**AT&T**

# PARTNER® Reporter
## Installation and Use

**Notice**
Every effort was made to ensure that the information in this book was complete and accurate at the time of printing. However, information is subject to change.

**Security**
Toll fraud, the unauthorized use of your telecommunications system by an unauthorized party (for example, persons other than your company's employees, agents, subcontractors, or persons working on your company's behalf) can result in substantial additional charges for your telecommunications services. You are responsible for the security of your system. There may be a risk of toll fraud associated with your telecommunications system. You are responsible for programming and configuring your equipment to prevent unauthorized use. Your system manager should read all documents provided with this product to fully understand the features that can introduce the risk of toll fraud and the steps that can be taken to reduce that risk. AT&T does not warrant that this product is immune from or will prevent unauthorized use of common-carrier telecommunication services or facilities accessed through or connected to it. AT&T will not be responsible for any charges that result from such unauthorized use.

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**Ordering Information**
The order number for this book is 518-455-720. To order additional books, call 1 800 457-1235 in the continental U.S. or 1 317 361-5353 outside the continental U.S. For information about ordering other system reference materials refer to "Related Resources" in "About This Guide" at the front of this book.

**Support Telephone Number**
In the continental U.S., AT&T provides a toll-free hotline 24 hours a day. Call the hotline at **1 800 628-2888** if you need assistance when programming or using your system.

Outside the continental U.S., contact your AT&T representative or local authorized dealer.

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# About This Guide

This guide explains how the PARTNER® Reporter works and how it is used for call center reporting operations. The guide is divided into three parts, corresponding to standard system functions, those specific to a multi-site network, and appendices with additional reference material.

Most system functions are documented in PART I, which is organized into chapters that follow the order of the PARTNER Reporter menu system, preceded by an overview and installation. Information specific to multi-site networks is indicated by the "Multi-site" icon in the margin:
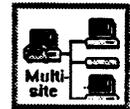
## How to Use This Guide

This guide is intended for installers and the system manager. It assumes some familiarity with the Microsoft Windows® operating environment. Examples in this guide show Windows 3.1 / Windows for Workgroups 3.11 dialog boxes. If you have Windows 95, your dialog boxes may look slightly different.

Installers should read the following material:

- ■ Chapter 2, *Installation,* provides instructions to load the application, set it up, and verify call processing; its companion Appendix A, *Worksheets,* provides blank worksheets to collect the information required at this time.

- ■ Chapter 6, *PARTNER Reporter at a Polled Site,* provides additional installation instructions to enable sending SMDR data to a Central Site.

- ■ Chapter 7, *PSU at a Polled Site,* provides detailed instructions to install a Pollable Storage Unit at a remote site.

- ■ Chapter 8, *Central Site of a Multi-site Network,* provides additional installation instructions in a multi-site configuration, as well as instructions to add polled sites.

System managers should read the following material:

- ■ Chapter 1, *About PARTNER Reporter,* provides an overview of the system and simple explanations of logging in and using system menus and dialog boxes.

- ■ Chapter 3, *System Management,* describes the functions used to set up and update the information that keeps your system running smoothly.

- ■ Chapter 4, *Reports and Listings,* describes all report-generating and viewing functions; its companion Appendix B, *Sample Reports,* shows report printouts.

- ■ Chapter 5, *Utilities,* describes the functions used in maintaining the system files, as well as backup operations.

- Appendix C, *Specifications,* provides technical information about the system requirements and capacities.

- Appendix D, *Getting Assistance for Problems,* describes basic troubleshooting and, if necessary, how to obtain help.

- Appendix E, *PC Serial Ports,* provides detailed information about PC serial ports, as well as how to resolve IRQ conflict problems.

## Related Resources

The following documents can provide you with additional information:

- PARTNER® II Communications System Release 4.1 Installation (518-455-333) — manual for the person who installs the PARTNER II system.

- PARTNER® II Communications System Release 4.1 Programming and Use (518-455-334 — manual for the system manager to program and use a PARTNER II system.

- PARTNER® II / PARTNER Plus Communications System Release 4.1 System Planner (518-455-338 — forms to record PARTNER II system configuration information to facilitate installation and provide a record of system programming.

## Terminology

In the context of this guide, we use the following terms:

- *Telephone system* — refers to the PARTNER II Communications System, Release 4.1 or later.

- *Multi-site network* — refers to the configuration of a Model 2000 or Model 5000 PARTNER Reporter that allows the site where it is installed (the "Central Site") to connect with and report on up to 50 or 100 sources of call records respectively ("polled" sites).

  The term "multi-site network" also refers to the collection of all sites' databases and their relationships to the Central Site. Thus, when we document in PART II - Multi-site Network a "PARTNER Reporter (or a PSU) at a Polled Site," we refer to a site where a Model 50 PARTNER Reporter (or a PSU) is installed and configured to send its SMDR call records to the Central Site when requested by a Central Site poll.

# About PARTNER Reporter

# 1

PARTNER Reporter is a new Windows tool designed to work with your telephone system, to help you manage telephone facilities and track their effectiveness in your business.

Why telephone management? Simple. Telephones are a major asset in handling customers, as well as a source of revenue for service-oriented companies. Here are some ways PARTNER Reporter can help.

- Monitoring usage of telephone facilities *(When are our phone lines busiest? What is the average waiting time for callers? Can we do better? ...do we add/subtract phone lines? ...change our staffing patterns?).*

  Traffic reports will let you understand availability problems throughout peak calling hours and help you determine if you have a staffing problem or not enough telephone lines.

- Responding to customer calls *(Did the customer hang up before anybody answered? Who called? Is this a frequent occurrence?).*

  Your "Caller ID" service pays off: PARTNER Reporter can print out these numbers immediately so your staff can call back as soon as they become free.

- Correcting misuse/abuse of facilities *(Are we using our telephones to the fullest? Do we have a problem with unauthorized use of services?).*

  Too many calls using the wrong local / long distance facilities or clogging these lines are due to a misunderstanding on the part of the users or because pooled and/or restricted access lines in your telephone system are not set correctly. Reports on your calling patterns — including the use of account codes for limited access facilities — will give you information to address these issues.

PARTNER Reporter can help you answer these and similar questions. Doing so is not difficult; the next few pages introduce some concepts concerning telecommunications management and briefly describe how the system works. We recommend that you become familiar with these topics to derive the most benefit from PARTNER Reporter.

## The Basics

Telephone management refers to the procedure of collecting call records from your telephone system, processing them, and then producing meaningful reports. Here is how it works:

**1** As you complete a phone call, your telephone system prepares a call record which is collected by PARTNER Reporter.

**2** The call record is processed according to the various databases as defined by the system manager and then it is stored on the hard disk.

**3** At report time, call records are sorted by user's criteria and then printed.
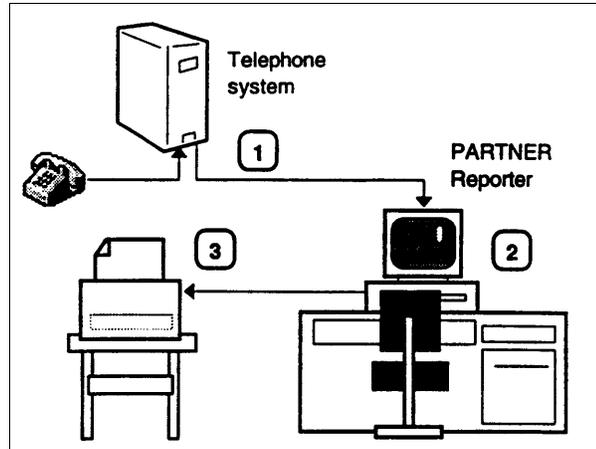


## What Is a Call Record?

At the completion of every incoming or outgoing call, your telephone system can create an electronic record of its occurrence and output it to its SMDR (for "Station Message Detail Recording") port.

This record "details" information such as date, time and duration of the call, talk-time, digits dialed (may include account code if used), and the extension and line used. In the case of incoming calls, the calling number may appear if it is a line with Caller ID service and the originating telephone company provided this information.

PARTNER Reporter links each field in the call record to functions which sort the call, process it, adjust running sub-totals ("summary buckets"), and finally stores or discards it.

The figure below illustrates a breakdown of the information in an outgoing (Dir. = C) and two incoming (Dir. = I) call records:
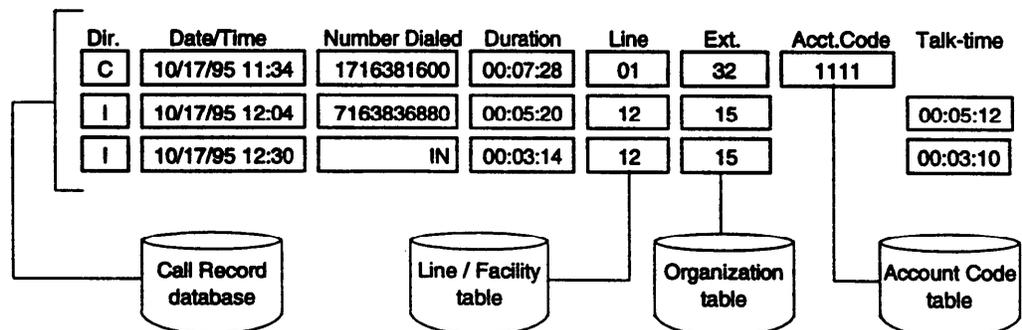
## How PARTNER Reporter Works for You

The following list highlights major features in the PARTNER Reporter system:

**Call Collection**  PARTNER Reporter collects call records from a telephone system...

- directly from the telephone system SMDR port

- by file transfer (another application collects SMDR and then provides the file to PARTNER Reporter)

- from a Pollable Storage Unit (PSU). The PSU itself connects to the telephone system; a direct line or a modem connects the PSU to the PARTNER Reporter.

**Call Processing**  Call record details are processed and stored on the PC hard drive, under the current accounting period database. If the following features are enabled, they are executed automatically prior to storing a call:

- Immediate printouts of certain calls (for example, calls with Caller ID information that were abandoned by the caller)

- Dialed number privacy (all or part of the phone numbers called by selected extensions are masked — for example, for executive on a private line)

**Reports**  The system provides an extensive library of reports suitable for tele-communications facilities management. Reports can be scheduled to run automatically at user-defined intervals or generated on demand:

- Organization Reports
- Account Code Reports
- Selection Reports
- Traffic Reports

**Archives**  Data from the last accounting period is kept as an "archive." This may be backed up to floppy diskettes for safe-keeping and, if needed, restored to the PC to print reports from that period.

**Remote Access**  Optionally, PARTNER Reporter users can install Remote Access software and a modem to receive remote assistance from the hotline.

**Multi-site Network**  PARTNER Reporter can also work in a network configuration. One site — the Central Site — serves as the processing center, receiving SMDR from multiple sites for inclusion in reports. Each site collects SMDR from its own telephone system via PC file transfer, PSU, or another PARTNER Reporter. The Central Site then privately arranges for the PC file to be sent or uses PARTNER Reporter to schedule "polls" from a PSU or a PARTNER Reporter at the remote site.
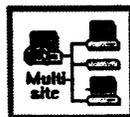
Information specific to multi-site networks is indicated by the icon in the margin of the text.

# The Workplace

PARTNER Reporter works with all basic elements in Windows — icons, menus, and dialog boxes. Setup automatically creates the main menu and icons for various tasks.

## Menus and Dialog Boxes

The main menu displays the titles of pull-down menus. All operations are initiated here, through a system of sub-menus like the one shown below.
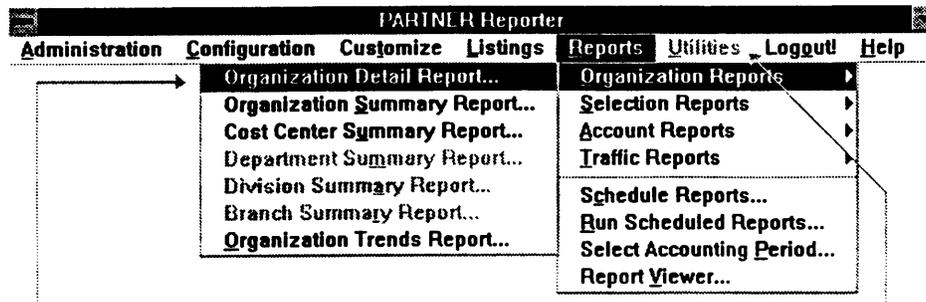


An ellipsis (...) next to an option leads to a dialog box — for example:

A triangle ( ▶ ) leads to a "cascading" sub-menu.

Dimmed options are not accessible to you.
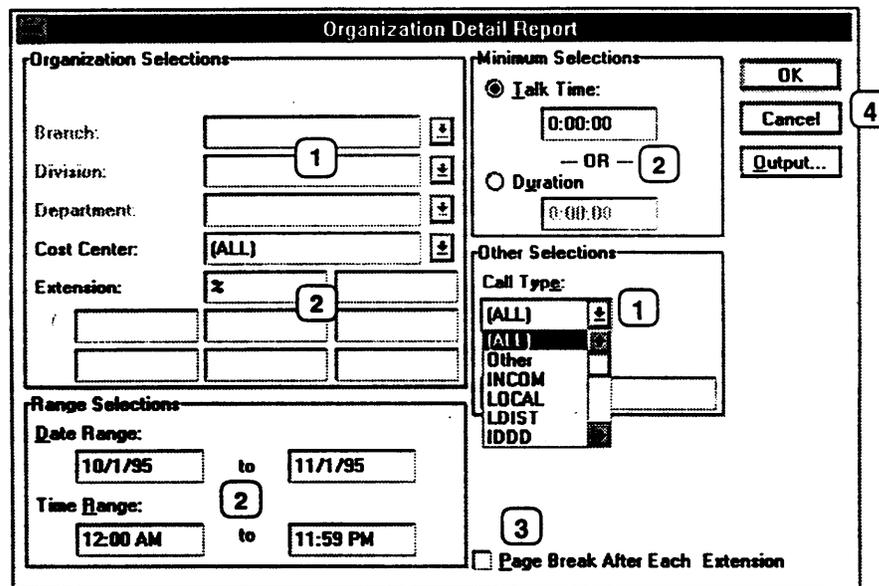


Dialog boxes are used to provide instructions to complete task. To do so, you provide all requested information in the list boxes 1 , text boxes 2 , or check boxes 3 and then use a command button 4 to carry out the operation.

You may work with a mouse and keyboard. This document shows examples using the mouse.

| Quick Reference* | Using the mouse | Using the keyboard |
|---|---|---|
| Open a menu or dialog box | Click on the option's name. | Press **Alt** and do either (1) or (2):<br><br>(1) move to the option's name with the arrow keys and press **Enter.**<br><br>(2) type the underlined letter in the name — for example, type **R** for **Reports.** |
| Close a menu | Click elsewhere. | Press **Esc** (this also closes a dialog box). |
| Move to or select a box or a button in a dialog box | Click on the item of interest. | Move with **Tab** (forward) or **Shift+Tab** (backward) and/or press and hold **Alt** while typing the under-lined letter in the item's name — for example, type **E** for the **Edit** button. |
| Select from a list in a dialog box | Click on the arrow to open the box, then click on the item of interest. | Press the up and down arrow keys. |
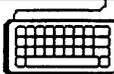
\* See your Windows manuals for further details on these elements.

## On-line Help

Help is available in one of two ways:

(1) From the main menu, select **Help,** then **Index** to open the main Help Contents for PARTNER Reporter:



Like any Windows "help," you click on specially marked topics to "jump" to that topic.

To learn how to use Help, press **F1** or select **Help** from the Windows Help menu.
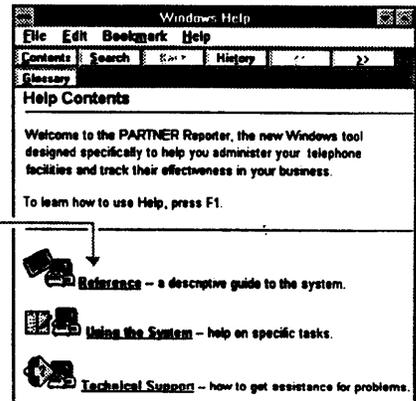
(2) From a dialog box, press the **F1** key for specific instructions to complete it:



Again, you click on specially marked topics, to "jump" to...

     (a) an explanation of the term
     (b) or to a related topic
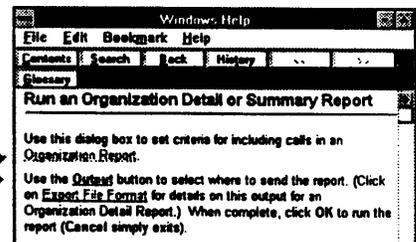
## PARTNER Reporter Icons

After installing PARTNER Reporter, you will see icons on your Windows' Desktop. The following icons are used to open or use a feature:

PARTNER Reporter. Icon to reopen the main menu after it has been reduced.

Immediate Output. Icon to open the Immediate Output file. This function is also accessible as an option under the Listings menu.

Message Log. Normal or message alert icons to open the Message Log file. This function is also accessible under the Listings menu.

Report Viewer. Icon to reopen a report "window" after it had been reduced. This function is accessible as an option under the Reports menu.

The following icons represent system tasks. They have been designed for access by service personnel:

Protocol. Icon for the task that manages call record transmissions from a site. Opens a diagnostic window to monitor actual transmissions.

Format. Icon for the task that interprets call records as they are sent from a site's telephone system. Opens a diagnostic window to monitor that task.

Call Collection Scheduler. Icon for the task that manages the timetable for call record collection in the background. Not accessible by users.

## Starting and Ending a Work Session

Once the system manager has configured PARTNER Reporter for "users," a work session should start by "logging in" and end by "logging out." This preserves system security, in that only those allowed to run reports or delete or change data can do so.

1.  To start a session, select the **"Login!"** entry from the "startup" menu:
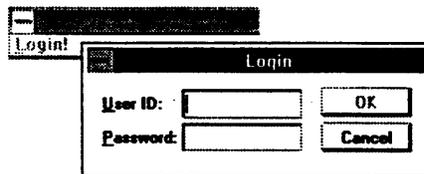
    a.  Type your *User ID,* tab to the next entry and type your *Password* (asterisks mask your entries), then click **OK.**

    b.  When the full PARTNER Reporter menu appears, open the function desired.

2.  To end a session when your work is done, select **"Logout!"** from the main menu:

    | PARTNER Reporter | | | | | | | |
    |---|---|---|---|---|---|---|---|
    | **Administration** | **Configuration** | **Customize** | **Listings** | **Reports** | **Utilities** | **Logout!** | **Help** |

    The full PARTNER Reporter menu is replaced by the "startup" menu.

# Installation

# 2

This chapter will help you install PARTNER Reporter and verify call processing. It includes a summary of custom setup procedures, with references to the appropriate detailed explanations in this manual.

The chapter is organized into installation tasks, as follows:

■ *Checking the Equipment.* This involves taking an inventory of the requirements for a successful installation. We have formatted this section as an "installation log" so you can check off items and jot down important system information.

■ *Gathering Information.* This involves completing the worksheets used to collect information required at installation.

■ *Installing the Software.* This involves loading the software package and setting up PARTNER Reporter with worksheet information.

■ *Establishing the SMDR Interface.* This involves checking SMDR programming at the telephone system and connecting it to the PC.

■ *Verifying Call Processing.* This involves checking that calls are received and processed correctly.

■ *Completing a Minimal Setup.* This involves finalizing the setup of any incomplete databases and starting call processing.

■ *What's Next.* This involves reviewing a list of PARTNER Reporter features you may wish to implement at this time.

Examples show Windows 3.1 / Windows for Workgroups 3.11 dialog boxes.

# Checking the Equipment

Verify that the following equipment is in place and properly set up, as documented in its installation manuals (see the *Required Configuration* table for equipment specifications).



| **Required Configuration** | **Single-site** | **Multi-site** |
|---|---|---|
| **Processor** | 486 class / 25 MHz speed<br>8 Mb RAM | 486 class / 66 MHz speed<br>8 Mb RAM |
| **Storage** [1] | 5 Mb for the application software<br>80 Mb for data (25,000 call records) | 5 Mb for the application software<br>200 Mb for data (62,500 call records) |
| **Serial Ports** [2] **and Modems**<br><br>See *Serial Port Pinouts* and *Modems* in appendix C. | A COM port available[3] for SMDR input at all times<br><br><br>An additional COM port available[3] during Remote Access<br>A 9600-baud (or faster) modem for Remote Access[4] | A COM port available[3] for SMDR input at all times<br>A 1200-baud (or faster) modem for SMDR input<br>An additional COM port available[3] during Remote Access<br>A 9600-baud (or faster) modem for Remote Access[4] |
| **Devices** | Bus, PS/2, or serial mouse (a serial mouse may cause IRQ conflicts. See Appendix E for information on IRQ conflicts and solutions), VGA color monitor, parallel printer (must support graphics and 10-17 characters/inch) | |
| **Software** | Windows 3.1 or Windows for Workgroups 3.11 or Windows 95 (if PC is on a LAN, PARTNER Reporter will require special installation.) | |

[1]   Not including Operating System storage requirements.

[2]   Serial ports must meet RS232 communications standards. If additional ports are needed, you may use Equinox MARK-IV boards with Cherry Hill Software HiCom/9 driver and a modem on each additional port. For information, contact Equinox Systems, Inc. (305 746-9000) and Cherry Hill Software (609 983-1414).

[3]   "Available" means that no other PC device is using the IRQ used by that COM port and no other PC application uses the COM port. See Appendix E for detailed information on PC serial port conflicts and solutions.

[4]   If Remote Access is not used, support may require an extra charge.

1. Enter the appropriate information in the verification checklist below:

☐ A personal computer (PC) with the recommended class, speed, RAM, and storage configuration for your expected traffic and two available serial ports.

Make/model: _____

Class/speed: _____ RAM: _____ Mb   Hard Disk: _____ Mb

☐ Keyboard and mouse (indicate mouse type: bus, serial, or PS/2): _____

☐ Graphics monitor (type): _____

☐ (Check one) Windows 3.1 __, Windows for Workgroups 3.11 ___, or Windows 95___, with a default configuration. DO NOT USE DISK COMPRESSION.

☐ Parallel printer and driver, setup using Printers from Windows Control Panel on (check one)
LPT1 ___ or LPT2 ___ . Printer name: _____

☐ Serial port for SMDR input: COM__

☐ 9600-baud modem for Remote Access (for more details, see Appendix C), installed on
serial port COM___.   Phone Number: _____

☐ PARTNER II Communications System (Release 4.1 or later) with programming options as described in *Establishing the SMDR Interface* later in this chapter.
(check all
that apply)   ASA ___ or DXD___        SMDR___        Hybrid __ or Key___ Mode

☐ Incoming lines with Caller ID (ICLID = Individual Calling Line Identification)
We recommend purchasing this service for all incoming lines as it is useful in identifying the location from which calls are arriving. PARTNER Reporter supports ICLID, useful in measuring customer response to advertising and promotions, facilitating customer callbacks, etc.

2. Verify the contents of your PARTNER Reporter package:

☑ This book

☐ Remote Access software (Carbon Copy Host - 4 diskettes)

☐ PARTNER Reporter software (6 diskettes):

   — Setup Disk
   — Program Disks 1 and 2
   — Configuration Disk
   — Call Collection Disks 1 and 2

☐ D8W modular cord

☐ 355 A/F adapter (modular-to-DB25 female)

☐ DB25-to-DB9 adapter (25-pin to 9-pin)

# Gathering Information

This task involves collecting information about your company and its telephone services and equipment. To do so, you should meet with your information contacts — PARTNER service representative, System Consultant, your own personnel department, and so forth — and complete the worksheets provided in Appendix A.

These worksheets contain the same information as in the dialog boxes used for data entry at installation. Make as many copies of the worksheets as necessary.

- ☐ System-wide Parameters
- ☐ Call Collection Interface
- ☐ Call Collection - Polling Schedule (if used)
- ☐ Telephone Lines and Facilities
- ☐ Organization Table

# Installing the Software

This task involves loading the software package and setting up PARTNER Reporter with information from the worksheets. Setup may be performed in one of two ways:

(1) a complete setup that leaves the system ready to start normal operations or...

(2) a minimal setup that allows verifying call collection. Normal operations require further administration by the user (to complete entering worksheet information before starting call processing).

**Skip in a minimal setup**

This section will document a complete setup, with an indicator in the margin (like the one on the right) to skip this part of the procedure when performing a minimal setup.

## Loading Remote Access Software

**Skip in a minimal setup**

1. Connect the Remote Access Modem if you had not done so before:

   a. Select a serial port on the PC and connect the modem to it.

   b. Plug the modem's phone cord into the telephone outlet for this line and turn the modem ON. (You may use the modem's default settings.)

2. Close any open Windows application, then close the Program Manager. Confirm ending this Windows session.

3. Retrieve the Carbon Copy diskettes from the software package. Insert the *Carbon Copy Setup* diskette in a disk drive. Then at the DOS prompt, enter the drive letter followed by `":\setup"` (for example, `"a:\setup"` for the A drive).

4. Follow the screen instructions to:

   a. Register your name (required) and your company.

   b. Skip viewing the README.TXT with the **No** button.

   c. Accept the default directory **(c:\microcom)** for installation.

   d. Accept the default installation options **(Carbon Copy Host).**

5. Screen instructions will prompt you to install *Disk #2* and *Disk #3. (Disk #4* is not used with the above options.)

   ⇒ As configuration checks are carried out, you may be prompted to replace existing drivers and/or older Carbon Copy files. Choose **Yes** to replace them.

6. The Modem Wizard dialog box appears.

   a. To have it detect and configure your modem, select **Yes,** then **OK.** Follow instructions when other verification dialog boxes appear, then proceed to step 7.

   b. To configure your modem manually, select **No** and proceed as follows:

      i. When the Communications dialog box appears, select **Serial Port** then the **Setup** button.

      ii. When the Serial Port Setup dialog box appears, select the Port, Modem, and Speed used (see Appendix C for modem specifications). If your modem is not listed, select **AT Compatible.**
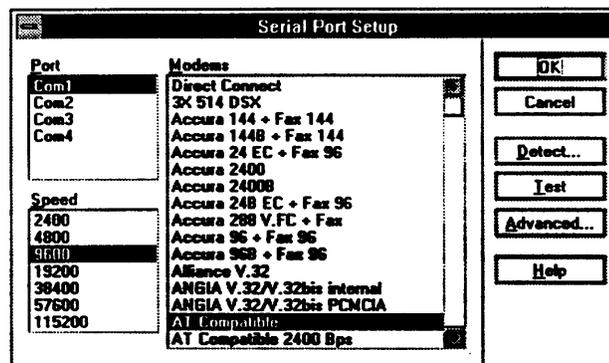


      iii. Select **Test** to check the connection. (If it fails, verify port settings and repeat.)

      iv. Select **OK** to continue.

7. Select **No** if prompted to convert password tables or modify the autoexec.bat file. Select **Yes** to save suggested changes in an autoexec.ccw file.

8. When the Setup program concludes, it informs you that Windows will restart. Select **OK** to acknowledge the message.

When Windows re-starts, notice the newly-created Carbon Copy group:
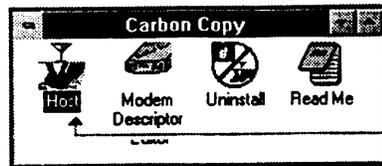


From here you start the Host program
to enable Remote Access.

This completes the Remote Access setup. Proceed to *Loading PARTNER Reporter
Software.*

⇒  If you make changes in your PC configuration — such as installing a new video board,
mouse, or sound driver — that require running the Windows Setup program again, or if
you manually change these entries in the `system.ini` file, you must also run the Carbon
Copy Setup program again, for Carbon Copy to recognize the new drivers.

## Loading PARTNER Reporter Software

1. Retrieve the PARTNER Reporter software diskettes from the software package and
   insert the *Setup* diskette in any disk drive.

2. Select **Run** from the Program Manager **File** menu; at the command line, enter the
   drive letter followed by **":setup"** (for example, **a:setup** for the A drive).

3. When a dialog box similar to the one below appears, select **OK.** (Follow screen
   instructions if you wish to use a different directory.)
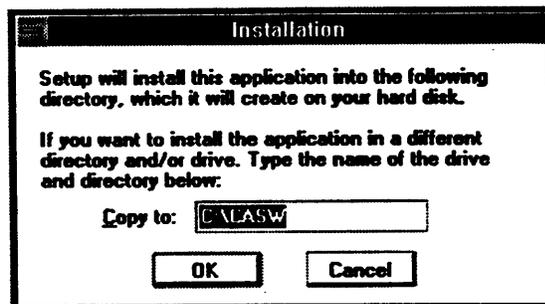


4. As the installation progresses, follow the screen prompts to load the *Program 1,
   Program 2,* and *Configuration* diskettes into the named drive.

5. When a dialog box similar to the one at the top of the next page appears, select **OK**
   (follow screen instructions if the start-up drive is other than **"c:").**

```
┌──────────────────────────────────────────────┐
│ ▬  █████████ Installation █████████           │
├──────────────────────────────────────────────┤
│ The Autoexec.bat and Config.sys files need to be │
│ updated.  Please enter the start up drive for this │
│ machine:                                       │
│                                                │
│         Drive:  ▐C▌ ............................ │
│         ┌──────────┐      ┌──────────┐         │
│         │    OK    │      │  Cancel  │         │
│         └──────────┘      └──────────┘         │
└──────────────────────────────────────────────┘
```
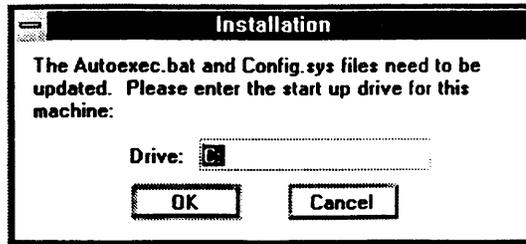
6.  When a dialog box similar to the one below appears, remove the last diskette from the drive, then select **Yes.**

```
┌──────────────────────────────────────────────┐
│ ▨  ████████ Installation ████████             │
├──────────────────────────────────────────────┤
│        Setup has successfully installed the software. │
│   ◯    This machine needs to be restarted for the │
│        changes to take effect.                 │
│                                                │
│        Restart machine now?                    │
│        ┌──────────┐      ┌──────────┐          │
│        │   Yes    │      │    No    │          │
│        └──────────┘      └──────────┘          │
└──────────────────────────────────────────────┘
```
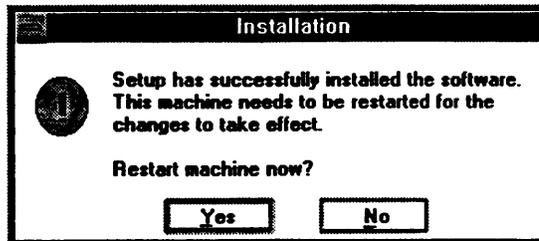
After the PC reboots, proceed to *Setting Up PARTNER Reporter.*

## Setting Up PARTNER Reporter

After Windows re-starts, the AT&T logo appears on the screen followed by the PARTNER Reporter setup dialog box:

```
┌──────────────────────────────────────┐
│ ▨   ██████ PARTNER Reporter ██████    │
├──────────────────────────────────────┤
│ ☐ Organization Level Names  ┌────────┐│
│ ☐ Set Accounting Period (Required) │ Close ││
│                             └────────┘│
│ ☐ Call Collection Interface (Required) │
│                             ┌────────┐│
│ ☐ Trunk (Required)          │ Cancel ││
│                             └────────┘│
│ ☐ Organization                        │
└──────────────────────────────────────┘
```
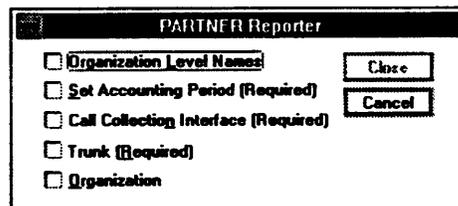
In this procedure, when you select [x] an item from the setup display, the item's dialog box appears.

