		28		0.000		1		12.50		21.4	
0300		0.04		28		0.000		1		4.17		6.5	
0400		1.08		28		0.000		3		11.05		8.6	
0500		3.71		28		0.000		6		21.86		14.3	
0600		4.42		28		0.000		6		39.68		37.6	
0700		11.42		28		0.000		14		37.11		21.5	
0800		14.58		28		0.001		17		44.33		27.5	
0900		33.08		34		0.111		34		82.23		134.6	
1000		29.83		30		0.130		30		96.40		867.6	
1100		24.12		28		0.069		27		46.73		24.4	
1200		25.12		28		0.085		28		47.47		24.8	
1300		31.08		32		0.114		32		81.73		133.7	
1400		30.17		31		0.116		31		83.05		149.5	
1500		34.12		35		0.110		35		83.21		142.6	
1600		23.79		28		0.063		26		56.19		38.2	
1700		19.54		28		0.015		22		48.94		29.9	
1800		12.50		28		0.000		15		40.13		24.1	
1900		8.08		28		0.000		10		42.80		33.5	
2000		2.75		28		0.000		5		17.88		11.9	
2100		0.87		28		0.000		2		26.63		35.5	
2200		0.21		28		0.000		1		20.83		39.5	
2300		0.33		28		0.000		2		4.76		4.3	

**Figure 8-6**  
**Daily Forecasting Report**

**FIELD HEADINGS:** The headings of the Daily Forecasting Report are defined below:

<b>Base Date</b>	The date from which historical data was used to generate this report.
<b>ACD Group</b>	The ACD group number for which this information was requested.
<b>Total No. of Calls</b>	The total number of group calls received in the above ACD group during the 24-hour period.
<b>Average Call Handling Time</b>	The estimated amount of time (in seconds) needed to handle an ACD call in this group. Handling time includes Talk time plus After Call Work time associated with an ACD call.
<b>Time</b>	The beginning time, in 24-hour format, for the statistics shown in this row. Only those hours which had activity are reported.
<b>Traffic (erls.)</b>	The total amount of traffic for the hour, in erlangs.
<b>No. of Trunks</b>	The total number of trunks used for ACD calls. This number can be greater than the number of actual trunks listed in the profile if needed. However, the number of trunks listed will never be less than the actual number of trunks in the profile.
<b>G.O.S.</b>	The grade of service or percent of blockage that will be expected on the trunks.
<b>Agents Required</b>	The number of agents needed to adequately handle the estimated traffic for this period of time.
<b>Percent Delayed</b>	The percentage of calls that will be delayed, for any length of time, before being answered by an agent.
<b>Average Delay</b>	The average number of seconds that each caller will be delayed in the ACD group before being connected to an agent.

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PERCEPTION 4000

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