When you close the item's dialog box, the setup display reappears so that you may continue to the next item.

1.  Select [x] **Organization Level Names.**

```
┌──────────────────────────────────────────────┐
│ ▨  ████████ Organization Levels ████████      │
├──────────────────────────────────────────────┤
│ Company Name:  [Company Name          ]  ┌────┐│
│                                          │ OK ││
│ Number of Levels:  [2 ▲▼]                └────┘│
│                                          ┌──────┐│
│                                          │Cancel││
│                                          └──────┘│
│         ┌─Level Names──────────────────┐       │
│         │  Level-1:  [Extension      ] │       │
│         │                              │       │
│         │  Level-2:  [Cost Center    ] │       │
│         │                              │       │
│         │  Level-3:  [Department      ]│       │
│         │                              │       │
│         │  Level-4:  [Division        ]│       │
│         │                              │       │
│         │  Level-5:  [Branch          ]│       │
│         └──────────────────────────────┘       │
└──────────────────────────────────────────────┘
```
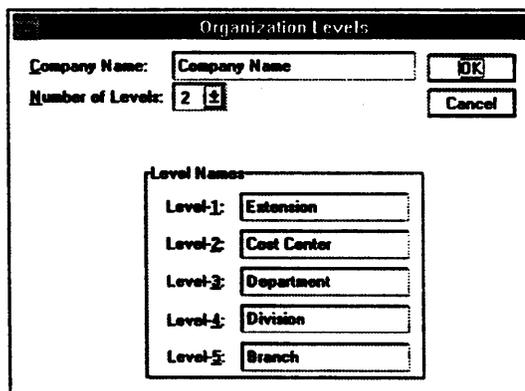
**Skip in a minimal setup**

a.  Enter your company name and make any required changes from PART I of the SYSTEM-WIDE PARAMETERS worksheet.

b.  When complete, select **OK** to continue.

➡ Changes to any of the level names on this screen changes all screen banners and labels on all corresponding screens (see step 5). If you are using PARTNER Reporter for calling groups only, you may want to change Cost Center to Calling Group.

2. Select [x] **Set Accounting Period.**
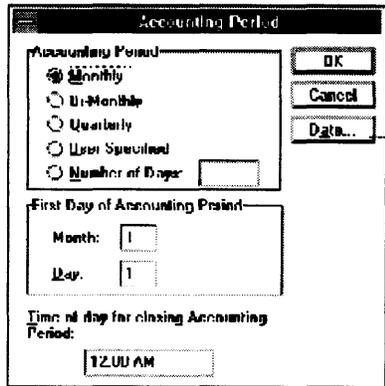


In a minimal setup, select **OK** and proceed to step 3.

**Skip in a minimal setup**

a. Make any required changes from PART II of the SYSTEM-WIDE PARAMETERS worksheet.

b. Select **OK** to continue.

3. Select [x] **Call Collection Interface.**
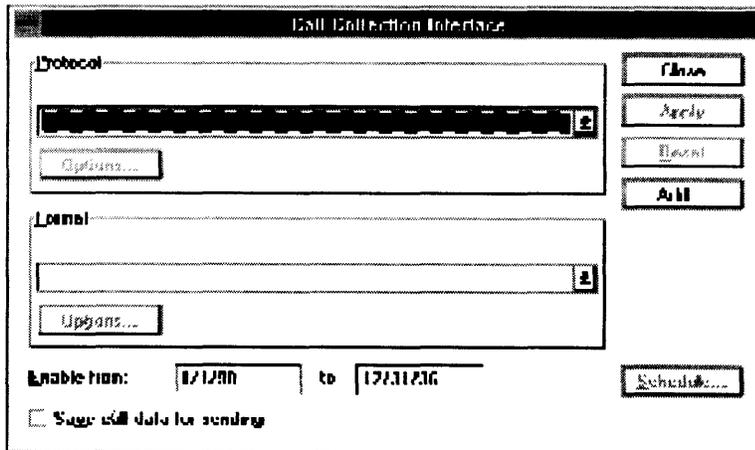


a. Load the *Call Collection* diskettes, one at a time:

   i.   Use **Add** then select **Yes** to continue.

   ii.  Load Disk 1 and select **OK.**

   iii. Repeat i and ii above with Disk 2.



b. Back at the Call Collection Interface dialog box, click on the down arrow of the selection box to select the *protocol* (as identified in the CALL COLLECTION INTERFACE worksheet) and do the same for the *format* (the PARTNER entry).

c. Select the **Options** button in the Protocol group to set transmission details. When a dialog box similar to one of the samples shown on the next page appears, enter the appropriate values from the CALL COLLECTION INTERFACE worksheet.

■ If you selected Direct Connect, a dialog box similar to this one appears.

    When complete, select **OK** and proceed to step 3e.



Protocol Options

Protocol: Direct Connect 1.0

Port Name: [COM1] ▲    Baud Rate: [1200] ▲

Data bits — Parity — Stop bits — Flow Control
○ 4    ○ Even    ○ 1    [X] Xon / Xoff
○ 5    ○ Odd           □ DTR
○ 6    ◉ None    ◉ 2    □ RTS
○ 7    ○ Mark
◉ 8    ○ Space

[ OK ]  [ Cancel ]
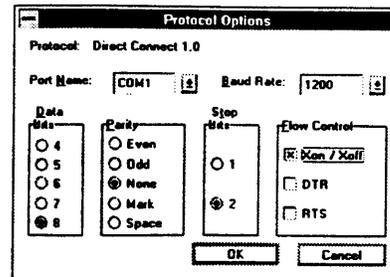
■ If you selected Collect from File, a dialog box similar to this one appears.

    When complete, select **OK** and proceed to step 3e.



Protocol Options

Protocol: Collect from File 1.0

Collection File Name: [ \LAB\W\tmp\s001.smf ]
Polling Interval: [60] Seconds

[ OK ]  [ Cancel ]
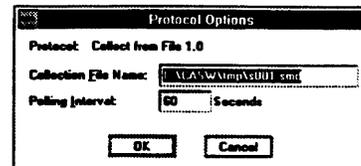
■ If you selected PollComm, a dialog box similar to this one appears.

    When complete, select **OK** and proceed to step 3d.



Protocol Options

Protocol: PollComm

Port Name: [COM1] ▲        Baud Rate: [9600] ▲

Remote System                    Local System
Phone Number: [T,9301500]        Phone Number: [        ]
User ID: [UserId]                User ID: [        ]
Password: [UserPwd]              Password: [        ]
UCT Difference: [5:00]           UCT Difference: [0:00]

□ Direct Connection              [ OK ]  [ Cancel ]
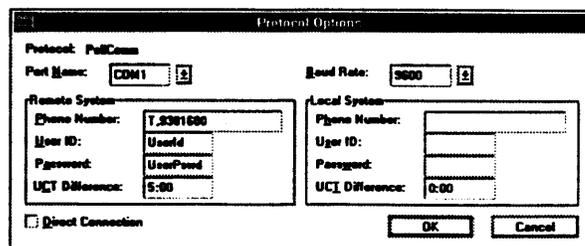
d. If you selected PollComm protocol:

    i. Use the **Schedule** button in the Call Collection Interface dialog box to add the polling schedule.

    ii. Use **Add** and complete the resulting dialog box with values from the CALL COLLECTION - POLLING SCHEDULE worksheet.

    iii. When complete, select **OK.**



Polling Schedule Add

Protocol: PollComm

Days                        Times
◉ Weekday                   Start: [12:00 AM]
○ Weekend                   End: [11:59 PM]

Cycle
○ Single
◉ Periodic                  [ OK ]
  Interval [1:00]           [ Cancel ]
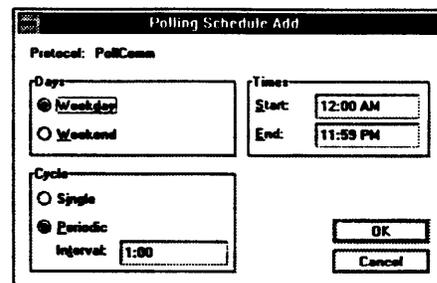
e. Back on the Call Collection Interface dialog box, select **Apply** and then **Yes** to restart Call Collection Interface tasks. Use **Close** to continue the setup.

4. Select [x] **Trunk.**

    In a minimal setup, select **Close** and proceed directly to step 6.



Line

Line:
[ ???????? ]
[ ???????? ]

[ Close ]
[ Add ]
[ Delete ]
[ Edit ]
[ Apply ]
[ Reset ]

Facility:
[ Default ] ▲    [ Facilities... ]

□ Delete at End of Accounting period
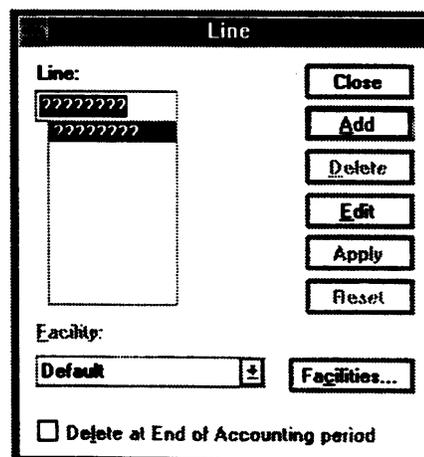
a. Use the **Facilities** button, then **Add** to enter one at a time, every *facility name, grade of service,* and *number of lines* from the LINES & FACILITIES worksheet (after each entry, select **Apply).**

**Facilities**

Facility:
Default
Default

Outgoing Carrier Service:
Default Outgoing

Incoming Carrier Service:
Default Incoming

Target Grade of Service: 2.0

Number of Lines: 1

☐ Delete at end of Accounting Period

Close
Add
Edit
Apply
Reset

b. When complete, use **Close.**

c. Back at the Line dialog box:

**Line**

Line:
????????
????????

Facility:
Default    Facilities...

☐ Delete at End of Accounting period

Close
Add
Delete
Edit
Apply
Reset

i. Use **Add** to enter lines from the LINES & FACILITIES worksheet and associate them with the appropriate facility.

ii. After each addition, select **Apply.**

iii. When complete, select **Close** to continue.

5. Select [x] **Organization**

⇒ This procedure uses default Organization Level Names. If you changed these in step 1, your system will display the appropriate names.

a. If you completed personnel information in your ORGANIZATION WORKSHEETS - Levels 1 and 2, select the **Personnel** button and proceed to step 5b; otherwise, proceed to step 5c.

**Extension**

Extension:
??????????
??????????

Authorization Code:

Privacy
Masked Digits for Reports: [NONE]
Masked Digits for Storage: [NONE]
☐ Immediate Output
☐ Delete at End of Accounting Period

Personnel Name:
??????????

Cost Center
Default    Cost Center...

Close
Add
Delete
Edit
Apply
Reset
Personnel...

b. Select **Add.**

    i.  One at a time, enter all personnel names from the ORGANIZATION WORK-SHEET - Levels 1 and 2. After each entry, use **Apply.**

    ii.  When complete, use **Close**



c. Back at the Extension dialog box, use the **Cost Center** button and proceed to step 5d.



d. If your Organization contains only two levels, proceed directly to step 5e; for Organizations with higher levels, we recommend working from the top down to enter your ORGANIZATION WORKSHEET - Levels 2 and Higher.

    i.  Move to the very top level — use the **Department** button in the Cost Center dialog box, then the next level button if it exists, and so on.

    ii.  Complete this level: one at a time, add entries from the worksheet (use **Apply** after each); when complete, select **Close** to move one level down.

    iii.  If this is the Cost Center level, proceed to step 5e; otherwise, add this level entries from the worksheet, making the appropriate association with its "parent" level. When complete, select **Close.**

    iv.  Repeat the above step until you reach the Cost Center level.

e. At the Cost Center level:

    i.  Use **Add** to enter all cost centers from the worksheet and asso-ciate each with its "parent" level (if it exists). After each addition, use **Apply.**

    ii.  When complete, use **Close.**

f. Back at the first level:

   i. Select **Add** to enter extension information from the worksheet, including associations with the Personnel and Cost Center database already in existence. After each addition, use **Apply.**

   ii. When complete, use **Close.**



6. When the PARTNER Reporter setup dialog box reappears, use the **Close** button.

   The PARTNER Reporter main menu and system icons appear on the screen. Proceed to *Establishing the SMDR Interface.*

## Establishing the SMDR Interface

Establishing the SMDR Interface between PARTNER Reporter and the telephone system includes:

■ Programming the telephone system to best utilize PARTNER Reporter features.

■ Connecting the telephone system to the PC that is running PARTNER Reporter

Telephone system features can be combined in various ways, depending on your business needs, to interact with PARTNER Reporter. The following procedure provides an example for an incoming call center application. See your sales or service representative for help with this or any other arrangement. Consult your PARTNER system *Programming and Use* guide for information about features and programming.

To establish the interface between PARTNER Reporter and the telephone system, follow these steps:

1. Set up your telephone system to use PARTNER Reporter's features — for example:

   a. Hybrid Mode

      i. Have AT&T Authorized Personnel modify the processor module for Hybrid Mode so you can use pools.
      ii. Use Pool Line Assignment (#207) to assign all incoming lines to pool 881.
      iii. Use Pool Extension Assignment (#314) to remove pool 880 from *and* to assign pool 881 to the extensions of all call center personnel.
      iv. Use Line Assignment (#301) to assign desired outgoing lines to the extensions of all call center personnel.
      v. Set Line Ringing for pool 881 at the extensions of all call center personnel to Immediate Ring so all incoming calls begin to ring immediately.

b. Automatic System Answer (ASA)

    i. Use Automatic System Answer Record/Playback to record the message that callers hear when ASA answers their calls.

    ii. Leave Automatic System Answer Delay (#110) at the default setting (calls ring 2 times before they are answered by ASA).

    iii. Use Automatic System Answer Button (#111) to program an ASA button at extension 10. Use this button to turn ASA on and off.

    iv. Set Automatic System Answer Mode (#121) to Ring so calls continue to ring at the extensions of all call center personnel after the ASA message plays.

    v. Use Automatic System Answer Lines (#204) to assign ASA on all incoming lines.

c. Station Message Detail Recording (SMDR)

    i. Leave SMDR Record Type (#608) at the default (include all calls on report).

    ii. Leave SMDR Output Format (#610) at the default (print 15 digits for dialed numbers on the call report).

    iii. Set SMDR Talk Time (#611) to Active (the Talk field will appear on call reports with data for all incoming calls).

d. Music on Hold

    i. Connect a music-on-hold audio source to the MUSIC ON HOLD jack on the primary processor module.

    ii. Set Music on Hold (#602) to Active so callers hear music after the ASA message plays.

2. If this installation uses a PSU to collect calls from the telephone system, see Chapter 7 to install the PSU and connect it to telephone system, and then to set the interface between the PSU and the PC that is running PARTNER Reporter.

To connect the telephone system directly to the PC that is running PARTNER Reporter, proceed as follows:

a. Plug one end of the D8W modular cord (provided in the PARTNER Reporter package) into the SMDR jack in the primary processor module.

b. Depending on the PC port designated for SMDR input, plug the other end of the D8W cord into:

    ■ (RJ45 port) the PC port.

    ■ (25-pin port) the 355 A/F adapter (also provided in the PARTNER Reporter package), then connect the adapter to the PC port.

    ■ (9-pin port) the 355 A/F adapter, then connect the 355 A/F to the DB25-to-DB9 adapter and this adapter to the PC port (both 355 A/F and DB25-to-DB9 adapters are provided in the PARTNER Reporter package).

Proceed to *Verifying Call Processing.*

## Verifying Call Processing

1. Place one or more calls and wait one minute.

2. a. For a direct connection, proceed directly to step 3.

   b. For SMDR collected from a file or polled from a PSU, you must either wait for the poll or return to the Call Collection Interface and manipulate the polling schedule or interval to expedite a poll.

3. Open **Call Processing Status** from the **Utility** menu:
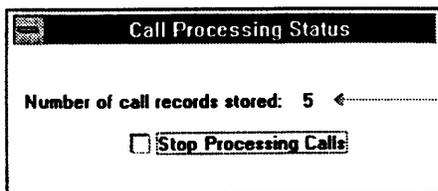
   ```
   ┌─────────────────────────────────────┐
   │ ▤     Call Processing Status        │
   │                                     │
   │                                     │
   │ Number of call records stored:  5  ◄┄┄┄┄┄┄┄┄┄┄┄┄
   │         ☐ Stop Processing Calls     │
   │                                     │
   └─────────────────────────────────────┘
   ```
   You should see this number increase as calls are processed and stored.

   ➡ If calls do not appear in the status window and yet you had followed the Call Collection Interface and PARTNER system setup procedures, call for support as instructed on the inside cover.

4. a. If you performed a minimal setup, stop processing calls by selecting the check box in the **Call Processing Status** dialog box.
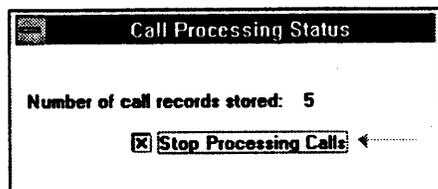
   ```
   ┌─────────────────────────────────────┐
   │ ▤     Call Processing Status        │
   │                                     │
   │                                     │
   │ Number of call records stored:   5  │
   │         ☒ Stop Processing Calls  ◄┄┄┄┄┄
   │                                     │
   └─────────────────────────────────────┘
   ```
   Future calls will be stored in a temporary buffer until you return to this function and de-select the checkbox.

   The installation will be complete when the setup of any incomplete databases is finalized and call processing starts. At a time when you are ready to do so, proceed to *Completing a Minimal Setup.*

   b. If you performed a complete setup, *Congratulations!* PARTNER Reporter is installed and collecting calls. You may wish to review *What's Next,* at the end of this chapter.

5. You may leave the **Call Processing Status** dialog box in the background or you may close it.

## Completing a Minimal Setup

This last task involves finalizing the setup of any incomplete databases and re-starting call processing.

1. Collect the completed worksheets and enter their information in this order:

   a. SYSTEM-WIDE PARAMETERS — use **Organization Levels** under the **Customize** menu and **Accounting Period** under the **Configuration** menu. Follow steps 1 and 2 of *Setting Up PARTNER Reporter* in this chapter.

   b. TELEPHONE LINES AND FACILITIES — use **Line** under the **Configuration** menu. Follow step 4 of *Setting Up PARTNER Reporter* in this chapter.

   c. ORGANIZATION TABLE — use **Organization** under the **Administration** menu. Follow step 5 of *Setting Up PARTNER Reporter* in this chapter.

2. Activate the **Call Processing Status** window from the background (or select it from the **Utilities** menu) and de-select the Stop Processing Calls check box.
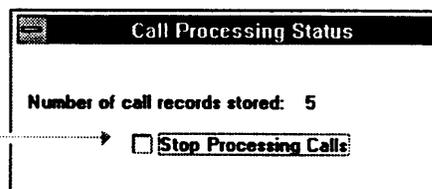


PARTNER Reporter is now completely installed and collecting calls. You may wish to review *What's Next,* at the end of this chapter.

## What's Next

Below is a list of PARTNER Reporter features you may wish to implement at this time:

■ Account Codes — if you use dialed codes in your telephone transactions, you can create a table of account numbers and names to track the telephone load due to customer or client accounts, projects, etc. See *Account Codes* in Chapter 3 and *Account Code Reports* in Chapter 4.

■ Alert Numbers — you can identify telephone number patterns so that a call to any of them will be logged as soon as it completes. If you enable an "immediate Output Printer," the call details will also print. See *Alert / Alarm Numbers* and *Immediate Output to Printer* in Chapter 3.

■ Call Types — you can enhance the default Call Type table with new "call types" based on the dialed number pattern or you can set and/or change a storage filter to reject calls below a specified minimum duration. See *Call Types* in Chapter 3.

■ Immediate Output — you can log all incoming calls, abandoned calls (with Caller ID information), and/or very long calls as soon as they complete. As in Alert Numbers, if you enable an "Immediate Output Printer," the call details will also print. See *Immediate Output* and *Immediate Output to Printer* in Chapter 3.

- Location Table — you can create a table of telephone number locations to enhance your detail reports with a "location name" and to report the distribution of your incoming calls with Caller ID. See *Location Table* in Chapter 3.

- Report Schedules — you can schedule up to 25 groups of reports to print automatically, including a group to run as soon as the accounting period ends. See *Scheduling Reports* in Chapter 4.

If you are part of a multi-site PARTNER Reporter network either as a "polled site" or as the "Central Site," see Chapter 6, *PARTNER Reporter at a Polled Site,* or Chapter 8, *Central Site of a Multi-site Network,* in PART II of this manual.

# System Management

# 3

This chapter describes the functions under the Administration, Configuration, and Customize menus. It is organized into the following sections:

- *Your Daily, Weekly, and Monthly Tasks* — provides a suggested maintenance schedule of PARTNER Reporter functions.

- *Administration* — describes the functions in this menu, under the following topics:

    — Organization table
    — Immediate output
    — Alert / Alarm Numbers
    — Account Codes
    — Password
    — Site Selection [1]

- *Configuration* — describes the functions in this menu, under the following topics:

    — Dialed Digit Processing
    — Call Types
    — Lines and Facilities
    — Call Collection Interface
    — Call Sender Interface [2]
    — Immediate Output to Printer
    — Accounting Period
    — Users

- *Customize* — describes the functions in this menu, under the following topics:

    — Organization Levels
    — Location Table
    — Languages [3]

This chapter documents functions as if they were run in a single-site, stand-alone environment. Whenever a function or procedure requires a different approach in a multi-site network, the icon on the left appears in the margin.

Examples show Windows 3.1 / Windows for Workgroups 3.11 dialog boxes.

---

[1] *Site Selection* is documented in Chapter 8, *Central Site of a Multi-site Network.*

[2] *Call Sender Interface* is documented in Chapter 6, *PARTNER Reporter at a Polled Site.*

[3] The *Languages* function is not currently available.

## Your Daily, Weekly, and Monthly Tasks

All PARTNER Reporter functions that are required to start processing calls were set up at installation; most of them either will never change or they will be automatically maintained by the system.

The list below shows additional functions that you may wish to implement after installation, as well as those that are already setup but may require periodic maintenance.

**Create tables soon after installation...**

☑ Account Codes — to report dialed account codes

☑ Alert Numbers — to log calls to alert numbers

☑ Call Types — to report more call types than those provided by default

☑ Immediate Output — to log incoming/abandoned/lengthy calls

☑ Immediate Output Printer — to print immediate output/alert calls

☑ Locate Table — to identify location names for phone calls in reports

☑ Schedule Reports — to set up automatic printing at the end of a period [1]

**Daily Task...**

☑ Immediate Output Log — if used, check often for flagged calls

**Weekly Task...**

☑ Users / Password — secure system after installation; change your password often

**Monthly Tasks...**

☑ Account Codes — if used, update new account names before reports run

☑ Backups — backup the archive period, after closing the accounting period [2]

☑ Organization Table — update new personnel/extensions before reports run

**As needed...**

☑ Call Types — change/add to table if you wish to report different "call types"

☑ Reports — run individual reports as needed [1]

☑ Lines and Facilities — update if adding lines/facilities

---

[1] Documented in Chapter 4, *Reports and Listings.*

[2] Documented under *Backup and Restore* in Chapter 5.

# Administration

This section describes the following functions:

- *Organization Table* — describes how to set up the site-specific table of telephone extensions, their attributes, and their place in a system-wide hierarchy.

- *Immediate Output* — describes how to log incoming, abandoned, and/or lengthy calls; it also describes how to view this log.

- *Alert / Alarm Numbers* — describes how to "flag" specific dialed numbers.

- *Account Codes* — describes how to set up the system-wide table of account code numbers and names (sorted by name or by number).

- *Change Password* — describes how to change your login password.

## Organization Table

**Purpose**  To maintain the table of extensions and their attributes, including a directory of their users. This table is used by PARTNER Reporter to track extension activity for a site.

**Related Functions**

- **Organization Levels (Customize** menu) sets the organization structure. Default: level 1 = Extension, level 2 = Cost Center.

- **File Import/Export (Utilities** menu) allows data transfers of organization entries.

- **View Immediate Output (Listings** menu) and **Immediate Output Printer (Configuration** menu) provide ways to view the output for calls from extensions set for "Immediate Output."

**Dialog Box**

**Level 1- Extension**

Extension. The 2-digit identifier corresponding to the extension reported as the source of an outgoing call destination or an incoming call. Site-dependent, required.

⇒ Undefined extensions that appear in call records are added to the table automatically with default attributes.

Authorization Code. The code (up to 10 digits) reported by some telephone systems to use limited-access facilities. Not used by a PARTNER Communications System.

Privacy for reports and/or for storage. The digits to hide on numbers dialed by this extension ("None" or 1-17 digits or "All"). The right-most digits will be masked by "?"s.

Immediate Output. The option to log calls from/to this extension into the Immediate Output file and, optionally to the Immediate Output Printer (if enabled).

Delete at End of Accounting Period. The option to remove this extension from the system table when the period ends.

Personnel Name. The name of the extension user, selected from the list box (see the **Personnel** dialog box, below).

Cost Center. The name of the level-2 organization that owns this extension, selected from the list box (see the **Level 2 - Cost Center** dialog box, below).

**Personnel**



Title. Miss, Mr., or Mrs. or up to 6 characters.

First Name. Up to 26 characters.

Last Name. Up to 36 characters.

**Level 2- Cost Center**



If this level exists, select the entry that owns this cost center. You must create a new entry before you can select it.

Cost Center. The name (1 to 15 characters) of the level-2 organization that owns extensions, unique system-wide.

Delete at End of Accounting Period. The option to remove this entry AND ITS LOWER LEVELS from the system table when the period ends.

**Summary of Procedures (Organization Table)**

1. Select **Organization** from the **Administration** menu.

2. To update entries in:

   ■ the Extension level, proceed to step 3.

   ■ the Personnel levels, select **Personnel** and proceed to step 4.

   ■ the Cost Center or higher levels, select **Cost Center** and proceed to step 5.

3. For a new extension, select **Add;** otherwise, select the desired extension and use **Edit** or **Delete,** as appropriate.

   ⇛ If **Delete** is disabled, it means that this entry is in use elsewhere in the database. Use **Edit** and select [x] Delete at End of Accounting Period. The default entry "??????????" may not be deleted.

   a. For additions or edits, complete the dialog box. If you need to make an association with a Personnel or Cost Center that does not appear in the list box, you must create it first. Select its button, complete its dialog box, then return here to select it from the list box.

   b. Select **Apply (Reset** cancels changes). You may work on another extension record or use **Close** to exit.

4. For a new personnel record, select **Add;** for changes, select the desired name and then **Edit** or **Delete,** as appropriate.

   ⇛ The default "??????????" name may not be deleted; however, it may be changed to reflect its function (for example, to "Unassigned").

   When complete, select **Apply (Reset** cancels changes). You may work on another personnel entry or use **Close** to return to the first level.

5. For a new Cost Center, select **Add;** for changes, select the desired cost center and select **Edit.**

   ⇛ The "Default" entry may not be deleted; however, you may change it to another name reflecting its function (for example, "Unassigned").

   a. Complete the dialog box.

   If your system includes higher organization levels (for example, Department) and you need to make an association with an entry that does not appear in the list box, you must create it first. Select its button, complete its dialog box, then return here to select it from the list box.

   b. Select **Apply (Reset** cancels changes). You may work on another cost center record or use **Close** to return to the prior level.

## Immediate Output

**Purpose**    To log ICLID-abandoned calls (incoming calls terminated by the caller befor being answered: the record includes the originationg phone number), a incoming calls, and or lengthy outgoing calls.

Call records that meet any of the selected conditions are logged into the Immediate Output file and, optionally, printed immediately. The Immediate Output log is a "FIFO" (first-in, first-out) self-maintaining file that can hold up to 500 records.

**Related Functions**

■    **Alert Numbers (Administration** menu) is used to log calls to specific numbers.

■    **Organization - Extension (Administration** menu) is used to log calls from specific extensions.

■    **Immediate Output to Printer (Configuration** menu) is used to enable printing logged calls.

■    **View Immediate Output (Listings** menu. See related icon, below) is used to display the Immediate Output log.

**Dialog Box**

Log options — ICLID Abandoned and Incoming Calls.

Minimum Duration. Option to log outgoing calls exceeding this length (in hrs:min.:secs. default 24:00:00). For example, 00:10:00 logs calls of at least 10 minutes. 1 second.

**Summary of Procedures (Immediate Output)**

See *Site Selection* in Chapter 8

1.    Select **Immediate Output** from the **Administration** menu.

2.    Complete the dialog box.

3.    Select **OK** to accept changes and exit **(Cancel** exits without changes).

**Related Icon**

This icon has the same function as the **View Immediate Output** option in the **Listing** menu — it opens the viewer to the Immediate Output log:

For details, see *Immediate Output* in Chapter 4.

## Alert / Alarm Numbers

**Purpose**   To log calls to specified number patterns and, optionally, sound an alarm at the PC.

A call to any number matching the pattern is logged into the Immediate Output file and flagged in the TYPE column as "ALERT" (if selected to sound an alarm, the flag changes to "ALARM").

**Related Functions**

■ **Immediate Output (Administration** menu) is used to log Incoming, abandoned, and/or lengthy calls.

■ **Organization - Extension (Administration** menu) is used to log calls from specific extensions.

■ **Immediate Output to Printer (Configuration** menu) is used to enable printing logged calls.

■ **View Immediate Output (Listings** menu. See related icon, below) is used to display the Immediate Output log.

**Dialog Box**
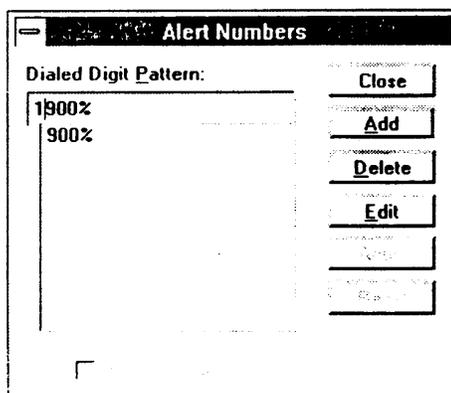


Dialed Digit Pattern. The number pattern to match. Patterns can be up to 18 digits and/or wild cards (? = single digit; % = any number of digits). For example, 900% represents any non-toll call to a 900-number.

Audible Alarm. The option to sound an alarm at the PC when a call is placed to this alert number.

**Summary of Procedures (Alert Numbers)**

 See *Site Selection* in Chapter 8.

1. Select **Alert Numbers** from the **Administration** menu.

2. For a new entry, select **Add;** for changes, select an entry and use **Delete** or **Edit.**

3. When complete, select **Apply (Reset** cancels changes) and **Close.**

**Related Icon**

 This icon has the same function as the **View Immediate Output** option in the **Listing** menu — it opens the viewer to the Immediate Output log:

This column shows the type of call logged:



For details, see *Immediate Output* in Chapter 4.

## Account Codes

**Purpose**    To administer the table of account codes reported by the telephone system.

**Related Functions**

■ **Account Code Reports** can generate printouts of calls with account codes.

■ **Call Record Edit (Utilities** menu) may be used to correct dialed errors in stored call records.

**Dialog
Box**



Account Code Number and Name. The dialed code number reported by the telephone system (unique system-wide, up to 16 digits) and the name (up to 20 characters) entered by the user as it will appear in reports.

➡ PARTNER Reporter automatically adds any new account codes that appear in call records with the account number as its name. If the table overflows with more accounts than allowed by your model size, additional codes will NOT appear in call records and an error message will be logged. See *Capacities* in Appendix C.

Delete at End of Accounting Period. Option to remove this account code from the system table when the period ends.

**Summary of Procedures (Account by Name or by Number)**

1.   Select **Account by Name** or **Account by Number** from the **Administration** menu.

2.   For a new entry, use **Add;** for changes, select the desired entry and use **Delete** or **Edit,** as appropriate.

   ➡ If **Delete** is disabled, it means that this entry is in use elsewhere in the database. Use **Edit** and select [x] Delete at End of Accounting Period.

3.   For additions or edits, complete the dialog box and use **Apply (Reset** cancels changes).

4.   You may work on another entry or use **Close** to exit.

## Password

**Purpose**     To change the current user's password. (This dialog box is disabled on systems that do not have "users.")

**Related**    **Users (Configuration** menu) identifies who can access the system and assigns
**Functions** privileges.

**Dialog**
**Box**
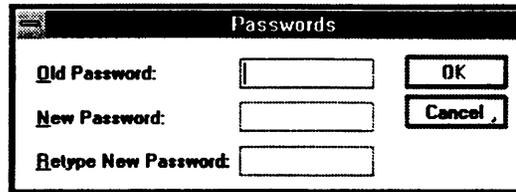
| ▬ | Passwords |
|---|---|

| Old Password: | [ | OK |
|---|---|---|
| New Password: | [ ] | Cancel , |
| Retype New Password: | [ ] | |

**Summary of Procedures (Password)**

1. Select **Password** from the **Administration** menu.

2. Enter your old password (asterisks mask your entries), then enter the new one twice.

3. Select **OK** to accept the change and exit **(Cancel** exits without changes).

# Configuration

This section describes these functions:

- *Dialed Digit Processing* — describes an administrator's tool to correct inconsistencies in the dialed number field of call records.

- *Call Types* — describes the function which identifies call types with a dialed pattern and sets a storage filter based on duration.

- *Lines* — describes the function that identifies the call's route reported by the telephone system and associates the line to a facility name.

- *Call Collection Interface* — describes the function that controls the interface to the source of call records for a site.

- *Immediate Output to Printer* — describes the function that enables printing the details of any call logged into the "immediate output" file.

- *Accounting Period* — describes the function that establishes the length of your accounting period and the start of your fiscal year.

- *Users* — describes how to set up or change the login names and access privileges of all users.


## Dialed Digit Processing

**Purpose**  To specify dialed patterns that require additional manipulation in order to process the call correctly (such as removing invalid characters from the dialed number field).

**Dialog Box**



➡ PARTNER Reporter uses the entry "--%" shown in the sample above to discard internal calls, should the telephone system report them. The PARTNER Communications System does not report internal calls.

Search For:

— Dialed Digit Pattern. The dialing pattern targeted for additional processing. Search patterns are represented by up to 18 characters: the numbers 0 - 9, star (*) and pound (#) signs, and/or wild cards (? = single character in the position it appears; % = any number of trailing characters).

— Facility. The *facility* and *direction* — incoming, outgoing, or tandem calls — targeted for additional processing. ("Tandem" refers to connecting calls, coming into the telephone system through one line and transferred out again through another. The PARTNER Communications System does not handle tandem calls.)

Modified To:

— Dialed Digits. The dialing pattern (up to 18 digits and/or wild cards **"?",** "%", "-") conforming to the following replacement rules:

Every digit represented by a **"?"** in the search-for pattern is matched either to a **"?"** to keep the digit or to a "-" to discard it. For example, search for = **?381????** and modified to = **-381????** changes **13811234** into **3811234.**

Trailing digits represented by a "%" in the search-for pattern are matched to a "%" in the modified-to pattern. For example, search for = **88%** and modified to = % changes **8817165551212** into **17165551212.**

— Select [x] Change Dialed Digits to store the replaced number with the call or select [x] Discard Matching Calls to reject the call altogether.

**Summary of Procedures (Dialed Digit Processing)**

See *Site Selection* in Chapter 8.

1. Select **Dialed Digit Processing** from the **Configuration** menu.

2. For a new entry, select **Add;** for changes, select the desired entry and use **Delete** or **Edit,** as appropriate.

3. Complete the dialog box.

4. Select **Apply (Reset** cancels changes). You may work with another entry or select **Close** to exit.

## Call Types

**Purpose**    To identify call types by their dialed number and, optionally, to set a storage filter based on a minimum duration. Calls rejected by the minimum duration filter are logged in the Immediate Output file.

**Related**    **View Immediate Output (Listings** menu) is used to display the Immediate Output
**Function**   file. (Rejected calls appear with an asterisk (*) under the "TYPE" column.)

**Dialog**
**Box**



Call Type. The system name (up to 5 characters) used in dialog boxes and listings.

Reporting Name. The call type name (up to 5 characters) to appear on reports.

Call Storage Options - Minimum Duration. Filter for storing calls of this type (0:00:00 to 9:59:59 in hours, minutes, seconds). For example, if you enter 0:00:15, calls of the specified type with less than 15 seconds duration will be rejected; their records will be logged into the Immediate Output file with an asterisk (*) under the "TYPE" column.

**Dialing**
**Patterns**



Dialing patterns. Number patterns associated with this call type. In this example, we show:

976???? = local number to Time & Weather
????555-1212, 5551212, 411 = long distance and
   local directory assistance
911 = emergency
1900% = 900-numbers
1800% = toll-free 800-numbers
0% = operator assistance

The following table lists system defaults:

| Call Type | Dialing Pattern |
|-----------|-----------------|
| LOCAL     | ???????         |
| LDIST     | 1%              |
| IDDD      | 011%            |

| Call Type | Dialing Pattern              |
|-----------|------------------------------|
| ABAND     | defined autopmatically by the |
| INCOM     | Call Collection Interface    |
| Other     | %                            |

**Summary of procedures (Call Types)**
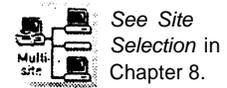
1. Select **Call Types** from the **Configuration** menu.

2. For a new entry, select **Add;** for changes, select the desired entry and use **Edit** or **Delete,** as appropriate.

3. Complete the dialog box. To add or change the number patterns associated with this call type, select **Dialing Patterns.**

   a. For a new pattern, select **Add;** for changes, select the desired entry and use **Edit** or **Delete,** as appropriate.

   b. For additions or edits, complete the dialog box and select **Apply (Reset** cancels changes). You may work with another entry or select **Close** to exit.

4. At the Call Types dialog box, select **Apply (Reset** cancels changes). You may work with another entry or select **Close** to exit.

## Lines

**Purpose**   To administer the table used by PARTNER Reporter to track the route of calls through the telephone system. If a new line number appears in a call record, it is automatically added to the table under the "Default" facility.

**Related**   The **Facility Grade of Service Report** provides traffic information to help you offer the
**Functions** best service (accessibility, less waiting times) through your telephone lines.

**Dialog Box**



Line. The 2-digit line number, exactly as it appears in a call record.

Facility. The name of the telephone facility associated with this line. You must define a new facility via the **Facilities** button before selecting it.

Delete at End of Accounting Period. Option to remove this line from the system table when the period ends.

**Facilities**

Facility. The identifier (up to 15 characters) for a group of lines that carry calls requiring similar service — typically, these line groupings are already programmed for your telephone system.

➡ For example, if you have a pool of Central Office lines, you may call the facility "CO" and associate the lines in that pool under this name. Other examples are: "Private" (private lines), "WATS" or "IN-WATS" (for 800-number service lines), "ICLID" (for lines with "Caller ID" service).

Outgoing and Incoming Carrier Services. These are internal values, always set to "Default Outgoing" and "Default Incoming."

Target Grade of Service (GOS). The desired probability (0.0 to 20.0 %; default = 2.0 %) of receiving a busy signal during the facility busy hour. The system uses actual traffic data to estimate the number of lines required to meet this value.

Number of Lines (if enabled). The number of physical lines in this facility.

Delete at end of Accounting Period. Select [x] to remove this facility from the system table when the period ends.

### Summary of Procedures (Lines and Facilities)

 See *Site Selection* in Chapter 8.

1.  Select **Line** from the **Configuration** menu.

2.  For additions, select **Add;** for changes, select the desired entry and use **Delete** or **Edit,** as appropriate.

    ➡ If **Delete** is disabled, it means that this entry is in use elsewhere in the database. Use **Edit** and select [x] Delete at End of Accounting Period.

3.  For additions or edits, complete the dialog box.

4.  To set up a facility and/or change its attributes, use the **Facilities** button:

    a.  For additions, select **Add;** for changes, select the desired entry and use **Delete** or **Edit,** as appropriate.

    ➡ If **Delete** is disabled, it means that this entry is in use elsewhere in the database. Use **Edit** and select [x] Delete at End of Accounting Period.

    b.  For additions or edits, complete the dialog box and select **Apply (Reset** cancels). You may work with another entry or select **Close** to exit.

5.  Back at the Line dialog box, you may assign the newly-created facility via the **Edit** button.

6.  When complete, select **Apply (Reset** cancels). Use **Close** to exit.

## Call Collection Interface

**Purpose**   To set up or change interface details with the source of call records for a site. Details consist of a transmission protocol, the call record format, and the timetable to enable (and, if necessary, schedule) call collection.

**Dialog Box**



See *Call Collection* Interface in Chapter 8.

### Summary of Procedures (Call Collection Interface )

See *Site Selection* in Chapter 8.

1. Select Call Collection Interface from the Configuration menu.

2. To install Call Collection Interface diskettes:

   a. Use **Add** then select **Yes** to continue.

   b. Insert disk 1 into the drive and use **OK.**

   c. Repeat a and b (above) for disk 2.



3. To change the protocol for the source of call records for this site, select the appropriate one from the list box (see table below).

| Protocol | Description |
|---|---|
| Direct Connect | Receive call records directly from the telephone system, without protocol. |
| Collect from File | Copy call records from a file in your PC (you must have another means to collect SMDR from the telephone system and place it in the file) |
| PollComm | Poll call records from a PSU (Pollable Storage Unit) or another PARTNER Reporter system according to a schedule. |

4. To change transmission details for the selected protocol, select the **Option** button and proceed to a, b, or c:

a. For Direct Connect:

   i. Select the PC port to connect to the telephone system and then the other values EXACTLY as shown.

   ii. Select **OK** and proceed to step 6.
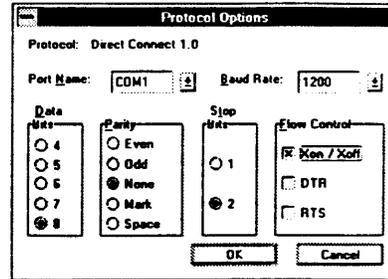


b. For Collect from File:

   i. Enter the name of the file (include the complete path to the PC directory) and the polling interval in seconds.

   ii. Select **OK** and proceed to step 6.
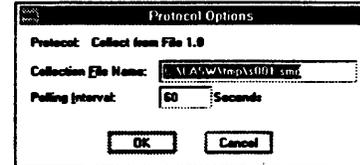


c. For PollComm:

   i. Select the PC port and baud rate to collect SMDR and whether it is a direct connection.

   ii. Enter "remote system" information ONLY:
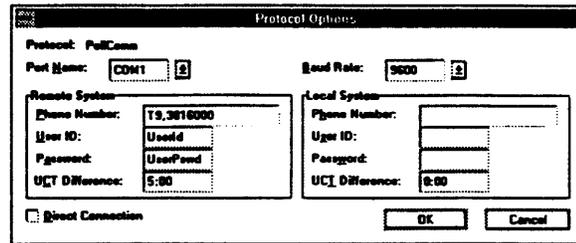


   ■ Phone number. Number dialed to access the source of SMDR, in the format expected by the modem attached to the port selected. Use the letters "T" (for tone) or "P" (for pulse), digits, and commas "," (for pauses) as required — for example, **T9,3816000** uses touch tone, dials 9, waits, then dials 381-6000. Not used in a direct connection.

   ■ User ID and Password. Login information to access the source of SMDR. Use **UserID** and **UserPswd** for polling a PSU.

   ■ The UCT Difference is the hour difference between the time at the SMDR source and Greenwich Mean Time.

   iii. When complete, select **OK** and proceed to step 5.

5. Back at the Call Collection Interface dialog box: if you selected the PollComm protocol, use the **Schedule** button to set up the polling schedule:
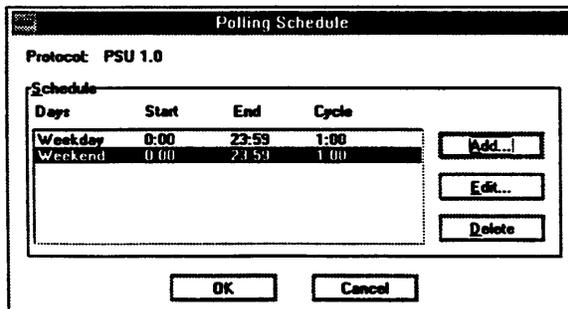


Use the CALL COLLECTION-POLLING SCHEDULE WORK-SHEET in Appendix A to plan a timetable.

See steps a, b, and c on the next page.

a. To remove a schedule, select it and choose **Delete.**

b. For a new schedule, choose **Add;** for changes, select a schedule and choose **Edit.**

If you selected **Add** or **Edit,** the Polling Schedule Add or Edit dialog box appears.

i. Select the type of day, times, and polling cycle.

ii. Select **OK** and return to the Polling Schedule dialog box.



Polling Schedule Add

Protocol: PSU 1.0

Days
◉ Weekday
○ Weekend

Times
Start: 12:00 AM
End: 11:59 PM

Cycle
○ Single
◉ Periodic
Interval: 1:00

OK
Cancel

c. Back at the Polling Schedule dialog box, click **OK** to return to the Call Collection Interface dialog box.

6. Back at the Call Collection Interface dialog box, enter *Enable from I to* call collection dates.

⟹ "Save call data for sending" is documented in Chapter 6 in PART II.

7. When complete, select **Apply (Reset** cancels changes) and then **Close** to exit

## Immediate Output to Printer

**Purpose** To enable printing the details of any call flagged for "immediate output" (in addition to sending the details to the Immediate Output file) and to specify the "banner" text for the printout.

**Related Functions**

■ **Organization - Extension, Immediate Output,** and **Alert Numbers** (all under the **Administration** menu) are used to flag calls for "immediate output."

■ **Call Types** allow a minimum duration filter; calls rejected by this filter will be logged to the Immediate Output file with call type flag = asterisk (*).

■ **View Immediate Output (Listings** menu) is used to bring the Immediate Output file to a viewer window on your PC.

**Dialog Box**



Immediate Output to Printer

Banner

☐ Centered

Number of blank lines after banner: 0
☐ Enabled

OK
Cancel
Printer

Banner. Type in the text that you wish to precede the printout of each call record.

Centered. Select [x] to center this text on the page.

Number of blank lines after banner. Specify how many blank lines you wish to place between the banner and the call record printout.

Enabled. Select [X] to activate the option of printing calls flagged for "immediate output."

**Printer
Setup**



Printer. Select a printer from the system list, the Font and Point size.

Output Device. Select the printer's port.

Margins. Select the spacing on the page:

- Center Left to Right. Enable [X] automatic selection of left and right margins to center the report on the page.

- Left, Right, Top, Bottom. Size of margins in the measuring unit specified (if "Center Left to Right" is enabled, the left and right margins are set by the system).

- Units. Choose between inches or millimeters.

Orientation. Choose between portrait or landscape printing.

**Summary of Procedures (Immediate Output to Printer)**

1. Select **Immediate Output Printer** from the **Configuration** menu.

2. Complete the dialog box —remember to select Enabled [x] to use this function.

3. Use the **Printer** button to specify output details. When complete, select **OK** to accept changes and return to the Immediate Output to Printer dialog box.

4. Back at the Immediate Output to Printer dialog box, select **OK** to accept changes and exit **(Cancel** exits without changes).

## Accounting Period

**Purpose**   To set up system-wide values based on your company's fiscal year and accounting practices.

PARTNER Reporter uses the concept of accounting period to create "current" and "archive" call record and database files automatically and to produce complete period statistics on closing dates and times.

At the closing of an accounting period, the "current" file is moved to the "archive" file — overwriting the old "archive" contents. Then the "current" file is emptied to make room for new data.

**Dialog Box**
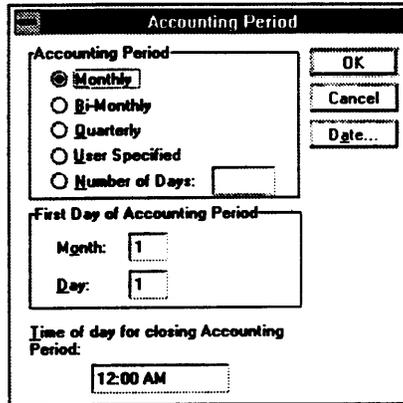


Accounting Period. Monthly (default ), Bi-monthly, Quarterly, User Specified (in which case, you must set up the starting dates of each period in the budget year via the **Date** button), or Number of Days (3 to 365).

First Day of Accounting Period: month and day (default = January 1st).

Time of day for closing Accounting Period. The time in a 24-hour format (0:00 to 23:59 — default = 0:00).

**Date Dialog Box**
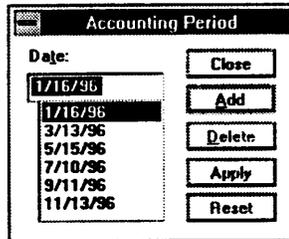


Date. The beginning date (in mm/dd/yy format) of a user-specified period.

➡ Dates must be in the future. Past dates are automatically deleted. If the system runs out of dates, a warning is sent to the Message Log.

### Summary of Procedures (Accounting Period)

1. Select **Accounting Period** from the **Configuration** menu.

2. Complete the dialog box.

3. If accounting period = "User specified", select **Date** to identify each period's dates.

   a. To add a new entry, select **Add;** to change an entry, select it and use **Edit** or **Delete,** as appropriate.

   b. For additions or edits, enter the new date and select **Apply (Reset** cancels changes).

   c. You may work on another entry or use **Close** to return to the prior dialog box.

4. At the Accounting Period dialog box, select **OK** to accept changes and exit.

# Users

**Purpose**    To set up or change the login names and access privileges of all system users.

**Dialog
Box**
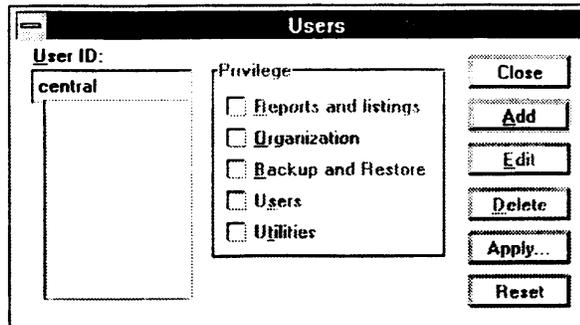


User ID. The login name of a user.

Privilege. The functions this user is permitted to use.

## Summary of Procedures (Users)

1.    Select **Users** from the **Configuration** menu.

2.    For a new entry, select **Add;** for changes, select the user ID and use **Edit** or **Delete,** as appropriate.

3.    For additions or edits, when you select **Apply,** the dialog box appears to set this user's *password.* Enter the new password twice and select **OK.**
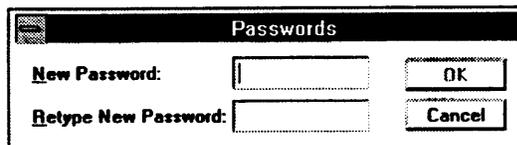


4.    At the **Users** dialog box, use **Close** to exit.

# Customization

This section describes the following functions:

- *Organization Levels* — used to identify your company name and the number and names of the hierarchical levels used in your organization.

- *Location Table* — used to associate call destination names with specific dialing patterns, and thus customize Organization, Selection, and Account Code Detail Reports, as well as the ICLID Call Distribution Report.

- *Languages* — used to change the language used on screen displays and reports.

## Organization Levels

**Purpose**  To identify the company name and the organization's corporate structure. PARTNER Reporter is built with a system-wide organization structure capable of supporting a five-level hierarchy: Level 1 (required level) = Extension, Level 2 (required level) = Cost Center, Levels 3 to 5 (optional levels) = Department, Division, and Branch.

**Related Functions**  The **Organization Table (Administration** menu) contains the actual entries for the structure selected here.

**Dialog Box**

| Organization Levels |
|---|
| Company Name: [Company Name]   OK |
| Number of Levels: [2 ▼]   Cancel |
| ┌─Level Names───────────────┐ |
| Level-1: [Extension] |
| Level-2: [Cost Center] |
| Level-3: [Department] |
| Level-4: [Division] |
| Level-5: [Branch] |
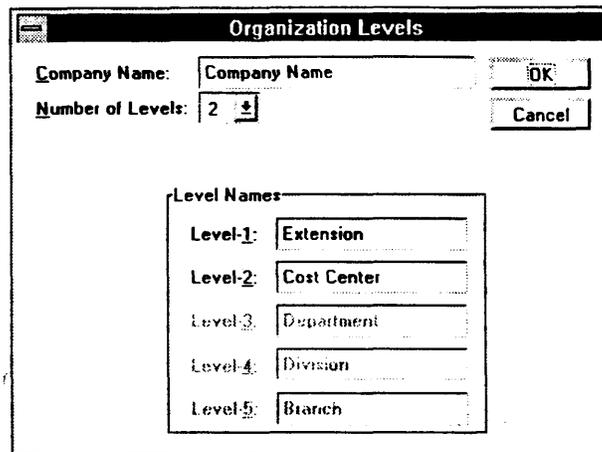
Company Name. One to 15 characters.

Number of Levels. 2 to 5.

Level Names. One to 15 characters.

(Defaults are shown in the dialog box to the left). The choices set here will be reflected throughout your system, in the Organization Table and reports.

### Summary of Procedures (Organization Levels)

1. From the **Customize** menu, select **Organization Levels.**

2. Complete the dialog box.

3. Select **OK** to accept changes and exit **(Cancel** exits without changes).

## Location Table

**Purpose**  To identify the called area in Organization, Selection, and Account Code Detail Reports, as well as the ICLID Call Distribution Report. Up to 5000 entries are allowed.

**Dialog Box**



Dialing Pattern. Up to 10 digits and/or wild cards (? = single digit; % = multiple digits). Do not use toll codes (1 or 011) for long distance or international calls as part of the dialing pattern.

Location Name. Up to 10 characters for the name of this area.

International Dialing Pattern. Select [x] if this pattern is associated with international calls.

**Summary of Procedures (Location Table)**

1.  From the **Customize** menu, select **Location Table.**

2.  To add a new pattern, select **Add;** for changes, select the desired pattern and use **Edit** or **Delete,** as appropriate.

3.  For additions or edits, complete the dialog box, then select **Apply (Reset** cancels changes). You may work with another entry or select **Close** to exit.

4.  We suggest you print a **Location Table Listing** (under **Customization Listings** in the **Listings** menu). For example:

```
                          Location Table Listing
Date: Friday, October 27, 1995                              Page:    1
Time: 10:51:22 AM                    Company Name
------------------------------------------------------------------------------

     DIALING PATTERN     LOCATION          DIALING PATTERN     LOCATION
     ------------------  ----------        ------------------  ----------
        657????         Holcomb              732????          Waverly
        533????         Patterson            728????          Somerset
        964????         Madison              653????          Airfield
        878????         Basset

End of Location Table Listing
```

## Languages

**Purpose**   To select the language used in dialog boxes, messages, on-line help, and reports.
Currently, only English (U.S.) is available.

> ➡ Changing languages does not affect the values of any database entries or user-defined
> parameters.

**Dialog**
**Box**
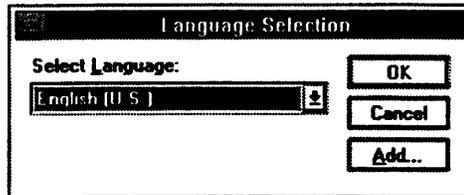


### Summary of procedures (Language Selection)

1. From the **Customize** menu, select **Language.**

2. To load a *Language Disk,* press **Add** and follow the screen instructions to name a
   drive and load the diskette in it.

3. Choose the desired language from the list box.

4. Select **OK** to accept the change and exit **(Cancel** exits without changing
   languages).

# Reports and Listings

**4**

This chapter describes how to generate reports and listings and how to use the report, immediate output and message viewer functions.

The chapter is organized into the following sections:

■ *Common Functions* — describes the general procedures to run reports or listings on a schedule or immediately, how to define their output and set up charts.

■ *Report-specific Functions* — describes all reports on the call record database:

- Organization Reports
- Selection Reports
- Account Code Reports
- Traffic Reports

■ *Viewing Functions* — describes how to display, print, save, or delete the message log and immediate output files, as well as any report sent to the screen or saved to a system file.

See *Reports* in Chapter 8 (Part II - Multi-site Network) for details on report selection from the Central Site in a multi-site network.

Examples show Windows 3.1 / Windows for Workgroups 3.11 dialog boxes.

## Common Functions

PARTNER Reporter offers a variety of reporting options to meet practically all of your information needs.

■  You can generate reports and listings on demand (via the individual report-generating functions) for the current accounting period or for an archived period.

■  You can schedule up to 25 groups of reports for the current accounting period (for a maximum of 1000 scheduled reports).

■  You can set very specific criteria in many reports, to pinpoint exceptions or see general trends.

■  You can send all output to a printer, window display, system file (for later viewing or printing), or text and/or export file (for transfer to another application).

You can represent some traffic reports as a 2- or 3-dimensional bar chart.
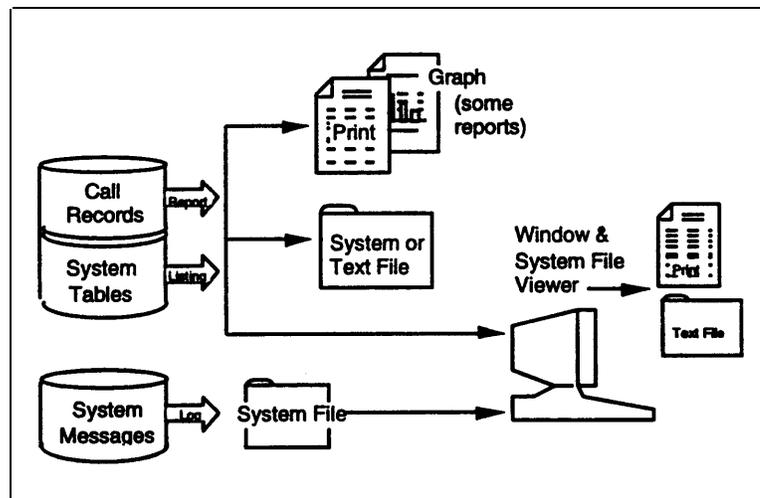
## Running a Report or Listing on Demand

**Purpose**  To generate any report or listing from the stored current or archived accounting period.

**Summary of Procedures (Running a Report or Listing on Demand)**

1. For an archived period residing on backup diskettes, restore it to your PC into the "archive" file — see *Backup and Restore* in Chapter 5 for details.

2. Open **Select Accounting Period** from the **Reports** menu. Select the accounting period of interest and then **OK.**
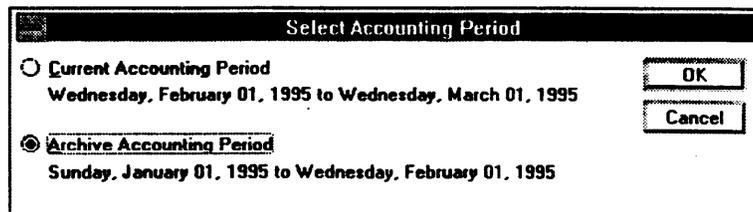


3. Select the item of interest from the **Listings** or **Reports** menu or sub-menus.
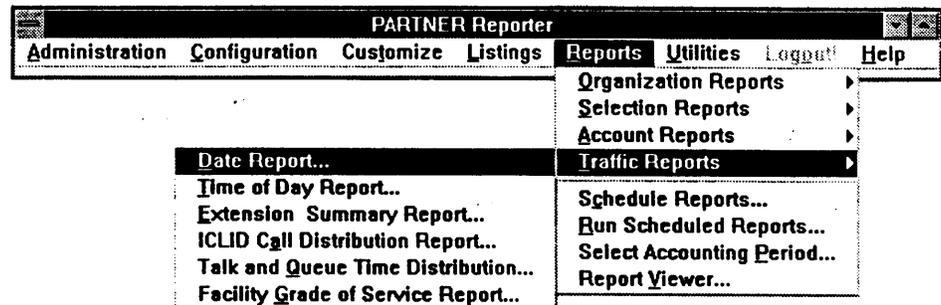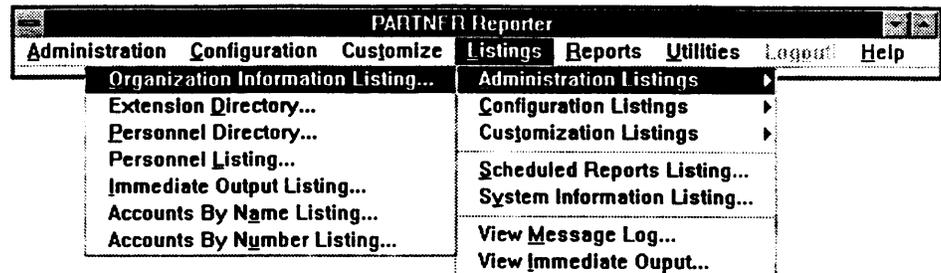


4. Complete the resulting dialog box. See the report-specific topic and the topics *Output* and *Chart* in this chapter for details.

5. Select **OK** to run the report **(Cancel** exits without a report).

## Scheduling Reports

**Purpose**   To define up to 25 groups of up to 1000 reports (combined) to run on automatic schedules. Definitions include frequency to run the group and setup and output criteria for each report.

**Dialog Box**



Report Group. A descriptive name (one to 20 characters) for the group of reports.

Frequency. Select from:

- Once. The group runs once on the *Next Run Date* and *Time* and then it is removed from the schedule.

- Monthly or a Number of Days **(1** to **255).** The group runs at the set frequency, starting on the *Next Run Date* and *Time.*

- End of Accounting Period. The group runs at the end of every accounting period, at the *Next Run Time.*

- On Demand Only. The group runs only via the **Run Scheduled Reports** function under **Reports** (that is, the *Next Run Date* and *Time* is ignored).

Next Run. The *Date* and *Time* when the report group will run.

### Summary of procedures (Scheduling Reports)

1. Open **Schedule Reports** from the **Reports** menu.

2. Enter or select a Report Group and select **Add, Edit,** or **Delete,** as appropriate. (To remove specific reports from a group, use **Edit).**

3. Select **Reports** to add, delete, or set up criteria for specific reports in this group.

**Reports dialog box**

4. a. To remove a report from the group, select it and use **Delete.**

   b. To add to the group, select **Add.** When the list box (below) appears, select a report and use **OK.**

**Add Report dialog box**

```
┌─────────────────────────────────────────────────────────────────┐
│ ▬▬      Schedule Reports - Add Report                            │
├─────────────────────────────────────────────────────────────────┤
│ Report Group: Account Period End                   ┌──────────┐ │
│                                                    │    OK    │ │
│ Reports:                                           └──────────┘ │
│ ┌───────────────────────────────────────────────┐ ┌──────────┐ │
│ │Account Code Detail Report                   ▲│ │  Cancel  │ │
│ │Account Code Summary Report                   │ └──────────┘ │
│ │Cost Center Summary Report                    │               │
│ │Date Report                                   │               │
│ │Dialed Digit Processing Listing               │               │
│ │Extension Directory                           │               │
│ │Extension Summary Report                      │               │
│ │Facility Grade of Service Report              │               │
│ │ICLID Call Distribution Report                │               │
│ │Immediate Output Listing                      │               │
│ │Location Table Listing                        │               │
│ │Organization Detail Report                    │               │
│ │Organization Information Listing              │               │
│ │Organization Summary Report                   │               │
│ │Organization Trends Report                   ▼│               │
│ └───────────────────────────────────────────────┘               │
└─────────────────────────────────────────────────────────────────┘
```

   c. To define report criteria and/or its output, select a report from the group and use **Criteria.** See the report specifics in this chapter and the topics *Output* and/or *Chart* for details.

   d. When all additions, edits and criteria setup are complete for this report group, use **Close** to return to the first dialog box.

5. Back at the **Schedule Reports** dialog box, complete any other information and use **Apply** to save your schedules and report definitions **(Reset** cancels all).

6. You may work in another report group or use **Close** to exit.

## Output

**Purpose**  To define where and how reports and listings are generated.

**Summary of Procedures**

1. Select the **Output** button on any report or listing dialog box.

2. Complete the dialog box as described below.

3. Use **OK** to save settings and return to the originating report or listing dialog box **(Cancel** returns without changing the default output).



Printer. For printed reports, select a *Printer, Font,* and *Point size* from the list boxes (these are Windows system lists).

Output Device. To send the report to enabled [X] options:

— Ports. A printer port from Windows system list.

— Window. Immediate display on the Report Viewer. See *Viewing Functions* later in this chapter.

— System File (binary format). Name of file, accessible via Report Viewer.

— Text File (ASCII format). The drive, path, and file name (*.txt) to save the report output. Check [x] Append to add this output at the end of an existing file of the same name.

— Export File (ASCII format - Organization and Selection Detail only). The drive, path, and file name to save the report output. Check [x] Append to add this output at the end of an existing file of the same name and enter the *Delimiter* (character to separate fields). See *Export File Format* for details.

Margins. Select:

— Center Left to Right. Enable automatic selection of left and right margins; this choice results in a report centered on the page.

— Left, Right, Top, Bottom. Enter size of margins in the unit specified (if "Center Left to Right" is enabled, the left and right margins are set by the system).

— Units. Choose between *Inches* or *Millimeters.*

Orientation. Select between *Portrait* or *Landscape* printing.

**Export File Format**

Export files are simple, flat ASCII files which can be used by other applications. Each record terminates in a carriage return, fields are of variable length, separated by a delimiter character selected by the user — for example, a pipe (I), comma (,), semicolon (;), etc. Empty fields are represented by consecutive delimiter characters.

The following tables display the file layout for Organization and Selection Detail Reports when they are output as "export files."

| **Organization Detail Report - Export File Format** | | |
|---|---|---|
| **Field Name** | **Length** | **Comments** |
| 1.  Branch | 15 | Empty, if level 5 does not exist |
| 2.  Division | 15 | Empty, if level 4 does not exist |
| 3.  Department | 15 | Empty, if level 3 does not exist |
| 4.  Cost Center | 15 | |
| 5.  Site | 25 | "Default" on single site systems |
| 6.  Extension | 15 | |
| 7.  Personnel Name | 72 | Last_name, title first_name |
| 8.  Date | 8 | mm/dd/yy |
| 9.  Time | 5 | hh:mm (24-hour clock) |
| 10. Duration | 8 | hh:mm:ss |
| 11. Talk-time | 8 | hh:mm:ss (incoming call) or empty |
| 12. Dialed Number | 18 | Empty, if not provided |
| 13. Location | 10 | Empty, if not provided |
| 14. Call Type | 5 | |

| **Selection Detail Report - Export File Format** | | |
|---|---|---|
| **Field Name** | **Length** | **Comments** |
| 1.  Site | 25 | "Default" on single site systems |
| 2.  Date | 8 | mm/dd/yy |
| 3.  Time | 5 | hh:mm (24-hour clock) |
| 4.  Duration | 8 | hh:mm:ss |
| 5.  Talk-time | 8 | hh:mm:ss (incoming call) or empty |
| 6.  Extension | 15 | |
| 7.  Transfer Flag | 1 | Value = * (flag on) or empty (flag off) |
| 8.  Dialed Number | 18 | Empty, if not provided |
| 9.  Location | 10 | Empty, if not provided |
| 10. Call Type | 5 | |
| 11. Line | 8 | |
| 12. Account Code | 16 | Empty, if not provided |

## Chart

**Purpose**  To choose a graphic representation for a summary report:

The bar chart displays report parameters — for example, *hours* in a Time of Day Report — as bars against a vertical (or horizontal) scale.

**2-D Bar**

(with grids on the X-axis and on Y-axis)
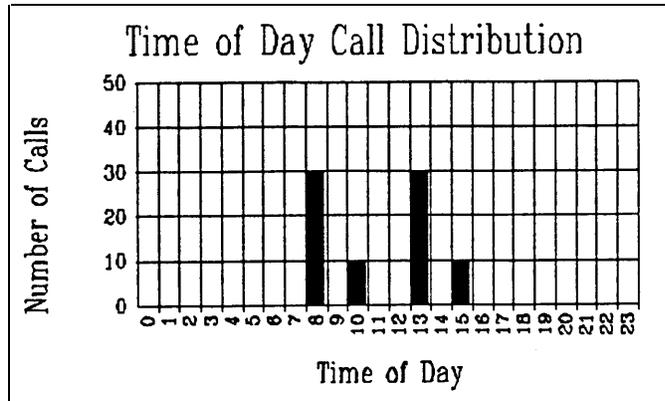


A bar's height (or length) corresponds to a value on the scale — typically the number of calls.

A pie chart displays report parameters — for example, *hours* in a Time of Day Report — as individual "slices" in a pie.

**3-D Pie Chart**
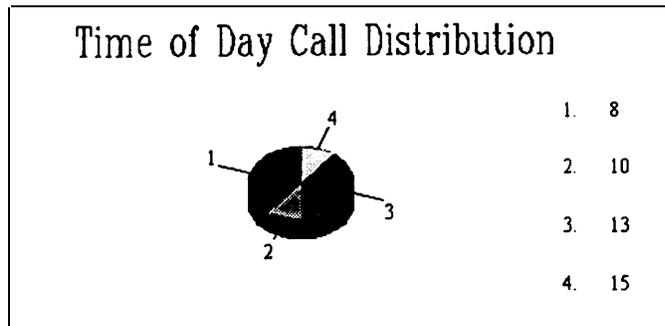


The size of a slice represents the percent of the number of calls matching that parameter.

**Summary of Procedures**

1.  Select the **Chart** button on any report or listing dialog box.

2.  Complete the dialog box then use **OK** to save settings and return to the originating report or listing dialog box **(Cancel** returns without changing the default output).
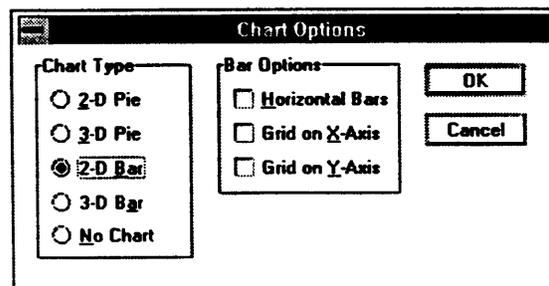
# Report-specific Functions

This section describes all reports on the call record database, as well as the selection criteria with which you can focus report information.

## Organization Reports

**Purpose**   To show your company's telephone activity sorted by organization level. These reports are typically used in tracking telephone response and usage, particularly when groups or individuals must be accountable and need to remain within certain performance levels.

Summaries include total count, total and average duration, and total and average talk-time for incoming calls for the selected criteria.

■  **Organization Detail Report** — shows the record of each call within the selected criteria. Calls appear in chronological order (as received from the SMDR source), followed by the summaries.

■  **Organization Summary Report** — provides summary statistics for calls matching the selected criteria.

■  **Cost Center Summary Reports** (and other levels) — provide summary statistics for the dates and named organizations.

■  **Organization Trends Reports** — provide summary statistics for the last 12 accounting periods at the Cost Center level.

Sample reports appear in Appendix B.

**Detail or Summary Report**

The Detail Report is shown on the right.

The Summary Report: has a similar format.

**Cost
Center\*
Summary**

**Cost Center Summary Report**

OK

Cancel

Output...

\* as well as
other level
summaries.
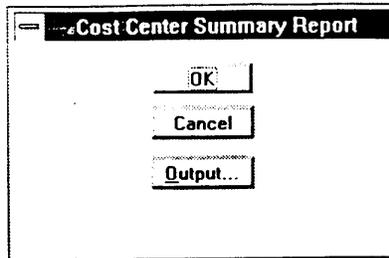
If there are more than two organization levels, the
next level (for example, Department) would appear
as follows:

**Cost Center Summary Report**

Department:

(ALL)

☐ **P**age Break After Each Department:

OK

Cancel

Output...

**Cost
Center
Trends**

**Organization Trends Report**

Cost Center:

(ALL)

OK

Cancel

Output...
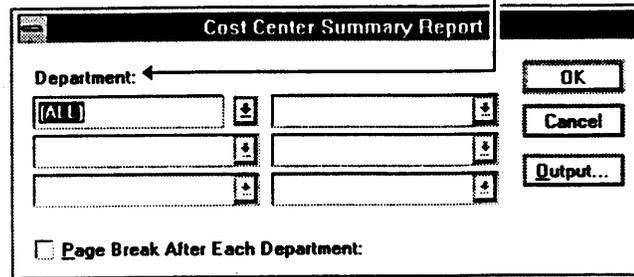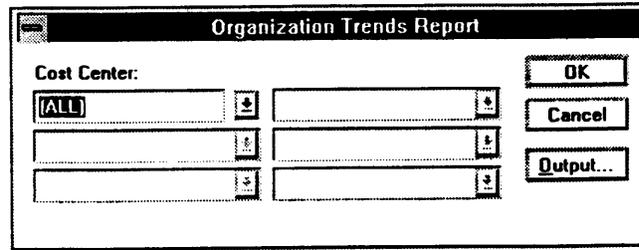
**Summary of Procedures (Organization Reports)**

1.  From the **Reports** menu, select **Organization Reports** and then, your choice of
    report.

2.  Type or select organization entries (fields change, depending on the report). You
    may use wild cards (? = single character; % = any number of character) in the
    first field.

3.  Enable [x] or disable page breaks (if available).

4.  Enter additional criteria for an Organization Detail or Summary Report:

    —   Range selections. Enter dates and times (values are inclusive).

    —   Minimum selections. Enter a minimum talk-time (incoming calls) or duration
        (any call, incoming or outgoing).

    —   Other selections. Select a call type and/or enter a dialed number. You may
        use wild cards (? = single character; % = any number of characters) in the
        dialed number.

4.  Use the **Output** button as described earlier in the chapter, then select **OK** to
    generate the report and exit.

## Selection Reports

**Purpose**   To provide summary or detail information based on very specific criteria. Details are sorted in chronological order and include talk-time for incoming calls; summaries provide total number of calls, total and average duration and incoming call total and average talk-time.

**Selection Reports** are versatile tools, used to pinpoint details or summarize trends in problem areas discovered by other reports.

Sample reports appear in Appendix B.

**Dialog**
**Box**



#### Summary of Procedures (Selection Reports)

1. From the **Reports** menu, select **Selection,** then your choice of **Summary** or **Detail Report.**

2. Type or choose Organization Selections. You may use wild cards (? = single character; % = any number of characters) in all organization entries and in the first extension.

3. Type or choose Range, Minimum, and Other Selections:

   — a Date and Time Range for the reporting period. Range values are inclusive.

   — a minimum Talk Time (incoming calls) or Duration (any, incoming or outgoing call).

   — Account Code, Line, Call Type, or Dialed Number. You may use wild cards (? = single character; % = any number of characters) in the Account Code, Line, and Dialed Number.

4. Use the **Output** button as described earlier in the chapter, then select **OK** to generate the report and exit.

## Account Code Reports

**Purpose**    To report on calls associated with Account Codes. (Account codes are typically dialed when placing or receiving a call to identify the call subject matter, client account, and so on.)

PARTNER Reporter offers an Account Code Summary Report and an Account Code Detail Report. Details are sorted for each account as received from the call record source and includes talk-time for incoming calls; summaries provide the number of calls, total and average duration, and total and average incoming call talk-time for each account.

Sample reports appear in Appendix B.
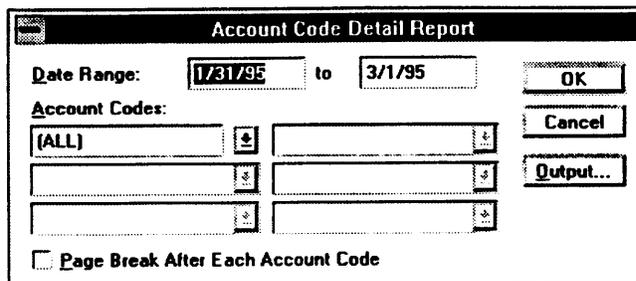
**Dialog Box**



**Summary of Procedures (Account Code Reports)**

1.  From the **Reports** menu, select **Account Code** and then your choice of **Summary** or **Detail.**

2.  In a Detail Report, enter a Date Range. Range values are inclusive. Default = day before the start of the current accounting period to today's date (or end of period, if reached).

3.  Type or select up to 6 Account Codes. You may use wild cards in the first entry (? = single character; % = any number of characters).

4.  In a Detail Report, enable [x] or disable page breaks between accounts.

5.  Use the **Output** button as described earlier in the chapter, then select **OK** to generate the report and exit.

## Traffic Reports

**Purpose**   To generate a Traffic Report for the current or archived period.

Traffic Reports summarize call activity under various categories. Summaries are based on the collected information for the period and — except where noted — include a count of incoming calls, their total and average queue-time, and total and average talk-time.

- The **Date Report** summarizes activity for each day in the period. It is useful in evaluating daily traffic, effectiveness of sales ads, dated promotions, etc. and may be critical in staffing decisions. This report is available as a bar chart.

- The **Time of Day Report** provides incoming call summaries for each of the 24 hour-bands in a day. It is ideal for busy and after-hours call analysis. This report is available as a bar or pie chart.

- The **Extension Summary** lists all extensions' incoming call traffic for the range of dates selected. This report is useful in tracking how individual extensions respond to their telephone load. This report is not available as a chart.

- The **ICLID Call Distribution Report** summarizes incoming call activity by calling areas. There are no charts for this report.

- The **Talk and Queue Time Distribution Report** provides  side-by-side subreports showing distributions of calls with queue and talk-time durations within a user-defined time interval. It is useful in analyzing response to the load of incoming calls in one of two ways, depending on the time interval selected: (1) short intervals — i.e., a few seconds — focus on queue-times, (2) long intervals, on talk-times. This report is available as a bar chart.

- The **Facility Grade of Service\* Report** analyzes facility busy hours: it lists the number of lines in each facility, the average number of calls (incoming and outgoing) carried in its busy hour, their total and average duration, the actual and target GOS, and the number of lines required to meet the target GOS. This report is available as a bar chart.

Sample reports appear in Appendix B.

### Summary of Procedures (Traffic Reports)

1. From the **Reports** menu, select **Traffic Reports** and then, your choice of report.

2. In a Talk and Queue Time Distribution Report:

   a. Select a time interval. (The report will show 8 incremental time brackets based on this amount: the first bracket ranges up to the amount specified, the second bracket ranges from the last bracket up to twice the amount, and soon up to the last bracket which ranges over 7 times the amount.)

   b. Use the **Output** and **Chart** buttons as described earlier in the chapter.

   c. Select **OK** to generate the report and exit.

---

\*   Grade of Service (GOS) is a way to measure outgoing service on a worst case scenario: it represents the probability of a call attempt receiving a busy signal on any given day, during a facility's (average) busy hour.

**Talk and Queue Time Distribution Report**

```
┌──────────────────────────────────────────────────┐
│ ▭   Talk and Queue Time Distribution Report      │
├──────────────────────────────────────────────────┤
│                                    ┌──────────┐   │
│                                    │    OK    │   │
│                                    └──────────┘   │
│                                    ┌──────────┐   │
│                                    │  Cancel  │   │
│  Interval:   ┌────┐   Seconds      └──────────┘   │
│              │ 15 │                ┌──────────┐   │
│              └────┘                │ Output...│   │
│                                    └──────────┘   │
│                                    ┌──────────┐   │
│                                    │  Chart...│   │
│                                    └──────────┘   │
└──────────────────────────────────────────────────┘
```

    3. a. In a Facility GOS Report, type or select 6 facility names. You may use wild cards (? = single character; % = multiple characters) in the first facility field.

       b. Use the **Output** and **Chart** buttons as described earlier in the chapter.

       c. Select **OK** to generate the report and exit.

**Facility GOS Report**

```
┌──────────────────────────────────────────────────┐
│ ▦        Facility Grade of Service Report        │
├──────────────────────────────────────────────────┤
│  Facilities:                       ┌──────────┐   │
│  ┌──────────────┐▲ ┌─────────────┐▲│    OK    │   │
│  │[ALL]         │  │             │ └──────────┘   │
│  └──────────────┘▼ └─────────────┘▼┌──────────┐   │
│  ┌──────────────┐▲ ┌─────────────┐▲│  Cancel  │   │
│  │              │  │             │ └──────────┘   │
│  └──────────────┘▼ └─────────────┘▼┌──────────┐   │
│  ┌──────────────┐▲ ┌─────────────┐▲│ Output...│   │
│  │              │  │             │ └──────────┘   │
│  └──────────────┘▼ └─────────────┘▼┌──────────┐   │
│                                    │  Chart...│   │
│                                    └──────────┘   │
└──────────────────────────────────────────────────┘
```

    4. For all other traffic reports:

       a. Use the **Output** button (and **Chart,** if available) as described earlier in the chapter.

       b. Select **OK** to generate the report and exit.

**All Other Traffic Reports**

```
┌──────────────────────────────┐
│ ▦          Date Report       │
├──────────────────────────────┤
│         ┌──────────┐         │
│         │    OK    │         │
│         └──────────┘         │
│         ┌──────────┐         │
│         │  Cancel  │         │
│         └──────────┘         │
│     ┌   ┌──────────┐         │
│         │ Output...│         │
│         └──────────┘         │
│         ┌──────────┐         │
│         │  Chart...│         │
│         └──────────┘         │
└──────────────────────────────┘
```

# Viewing Functions

You can access PARTNER Reporter reports, calls flagged for immediate output, and system messages via window displays. This section describes these functions:

- *Report Viewer* — to display reports sent to the window or saved to a system file. The minimized Viewer icon appears at the bottom of the screen:

- *Message Log* — to display system messages. The "normal" icon changes to the "alert" icon when there are unviewed messages:

  (normal)    (alert)

- *Immediate Output* — to display details of calls sent to the "immediate output *file.*" The Immediate Output icon appears at the bottom of the screen:

## Report Viewer

**Purpose**    To access reports output to the "window" or saved to a "system file."

**Access**    For reports saved to a file, select **Report Viewer** from the **Reports** menu; then use **Open** from the **File** menu and choose the report.

```
┌──────────────────────── Reports Viewer ────────────────────── ▼▲
  File  Copy!  View  Previous Page!  Next Page!  Help
                                 Call Type Report
 Date: Thursday, June 30, 1994                              Page:
 Time: 3:45:35 PM                  Moscom Telephone Company
 ------------------------------------------------------------------

 SITE: Default

 DATE RANGE: Monday, June 06, 1994  to  Friday, July 01, 1994

 SELECTION CRITERIA   :
     SITES           : All
 └────────────────────────────────────────────────────────────────
```
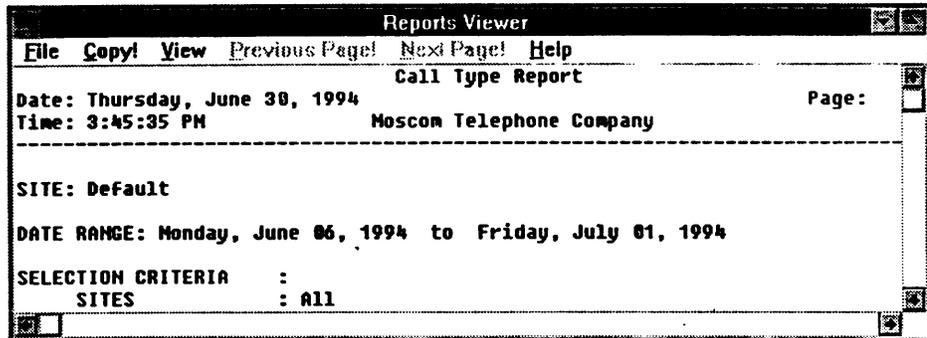
**File** options: **Save as** (enabled if report is not saved), **Delete** (removes report from system file), **Print,** and **Exit** (closes window).

**Copy!** — places a copy of the display into the Windows clipboard.

**View** options: **Page** (goes to specified page) and **Printer Font** (toggles between the font used on displays and the printer font).

**PreviousPage!** and **NextPage!** — move to the previous and next page of the report.

## Message Log

**Purpose**  To view and/or print system messages.

**Access**  Select the Message Log icon or select **View Message Log** from the **Listings** menu.

```
┌──────────────────────────────────────────────────┐
│ ▓                    Message Log           ⊠ ▓    │
├──────────────────────────────────────────────────┤
│  File  View  Help                                 │
├──────────────────────────────────────────────────┤
│ Program:      Reports - 6/30/94  3:12:40 PM    ▓  │
│ Location:     rptprint.c - line 270               │
│ Severity:     6                                    │
│ Message ID:   1639                           □     │
│ Error code:   2                                    │
│ Report has been aborted                           │
├──────────────────────────────────────────────────┤
│ ▓ □                                          ▓    │
└──────────────────────────────────────────────────┘
```
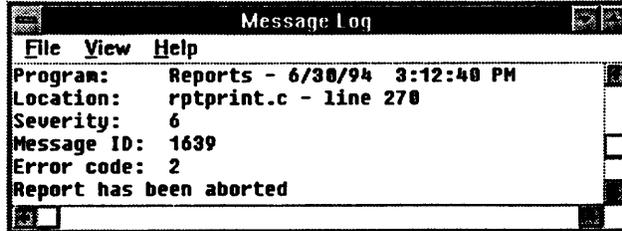
**File** options: **Clear** (removes all messages from the file) and **Print.**

**View** options: selects ( ✓ ) fatal, severe, information, and/or other types of messages, with or without a detail header. The terms "fatal," "severe," "information," and "other" refer to the degree of severity of the error that generated the message.


## Immediate Output

**Purpose**  To view the records of rejected calls or those sent to the immediate output file via the Organization - Extension "immediate output" option, or the Immediate Output or Alert Numbers function (Administration).

**Access**  Select the Immediate Output icon or select **View Immediate Output** from the **Listings** menu.

```
┌──────────────────────────────────────────────────┐
│ ▓                 Immediate Output          ▓ ▓   │
├──────────────────────────────────────────────────┤
│  File  View  Help                                 │
├──────────────────────────────────────────────────┤
│                   DURATION                         │
│ TYPE    DATE    TIME  HH:MM:SS Extension    DIALED NUMBER    LOCATION │
│ ─────  ───────  ────  ──────── ─────────   ──────────────── ──────── │
│ ALARM 05/01/95 14:00 02:33:25 6546         17188516146      Brooklyn │
│   *   05/01/95 18:30 00:00:10 6546         17188516146      Brooklyn │
├──────────────────────────────────────────────────┤
│ ▓ □                                         ▓     │
└──────────────────────────────────────────────────┘
```

⇒  An asterisk (*) denotes a rejected call; calls to alert numbers have an **"alert"** or **"alarm"** flag type.

**File** options: **Clear** (removes all messages from the file) and **Print.**

**View** options: selects ( ✓ ) the display of alarm, alert, rejected, and/or normal call record details.

# Utilities

# 5

This chapter describes how to perform maintenance tasks using the system Utilities.

The chapter is organized into the following topics:

- *Backup and Restore* — describes how to copy data from the current or archived accounting period onto diskettes and vice-versa.

- *Call Record Edit* — describes how to correct information and/or add call records to the current database.

- *Call Record Deletion* — describes how to delete current call records from storage.

- *File Import/Export* — describes how to selectively copy text files into/from the Organization database.

- *Database File Maintenance* — describes how to check and repair database files.

- *System Upgrades* — describes how to load diskettes with system options and version upgrades.

- *Call Processing Status* — describes how to display the stored call count and stop/start processing.
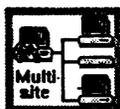
*See Adding Polled Sites* in Chapter 8 (Part II - Multi-site Network) for details on the Site Maintenance function in a multi-site network.

Examples show Windows 3.1 / Windows for Workgroups 3.11 dialog boxes.

## Backup and Restore

**Purpose**  Backup is used to copy the current or the archived period's data onto floppy diskettes; Restore, loads a prior backup — typically, to run reports on archived data or to rebuild PARTNER Reporter files after a system failure.

You should back up current data at least weekly and archived data once, after closing the accounting period. For large databases, tape backups are recommended.

⇒  You should perform backups of current data at times of low call collection activity, having stopped call processing for the duration of the procedure (see *Call Processing Status* in this chapter).

**Dialog Boxes**
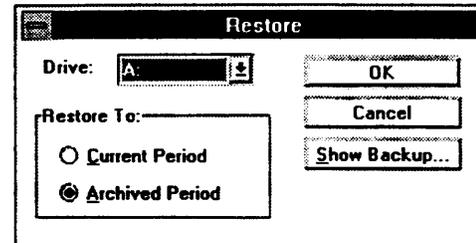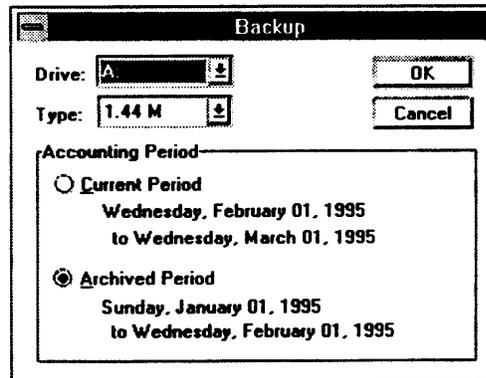


### Summary of Procedures (Backup and Restore)

1. From the **Utility** menu, select **Backup** or **Restore.**

2. For a backup:

   a. With a supply of diskettes ready (diskettes will be formatted automatically), select the drive, type of diskette used, and which period to backup.

   b. Load the first diskette, use **OK,** and follow prompts to continue. Label all diskettes with their sequence number and period's dates.

2. For a restore:

   > ⚠ *Restore overwrites data. Do not proceed unless you have a recent backup of your current and archive databases.*

   a. With the desired set of backup diskettes ready, select the drive, the period to restore, and load the first diskette.

   b. To check the dates on the diskette in the named drive, use **Show Backup.**

   c. Use **OK** to start and follow prompts to continue.

# Call Record Edit

**Purpose**   To correct information and/or to add call records to the current period's database and to change its summary statistics.

**Dialog Box**



**Summary of Procedures (Call Record Edit)**

1.   From the **Utilities** menu, select **Call Record Edit.**

2.   To search for existing call records, enter and/or select an *Extension, Date,* and/or *Account Code,* then select **Search.**

3.   Matching calls will be queued for display in the Call Record Information box. Use **Next** or **Previous** to move through the queue.

4.   To change information on the display or to add a new record, use **Add** or **Edit,** then enter and/or select the appropriate field values.

   ⇨ To avoid unreliable data in your summary statistics, enter dates within the current accounting period.

5.   When complete, select **Apply (Reset** cancels changes); use **Close** to exit.

6.   We recommend you perform a **Rebuild Internal Summaries** after editing call records (see *Database File Maintenance* later in this chapter).

## Call Record Deletion

**Purpose**    To purge all calls from the current period's file.

Calls should be purged only in extreme situations. Normally there is no need to do so as PARTNER Reporter automatically moves a closed period's file to the archive file (the old archive is written over and the current file is cleared for new calls).

**Dialog Box**
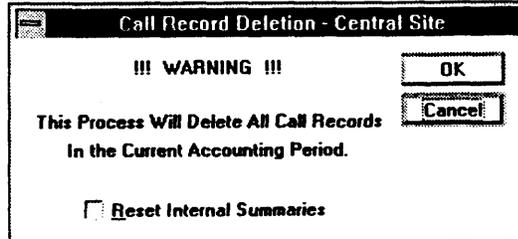


**Summary of Procedures**

> ⚠ *You should not attempt to purge call records from the database unless this is recommended by the hotline.*

1.   Select Call Record Deletion from the Utility menu.

2.   Enable [X] Reset Internal Summaries to remove the trend data and summary statistics accumulated to date. (If call records are deleted while internal summaries are not, there may be discrepancies in the Trend and Traffic reports.)

3.   Use **OK** to initiate the deletion and exit **(Cancel** exits without deleting records).

# File Import/Export

**Purpose**   To transfer Organization data from/to an external source — typically, another PC with the PARTNER reporter application — to help maintain shared Organization files.

PARTNER Reporter can import and export files as text in the format described below — we show a pipe "I" as a delimiter, but you may use any character that does not appear as a field value. Use quotes ("") where indicated. (See *Organization Table* in chapter 3 for field format and acceptable values.)

| File* | Format |
|-------|--------|
| **Personnel** | "last name"I"first name"I"title" <br> **Example:** `"Sohn" I"Maria" I"Ms"` |
| **Level-1** | extensionI"last name"I"first name"I"title"I 0 codeI"cost center"I0I0-18 (masked digits for storage)I0-18 (masked digits for reports)I yes/no (immediate output)I <br> **Example:** `21 I"Sohn" I"Maria" I"Ms" I6546 I"Publications" I0 I0 I0 Ino I` |
| **Level-2** | "cost center"I0I0Iminimum 0I"department" or emptyI 0 <br> **Example:** `"Publications" I0 I0 I0 I"Marketing" I0` |
| **Level-3** | "department name"I0I"division name" or empty <br> **Example:** `"Marketing" I0 I"TELECOM"` |
| **Level-4** | "division name"I0I"branch name" or empty <br> **Example:** `"TELECOM" I0 I"USA BRANCH"` |
| **Level-5** | "branch name"I0 <br> **Example:** `"USA BRANCH" I0` |

\*   To import files, higher level entries must exist in the database for lower levels to refer to them in an association. If an imported entry refers to an undefined higher level, the entry will be added with "Default" as the higher level owner. For example, to import extension 21 under cost center "Sales-1," you must have imported or added "Sales-1" to the database first.

**Dialog Box**



Database File. Select the organization level for transfer.

Disk File Name. Enter the path name of the external file — the source of import data or destination of export data.

Delimiter. Enter the character used to separate fields in the imported or exported records.

Duplicates. (File import only) Select the action to take if an imported entry duplicates an existing entry: *reject* the new entry or *update* the existing entry.

**Summary of Procedures (File Import or Export)**

1. From the **Utility** menu, select **File Import** or **File Export.**

2. For an import, prepare the data and place it in a file.

3. Complete the dialog box.

4. If you specified a floppy disk drive in *Disk File Name,* make certain to insert the appropriate diskette in the named drive.

5. Select **OK** to start the data transfer and then exit **(Cancel** exits without transferring data).
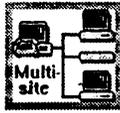


See *Helping Central Site to Add This Site* in Chapter 6 and *Adding Polled Sites* in Chapter 8 for tips on using File Export and File Import to propagate the Organization Table in a multi-site network.

# Database File Maintenance

**Purpose**    To check the integrity of your files and repair them if possible:

- Rebuild Internal Summaries — processes all calls in the current period and recomputes summary statistics. Use this function if you had changed the stored call record database via the **Call Record Edit** function.

- Rebuild Indexes — repairs database files. Use this function after a system error or a power interruption.

- Verify Database — checks file integrity. Use this function after a system error or a power interruption.

### Summary of Procedures

1. Select **Database Maintenance** from the **Utility** menu, then the function of interest.

2. If you had selected **Rebuild Internal Summaries** or **Rebuild Indexes,** a confirmation screen appears (see below). Select **OK** to execute the function and exit **(Cancel** exits without rebuilding the summaries or indexes).
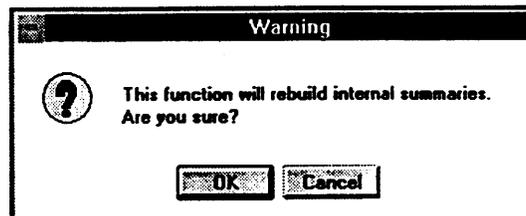


3. If you had selected **Verify Database,** the system checks for the presence of all PARTNER Reporter files.

- If files are missing or damaged, you'll be asked if you wish to repair them. Select **OK** to do so. Make a note of the error message, if any, and call the hotline.

- If all files are validated, an information screen appears (see below). Select **OK** to exit.

## System Upgrades

**Purpose**  To install a *System Upgrade* diskette containing a new software version or a larger model system.

**Summary of Procedures**

1.  From the **Utility** menu, select **Upgrades.**
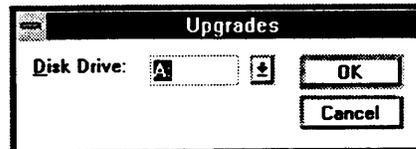


2.  Select the drive, insert the diskette, and select **OK** to start.

3.  Follow the screen instructions to complete the procedure, and then remove the diskette from the drive.

4.  If you need to configure a new option, proceed to the appropriate topic where it is documented in this manual.

## Call Processing Status

**Purpose**  To view the number of stored call records in your PC and, optionally, to stop and then start call processing.

⮞ We recommend stopping call processing while you back up or restore current databases. Make certain to restore call processing after the procedure.

**Summary of Procedures**

1.  Select **Call Processing Status** from the **Utilities** menu.
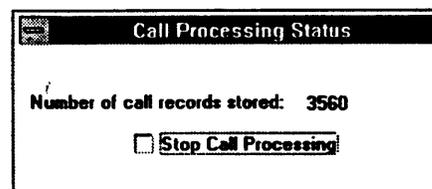


2.  To stop call record processing, select [x] Stop Call Processing; to enable processing, deselect it.

3.  You may leave this dialog box on display in the background or you may close the window.

# PARTNER Reporter at a Polled Site

<div style="text-align: right; font-size: 3em; font-weight: bold;">6</div>

This chapter describes the functions specific to a PARTNER Reporter site that is part of a multi-site network in the capacity of a "polled" remote site.

These functions are all part of setting up your system so that the processing center — or "Central Site" — can (1) add this site to its database, (2) poll this site's call record data, and (3) run reports on this site's call record data.

➡ Examples show Windows 3.1 / Windows for Workgroups 3.11 dialog boxes.

## Helping Central Site to Add This Site

To help the Central Site with the addition of this site, you should provide the Central Site system administrator with the following package:

■ A printed copy or text files of the following database listings:

— **Facilities Listing** (under **Configuration Listing)**

— **Location Table Listing** (under **Customization Listing)**

— **Account Codes Listing** (under **Administration Listing)**

■ A complete set (all levels) of the Organization Table export files (use the **File Export** function under the **Utilities** menu)

■ The *User ID* and *Password* which you will assign to the Central Site when you add it as a "user" of your PC and the *Phone Number* to call your PC's Remote Access modem (this will have the double function of Remote Access and Polled modem).

The above values will match the *Remote System User ID, Password,* and *Phone Number* on the Call Collection Interface for this site, when the site is added to the Central Site's database.

## Preparing This Site to Be Polled

For the Central Site to be able to poll this site, you must perform the following setup:

- Enable [x] Save Call Data For Sending in your **Call Collection Interface.**

- Enable the Call Sender Interface (under the **Configuration** menu).

- Add the Central Site's PC as a "user" of your PC (it must log in to poll call data)

### Enable "Save Call Data For Sending"

1. Select **Call Collection Interface** from the **Configuration** menu.

2. Enable [x] Save call data for sending.
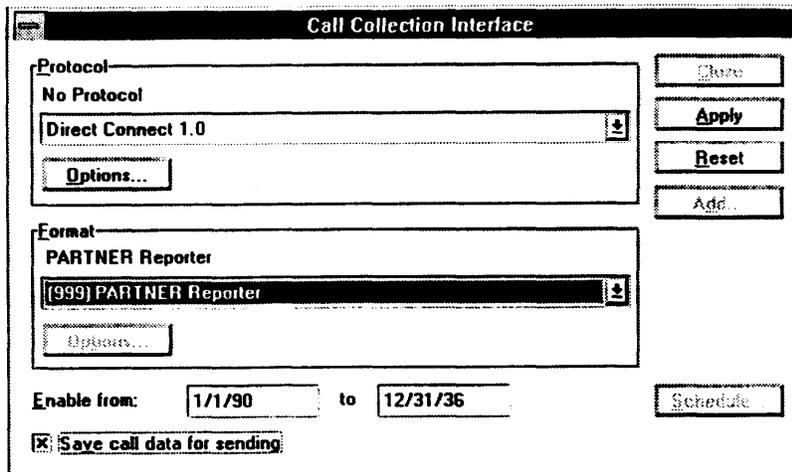


3. Use **Apply** to keep the changes, then select **OK** to restart the Call Collection Interface.

### Enable the Call Sender Interface

1. Select **Call Sender Interface** from the **Configuration** menu.
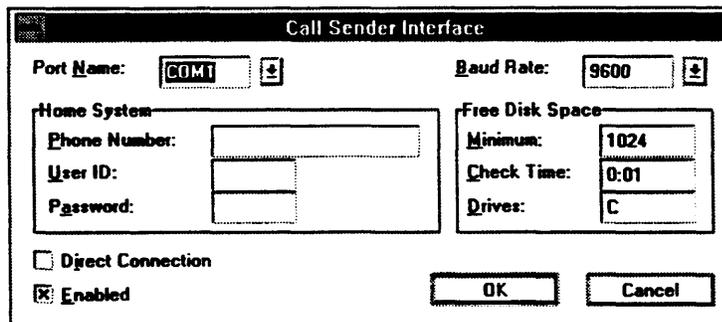
2.    Complete the following fields (and ONLY these fields) in the dialog box:

Port Name. Select the port to be used by the Central Site to retrieve calls from this
site — typically, this is the same port used by the Remote Access modem.

Baud Rate. Select the speed of the transmissions — typically, 9600 (but you may use
the highest supported by the modem).

Direct Connection. Select [x] if directly connected to the Central Site.

Enabled. Select [X] to provide the ability to send call data through this port when
polled.

⚠ **IMPORTANT:** Do not enter or change any field values in the Home System and
Free Disk Space program groups.

3.    Select **OK** to accept changes and exit.

## Add the Central Site as a "System User"

1.    Select **Users** from the **Configuration** menu.

2.    Select **Add,** enter the *User ID* and select **Apply.**



Privileges are not required for the Central Site to access your PC.

This User ID and this Password must be used by the Central Site to login to your PC.

These values are entered in the PollComm Protocol Options when the Central Site adds this site's Call Collection Interface.

3.    Enter the *password* twice, then select **OK.**

# PSU at a Polled Site

**7**

This chapter will help you install a Pollable Storage Unit (PSU) and connect it to a PARTNER telephone system at a site.

Have all components at hand, at their final location:

- PSU and power cord

- (Remote connection) Modem, PSU-to-modem cable (special cable, provided), and phone cord or...

  (Direct connection) PSU-to-PC cable (straight cable, not provided), terminated on the PSU end in a 25-pin male connector for an RS232 DCE interface



**PSU-to-Modem Cable**          **PSU-to-PC Cable**
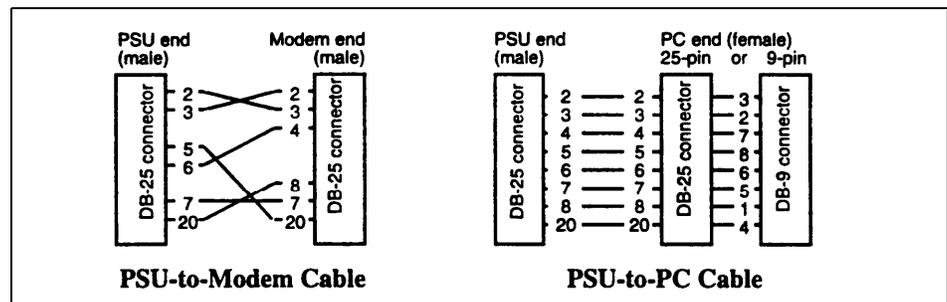
- Telephone system-to-PSU interface cable (provided in the PARTNER Reporter package): D8W modular cord and 355 A/F (DB-25 female) adapter

> ➡ PARTNER Reporter operations require that the telephone system at the polled site be administered properly. There are many variations; however, the example given in *Establishing the SMDR Interface* in Chapter 2 is typical of call center type of operations.
>
> Consult the above mentioned topic in Chapter 2 for details.

## Connecting the Unit

Refer to the illustrations below as you install the unit.



Front
Panel

Back
Panel

From PARTNER system    To modem or PC    Ferrite clip-on    To power outlet
    SMDR  port
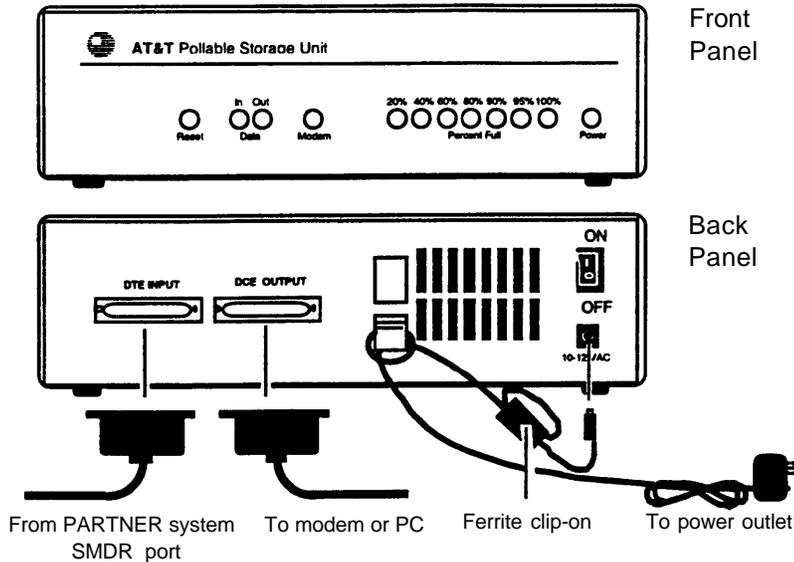
➩    The ferrite clip-on is mounted on the power cord next to the input jack ONLY on units to be
    installed outside the U.S.A. and which must comply with CISPR-22 Emissions
    Requirements.

1.  Connect the PSU to the PARTNER telephone system:

    a.  Plug one end of the D8W modular cord into the SMDR jack in the primary
        processor module.

    b.  Plug the other end into the 355 A/F adapter, then connect the adapter to the PSU
        "DTE INPUT" port.

2.  For a remote connection go to step 3; for a direct connection, go to step 4.

3.  For a remote connection:

    a.  Connect the PSU-to-modem cable from the PSU "DCE OUTPUT" port to the
        RS232 port on the modem.

    b.  Plug the modem phone cord into the wall jack for the telephone line used in
        polling this site.

    c.  Power up the modem.

    d.  Proceed to *Configuring the Unit.*

4.  For a direct connection, connect the PSU-to-PC cable from the PSU "DCE OUTPUT"
    port to the serial port on the PC used for collecting SMDR data from this site.

# Configuring the Unit

1. Turn the PSU upside down to configure the DIP switches:
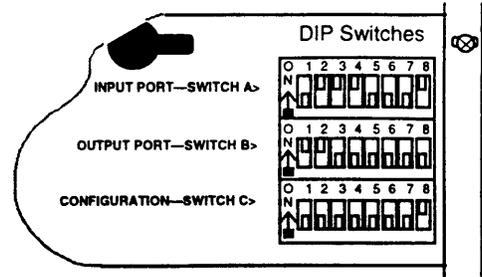


2. Match telephone system SMDR port values on SWITCH A:

| Baud Rate (A-1, A-2, A-3) | OFF-ON-ON = 1200 |
|---|---|
| Word Length (A-4) | ON = 8 bits |
| Parity (A-5, A-6) | OFF-OFF = none |
| Flow control (A-7, A-8) | OFF-ON = Xon/Xoff |

3. Set output values to match modem or PC on SWITCH B:

| Baud Rate* (B-1, B-2, B-3) | OFF-OFF-OFF = 150 <br> OFF-OFF-ON = 300 <br> OFF-ON-OFF = 600 <br> OFF-ON-ON = 1200 | ON-OFF-OFF = 2400 <br> ON-OFF-ON = 4800 <br> ON-ON-OFF = 9600 <br> ON-ON-ON = 19200 |
|---|---|---|
| Direct/Modem Connection (B-8) | OFF = connected to PC by modem <br> ON = directly connected to PC | |

\* If your modem's highest baud rate is not represented above, use the closest lower value (for example, on a 14400-baud modem, set the baud rate to 9600).

4. Set these configuration values on SWITCH C:

| PSU power loss mode (C-1) | OFF = Sleep (keeps data for 10 to 40 days) <br> ON = Run (collects calls $\leq$ 2 hours, then goes to sleep) |
|---|---|
| Use/ignore Switch A settings (C-8) | ON = Use Switch A (ignore PARTNER Reporter settings) <br><br> ⚠ **DO NOT TURN THIS SWITCH OFF.** <br> *If you do so, a poll by PARTNER Reporter will result in changing the PSU SMDR input port settings, stopping call collection.* |

## Powering Up the Unit

1. Plug the PSU power cord into the "10-12VAC" jack and into a power outlet.

2. To secure the cord, wind it one or two turns through the wire clip on the PSU back panel.

3. Turn the PSU "ON/OFF" switch to "ON".

   ⟹ You should see the front panel "Power" light flash, then turn solid green. If your telephone system is passing SMDR, you should see the "Data In" light flash as the PSU receives it.

   Contact the hotline as instructed on the inside front cover if you are experiencing difficulties.

## Setting Up the Site

Contact the Central Site to add this site to the Central Site database. Make certain the Call Collection Interface for the site is set EXACTLY as follows:

| Protocol | **PollComm** | | |
|---|---|---|---|
| | **Protocol Options** | Port = | *PC port used to poll this site* |
| | | Baud Rate = | *see step 3 of Configuring the Unit* |
| | | Remote System Phone Number = | *PSU modem's phone number* <br> (Not required in a direct connection) |
| | | Remote System User ID= | **UserId** |
| | | Remote System Password = | **UserPswd** |
| | | Remote System UCT Difference* = <br><br> * The hour difference between the PSU's location and Greenwich's time. | Enter value according to PSU's time zone: <br><br> 4:00 (Atlantic), 5:00 (Eastern), 6:00 (Central), 7:00 (Mountain), 8:00 (Pacific), 9:00 (Alaska), 10:00 (Hawaii) |
| | | Local System = | *leave BLANK all fields* |
| Format | **(999) PARTNER II x.x** | | |

When you poll this site, verify that call records are received and processed properly at the Central Site's end.

This completes the installation of the PSU as the source of call records for a PARTNER Reporter site.

# Central Site of a Multi-site Network

**8**

This chapter describes the functions specific to PARTNER Reporter in the capacity of the "Central Site" in a multi-site network.

The chapter is organized as follows:

■  *Overview.* Provides a high level description of what is involved in collecting, storing and reporting call record data from all sites in a network.

■  *Setting Up the Central Site.* Describes additional set up procedures after installing PARTNER Reporter.

■  *Adding Remote Sites.* Describes the tasks necessary to coordinate and install remote sites.

■  *Multi-site Functions.* Describes additional functions or differences in standard functions, related to administering a multi-site network. Topics include:

   —  *Site Selection*

   —  *Call Collection Interface and Schedules*

   —  *Reports*

   —  *Call Processing Status*

⇒ Examples show Windows 3.1 / Windows for Workgroups 3.11 dialog boxes.

## Overview

In a multi-site network, the Central Site performs the collection and processing of SMDR from every site in the network.

SMDR is handled at each site by either a direct connection from the site's PARTNER telephone system into the Central Site's PC, or indirectly, from another PC running PARTNER Reporter or from a PSU (these "call collectors" themselves receive SMDR directly from the site's PARTNER telephone system).

The figure below illustrates how this works.
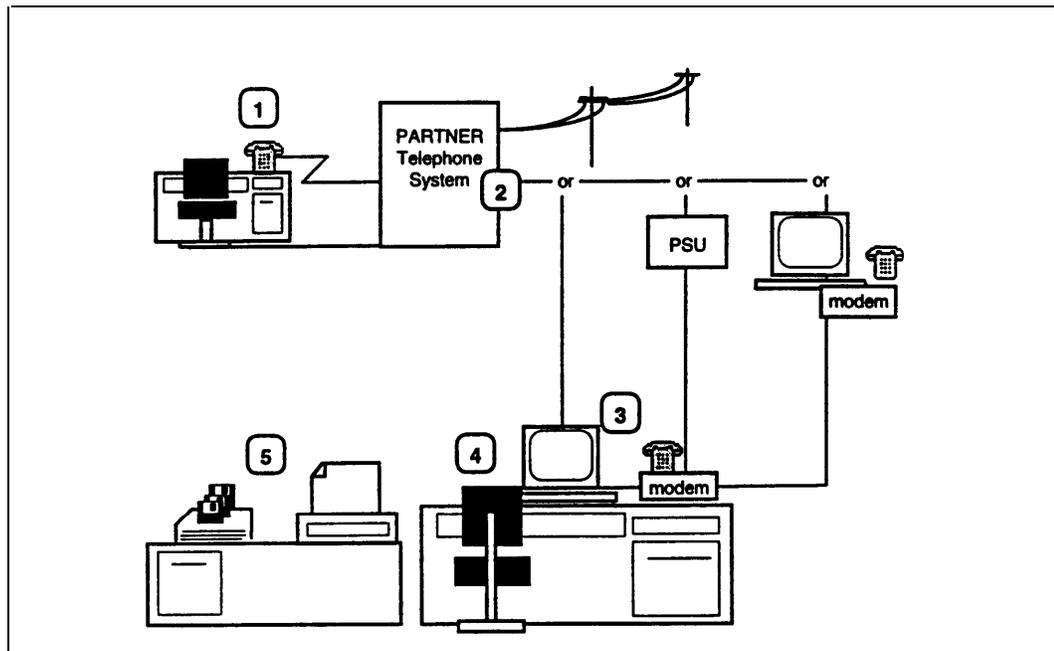


1. As a phone call is placed or received at a site, it is routed through the PARTNER telephone system to its final destination.

2. The telephone system prepares an electronic record of the transaction. If it is on a remote site, its "call collector" — a PSU or another PC — saves the output until the Central Site can retrieve it.

3. At the Central Site, all remote sites have been added to its database. At this point, the Call Collection Interface for each individual site regulates its own polling schedule, then starts the actual transmission, and finally translates the call records.

4. The call records from each site are processed according to each site's databases, then they are stored under individual site directories.

5. At report time, the Central Site selects which sites it wants to include in reports, then runs the reports for the network.

## Setting Up the Central Site

The Central Site is set up as documented in Chapter 2. Sample screens will look like they are shown in Part I of this book, with the exception noted below:

Some dialog boxes will show the name of the site on its title bar.

At first, it reads "Default." This will be changed in the next few steps:

**Line - Default**

Line:
```
???????
  ???????
```

Close
Add
Delete
Edit
Apply
Reset

Facility:

Default

Facilities...

☐ Delete at End of Accounting period
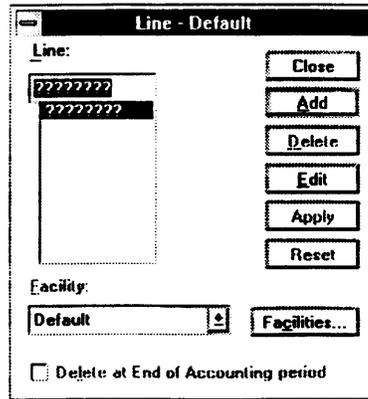
1. Select **Site Maintenance** from the **Utilities** menu.

2. When a dialog box similar to the one below appears, proceed as follows:

   a. Select **Edit.**

   b. Change the site name from "Default" to the one you wish to appear on reports.

   c. Select [x] Central Site.

   d. Select **Apply** to accept the changes, then **Close** to exit.

**Site**

Site Name:

```
Central Site
  Central Site
```

Close
Add
Delete
Edit
Apply
Reset

☒ Central Site      Site ID: Default
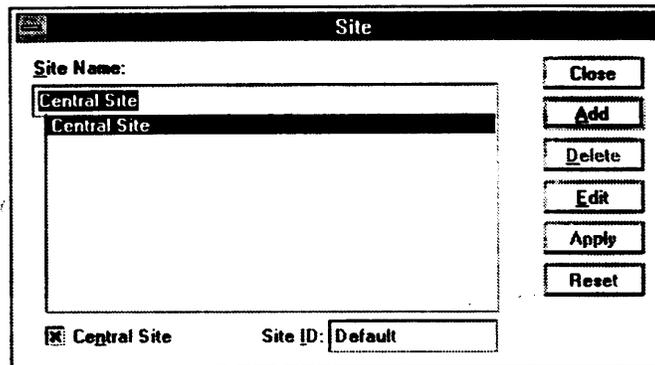
# Adding Polled Sites

**Purpose**   To add new polled sites, as well as rename, delete, or modify information on any installed sites. Multi-site networks support up to 50 or 100 sites, depending on the model. One site, typically, the operation center, is designated as the "Central Site."

To add a site, you must complete the following requirements:

| | |
|---|---|
| At the polled sites | Enable SMDR collection. |
| | This involves setting up a call collector system (which may be another PC running PARTNER Reporter or a PSU) to pass call records to the Central Site. |
| | Provide information for the Central Site: |
| | — Call Collection Information (the phone number to poll the local call collector (PSU or PC), its login User ID and Password) |
| | — The Telephone Lines & Facilities information (may be provided by a listing) |
| | — The Organization Table listing (or provide Organization information via the File Import/Export utility) |
| At the Central Site | Provide a PC port and modem to poll the remote site (may share modem used to poll other sites). |
| | Obtain the new site's installation information |
| | Add new site (via Site Maintenance function) |

**Access**   Select **Site Maintenance** from the **Utility** menu.



Site name. Up to 25 characters used as report headings.

Central site. Enable [x] only for the Central Site in your network.

Site ID. Identification (1 to 8 characters) used for data transfers throughout a network of call senders and receivers.

## Summary of Procedures (Site Maintenance)

1.  For deletions, select the site, then use **Delete** and confirm removal. Proceed directly to step 4.

2.  For changes, select the site, then:

    a.  Use **Edit** and complete the Site dialog box.

    b.  Select **Apply** to accept the changes. Proceed directly to step 4.

3.  For additions, make certain to have the site's database listings at hand. Then proceed as follows:

    a.  Use **Add** and complete the Site dialog box.

    b.  Select **Apply** to set up the site's databases.

    c.  A dialog box similar to the one below appears. In the procedure that follows when you select [x] an item from the Setup display, the item's dialog box appears. When you close the item's dialog box, the Setup display reappears so that you may continue to the next item.
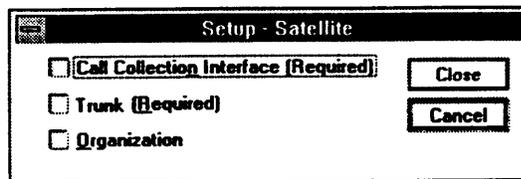
    

    i.   Select [X] Call Collection Interface — see *Call Collection Interfaces and Scheduling* later in this chapter for details.

    ii.  Select [X] Trunk — see *Lines* in Chapter 3 for details.

    iii. Select [X] Organization — see *Organization Table* in Chapter 3 for details.

    ➡ If you have received Organization Table Export Files from a remote site that has a PARTNER Reporter, you may skip step iii and install the files via the **File Export** function (under **Utilities** menu).

    iv.  When complete, select **Close** to save your entries and return to the Site dialog box. To abort the installation, select **Cancel** (when you confirm the cancellation, all installed files for the new site will be deleted).

4.  At the Site dialog box, you may work with another site or select **Close** to exit.

5.  If you added a site, refer to *What's Next* in Chapter 2 for a list of PARTNER Reporter features that you may wish to implement at the newly-installed site.

# Multi-site Functions

This section describes additional functions or differences in standard functions, related to administering a multi-site network. Topics include:

- *Site Selection.* This function is required whenever you must work in a specific site's database.

- *Call Collection Interface and Schedules.* This topic describes an overview of call collection functions from the Central Site's standpoint.

- *Reports.* This topic summarizes how to include sites in your call accounting reports.

- *Call Processing Status.* This topic shows a sample of the Call Processing Status window, displaying specific site information.

## Site Selection

**Purpose**    To access a site's database in a multi-site network.

**Access**    Select **Site Selection** from the **Administration** menu.
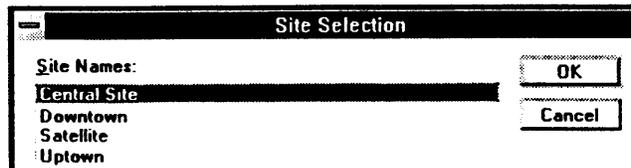


Select the name of the desired site from the list box and use **OK.**

After a site is selected, its name will appear in the title bar of site-specific functions.

## Call Collection Interfaces and Schedules

**Purpose**    To set up interface details with the source of call records for a site, which consist of a transmission protocol, the call record format and the dates to enable call collection. The details also include a polling schedule if the connection is not direct.

**Related Functions**    See diagrams on the next page for the role of related functions:

- Call Sender Interface (used by a site that "saves call data for sending") — manages poll requests from a Central Site.

- Users — provides access to "system users" (including the Central Site that must log in and poll call data)

**Access**    Perform a **Site Selection (Administration),** then select **Call Collection Interface** from the **Configuration** menu.

Diagram of Related Functions: Call Collection Interface, Call Sender Interface, Users
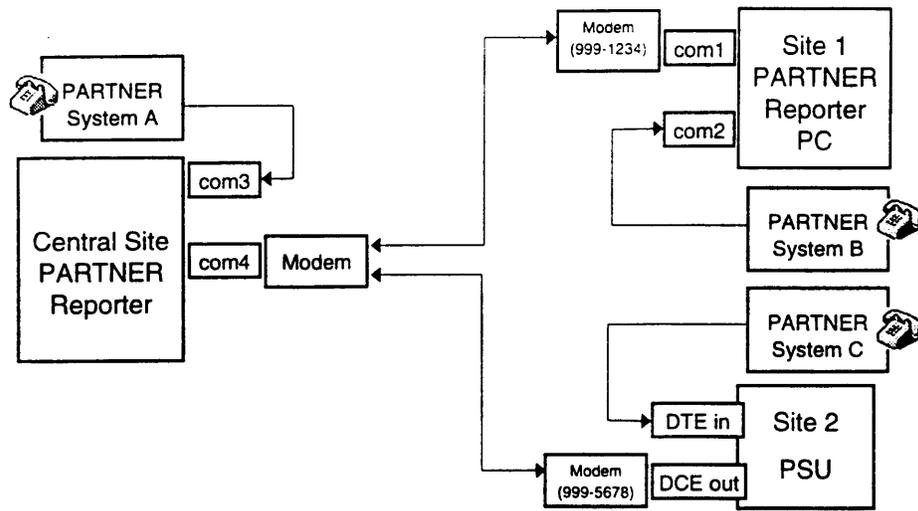


**Central Site**

```
Call Collection interface - Central Site
    protocol = Direct Connect
    format = PARTNER Reporter
Protocol Options (Direct Connect)
    Port = Com3
    Baud rate, data bits, etc.
```

```
Call Collection Interface - Site 1
    protocol = PollComm
    format = PARTNER Reporter
Protocol Options (PollComm)
    Port = Com4
    Remote phone # = 999-1234
    Remote User ID = Central
    Remote Password = Poller
```

```
Call Collection Interface - Site 2
    protocol = PollComm
    format = PARTNER Reporter
Protocol Options (PollComm)
    Port = Com4
    Remote phone # = 999-5678
    Remote User ID = UserId
    Remote Password = UserPswd
```

**Remote Site #1**

```
Call Collection Interface
    protocol = Direct Connect
    format = PARTNER Reporter
    [x] save call data for sending
Protocol Options (Direct connect)
    Port = Com2
    Baud rate, data bits, etc.
─────────────────────────────────
Call Sender Interface
    Port = Com1
    Baud rate = modem's
─────────────────────────────────
Users
    User ID = Central
    Password = Poller
```

**Remote Site #2**

```
PSU (default) login by poller:
    User ID = UserId
    Password = UserPswd
```

**Call Collection Interface**

```
┌─────────────────── Call Collection Interface - Satellite ──────────────┐
│ ┌─Protocol──────────────────────────────────────────┐    ┌─ Close ──┐  │
│ │  Collects from PARTNER Reporter or PSU            │    └──────────┘  │
│ │  PollComm 1.0                                  ±  │    ┌──────────┐  │
│ │                                                   │    └──────────┘  │
│ │  Options...                                       │    ┌─ Add... ─┐  │
│ │                                                   │    └──────────┘  │
│ ├─Format────────────────────────────────────────────┤                 │
│ │  ATT PARTNER II - PARTNER Reporter                │                 │
│ │  (999) PARTNER II x.x                          ±  │                 │
│ │                                                   │                 │
│ └───────────────────────────────────────────────────┘                 │
│                                                                        │
│  Enable from:  [1/1/90]    to  [12/31/36]           hedule...         │
│  ☐ Save call data for sending                                         │
└────────────────────────────────────────────────────────────────────────┘
```

See *Call Collection Interface* in Chapter 3 for protocol details.

**Polling Schedule**

```
┌──────────────── Polling Schedule - Central Site ───────────────┐
│ Protocol:  PSU 1.0                                             │
│ ┌─Schedule─────────────────────────────────────────┐          │
│ │  Days        Start    End      Cycle             │          │
│ │  ─────────────────────────────────────            │  ┌ Add... ┐
│ │  Weekday     0:00     23:59    1:00              │  └────────┘
│ │  Weekend     0:00     23:59    1:00              │  ┌ Edit... ┐
│ │                                                  │  └────────┘
│ │                                                  │  ┌ Delete ┐
│ │                                                  │  └────────┘
│ └──────────────────────────────────────────────────┘          │
│                                                               │
│           ┌─ OK ─┐          ┌─ Cancel ─┐                      │
│           └──────┘          └──────────┘                      │
└────────────────────────────────────────────────────────────────┘
```

➡ The Start and End Times refer to the time-slot in which a site <u>has claim to that port.</u> If a poll runs over its time-slot, it will end (the remainder of the data will be down-loaded on the next poll). Once a poll ends, the next site with a claim to that port will be polled.

1. Use the CALL COLLECTION - POLLING SCHEDULE WORK-SHEET in appendix A to plan a complete schedule for the entire group of sites polled through a single port.

2. At the Polling Schedule dialog box:

   a. To remove a time-slot, select it, use **Delete,** and proceed to step 3.

   b. To add a new time-slot, choose **Add;** for changes, select a time-slot and choose **Edit.**

      i. If you selected to add or edit a schedule, complete the resulting dialog box as set up in your worksheet (step 1).

      ii. Select **OK** to accept these entries and return to the prior dialog box.

```
┌──────────── Polling Schedule Add - Satellite ────────────┐
│ Protocol:  PollComm 1.0                                 │
│ ┌─Days──────────────────┐   ┌─Times──────────────────┐  │
│ │  ● Weekday            │   │  Start:  [12:00 AM]    │  │
│ │  ○ Weekend            │   │  End:    [11:59 PM]    │  │
│ │                       │   │                        │  │
│ └───────────────────────┘   └────────────────────────┘  │
│ ┌─Cycle─────────────────┐                               │
│ │  ○ Single             │                               │
│ │  ● Periodic           │              ┌─ OK ─┐         │
│ │    Interval: [1:00]   │              └──────┘         │
│ │                       │              ┌ Cancel ┐       │
│ └───────────────────────┘              └────────┘       │
└───────────────────────────────────────────────────────────┘
```

3. Back at the Polling Schedule dialog box, you may work on another time-slot or select **OK** to exit.

## Reports

Most report dialog boxes will include a site selection list box to identify sites to be included in the report.
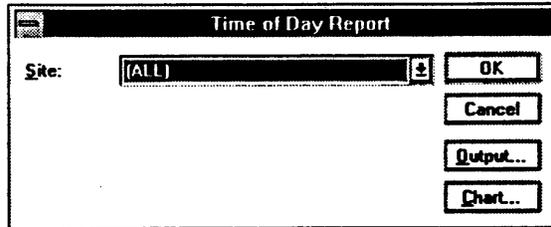
| | |
|---|---|
| **Time of Day Report** | |
| Site: (ALL) ▾ | OK Cancel Output... Chart... | Choices will be either "(ALL)" or a specific site from the list of installed sites.

## Call Processing Status

This window will have a slightly different look in a multi-site network.

**Call Processing Status**
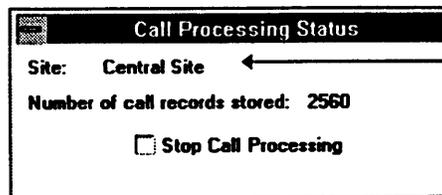
Site:  **Central Site**  ◀—— The window will display the name of the site whose calls are currently being processed.

Number of call records stored:  **2560**

☐ Stop Call Processing

# Worksheets

# A

This appendix contains blank forms to collect the information required for installation:

■   SYSTEM-WIDE PARAMETERS WORKSHEET

■   CALL COLLECTION INTERFACE WORKSHEET

■   CALL COLLECTION - POLLING SCHEDULE WORKSHEET

■   TELEPHONE LINES & FACILITIES WORKSHEET

■   ORGANIZATION WORKSHEET

Instructions to complete the SYSTEM-WIDE PARAMETERS WORKSHEET:

1. Enter the Company Name (1-15 characters) as you wish it to appear on report headers.

   ➡ The Company Name is a system-wide parameter, not equivalent to the name of a site in a multi-site network. Sites are named (1-15 characters) at the time they are added (or renamed anytime thereafter) via the Site Maintenance function under the Utilities menu.

2. Select the number of levels in the Organization structure and their level names (1-15 characters), if different than the printed defaults.

3. Select your company's Accounting Period. If this is "number of days," enter number; if "user specified," enter dates (for example, 1/15/96, 2/12/96, etc.).

4. Indicate the month (1 -12) and day (1 -31) of the first day of the accounting period.

5. Indicate the time of day to close an accounting period.

SYSTEM-WIDE PARAMETERS WORKSHEET

PART I - Organization Levels

Company Name_____ (15 characters)

Number of levels:        Level  Names:

                         **Extension** or_____ (15 characters)

(default)  2  ☐          **Cost Center** or_____ (15 characters)

           3  ☐          **Department** or_____ (15 characters)

           4  ☐          **Division** or_____ (15 characters)

           5  ☐          **Branch** or_____ (15 characters)


PART II - Accounting Period

☐ Monthly

☐ Bi-monthly

☐ Quarterly

☐ Number of Days:_____

☐ User Specified    Dates:    (month)  /  (day)  /  (year)

                              _____/_____/ _____

                              _____/_____/ _____

                              _____/_____/ _____

                              _____/_____/ _____

                              _____/_____/ _____

                              _____/_____/ _____

                              _____/_____/ _____

                              _____/_____/ _____

                              _____/_____/ _____

                              _____/_____/ _____

                              _____/_____/ _____

                              _____/_____/ _____


First day of accounting period:    _____month (1-12)    _____day (1 -31)

Time of day to close accounting period:    _____(hour): _____(minute)    AM    PM

Instructions to complete the CALL COLLECTION INTERFACE WORKSHEET:

1.  Make as many copies of this worksheet as needed.

2.  (Multi-site network only) Enter the name of the site.

    ⇒ Sites are named at the time they are added (or renamed anytime thereafter) via the Site
       Maintenance function under the Utilities menu.

3.  Select the protocol and complete the protocol options:

    ■ For a Direct Connect protocol, enter the PC port to connect to the telephone system.
      The other values should be entered during setup EXACTLY as shown.

    ■ For a PollComm protocol (polls a PSU or another PARTNER Reporter), select the PC
      port to connect to the polled device then, the other values as follows:

      a.  Enter the port used to poll the device.

          ⇒ In a multi-site network, this port is typically shared by multiple sites, according to a
             non-conflicting polling schedule. If necessary, update this information after you
             have completed the POLLING SCHEDULE WORKSHEET in the next section.

      b.  If the device is connected by modems, enter the phone number to dial the polled
          device's modem: use the letters "T" (for tone) or "P" (for pulse), digits, and
          commas "," (for pauses) as required — for example **T9,3816000** uses touch
          tone, dials 9, waits, then dials 381-6000.

      c.  Enter the User ID and Password. If the polled device is a PSU, enter User ID =
          **UserId** and Password = **UserPswd** (use upper and lower case, no spaces).

      d.  For UCT Difference, select the polled device's time zone. During setup, enter the
          amount in parentheses — this corresponds to the hour difference between the
          polled device and the Universal Coordinated Time (Greenwich Mean Time).

      e.  Check if this is a "direct connection" to the polled device (i.e., modems are not
          used).

      ⇒ During setup you will also see a field grouping for "Local System." Leave Local System
         fields blank.

    ■ For a Collect from File protocol:

      a.  Enter the name of the file containing SMDR for this site. Use a complete path
          name to the directory of the SMDR file.

      b.  Enter the polling interval or frequency (number of seconds) to retrieve call records
          from the file named above.

4.  Identify whether or not this site must save its call record data to send to the Central Site.

    ⇒ During setup you will also need to (1) select the call collection format: **PARTNER II x.x (ATT
       PARTNER II - PARTNER Reporter** (there is only one choice) and (2) acceptor change the
       default "enable from / to" dates (by default, these dates enable the call collection interface).

CALL COLLECTION INTERFACE WORKSHEET

Site Name_____

Protocol Options ─────────────────────────────────────────────────────────────

☐ Direct Connect   Port Name (COM1, COM2, etc.)_____

                 Baud Rate = **1200**

                 Data bits = **8**        Parity = none

                 Stop Bits = **2**       Flow Control = **Xon / Xoff**

─────────────────────────────────────────────────────────────────────────────

☐ PollComm (PSU or PARTNER Reporter). Also complete the POLLING SCHEDULE WORKSHEET.

                Port Name (COM1, COM2, etc.)_____ (from the POLLING

                Baud Rate = **9600**                SCHEDULE WORKSHEET)

Remote System:  Phone Number =_____ (leave blank if not connected
(Polled Site)                                     by modems)

                User ID =_____

                Password =_____

                UCT difference:   ☐ Atlantic (4:00)     ☐ Eastern (5:00)

                                      ☐ Central (6:00)      ☐ Mountain (7:00)

                                      ☐ Pacific (8:00)       ☐ Alaska (9:00)

                                      ☐ Hawaii (10:00)

Direct Connection (that is, check if modems are not used) ☐

─────────────────────────────────────────────────────────────────────────────

☐ Collect from File   File Name =_____

                    Polling Interval =_____ seconds

Save poll data for sending? ☐ no   ☐ yes

Instructions to complete the CALL COLLECTION - POLLING SCHEDULE WORKSHEET:

1. Make as many copies of this worksheet as needed.

2. Plan a complete schedule. (This is particularly important in a multi-site network, in which many sites are polled through the same port.)

   a. Use a "scratch" sheet for a single PC serial port. Divide the days (weekday/weekend) into non-overlapping hour or half-hour slots and assign them to a site. For example:

| Port Used for polling sites: | Start / End Times | Days = Weekdays (M-F) OR Weekend (Sat-Sun) | Site Name |
|---|---|---|---|
| | 00:00 - 00:59 | | |
| | 01:00 - 01:59 | | |
| | 02:00 - 02:59 | | |
| | 03:00 - 03:59 | | |
| | 04:00 - 04:59 | | |
| | 05:00 - 05:59 | | |
| | 06:00 - 06:59 | | |
| | 07:00 - 07:59 | | |
| | 08:00 - 08:59 | | |
| | 09:00 - 09:59 | | |
| | 10:00 - 10:59 | | |
| | 11:00 - 11:59 | | |
| | 12:00 - 12:59 | | |
| | 13:00 - 13:59 | | |
| | 14:00 - 14:59 | | |
| | 15:00 - 15:59 | | |
| | 16:00 - 16:59 | | |
| | 17:00 - 17:59 | | |
| | 18:00 - 18:59 | | |
| | 19:00 - 19:59 | | |
| | 20:00 - 20:59 | | |
| | 21:00 - 21:59 | | |
| | 22:00 - 22:59 | | |
| | 23:00 - 23:59 | | |

   b. Once the schedule for weekdays and for weekends for the port is established, pass the port information to the CALL COLLECTION INTERFACE WORKSHEET and the time-slot information from your "scratch" sheet to the CALL COLLECTION - POLLING SCHEDULE WORKSHEET, one site at a time.

3. Select and/or enter:

   ■ Name of the site and port used.

   ■ Weekday or Weekend (not both). If Weekday, the site is polled Monday through Friday in the specified manner; if Weekend, the site is polled Saturdays and Sundays.

   ■ The start and end times (use 24-hour clock notation). These set the time-slot in which a site has claim to that port. If a poll should run over its time-slot, it will be terminated (the remainder of the data will be retrieved on the next poll). Once a poll ends, the next site with a time-slot claim to that port will be polled.

   ■ Polling cycle — a single poll or polls at periodic intervals. If you select single poll, the site is polled once, at the start time; if you select periodic polls, enter the interval in hours and minutes to repeat polls within the time-slot (note that the interval must fit within the time-slot — i.e., it must be shorter — for polls to occur more than once).

## CALL COLLECTION - POLLING SCHEDULE WORKSHEET

| Site Name | Port Used: |
|---|---|

| | | | |
|---|---|---|---|
| Days ☐ Weekday ☐ Weekend | Start (hr:min) | End (hr:min) | Polling cycle<br>☐ Single Poll<br>☐ Periodic Poll at ____ : ____ (hr:min) intervals |
| Days ☐ Weekday ☐ Weekend | Start (hr:min) | End (hr:min) | Polling cycle<br>☐ Single Poll<br>☐ Periodic Poll at ____ : ____ (hr:min) intervals |
| Days ☐ Weekday ☐ Weekend | Start (hr:min) | End (hr:min) | Polling cycle<br>☐ Single Poll<br>☐ Periodic Poll at ____ : ____ (hr:min) intervals |
| Days ☐ Weekday ☐ Weekend | Start (hr:min) | End (hr:min) | Polling cycle<br>☐ Single Poll<br>☐ Periodic Poll at ____ : ____ (hr:min) intervals |
| Days ☐ Weekday ☐ Weekend | Start (hr:min) | End (hr:min) | Polling cycle<br>☐ Single Poll<br>☐ Periodic Poll at ____ : ____ (hr:min) intervals |
| Days ☐ Weekday ☐ Weekend | Start (hr:min) | End (hr:min) | Polling cycle<br>☐ Single Poll<br>☐ Periodic Poll at ____ : ____ (hr:min) intervals |
| Days ☐ Weekday ☐ Weekend | Start (hr:min) | End (hr:min) | Polling cycle<br>☐ Single Poll<br>☐ Periodic Poll at ____ : ____ (hr:min) intervals |
| Days ☐ Weekday ☐ Weekend | Start (hr:min) | End (hr:min) | Polling cycle<br>☐ Single Poll<br>☐ Periodic Poll at ____ : ____ (hr:min) intervals |
| Days ☐ Weekday ☐ Weekend | Start (hr:min) | End (hr:min) | Polling cycle<br>☐ Single Poll<br>☐ Periodic Poll at ____ : ____ (hr:min) intervals |
| Days ☐ Weekday ☐ Weekend | Start (hr:min) | End (hr:min) | Polling cycle<br>☐ Single Poll<br>☐ Periodic Poll at ____ : ____ (hr:min) intervals |

Instructions to complete the TELEPHONE LINES & FACILITIES WORKSHEET:

1. Make as many copies of this worksheet as needed.

2. (Multi-site network only) Enter the name of the site.

    ⇒ Sites are named at the time they are added (or renamed anytime thereafter) via the Site Maintenance function under the Utilities menu.

3. Enter the facility name. This is the identifier (up to 15 characters) for a group of lines that carry calls requiring similar services — typically, these line groupings are already programmed for your telephone system.

    ⇒ For example, if you have a pool of Central Office lines, you may call the facility "CO" and associate the lines in that pool under this name. Other examples are: "Private" (private lines), "WATS" or "IN-WATS" (for 800-number service lines), "ICLID" (for lines with "Caller ID" service).

    If your lines are NOT grouped or pooled, use the facility name **"Default"** (you may later change it to the name of your choice during Setup).

4. Enter the Grade of Service. This is the desired probability (0.0 to 20.0 %; default = 2.0 %) of receiving a busy signal during the facility busy hour. The system uses actual traffic data to estimate the number of lines required to meet this value.

5. List the lines in this facility, then enter the count as Number of Lines.

TELEPHONE LINES & FACILITIES WORKSHEET

| Site Name: |
| --- |

| Facility Name: | | Grade of Service: | Number of Lines: |
| --- | --- | --- | --- |
| Lines (in this Facility — list as they appear in an SMDR call record from the telephone system): | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

| Facility Name: | | Grade of Service: | Number of Lines: |
| --- | --- | --- | --- |
| Lines (in this Facility — list as they appear in an SMDR call record from the telephone system): | | | |
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| Facility Name: | | Grade of Service: | Number of Lines: |
| --- | --- | --- | --- |
| Lines (in this Facility — list as they appear in an SMDR call record from the telephone system): | | | |
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Instructions to complete the ORGANIZATION WORKSHEETS - Levels 1 and 2:

1. If using different organization level names than the system defaults of "Cost Center" and "Extension," change them to those used in the SYSTEM-WIDE PARAMETERS worksheet.

2. Make as many copies of this worksheet as needed.

3. (Multi-site network only) Enter the name of the site.

    ➡ Sites are named at the time they are added (or renamed anytime thereafter) via the Site Maintenance function under the Utilities menu.

4. Enter the name of the Cost Center (1-15 characters).

5. List all Extensions under this Cost Center. Use the 2-digit extension numbers, exactly as reported in an SMDR call record from the telephone system.

6. For each Extension, enter:

    a. Personnel Name. Title (Miss, Mr., or Mrs. or up to 6 characters), First Name (up to 26 characters) and Last Name (up to 36 characters) of an extension user.

    b. Indicate whether or not calls from this extension should be logged into the Immediate Output file.

    c. Indicate Privacy - Masked Digits for Reports. Select the number of digits to hide on numbers dialed by this extension ( 0 to 17 digits or "All" digits). The right-most digits will be masked with "?"s on reports only.

       ➡ When a number is masked for reports, all (unmasked) dialed number are stored. If at a later date you choose to change these Privacy settings, future reports may then print the entire unmasked number.

    d. Indicate Privacy - Masked Digits for Storage. Select the number of digits to hide on numbers dialed by this extension ( 0 to 17 digits or "All" digits). The right-most digits will be masked with "?"s as the call goes into storage.

       ➡ When a number is masked for storage, it is also masked on reports; however, the loss of this information is final — the unmasked number cannot be retrieved — even if at a later date you choose to change these Privacy settings.

ORGANIZATION WORKSHEET - Levels 1 and 2

| Site Name: |
|---|

| Cost Center: |
|---|

| Extension: | Personnel Name (Title, first name, last name): | | |
|---|---|---|---|
| Immediate Output? | ☐ yes ☐ no | Privacy - Masked Digits for Reports (hides 0-17 digits or ALL): | Privacy - Masked Digits for Storage (hides 0-17 digits or ALL): |

| Extension: | Personnel Name (Title, first name, last name): | | |
|---|---|---|---|
| Immediate Output? | ☐ yes ☐ no | Privacy - Masked Digits for Reports (hides 0-17 digits or ALL): | Privacy - Masked Digits for Storage (hides 0-17 digits or ALL): |

| Extension: | Personnel Name (Title, first name, last name): | | |
|---|---|---|---|
| Immediate Output? | ☐ yes ☐ no | Privacy - Masked Digits for Reports (hides 0-17 digits or ALL): | Privacy - Masked Digits for Storage (hides 0-17 digits or ALL): |

| Extension: | Personnel Name (Title, first name, last name): | | |
|---|---|---|---|
| Immediate Output? | ☐ yes ☐ no | Privacy - Masked Digits for Reports (hides 0-17 digits or ALL): | Privacy - Masked Digits for Storage (hides 0-17 digits or ALL): |

| Extension: | Personnel Name (Title, first name, last name): | | |
|---|---|---|---|
| Immediate Output? | ☐ yes ☐ no | Privacy - Masked Digits for Reports (hides 0-17 digits or ALL): | Privacy - Masked Digits for Storage (hides 0-17 digits or ALL): |

| Extension: | Personnel Name (Title, first name, last name): | | |
|---|---|---|---|
| Immediate Output? | ☐ yes ☐ no | Privacy - Masked Digits for Reports (hides 0-17 digits or ALL): | Privacy - Masked Digits for Storage (hides 0-17 digits or ALL): |

Instructions to complete the ORGANIZATION WORKSHEET - Levels 2 and higher:

1. Make as many copies of the worksheet as needed.

2. If using different organization level names than the system defaults, enter them from the SYSTEM-WIDE PARAMETERS worksheet.

3. List all entries in each of the levels you are using, sorted by the "parent" level. If necessary, skip lines and/or draw lines to help you delimit the groupings.

For example, you can enter the following hierarchy as in the sample worksheet below:

Cost centers    501, 502-- │ Front End department --  Service division -  East branch

                675-------- │ Packing   -------------------- │

                700, 740 -- │ Sales   ----------------------- │ Administration --

                800-------- │ Marketing   ----------------- │

| Cost Center (or Level-2 name, if different) | Department (or Level-3 name, if different) | Division (or Level-4 name, if different) | Branch (or Level-5 name, if different) |
|---|---|---|---|
| 501 | Front End | Service | East |
| 502 | | | |
| 675 | Packing | | |
| 700 | Sales | Administration | |
| 740 | | | |
| 800 | Marketing | | |

ORGANIZATION WORKSHEET - Levels 2 and higher

| Cost Center<br>(or Level-2 name , if different) | Department<br>(or Level-3 name , if different) | Division<br>(or Level-4 name , if different) | Branch<br>(or Level-5 name , if different) |
|---|---|---|---|
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# Sample Reports

This appendix provides samples of the following reports:

- Organization Detail Report — see page B-2
- Organization Summary Report — see page B-3
- Cost Center Summary Report — see page B-4
- Organization Trends Report — see page B-4
- Selection Detail Report — see page B-5
- Selection Summary Report — see page B-5
- Account Code Detail Report — see page B-6
- Account Code Summary Report — see page B-6
- Date Report (Incoming Traffic) — see page B-7
- Time of Day Report (Incoming Traffic) — see page B-8
- Extension Summary Report (Incoming Traffic) — see page B-9
- ICLID Call Distribution Report (Incoming Traffic) — see page B-9
- Talk and Queue Time Distribution Report (Incoming Traffic) — see pages B-10, B-11
- Facility Grade of Service Report — see page B-12

```
                           Organization Detail Report
Date: Thursday, September 28, 1995                          Page:     1
Time: 1:47:24 PM                      Company Name
-----------------------------------------------------------------------

SELECTION CRITERIA     :
    DATE RANGE         : 9/26/95 to 10/1/95
    TIME RANGE         : 12:00:00 AM to 11:59:59 PM
    MINIMUM TALK TIME: 0:00:00
    Cost Center        : Cust Svc
    Extension          : 04
    CALL TYPE          : All
    DIALED NUMBER      : All

    PAGE BREAK AFTER EACH Extension: No


Cost Center      : Cust Svc
Extension        : 04
PERSONNEL NAME   : Herrero, Ms Julia

                    DURATION    TALK TIME                           CALL
      DATE    TIME  HHHH:MM:SS  HHHH:MM:SS  DIALED NUMBER    LOCATION  TYPE
   --------  -----  ----------  ----------  ----------------  ----------  -----
   09/27/95 08:00    0:10:00     0:08:40 5540000             Rushville INCOM
   09/27/95 09:10    0:10:00     0:09:45 5540000             Rushville INCOM
   09/27/95 15:30    0:30:00             554-0000            Rushville LOCAL

              3     0:50:00     0:18:25
                    ----------  ----------
      TOTALS:        0:50:00 NUMBER OF CALLS:     3



Cost Center TOTALS
Cost Center      : Cust Svc

                       ----- DURATION -----        ----- TALK TIME ----
                    TOTAL    TOTAL    PER CALL  INCOM   TOTAL    PER CALL
      Extension     CALLS  HHHH:MM:SS HH:MM:SS  CALLS HHHH:MM:SS HH:MM:SS
   ---------------  -----  ---------- --------  ----- ---------- --------
              04       3     0:50:00   0:16:40     2    0:18:25   0:09:12
                    -----  ---------- --------  ----- ---------- --------
      TOTALS:           3     0:50:00   0:16:40     2    0:18:25   0:09:12


GRAND TOTALS
                       ----- DURATION -----        ----- TALK TIME ----
                    TOTAL    TOTAL    PER CALL  INCOM   TOTAL    PER CALL
      Cost Center   CALLS  HHHH:MM:SS HH:MM:SS  CALLS HHHH:MM:SS HH:MM:SS
   ---------------  -----  ---------- --------  ----- ---------- --------
      Cust Svc         3     0:50:00   0:16:40     2    0:18:25   0:09:12
                    -----  ---------- --------  ----- ---------- --------
      TOTALS:           3     0:50:00   0:16:40     2    0:18:25   0:09:12


End of Organization Detail Report
```

```
                                    Organization Summary Report
Date: Thursday, September 28, 1995                                                    Page:    1
Time: 2:27:02 PM                              Company Name
--------------------------------------------------------------------------------------------------

SELECTION CRITERIA     :
     DATE RANGE        : 9/27/95 to 9/27/95
     TIME RANGE        : 12:00:00 AM to 11:59:59 PM
     MINIMUM TALK TIME: 0:00:00
     Cost Center       : Cust Svc
     Extension         : All
     CALL TYPE         : All
     DIALED NUMBER     : All

     PAGE BREAK AFTER EACH Cost Center: No


Cost Center    : Cust Svc

                                                      ----- DURATION -----    ---- TALK TIME ----
                                             TOTAL   TOTAL     PER CALL  INCOM   TOTAL     PER CALL
Extension                       NAME         CALLS  HHHH:MM:SS HH:MM:SS  CALLS  HHHH:MM:SS HH:MM:SS
---------------  ------------------------------------------  ------ ---------- -------- ------ ---------- --------
           01    DiMarco, Mr Joe                   7   1:30:00  0:12:51     4    0:47:25  0:11:51
           04    Merrero, Ms Julia                 3   0:50:00  0:16:40     2    0:18:25  0:09:12
           05    LaFalce, Mr Benito                7   2:05:00  0:17:51     3    0:31:00  0:10:20
           07    LaSalle, Mr Dominic               8   2:05:00  0:15:37     5    1:03:10  0:12:38
           08    Miller, Ms Kay                    0   0:00:00  0:00:00     0    0:00:00  0:00:00
           09    Sienkewics, Ms Tammy              0   0:00:00  0:00:00     0    0:00:00  0:00:00
           10    Valenzuela, Ms Cassandra          0   0:00:00  0:00:00     0    0:00:00  0:00:00
                                             ------ ---------- -------- ------ ---------- --------
TOTALS:                                          25   6:30:00  0:15:36    14    2:40:00  0:11:25


GRAND TOTALS

                                       ----- DURATION ----    ---- TALK TIME ----
                                 TOTAL   TOTAL     PER CALL  INCOM   TOTAL     PER CALL
                  Cost Center    CALLS  HHHH:MM:SS HH:MM:SS  CALLS  HHHH:MM:SS HH:MM:SS
                  ---------------- ----- ---------- -------- ----- ---------- --------
                  Cust Svc          25   6:30:00  0:15:36    14    2:40:00  0:11:25
                                   ----- ---------- -------- ----- ---------- --------
                  TOTALS:           25   6:30:00  0:15:36    14    2:40:00  0:11:25


End of Organization Summary Report
```

```
                       Cost Center Summary Report
Date: Thursday, September 28, 1995                              Page:    1
Time: 2:27:47 PM                    Company Name
--------------------------------------------------------------------------

DATE RANGE: Wednesday, September 27, 1995  to  Sunday, October 01, 1995

COMPANY TOTALS: Company Name

                     ----- DURATION -----           ----- TALK TIME ----
                TOTAL    TOTAL      PER CALL  INCOM    TOTAL      PER CALL
Cost Center     CALLS HHHH:MM:SS  HH:MM:SS    CALLS  HHHH:MM:SS  HH:MM:SS
---------------- ----- ---------- --------  ----- ----------  --------
Admin               0   0:00:00   0:00:00       0   0:00:00    0:00:00
Cust Svc           25   6:30:00   0:15:36      14   2:40:00    0:11:25
                 ----- ---------- --------  ----- ----------  --------
TOTALS:            25   6:30:00   0:15:36      14   2:40:00    0:11:25



End of Cost Center Summary Report
```

```
                      Organization Trends Report
Date: Thursday, September 28, 1995                              Page:    1
Time: 2:28:58 PM                    Company Name
--------------------------------------------------------------------------

SELECTION CRITERIA    :
     Cost Center      : Cust Svc

Cost Center: Cust Svc

                      ----- DURATION -----           ----- TALK TIME ----
          START OF   TOTAL     TOTAL      PER CALL  INCOM    TOTAL      PER CALL
          PERIOD     CALLS   HHHH:MM:SS  HH:MM:SS    CALLS  HHHH:MM:SS  HH:MM:SS
          --------   ------  ---------- --------  ----- ----------  --------
          *09/27/95      25    6:30:00   0:15:36      14   2:40:00    0:11:25
                     ------  ---------- --------  ----- ----------  --------
          TOTALS:        25    6:30:00   0:15:36      14   2:40:00    0:11:25


*  This period is not complete.

End of Organization Trends Report
```

```
                                          Selection Detail Report
Date: Thursday, September 28, 1995                                                      Page:    :
Time: 2:29:35 PM                                          Company Name
---------------------------------------------------------------------------------------------------------

SELECTION CRITERIA    :
     DATE RANGE       : 9/27/95 to 9/27/95
     TIME RANGE       : 12:00:00 AM to 11:59:59 PM
     MINIMUM TALK TIME: 0:00:00
     Cost Center      : Cust Svc
     Extension        : All
     ACCOUNT CODES    : All
     Line             : All
     CALL TYPE        : All
     DIALED NUMBER    : All


                   DURATION   TALK TIME                                          CALL
     DATE    TIME  HHHH:MM:SS  HHHH:MM:SS  Extension      DIALED NUMBER   LOCATION  TYPE  Line   ACCOUNT CODE
   --------  ----  ----------  ----------  ---------     -------------   --------  ----  -----  -------------
   09/27/95  08:00   0:10:00    0:08:40      01          2291212        Honeoye   INCOM  01
   09/27/95  08:00   0:10:00    0:08:40      04          5540000        Rushville INCOM  05
   09/27/95  08:20   0:05:00    0:04:50      07          5940000        N Chili   INCOM  05
   09/27/95  08:30   0:10:00    0:06:40      05          3920000        Hilton    INCOM  05
   09/27/95  09:00   0:10:00    0:09:45      01          2291212        Honeoye   INCOM  01
   09/27/95  09:10   0:10:00    0:09:45      04          5540000        Rushville INCOM  05
   09/27/95  09:30   0:15:00    0:14:30      01          2291212        Honeoye   INCOM  01
   09/27/95  09:30   0:10:00    0:09:40      05          3920000        Hilton    INCOM  05
   09/27/95  10:00   0:05:00                 01          229-1212       Honeoye   LOCAL  02       1000
   09/27/95  10:20   0:15:00    0:14:50      07          5940000        N Chili   INCOM  05
   09/27/95  11:00   0:05:00                 01          229-1212       Honeoye   LOCAL  02       1000
   09/27/95  11:20   0:15:00    0:14:50      07          5940000        N Chili   INCOM  05
   09/27/95  11:30   0:15:00    0:14:30      01          2291212        Honeoye   INCOM  01
   09/27/95  11:35   0:15:00    0:14:40      05          3920000        Hilton    INCOM  05
   09/27/95  11:50   0:10:00    0:09:50      07          5940000        N Chili   INCOM  05
   09/27/95  13:30   0:30:00                 01          229-1212       Honeoye   LOCAL  02
   09/27/95  13:30   0:25:00                 05          392-0000       Hilton    LOCAL  03       2000
   09/27/95  14:00   0:05:00                 05          392-0000       Hilton    LOCAL  03       2000
   09/27/95  14:30   0:15:00                 05          392-0000       Hilton    LOCAL  03
   09/27/95  14:45   0:20:00    0:18:50      07          5940000        N Chili   INCOM  05
   09/27/95  15:05   0:20:00                 07          594-0001       N Chili   LOCAL  04
   09/27/95  15:25   0:20:00                 07          594-0002       N Chili   LOCAL  04
   09/27/95  15:30   0:30:00                 04          554-0000       Rushville LOCAL  03
   09/27/95  16:00   0:20:00                 07          594-0001       N Chili   LOCAL  04
   09/27/95  16:30   0:45:00                 05          392-0000       Hilton    LOCAL  03

              25    6:30:00     2:40:00


                             ----- DURATION -----              ----- TALK TIME ----
                    TOTAL        TOTAL    PER CALL   TOTAL NUMBER OF   TOTAL    PER CALL
                NUMBER OF CALLS HHHH:MM:SS HH:MM:SS  INCOMING CALLS  HHHH:MM:SS HH:MM:SS
                --------------- ---------- --------  --------------- ---------- --------
                      25         6:30:00   0:15:36         14         2:40:00   0:11:25


End of Selection Detail Report
```

```
                         Selection Summary Report
Date: Thursday, September 28, 1995                              Page:      1
Time: 2:30:07 PM                        Company Name
------------------------------------------------------------------------------

SELECTION CRITERIA     :
     DATE RANGE        : 9/27/95 to 9/27/95                              :
     TIME RANGE        : 12:00:00 AM to 11:59:59 PM
     MINIMUM TALK TIME: 0:00:00
     Cost Center       : Cust Svc
     Extension         : All
     ACCOUNT CODES     : All
     Line              : All
     CALL TYPE         : All
     DIALED NUMBER     : All


                  ----- DURATION -----                    ----- TALK TIME ----
     TOTAL           TOTAL     PER CALL    TOTAL NUMBER OF    TOTAL     PER CALL
NUMBER OF CALLS  HHHH:MM:SS  HH:MM:SS     INCOMING CALLS   HHHH:MM:SS  HH:MM:SS
---------------  ----------  --------     ---------------  ----------  --------
      25          6:30:00    0:15:36            14          2:40:00    0:11:25


End of Selection Summary Report
```

```
                                    Account Code Detail Report
Date: Thursday, September 28, 1995                                                        Page:    1
Time: 5:30:48 PM                                    Company Name
-------------------------------------------------------------------------------------------------

SELECTION CRITERIA    :
     DATE RANGE       : 9/27/95 to 9/27/95
     ACCOUNT CODES    : All

     PAGE BREAK AFTER EACH ACCOUNT CODE: No


            ACCOUNT CODE: 1000 (ACME Food Supply)
                           DURATION  TALK TIME                                           CALL
               DATE   TIME HHHH:MM:SS HHHH:MM:SS Extension        DIALED NUMBER  LOCATION TYPE
            -------- ----- ---------- ---------- --------------- ------------------ ---------- -----
            09/27/95 10:00   0:05:00    0:00:00       01         229-1212         Honeoye   LOCAL
            09/27/95 11:00   0:05:00    0:00:00       01         229-1212         Honeoye   LOCAL

                        2    0:10:00    0:00:00
                             ---------- ----------
            TOTALS:          0:10:00    0:00:00         NUMBER OF CALLS:     2


                              ----- DURATION -----              ----- TALK TIME ----
                    TOTAL        TOTAL     PER CALL  TOTAL NUMBER OF    TOTAL     PER CALL
                NUMBER OF CALLS HHHH:MM:SS HH:MM:SS  INCOMING CALLS  HHHH:MM:SS HH:MM:SS
                --------------- ---------- --------  --------------- ---------- --------
                        2         0:10:00   0:05:00        0           0:00:00   0:00:00



            ACCOUNT CODE: 2000 (Sabatini Meats)
                           DURATION  TALK TIME                                           CALL
               DATE   TIME HHHH:MM:SS HHHH:MM:SS Extension        DIALED NUMBER  LOCATION TYPE
            -------- ----- ---------- ---------- --------------- ------------------ ---------- -----
            09/27/95 13:30   0:25:00    0:00:00       05         392-0000         Hilton    LOCAL
            09/27/95 14:00   0:05:00    0:00:00       05         392-0000         Hilton    LOCAL

                        2    0:30:00    0:00:00
                             ---------- ----------
            TOTALS:          0:30:00    0:00:00         NUMBER OF CALLS:     2


                              ----- DURATION -----              ----- TALK TIME ----
                    TOTAL        TOTAL     PER CALL  TOTAL NUMBER OF    TOTAL     PER CALL
                NUMBER OF CALLS HHHH:MM:SS HH:MM:SS  INCOMING CALLS  HHHH:MM:SS HH:MM:SS
                --------------- ---------- --------  --------------- ---------- --------
                        2         0:30:00   0:15:00        0           0:00:00   0:00:00


End of Account Code Detail Report
```

```
                                    Account Code Summary Report
Date: Thursday, September 28, 1995                                                        Page:    1
Time: 5:30:48 PM                                    Company Name
-------------------------------------------------------------------------------------------------

DATE RANGE: Wednesday, September 27, 1995  to  Sunday, October 01, 1995

SELECTION CRITERIA    :
      ACCOUNT CODES    : All

                                    ----- DURATION -----       ----- TALK TIME ----
                             TOTAL    TOTAL     PER CALL  INCOM   TOTAL     PER CALL
ACCOUNT CODE       ACCOUNT NAME   CALLS HHHH:MM:SS HH:MM:SS  CALLS HHHH:MM:SS HH:MM:SS
--------------- -------------------- ----- ---------- -------- ----- ---------- --------
1000            ACME Food Supply       2    0:10:00   0:05:00    0    0:00:00   0:00:00
2000            Sabatini Meats         2    0:30:00   0:15:00    0    0:00:00   0:00:00
                                     ----- ---------- -------- ----- ---------- --------
TOTALS:                                4    0:40:00   0:10:00    0    0:00:00   0:00:00


End of Account Code Summary Report
```

```
                                    Date Report
Date: Thursday, September 28, 1995                              Page:     1
Time: 1:36:02 PM                      Company Name
---------------------------------------------------------------------------

                         ---- QUEUE TIME ----   ----- TALK TIME ----
               TOTAL      TOTAL      PER CALL     TOTAL      PER CALL
       DATE    CALLS    HHHH:MM:SS   HH:MM:SS   HHHH:MM:SS   HH:MM:SS
     --------  ------   ----------   --------   ----------   --------
     09/26/95     14      0:10:00    0:00:42      2:40:00    0:11:25
                 ------   ----------   --------   ----------   --------
     TOTALS:      14      0:10:00    0:00:42      2:40:00    0:11:25
```

```
                                    Date Report
Date: Thursday, September 28, 1995                              Page:     2
Time: 1:36:02 PM                      Company Name
---------------------------------------------------------------------------
```
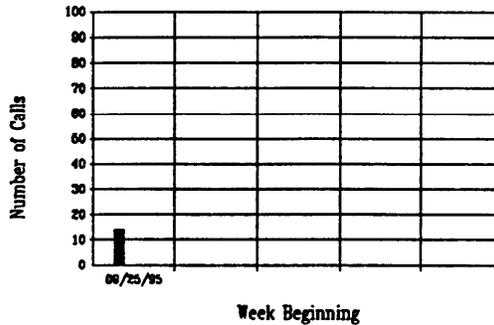
Daily Call Distribution



End of Date Report

-------------------------------------------------------------------------------------------------------------

DATE RANGE: Wednesday, September 27, 1995  to  Sunday, October 01, 1995

| | | ---- QUEUE TIME ---- | | ----- TALK TIME ---- | |
| | TOTAL | TOTAL | PER CALL | TOTAL | PER CALL |
| TIME OF DAY | CALLS | HHHH:MM:SS | HH:MM:SS | HHHH:MM:SS | HH:MM:SS |
| --- | --- | --- | --- | --- | --- |
| 00:00 - 00:59 | 0 | 0:00:00 | 0:00:00 | 0:00:00 | 0:00:00 |
| 01:00 - 01:59 | 0 | 0:00:00 | 0:00:00 | 0:00:00 | 0:00:00 |
| 02:00 - 02:59 | 0 | 0:00:00 | 0:00:00 | 0:00:00 | 0:00:00 |
| 03:00 - 03:59 | 0 | 0:00:00 | 0:00:00 | 0:00:00 | 0:00:00 |
| 04:00 - 04:59 | 0 | 0:00:00 | 0:00:00 | 0:00:00 | 0:00:00 |
| 05:00 - 05:59 | 0 | 0:00:00 | 0:00:00 | 0:00:00 | 0:00:00 |
| 06:00 - 06:59 | 0 | 0:00:00 | 0:00:00 | 0:00:00 | 0:00:00 |
| 07:00 - 07:59 | 0 | 0:00:00 | 0:00:00 | 0:00:00 | 0:00:00 |
| 08:00 - 08:59 | 4 | 0:06:10 | 0:01:32 | 0:28:50 | 0:07:12 |
| 09:00 - 09:59 | 4 | 0:01:20 | 0:00:20 | 0:43:40 | 0:10:55 |
| 10:00 - 10:59 | 1 | 0:00:10 | 0:00:10 | 0:14:50 | 0:14:50 |
| 11:00 - 11:59 | 4 | 0:01:10 | 0:00:17 | 0:53:50 | 0:13:27 |
| 12:00 - 12:59 | 0 | 0:00:00 | 0:00:00 | 0:00:00 | 0:00:00 |
| 13:00 - 13:59 | 0 | 0:00:00 | 0:00:00 | 0:00:00 | 0:00:00 |
| 14:00 - 14:59 | 1 | 0:01:10 | 0:01:10 | 0:18:50 | 0:18:50 |
| 15:00 - 15:59 | 0 | 0:00:00 | 0:00:00 | 0:00:00 | 0:00:00 |
| 16:00 - 16:59 | 0 | 0:00:00 | 0:00:00 | 0:00:00 | 0:00:00 |
| 17:00 - 17:59 | 0 | 0:00:00 | 0:00:00 | 0:00:00 | 0:00:00 |
| 18:00 - 18:59 | 0 | 0:00:00 | 0:00:00 | 0:00:00 | 0:00:00 |
| 19:00 - 19:59 | 0 | 0:00:00 | 0:00:00 | 0:00:00 | 0:00:00 |
| 20:00 - 20:59 | 0 | 0:00:00 | 0:00:00 | 0:00:00 | 0:00:00 |
| 21:00 - 21:59 | 0 | 0:00:00 | 0:00:00 | 0:00:00 | 0:00:00 |
| 22:00 - 22:59 | 0 | 0:00:00 | 0:00:00 | 0:00:00 | 0:00:00 |
| 23:00 - 23:59 | 0 | 0:00:00 | 0:00:00 | 0:00:00 | 0:00:00 |
| TOTALS: | 14 | 0:10:00 | 0:00:42 | 2:40:00 | 0:11:25 |

The heaviest traffic based on duration is between 11:00 and 11:59.
This time period accounts for 32% of the total traffic.

-------------------------------------------------------------------------------------------------------------

### Time of Day Call Distribution



### Time of Day Call Distribution

```
                        Extension Summary Report
Date: Thursday, September 28, 1995                          Page:    1
Time: 1:39:55 PM                  Company Name
------------------------------------------------------------------------

                             --- QUEUE TIME -----  ---- TALK TIME -----
                      TOTAL    TOTAL    PER CALL    TOTAL     PER CALL
  EXTENSION    NAME   CALLS  HHHH:MM:SS HH:MM:SS  HHHH:MM:SS  HH:MM:SS
  ---------- ----------- ------ ---------- -------- ---------- --------
        01  DiMarco, Mr      4   0:02:35  0:00:38   0:47:25  0:11:51
        04  Herrero, Ms      2   0:01:35  0:00:47   0:18:25  0:09:12
        05  LaFalce, Mr      3   0:04:00  0:01:20   0:31:00  0:10:20
        07  LaSalle, Mr.     5   0:01:50  0:00:22   1:03:10  0:12:38
                          ------ ---------- -------- ---------- --------
              TOTALS:      14   0:10:00  0:00:42   2:40:00  0:11:25

End of Extension Summary Report
```

```
                      ICLID Call Distribution Report
Date: Thursday, September 28, 1995                          Page:    1
Time: 5:40:53 PM                  Company Name
------------------------------------------------------------------------

DATE RANGE: Thursday, September 28, 1995  to  Thursday, September 28, 1995

                              ---- QUEUE TIME --- ---- TALK TIME ----
   LOCATION            TOTAL    TOTAL    PER CALL   TOTAL    PER CALL
      CODE     LOCATION CALLS  HHHH:MM:SS HH:MM:SS HHHH:MM:SS HH:MM:SS
------------------- ---------- ------ ---------- -------- ---------- --------
229????      Honeoye       4   0:02:35  0:00:38   0:47:25  0:11:51
554????      Rushville     2   0:01:35  0:00:47   0:18:25  0:09:12
594????      N Chili       5   0:01:50  0:00:22   1:03:10  0:12:38
392????      Hilton        3   0:04:00  0:01:20   0:31:00  0:10:20
                         ------ ---------- -------- ---------- --------
TOTALS:                   14   0:10:00  0:00:42   2:40:00  0:11:25



End of ICLID Call Distribution Report
```

----------------------------------------------------------------------------------------------------------------------------

DATE RANGE: Wednesday, September 27, 1995  to  Sunday, October 01, 1995

### DURATION DISTRIBUTION

| DURATION RANGE MM:SS | -------- QUEUE TIME -------- | | | --------- TALK TIME -------- | | |
|---|---|---|---|---|---|---|
| | TOTAL CALLS | TOTAL HHHH:MM:SS | PER CALL HH:MM:SS | TOTAL CALLS | TOTAL HHHH:MM:SS | PER CALL HH:MM:SS |
| 00:00 - 00:14 | 4 | 0:00:40 | 0:00:10 | 0 | 0:00:00 | 0:00:00 |
| 00:15 - 00:29 | 4 | 0:01:10 | 0:00:17 | 0 | 0:00:00 | 0:00:00 |
| 00:30 - 00:44 | 2 | 0:01:00 | 0:00:30 | 0 | 0:00:00 | 0:00:00 |
| 00:45 - 00:59 | 0 | 0:00:00 | 0:00:00 | 0 | 0:00:00 | 0:00:00 |
| 01:00 - 01:14 | 1 | 0:01:10 | 0:01:10 | 0 | 0:00:00 | 0:00:00 |
| 01:15 - 01:29 | 2 | 0:02:40 | 0:01:20 | 0 | 0:00:00 | 0:00:00 |
| 01:30 - 01:44 | 0 | 0:00:00 | 0:00:00 | 0 | 0:00:00 | 0:00:00 |
| OVER  01:44 | 1 | 0:03:20 | 0:03:20 | 14 | 2:40:00 | 0:11:25 |
| TOTALS: | 14 | 0:10:00 | 0:00:42 | 14 | 2:40:00 | 0:11:25 |

----------------------------------------------------------------------------------------------------------------------------



Queue Time Distribution



Talk Time Distribution

End of Talk and Queue Time Distribution Report
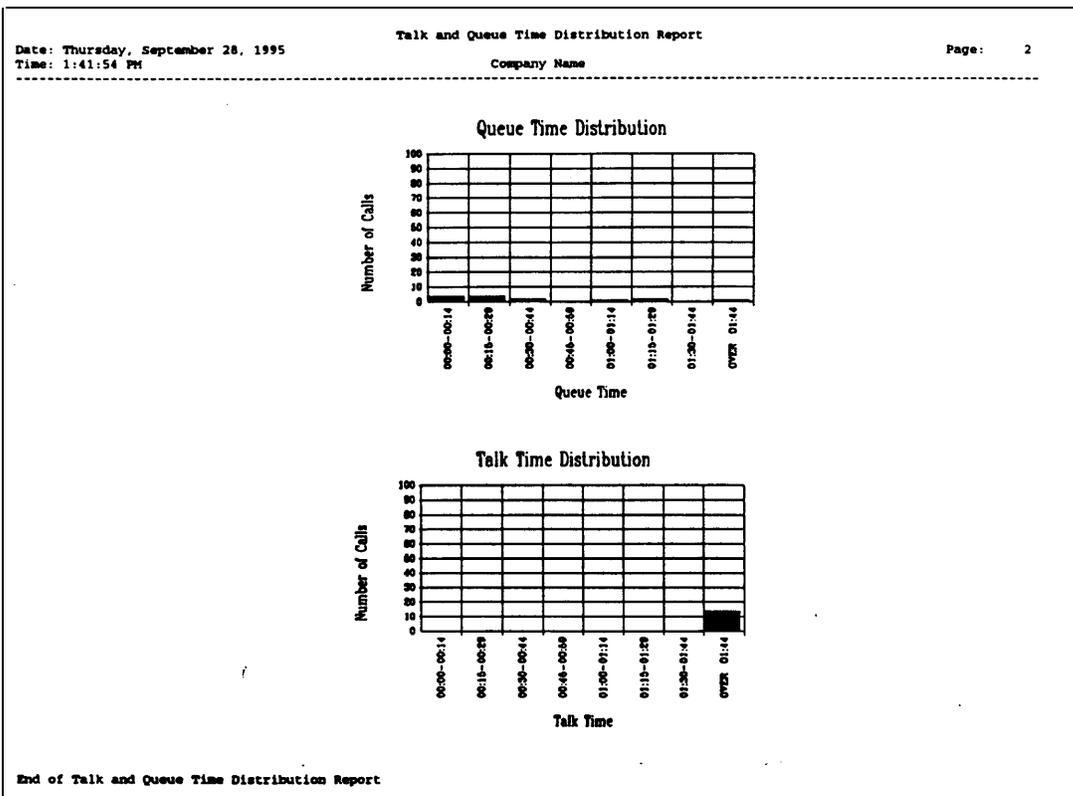
⇒ The sample above uses a short interval (15 seconds) to focus on the queue-time distribution of calls in greater detail; in contrast, notice the report on the next page. This report uses a longer interval (5 minutes) to detail the talk-time distribution.

```
                                    Talk and Queue Time Distribution Report
Date: Thursday, September 28, 1995                                                              Page:    1
Time: 1:43:47 PM                                      Company Name
---------------------------------------------------------------------------------------------------------

DATE RANGE: Thursday, September 28, 1995  to  Sunday, October 01, 1995

                                         DURATION DISTRIBUTION
                                         ---------------------

                                -------- QUEUE TIME --------    --------- TALK TIME --------
                                TOTAL      TOTAL     PER CALL    TOTAL      TOTAL     PER CALL
              DURATION RANGE     CALLS   HHHH:MM:SS  HH:MM:SS    CALLS    HHHH:MM:SS  HH:MM:SS
                 MM:SS
              --------------     -----   ----------  --------    ------   ----------  --------
              00:00 - 04:59        14     0:10:00    0:00:42       1       0:04:50    0:00:00
              05:00 - 09:59         0     0:00:00    0:00:00       7       1:03:00    0:09:00
              10:00 - 14:59         0     0:00:00    0:00:00       5       1:13:20    0:14:40
              15:00 - 19:59         0     0:00:00    0:00:00       1       0:18:50    0:18:50
              20:00 - 24:59         0     0:00:00    0:00:00       0       0:00:00    0:00:00
              25:00 - 29:59         0     0:00:00    0:00:00       0       0:00:00    0:00:00
              30:00 - 34:59         0     0:00:00    0:00:00       0       0:00:00    0:00:00
              OVER  34:59          0     0:00:00    0:00:00       0       0:00:00    0:00:00
                                -----   ----------  --------    ------   ----------  --------
      TOTALS:                      14     0:10:00    0:00:42      14       2:40:00    0:11:25
```
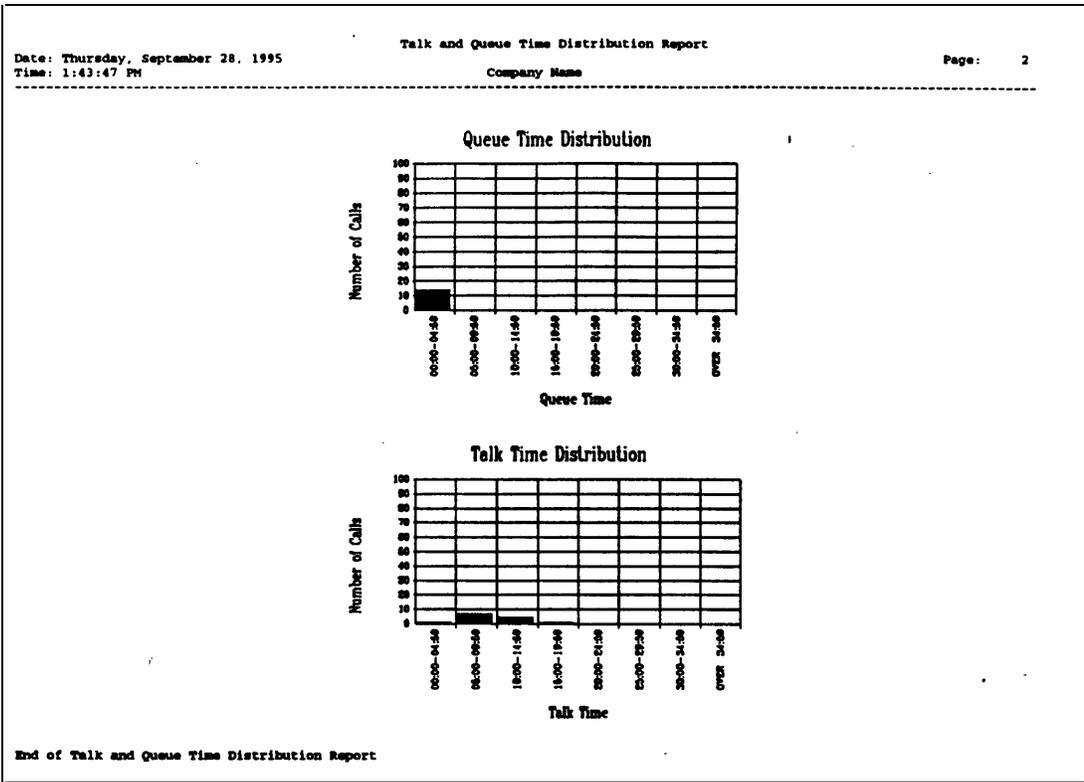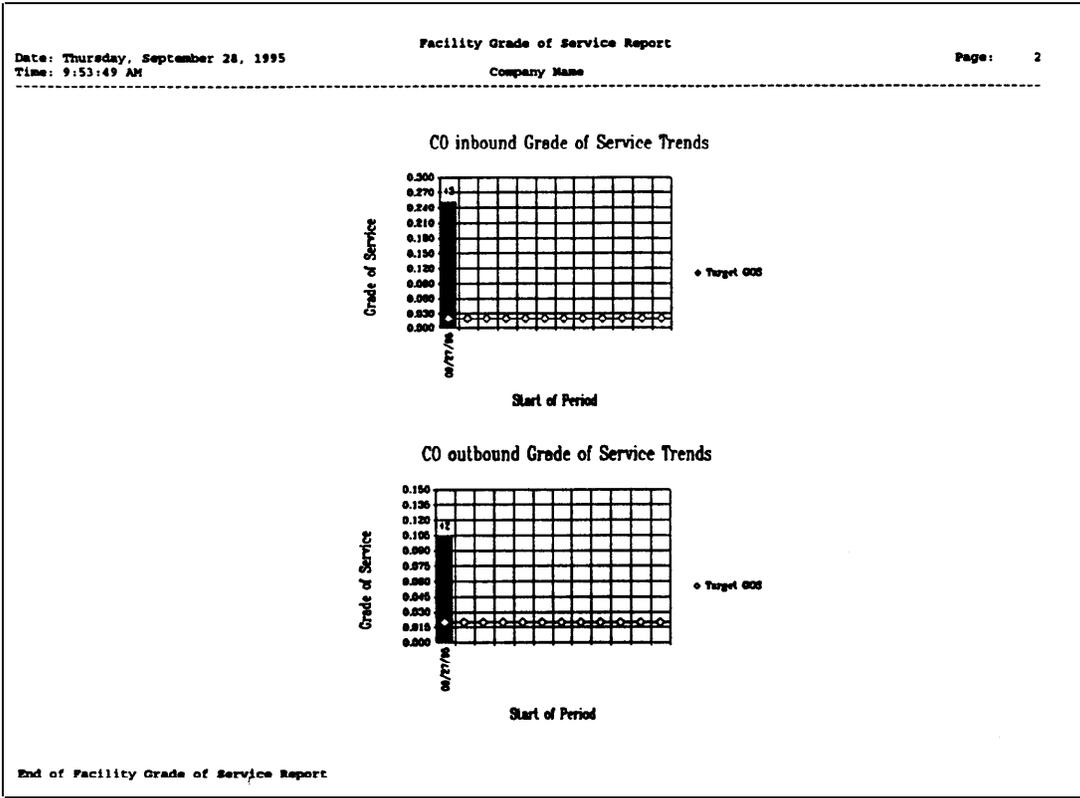
```
                                    Talk and Queue Time Distribution Report
Date: Thursday, September 28, 1995                                                              Page:    2
Time: 1:43:47 PM                                      Company Name
---------------------------------------------------------------------------------------------------------
```



Queue Time Distribution



Talk Time Distribution

End of Talk and Queue Time Distribution Report

```
-------------------------------------------------------------------------------------------------------------

DATE RANGE: Wednesday, September 27, 1995  to  Sunday, October 01, 1995

SELECTION CRITERIA    :
     FACILITIES       : ALL

                           NUMBER                             ----- DURATION -----   --------- GOS ----------
                             OF       AVERAGE      AVERAGE     AVERAGE    PER CALL    ACTUAL  TARGET  Line
              FACILITY       Lines    BUSY HOUR     CALLS      HHHH:MM:SS HH:MM:SS      %       %     REQUIRED
          ---------------   -------  -------------- -------    ---------- --------    ------  ------  --------
             CO inbound        2     11:00 - 11:59     4         0:55:00  0:13:45      25.2    2.0       5
             CO outbound       3     15:00 - 15:59     3         1:10:00  0:23:20      10.4    2.0       5
```

```
-------------------------------------------------------------------------------------------------------------
```

## CO inbound Grade of Service Trends



## CO outbound Grade of Service Trends



End of Facility Grade of Service Report

# Specifications

# C

This appendix provides technical information about the hardware and software requirements for running PARTNER Reporter on your PC.

## Processor

PARTNER Reporter must have the following minimal configuration in order to operate in a normal manner. Any deviations will have to be handled completely by you, the user, or if you require help, by an AT&T technician (at an extra charge).

| | Single-site | Multi-site |
|---|---|---|
| **Processor** | • 486 class / 25 MHz speed<br>• 8 Mb RAM | • 486 class / 66 MHz speed<br>• 8 Mb RAM |
| **Storage**[1] | • 5 Mb for the application software<br>• 80 Mb for data (25,000 call records) | • 5 Mb for the application software<br>• 200 Mb for data (62,500 call records) |
| | [1] Not including Operating System storage requirements. | |
| **Serial Ports**[2] **and Modems**<br><br>See *Serial Port Pinouts* and *Modems* later in this appendix. | • A COM port available[3] for SMDR input at all times<br><br><br>• An additional COM port available[3] during Remote Access<br>• A 9600-baud (or faster) modem for Remote Access[4] | • A COM port available[3] for SMDR input at all times<br>• A 1200-baud (or faster) modem for SMDR input<br>• An additional COM port available[3] during Remote Access<br>• A 9600-baud (or faster) modem for Remote Access[4] |
| | [2] Serial ports must meet RS232 communications standards. If additional serial ports are needed, you may use Equinox MARK-IV boards with Cherry Hill Software HiCom/9 driver and a modem on each additional port. For information, contact Equinox Systems, Inc. (305 748-9000) and Cherry Hill software (609 983-1414).<br>[3] "Available" means that no other PC device is using the IRQ used by that COM port and no other PC application uses the COM port. See Appendix E for detailed information on PC serial port conflicts and solutions.<br>[4] If Remote Access is not used, support may require an extra charge. | |
| **Devices** | Bus, PS/2, or serial mouse (a serial mouse may cause IRQ conflicts. See Appendix E for information on IRQ conflicts and solutions), VGA color monitor, parallel printer (must support graphics and 10-17 characters/inch) | |
| **Software** | Windows 3.1 or Windows for Workgroups 3.11 or Windows 95 (if PC is on a LAN, PARTNER Reporter will require special installation.) | |

## Serial Port Pinouts

| Signal* | DB9 | DB25 | RJ45 |
|---|---|---|---|
| Transmit Data (TD) | #3 | #2 | #6 |
| Receive Data (RD) | #2 | #3 | #4 |
| Request to Send (RTS) | #7 | #4 | #2 |
| Clear to Send (CTS) | #8 | #5 | #9 |
| Data Terminal Ready (DTR) | #4 | #20 | #3 |
| Data Set Ready (DSR) | #6 | #6 | #10 |
| Signal Ground | #5 | #7 | #5,7 |
| Data Carrier Detect (DCD) | #1 | #8 | #8 |
| Ring Indicator (RI) | #9 | #22 | #1 |

\*   PARTNER Reporter sends TD, RTS, and DTR signals; it expects RD and will act on DCD, if supplied.

## Modems

PARTNER Reporter requires Hayes®-compatible modems (error-correcting, 9600 baud or faster modems are recommended). Typically, default settings work. Although switch settings may vary, you can emulate the following standards:

| | |
|---|---|
| Baud rate | any — controlled by PARTNER Reporter |
| DTR | on — controlled by PARTNER Reporter |
| DCD and DSR, "AT" command set | on |
| Echo Commands, Autoanswer | off — set by PARTNER Reporter |
| Result codes | on — set by PARTNER Reporter |

# Capacities

| Call Records | To disk capacity.   Each call record = 75 bytes |
|---|---|
| **Sites** | Single-site = 1 (model 50)<br>Multi-site = 50 (model 2000) or 100 (model 5000) |
| **Organization** | 2 to 5 levels. See table below for capacities by model size. |

| Model | Ext. | Cost Ctr. | Dept. | Div. | Branch | Facilities | Lines | Account |
|---|---|---|---|---|---|---|---|---|
| **5 0** | 50 | 50 | 25 | 20 | 15 | 25 | 50 | 1,000 |
| **2000** | 2000 | 1,000 | 500 | 250 | 150 | 100 | 1,000 | 10,000 |
| **5000** | 5000 | 1,000 | 1,000 | 500 | 250 | 200 | 2,000 | 20,000 |

| Call Types | 50 entries.   System defaults are: |
|---|---|

| Name | Description | Dialing Pattern |
|---|---|---|
| LOCAL | Local | ??????? |
| LDIST | Long distance, direct dial | 1% |
| IDDD | International Direct Distance Dial | 01% |
| INCOM | Incoming | Defined automatically by the Call Collection Interface |
| ABAND | Abandoned call (incoming call, no talk-time) | |
| OTHER | All other calls, not defined | % |

| **Location Table** | 5000 entries per site |
|---|---|
| **Alert Numbers** | 250 entries per site |
| **Log files** | 1000 entries in each, the Message Log and the Immediate Output file |
| **Scheduled Reports** | 1000 individual reports; 25 groups |
| **Dialed Digit Processing Table** | 100 dialed number patterns per site |

# Implementation Guidelines

The table below shows our recommended schedule of system management tasks.

| Function | I | D | W | M | A | N | Description |
|---|---|---|---|---|---|---|---|
| Account Codes | | | | ■ | ■ | | If used, create/update account names before reports run |
| Accounting Period | ■ | | | | | | System-wide- should not change after installation |
| Alert Numbers | | | | | | ■ | Create/update if you wish to flag calls to alert numbers |
| Call Collection Interface | ■ | | | | | | Site-specific- should not change after installation |
| Call Sender | ■ | | | | | | If used, set up at installation |
| Call Types | | | | | | ■ | Change/add to table only if needed |
| Dialed Digit Processing | | | | | | ■ | Diagnostic tool - use only if directed by technical support |
| Immediate Output | | | | | | ■ | Create/update if you wish to flag special calls |
| Imm. Out. Printer | | | | | | ■ | Enable to print immediate output/alert calls |
| Imm. Out. Viewer | | ■ | | | | | If used, check daily for flagged calls |
| Location Table | | | | ■ | | | Create after installation, update as needed before reports |
| Organization Levels | ■ | | | | | | System-wide - should not change after installation |
| Organization Table | ■ | | | ■ | ■ | | Update extension attributes as needed before reports |
| Reports | | | | ■ | ■ | | Set up schedule, run individual reports as needed |
| Trunks & Facilities | ■ | | | | ■ | | Update trunk attributes as needed before reports |
| Users / Password | | | ■ | | | | Secure after installation; change password often. |

**I** = installation, **D** = daily, **W** = weekly, **M** = monthly, **A** = automatically maintained/created by system, **N** = as needed

# Getting Assistance for Problems

# D

This appendix describes basic troubleshooting procedures to identify and correct problems and explains how to get assistance for problems that you cannot correct.

## How to Report a Problem

If a problem arises when you are using PARTNER Reporter, first attempt to solve the problem using the troubleshooting flowchart later in this appendix. If the problem is caused by a peripheral system or device, consult the system or device documentation.

If you cannot correct the problem, call the hotline for support as instructed on the inside front cover. The hotline will assist you by performing remote diagnostics.

When you call, please be at your computer. Be prepared to provide the following information:

- your telephone number
- detailed description of the problem, including any messages given and your actions and keystrokes leading up to the message
- any relevant steps you have taken
- telephone number used by the remote access (Carbon Copy) modem attached to the PC where the PARTNER Reporter resides

Follow instructions in the next section, *Using Remote Access,* to make your PC accessible to the support technician.

## Using Remote Access

1. To enable Remote Access:

    a. Make certain your Remote Access modem is ready and on-line.

    b. Open the Carbon Copy program group, and double-click on the **Host** icon.

    c. When the **Carbon Copy Host** main menu appears, click on the **Wait for Call** button.
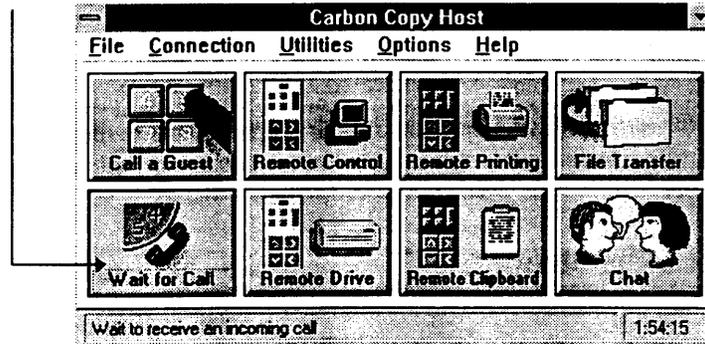


    The **Host - Waiting for Call** icon appears at the bottom of your screen, indicating that your PC is ready for access:

    

    Host - Waiting for Call

2. To disable Remote Access:

    a. Click on the **Waiting for Call** icon at the bottom of your screen.

    b. When the **Carbon Copy Host** main menu appears, minimize (click on the top, right corner) or close it (double-click on the top, left corner).

    Subsequent callers will not be able to connect with your PC until you re-start Carbon Copy Host or select **Waiting for Call** from the Carbon Copy main menu.
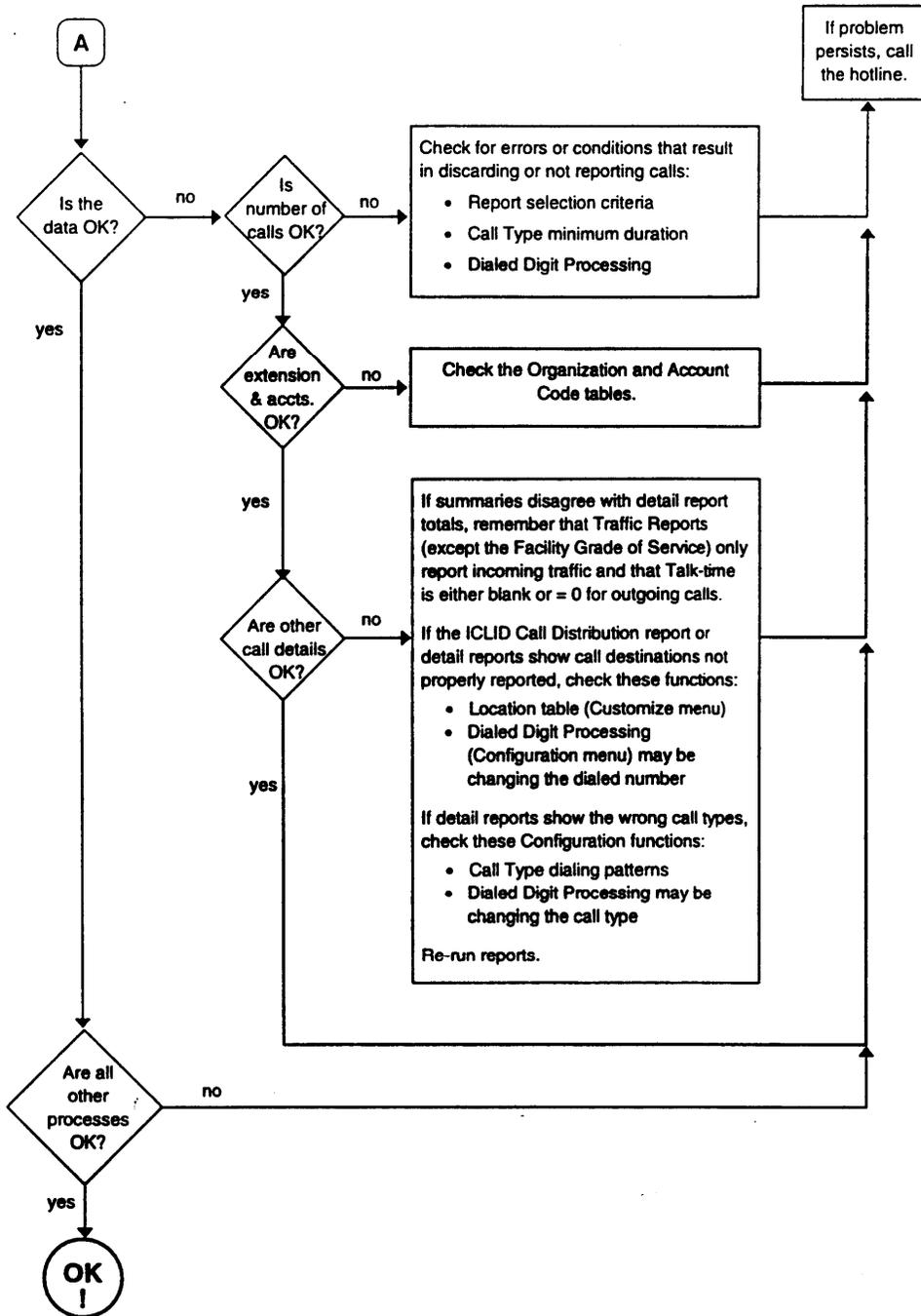
> ⚠ *Make certain to disable Remote Access as soon as the technician has finished with the remote access session. This ensures that your PC is accessible via Carbon Copy only at your request.*

## Basic Troubleshooting

The flowchart below displays the path to take when a problem manifests itself.

```
START
  │
  ▼
┌─────────────┐  no   ┌─────────────┐  yes   ┌──────────────────────────────┐      ┌─────────────┐
│ Is the      │──────▶│ Calls       │───────▶│ Check & correct possible     │─────▶│ If problem  │
│ system      │       │ rejected or │        │ causes:                      │      │ persists,   │
│ processing  │       │ not         │        │ • The Call Collection        │      │ call the    │
│ calls?      │       │ received?   │        │   Interface protocol         │      │ hotline.    │
└─────────────┘       └─────────────┘        │   options (baud rate,        │      └─────────────┘
  │ yes                  │ no                 │   parity, etc.) do not match │
                                             │   the source of call records.│
                                             │ • There are bad cable,       │
                                             │   serial port or modem       │
                                             │   problems.                  │
                                             │ • The telephone system is    │
                                             │   not programmed properly or │
                                             │   it is not sending calls.   │
                                             └──────────────────────────────┘
```

```
┌─────────────┐  yes   ┌──────────────────────────────┐
│ Call        │───────▶│ Enable call processing (Call │
│ processing  │        │ Processing Status - Utility) │
│ stopped?    │        └──────────────────────────────┘
└─────────────┘
  │ no
```

```
┌─────────────┐  no   ┌─────────────┐  yes   ┌──────────────────────┐
│ Can you     │──────▶│ Are you     │───────▶│ Check message;       │
│ update?     │       │ installing  │        │ repeat procedure.    │
└─────────────┘       │ a diskette? │        └──────────────────────┘
  │ yes               └─────────────┘
                         │ no
```

```
┌─────────────┐  yes   ┌──────────────────────┐
│ Are you     │───────▶│ Check error message, │
│ importing   │        │ correct import file  │
│ data?       │        │ and repeat.          │
└─────────────┘        └──────────────────────┘
  │ no
```

```
┌─────────────┐  no   ┌─────────────┐  yes   ┌──────────────────────┐
│ Can you     │──────▶│ Printer     │───────▶│ Check printer &      │
│ run reports │       │ problems?   │        │ cable; if needed,    │
│ ?           │       └─────────────┘        │ reset printer.       │
└─────────────┘          │ no                └──────────────────────┘
  │ yes
  ▼
 (A)
```

A

Is the data OK? — no → Is number of calls OK? — no → Check for errors or conditions that result in discarding or not reporting calls:

- Report selection criteria
- Call Type minimum duration
- Dialed Digit Processing

yes ↓ (from Is number of calls OK?)

Are extension & accts. OK? — no → Check the Organization and Account Code tables.

yes ↓

Are other call details OK? — no →

If summaries disagree with detail report totals, remember that Traffic Reports (except the Facility Grade of Service) only report incoming traffic and that Talk-time is either blank or = 0 for outgoing calls.

If the ICLID Call Distribution report or detail reports show call destinations not properly reported, check these functions:

- Location table (Customize menu)
- Dialed Digit Processing (Configuration menu) may be changing the dialed number

If detail reports show the wrong call types, check these Configuration functions:

- Call Type dialing patterns
- Dialed Digit Processing may be changing the call type

Re-run reports.

yes ↓ (from Is the data OK?)

Are all other processes OK? — no →

yes ↓

OK !

# PC Serial Ports

# E

This appendix provides detailed information about PC serial ports, including background information about what they are and how they work. It also explains how Windows manages serial ports, how to resolve problems using COM3 or COM4 under Windows, and how to choose serial port hardware that is well-suited to PARTNER Reporter.

The appendix is organized as follows:

■ *Background* — provides an overview of serial port communications, in particular, under Windows. If you are familiar with serial port terminology (for example, I/O port addresses, IRQs, etc.), you may wish to skip over this section. If not, you should review it before reading further.

■ *Workarounds and Solutions to the IRQ Conflict Problem* — describes three alternatives for those installations having problems using PARTNER Reporter communication functions on COM3 or COM4.

■ Selecting an Add-in Serial Port Card — for those installation requiring additional serial ports, this section provides information that can assist you in selecting an add-on serial port card for use with PARTNER Reporter.

## Background

Serial ports (also sometimes referred to as communications ports or COM ports) are hardware interfaces that permit your PC's microprocessor to communicate with peripheral devices using a communications standard called RS-232 (hence, serial ports are also sometimes referred to as RS-232 ports). Many common computer accessories make use of serial ports, including serial mice, serial printers, and modems.

Under DOS (and Windows, which works cooperatively with DOS), the serial port interfaces in a PC are uniquely identified by specific device names: COM1 ("serial communications port 1"), COM2 ("serial communications port 2"), and so on, usually up through COM4. A particular PC might have none of these devices, some of them, or all of them installed. For example, most PCs currently on the market arrive from the manufacturer with two serial ports already installed (COM1 and COM2), often integrated onto the computer's main system board. Installing additional serial ports (for example, COM3 or COM4) is usually accomplished by purchasing an add-on card and installing it into a free expansion slot.

For most purposes (such as configuring software), the generic description of serial ports provided by their device names is sufficient. For example, during the PARTNER Reporter installation procedure, you are asked to provide the name of the serial port to which you are going to connect your telephone system (for example, COM2).

Unfortunately, this abstract view of serial ports is not sufficient for other purposes, notably for troubleshooting problems: to be able to do this effectively, a basic understanding of serial port hardware is required. In particular, it's essential to understand the mechanics by which the computer's microprocessor communicates with serial port hardware.

The microprocessor/serial port communication consists of two aspects: an I/O port address and an interrupt request signal (IRQ). The I/O port address represents a small region of the microprocessor's input/output memory space that is used to pass data back and forth to the serial port. This memory region acts something like a mailbox: outgoing mail (data from the microprocessor to be transmitted to the peripheral device) is placed in the mailbox by the owner (the microprocessor) to be picked up by the mail carrier (the serial port hardware) for subsequent delivery to the destination party (the peripheral device). In turn, the mail carrier (the serial port hardware) places incoming mail (data from the peripheral device) into the box to be picked up by the owner (the microprocessor). This analogy illustrates an additional important point about I/O port addresses: just as individual mailboxes help the residents in a neighborhood keep their mail from getting mixed up, each device using an I/O port address to communicate with the microprocessor should have a unique address that doesn't conflict with that of any other  device.

## IRQ Mechanism

The mailbox analogy is also helpful in understanding the IRQ mechanism. Normally, we place our outgoing mail in our mailbox at any convenient time before the mail carrier arrives to pick it up. The outgoing mail sits in our mailbox until the mail carrier arrives, at which time it is picked up and possibly some incoming mail is placed in the mailbox. Then, some time later, we check our mailbox and retrieve our new incoming mail. The problem with this scheme is that it's not very efficient; both the outgoing and incoming mail spends some time just sitting in the mailbox. A better approach would be if the mail carrier provided some sort of signal (for example, ringing the doorbell) to announce his or her arrival, in which case we could hand over the outgoing mail and pick up the incoming mail  immediately.

In the PC architecture, IRQs act like the doorbell in our analogy: they provide a method by which hardware devices in the computer can get the microprocessor's attention to deal efficiently with some process. The serial port hardware makes use of an IRQ to announce that it's ready to receive more outgoing data and/or that new data has arrived from the peripheral device that needs to be processed.

Like I/O port addresses, IRQs must generally be unique among the active hardware devices in a computer system. In the mailbox analogy, the doorbell is probably not a good signal since virtually anyone could ring the doorbell for any number of reasons, not just to indicate the arrival of mail. Similarly, if a particular IRQ signal is used (PCs generally support 16 unique IRQ signals, denoted IRQ0, IRQ1, and so on, up through IRQ15), the microprocessor must take the appropriate action for the device associated with that IRQ. If there is a mix-up, or if more than one device attempts to use the same IRQ at the same time, a conflict occurs, and the outcome is often unpredictable and

usually undesirable (for example, the computer may "hang"). Because IRQs are a limited resource, some newer PCs support IRQ sharing, a hardware mechanism which permits more than one device to make use of the same IRQ, but most PCs do not. For example, all PCs which use IBM's MicroChannel Architecture (MCA) support IRQ sharing, as do most PCs which use the Enhanced Industry Standard Architecture (EISA) design. However, most PCs in the marketplace — even new models — are based on the traditional Industry Standard Architecture (ISA) which generally does not support IRQ sharing.

➯ IRQ sharing is a PC feature. If your PC supports IRQ sharing, you can put two COM ports on one IRQ. You will not encounter the types of complications that this appendix addresses if your PC supports IRQ sharing.

The specific I/O port address and IRQ that a particular serial port uses is determined by the hardware configuration of the serial port. Generally, these parameters cannot be changed for built-in serial ports, but add-on cards containing serial ports often provide jumpers or switches which can be used to configure them to use one of several I/O port addresses and IRQ combinations.

The table below lists the default I/O port addresses and IRQs used by the serial ports of IBM PC/AT-compatible computers:

| Serial Port | I/O Port Address | IRQ |
| :---: | :---: | :---: |
| COM1 | 03F8 | 4 |
| COM2 | 02F8 | 3 |
| COM3 | 03E8 | 4 |
| COM4 | 02E8 | 3 |

The values in this table play an important part in understanding the "wrinkles" associated with serial ports: although there is provision for up to four serial ports, with four unique I/O addresses, there are only two unique IRQs associated with them (recall that most PCs require the IRQs used by each active device to be unique to avoid conflicts). To understand why, it's useful to recall what the PC world was like before the widespread availability of products like Windows.

When the architecture of the current generation of PCs was first being designed (for the IBM PC/AT), the concept of multitasking was not nearly as important in the PC marketplace as it is today. Consequently, since DOS (before Windows) did not permit multiple applications to run simultaneously (with the notable exception of certain specialized programs such as mouse drivers), there was little need to provide a mechanism by which several serial ports could be operated simultaneously. Consequently, the strategy used was to conserve IRQs by assigning the same IRQ to more than one COM port (that is, the COM1 and COM3 ports were both assigned to IRQ4, and the COM2 and COM4 ports were both assigned to IRQ3). Then, under the assumption that at most two serial ports would be active simultaneously (for example, COM1 and COM2, which have unique IRQs), conflicts would not occur.

## Serial Ports Under Windows

Unlike the DOS-only world of yesterday, today's multitasking environments like Windows permit the microprocessor to communicate with up to four active serial port devices at the same time (COM1 through COM4). For example, under Windows, if you are using a serial mouse (on COM1) within a terminal emulator program which operates a data modem (on COM2), while using a fax board (on COM3) to transmit or receive a fax "in the background," you are using three serial port devices simultaneously. You might even wish to make a phone call using PARTNER Reporter (on COM4) at the same time, bringing the total up to four simultaneously active serial port devices.

The fact that Windows permits this kind of powerful multitasking does not guarantee that the underlying PC hardware can support this level of operation, at least without some customizing at the hardware level. Since some PCs can support it by default (for example, those which support IRQ sharing), Windows doesn't prohibit you from configuring your system and attempting tasks like the one in the previous paragraph. Unfortunately, most PCs cannot support this operation by default, and the most likely result of attempting the above scenario is "hanging" the PC due to an IRQ conflict. On such systems, using COM1 along with COM2 is generally fine (recall that these devices have unique IRQs by default), but the addition of COM3 or COM4 causes the system to fail.

Fortunately, Windows permits complete customization of all parameters involving serial ports through the Control Panel, including configuring nonstandard I/O port addresses and IRQs (that is, values different from those in the table -- these parameters can be viewed and/or modified by selecting the desired port in the Control Panel's "Ports" icon, selecting the "Settings..." button, then selecting the "Advanced..." button). This flexibility offers the opportunity of salvation for owners of PCs which do not support IRQ sharing who require the use of three or more COM ports simultaneously.

# Workarounds and Solutions to the IRQ Conflict Problem

It is important to remember that the IRQ conflict is a problem in hardware; it cannot be resolved in software alone. Consequently, there are only three alternatives for working around or resolving it. These are described in the following topics.

**Workaround 1: Configure your serial devices such that you use only two at any one time, and those two use serial ports with unique IRQs.**

This is the simplest workaround to the IRQ conflict problem, but it does not solve the underlying conflict. The idea is to assign your peripheral devices to your available serial ports in such a way as to avoid using any devices simultaneously which might conflict. For example, if you have a serial mouse on COM1 (IRQ4), a fax/modem card on COM2 (IRQ3), and your connection to the telephone system on COM3 (IRQ4), you cannot effectively use PARTNER Reporter since you need to use your mouse under Windows while the call collection function is running in the background.

A better arrangement would be to move call collection to COM4 (IRQ3), which could then be safely used with your mouse on COM1 (IRQ4). In this case, the workaround is to avoid trying to use PARTNER Reporter at the same time you use the fax/modem on COM2, since the conflict now would be over IRQ3 (COM2 and COM4).

**Workaround 2: Replace one or more of your serial peripherals with equivalent devices which do not require a serial port.**

The idea with this approach is to eliminate the conflict by reducing the number of peripherals in your system which require serial ports. For example, replacing a serial mouse with a bus mouse (that is, a mouse which requires its own add-in card) would make another serial port available that could then be used by another device.

Given the scenario described in item (1) above (that is, a mouse on COM1, a fax/modem card on COM2, and PARTNER Reporter's call collection on COM3), you might buy a bus mouse and configure it to use, say, IRQ2 or IRQ5. This would then permit you to move call collection onto COM1 (IRQ4), where it could then be used simultaneously with both the mouse and the fax/modem.

Likely candidates for conversion from a serial interface to some other interface include mice (which can be converted to bus mice) and serial printers (which can be converted to an additional parallel printer port).

**Workaround 3: If your serial port hardware permits you to select IRQs other than the default ones (IRQ3 and IRQ4), make use of one or more unused IRQs in your system to assign each COM port a unique IRQ.**

This solution is generally not possible for built-in serial ports since these are usually "hard wired" and cannot be changed. Although most add-in cards containing serial ports permit you to change the IRQs assigned to them, many cards do not let you select IRQs other than IRQ3 and IRQ4. For example, an internal modem card generally has jumpers or switches which permit you to administer the serial interface on the card to be COM1, COM2, COM3, or COM4, but the I/O port addresses and IRQs associated with each of these configurations is usually fixed to the settings in the table.

Fortunately, some serial port add-in cards do permit you to select IRQs other than 3 or 4 (the additional choices are often IRQ2 and IRQ5). If your serial port hardware provides this flexibility — and at least one of the IRQ numbers available as an option is currently unused in your PC setup — you can solve the IRQ conflict directly.

For example, consider once again the scenario of a COM1 mouse, a COM2 fax/modem card, and a COM3 call collection input. If the COM3 serial port is located on an add-in card which permits IRQs other than 3 or 4 to be selected, you could configure the COM3 serial port to use a different (available) IRQ in your system, say, IRQ5. After making the necessary changes to the card (for example, adding or removing some jumpers or adjusting the positions of some switches), the last step would be to configure Windows to monitor IRQ5 rather than IRQ4 for the COM3 serial port -- this is accomplished using the Windows Control Panel under the "Ports" option (see your Windows documentation for details).

If you attempt this solution, you must be certain that you do not choose an IRQ which is in use by some other device in your system — if so, you will trade one type of IRQ conflict for another. You should be aware that many common add-in cards use IRQs, including network cards and multimedia sound cards, both of which are commonly used under Windows. Your PC hardware vendor can assist you in configuring IRQs. You may also need to consult the documentation for your PC and any add-in cards which are installed to determine which IRQs, if any, are available on your system.

## Selecting an Add-In Serial Port Card

This section presents advice on how to choose an add-in serial port card for use with PARTNER Reporter. Because PARTNER Reporter does not have any unique requirements with respect to serial ports, this advice applies generically to selecting a serial port for use with any peripheral.

In general, there are two main things to consider when selecting a serial port for use with PARTNER Reporter:

1. Choose a card which offers the flexibility to configure its serial port IRQs to values other than IRQ3 and IRQ4 (for example, to IRQ2 or IRQ5).

   This capability often proves to be very beneficial, especially if you are purchasing the card to add a COM3 and/or COM4 port to your system. As described at length in *Workarounds and Solutions to the IRQ Conflict Problem,* for PCs which do not support IRQ sharing (which includes most PCs, unfortunately), the ability to relocate the IRQ for COM3 or COM4 away from the defaults (IRQ4 and IRQ3, respectively) represents the only direct solution to conflicts which may arise when attempting to use COM1 along with COM3 or COM2 along with COM4 under Windows.

   If you know your PC does not support IRQ sharing, or if you are not sure, it's a good idea to purchase a card with this capability. If you know your PC supports IRQ sharing, this capability is not as potentially important.

2. For best performance with PARTNER Reporter, choose a card which has hardware support for high-speed communications.

The PARTNER Communications System transmits call records to the PARTNER Reporter at a data rate of 9600 baud, and it relies on Windows to manage the flow of data through your PC's serial port. Depending upon your configuration, Windows may have problems maintaining high data rates through traditional serial ports. In these situations, a serial port designed for high-speed communications can eliminate such problems while providing a reduced load on the microprocessor (thus increasing the performance of Windows during data transfers relative to standard serial ports). In most cases, the price differential for such a card is quite modest and a worthwhile investment.

Many serial port cards on the market (and most built-in serial ports) use either the 8250 or 16450 Universal Asynchronous Receiver Transmitter (UART) as their key component. Although these UARTs can operate at high speeds, they do not assist the PC's microprocessor in dealing with high-speed data transfer. Under Windows, in particular, data can be lost at high baud rates using these UARTs. If this data loss occurs, PARTNER Reporter cannot function properly.

Whenever possible, select a serial port card which uses the 16550 UART. This industry standard UART is an improved version of the 16450 with hardware support to help offload the microprocessor during high-speed data transfers. Windows has built-in support for the 16550, so no special software configuration is required to obtain the benefits of the 16550's enhanced capabilities. In addition, any high-speed peripheral can benefit from the 16550 (for example, a 14.4 Kbps data and/or fax modem).

# Glossary

## A

**ABAND**

The PARTNER Reporter call type for "abandoned" call — that is, incoming calls terminated by the caller while waiting in a queue to be answered (i.e., calls with no talk-time).

**account code**

A field in a call detail record that contains a user-defined identifier. An account code is dialed typically when placing or receiving a call to identify the call subject matter, client account, and so on.

**Account Code Reports**

The PARTNER Reporter reports that provide call record summary or detail information based on the named accounts (and date range for detail reports). Details are sorted in chronological order within the account; talk-time is provided for incoming calls. The Summary Report provides the number of calls, duration total and average, and incoming call talk-time total and average for each account. There are no charts for these reports.

**accounting period**

A period of time, based on your company's fiscal year, to keep call record statistics. PARTNER Reporter uses this concept to create "current" and "archive" call record files automatically and to produce summary and trend statistics at the end of each period.

**alert numbers**

A PARTNER Reporter feature whereby calls that match user-specified dialed number patterns are sent to the Immediate Output file and/or printer and, optionally, sound an alarm at the PC.

**audible alarm**

An option of the PARTNER Reporter alert number function (see above) to sound the PC audible alarm and log the call record under the "alarm" flag type.

## B

**bar chart**

A graphical representation of a report displaying vertical or horizontal bars against an X (horizontal) or a Y (vertical) scale of values.

Vertical bars "sit" on the X-axis (which represents line entries such as hours in a Time of day Traffic Report); the Y-axis displays a scale of values representing either the total number or usage (depending on the report). The bar's height corresponds to the value on the scale. For horizontal bars, the axis are reversed.

**baud rate**

A measurement of digital transmission speed representing the number of signal events per second. If the signal event represents the presence or absence of one bit, baud is identical to bits per second.

**bits per character**

The length (number of bits) of a single character transmission.

# C

**call record**

A record of a telephone transaction created by the telephone system at the completion of every call (also called SMDR for Station Message Detail Recording). This record includes such information as date, time and duration of the call, number dialed, account code, extension placing or receiving the call, and line used.

**central office (CO)**

The telephone company facility that routes and connects calls from a local area — also known as "public exchange" outside North America.

**central site**

The site in a PARTNER Reporter multi-site network that serves as the reporting center. It receives and processes call record data from its own telephone system as well as from other "remote" sites for inclusion in reports.

**cost center**

The level-2 default name in a company's organizational hierarchy.

# D

**database**

A collection of data — such as the set of all call records in an accounting period — structured and organized for easy access; also, the information in PARTNER Reporter tables that identifies its users' equipment, company organization, etc.

**dialed digit processing**

A PARTNER Reporter diagnostic tool whereby specific dialed number patterns can be identified for additional processing.

# E

**extension**

The level-1 default name in the company organization hierarchy corresponding to the extension jack in the control unit of a PARTNER telephone system; a field in a call record that contains the extension number, indicating the origin of an outgoing call or destination of an incoming call.

# F

**facility**

The PARTNER Reporter designation for a group of telephone lines programmed at the telephone system to carry calls requiring a specific telephone service.

**flow control**

A mechanism — such as buffering or controls that turn a device on and off — used to prevent loss of data during transmission.

# G

**Grade of Service (GOS)**

A way to measure telephone facility service on a worst case scenario. GOS is the probability of receiving a busy signal on any given day, during a facility's busiest hour.

# I

**IDDD**

International Direct Distance Dialing. The PARTNER Reporter call type for calls placed to a location outside the U.S.A. by dialing the toll prefix "011" followed by a country and/or city code, then the local dialing pattern.

**immediate output**

A PARTNER Reporter feature that flags calls that match user-specified conditions — such as from specific extensions or over a minimum duration — and sends a copy of the call details to the Immediate Output file and/or printer.

**INCOM**

The PARTNER Reporter call type for incoming calls.

**Individual Calling Line Identification (ICLID)**

Also called *Caller ID.* A service provided by local telephone companies on a per-line basis to pass to their subscribers (in digital form) the phone number of their callers. This application supports ICLID if it is provided in the call record of an incoming call — i.e., if the local telephone companies at the origin and destination of the call AND the telephone system on premises provide this information. (Many AT&T telephone systems, including the PARTNER system, have the capability to do so.)

# L

**LDIST**

The PARTNER Reporter call type for direct dialed long distance calls.

**line**

1. A dedicated communication channel between two telephone systems. 2. A field in a call record that contains the identifier for the specific route used by the call. Also known as "trunk," "circuit ID," and "used access code."

**LOCAL**

The PARTNER Reporter call type for 7-digit calls — i.e., calls to/from a local area.

**location table**

The PARTNER Reporter function used to associate call destination names with specific dialing patterns, and thus customize detail and call distribution reports.

# M

**message log**

The PARTNER Reporter file that records system messages upon the occurrence of events that warrant the user's attention. This log is available for viewing by opening the Message Log icon or the View Message Log function under the Listings menu.

**modem**

A device that converts digital data signals to analog signals for transmission over telephone lines. Analog signals are converted back to original digital data signals by another modem at the other end of the circuit. Also called a data set.

**Multi-site Network**

The PARTNER Reporter configuration for a site — the Central Site — that serve as reporting center for a network of up to 100 sites. Each site collects call record data from its own telephone system and makes the information available to the Central Site. Calls from each site are then collected and processed at the Central Site, according to site-specific databases.

# O

**organization**

The user-specified structures of a company — the company name and the number and names of its hierarchical or corporate levels — as well as the set of individual entries (the "organization database" — i.e. extension numbers and their attributes).

System defaults use two levels named: Level-1 = Extension and Level-2 = Cost Center. PARTNER Reporter permits up to five levels (Level 3 = Department, Level-4 = Division, and Level-5 = Branch). In multi-site networks, level-1 entries are unique for each site (entries for all other levels are system-wide).

**Organization Reports**

The PARTNER Reporter reports that provide summary or detail call record information sorted by organization level. Details include talk-time information for incoming calls. Summaries show the number of calls, total and average duration, and total and average talk-time for incoming calls for either the selected criteria or the current period. The Organization Trends Report show summaries and averages for the latest 12 accounting periods within the fiscal year. There are no charts for these reports.

# P

**parity**

A method used by some devices to check that information was transmitted correctly. Parity can be "odd," "even," or not used at all.

**password**

A unique string of characters that a user enters to access a program.

**path name**

A sequence of directory names separated by a backslash (\) and ending with the name of a file or directory, used to define the connection between some directory and the named file.

**pie chart**
 A graphical representation of a summary report displaying pie slices as line entries (such as hours in a Time of Day Traffic Report). The size of the slice corresponds to the percent value of the line entry over the total value — number or usage (depending on the report).

**polled site**
 The PARTNER Reporter term for a site that makes its call record data available for polls from the Central Site in a multi-site network (also called "remote site"). See *Central Site* and *Multi-site Network.*

**polling**
 The PARTNER Reporter process of periodically accessing a PSU or another PARTNER Reporter for its call record data.

**privacy**
 A PARTNER Reporter feature, whereby called numbers from specific extensions are partially or entirely hidden from view — either permanently and/or for reports only.

**privileges**
 Permission granted each user to read and/or change data shared by other users in a computer system.

**protocol**
 A set of conventions or rules that describe how data is organized, transmitted, and received.

**PSU**
 Pollable Storage Unit. A PSU is a small processor dedicated to collecting and storing call records from a telephone system, then transmitting them upon request. In this context, the PARTNER Reporter issues the request.

# Q

**queue time**
 The time that an incoming call spends in a queue, waiting to be transfered to the requested destination. PARTNER Reporter computes queue time as total duration minus talk time.

# R

**record**
 The smallest piece of information that a database management system can retrieve from a file. Records may contain several items of information (fields) — for example, a PARTNER Reporter call record contains the time of a call, its duration, number dialed, etc.

**rejected call**
 A call discarded by PARTNER Reporter because either (a) it did not meet the minimum duration criteria by Call Type or (b) it matched a dialed digit pattern to be discarded by the Dialed Digit Processing function. Rejected calls print in the Immediate Output log, flagged by an asterisk (*).

# S

**Selection Reports**

The PARTNER Reporter reports that provide summary or detail information based on user-defined criteria such as organization levels, date, time, duration, account code, line, call type, and/or dialed number. These reports are useful in pinpointing details or summarizing trends in problem areas or exceptions (such as lengthy calls or calls to alert numbers) discovered in other reports.

**SMDR**

Station Message Detail Recording. A telephone system capability in which the details concerning the path of a call from origination to termination are recorded in the form of an SMDR call record. See *call record*

**stop bits**

The number of bits that trail after the transmission of a single character.

# T

**talk time**

(1) In an incoming call, the portion of the call duration clocked after the extension answered the caller. (2) The field in an incoming call record from certain telephone systems (such as the PARTNER system) that report the talk-time.

**telephone system**

In this context, the PARTNER II Communications System, release 4.1 or later.

**Traffic Reports**

The collection of PARTNER Reporter reports that summarize call activity under various categories. Summaries are based on the collected information for the period and — except for the Facility Grade of Service — they report on incoming calls only (information includes the count, total and average queue-time, and total and average talk-time). The Facility Grade of Service Report provides the average count of both incoming and outgoing calls during each facility's busy hour, their total and average duration, actual and target GOS, and the number of lines required to meet the target GOS.

# W

**wild cards**

The characters "%" and "?" — used as follows:
?   match a single character in that position
%   match any number of trailing characters

**worksheet**

A printed form used to gather information from various sources and compile it into a final, complete form. This guide contains blank worksheets to enter information that is used during PARTNER Reporter setup procedures.

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