

IBM Content Manager OnDemand for OS/390

Client Installation Guide

Client Version 2.2.1.9

Server Version 2.1 requires APAR PQ40537 (PTF UQ47633)

Server Version 1.1 requires level 1.1.8

October, 2000

Seventh Edition

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Seventh Edition (October, 2000)

This document serves as a reference guide for IBM and customer personnel regarding the installation of the OnDemand for OS/390 Client.

The changes for this edition are summarized under **Summary of Changes to This Manual** in the **Introducing IBM Content Manager OnDemand for OS/390** chapter. Editorial changes that have no technical significance are not noted.

This edition applies to IBM Content Manager OnDemand for OS/390 Server Version 2 Release 1 and OnDemand for OS/390 Server Version 1 Release 1

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IBM Content Manager OnDemand for OS/390

Client Installation Guide

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I. Introducing IBM Content Manager OnDemand for OS/390

IBM *Content Manager OnDemand for OS/390* enables the automatic capture, index, archive, retrieval, presentation, and output of large volumes of computer generated documents and other data.

A. The OnDemand for OS/390 System

OnDemand for OS/390® provides the foundation for an affordable, automated electronic solution to manage long and short term archival, retrieval, presentation, and distribution of computer generated reports, computer output to laser disk (*COLD*) and other business related documents.

The Base Server System of OnDemand for OS/390 captures the output from S/390 line of business applications directly from tape, spool or other sources. Indexing information, such as customer name or account number, is automatically extracted and stored into IBM's DataBase 2 (DB2®). These index structures provide quick access to stored information. The actual data is compressed, stored and made immediately available for on-line access. OnDemand for OS/390 archived data is available for access via OnDemand Clients on personal computers, Internet browsers, 3270 workstations, and other applications that may access the information via Application Program Interfaces (API's). OnDemand for OS/390 leverages standard S/390 subsystems for communications, transaction management, security, and storage management. The storage management capability of OnDemand for OS/390 balances users' needs for quick access to information with the organization's objectives of minimizing costs.

B. About this Installation Guide

This manual is intended to serve as a guide for the various tasks required to install the OnDemand for OS/390 Client. It covers the clients that run on OS/2, Windows NT, Windows 95, and Windows 98 systems. It contains step-by-step instructions as well as prerequisite planning information.

Note: This publication is based on and replaces previous editions of this *Client Installation Guide*. It is intended for the 2.2.1.x level of OnDemand Clients and should not be used with the 2.2.0.15 and earlier OnDemand clients.

C. Summary of Changes to This Manual

1. First Edition (August 1999)

This edition is a complete revision of previous editions of the Client Installation Guide. The client installation process changed significantly with the 2.2.1.0 level of the OnDemand client. This document has been revised to reflect those changes. The major changes are:

- i. For all Windows clients, the local install has been replaced by the "standard" or "typical" install option, and the network install has been replaced by the "Node" or "Compact" install options. The OS/2 client still uses 2 separate installation packages for the local (standard) and network (node) installs.
- ii. Adobe Type Manager is now installed separately for Windows platforms, and is no longer a part of the OnDemand installation. ATM is part of the base OS/2 operating system. ATM for the Windows platforms is available from the OnDemand for OS/390 secure ftp site.
- iii. The ad hoc cd-rom mastering process set-up has changed. The armst32.ini file has been replaced by the armstr.ini file, which must be copied from the source distribution directory into the destination \windows directory BEFORE the setup.exe is run to install the client. The new "client.win" and "client.w32" files located in the \master subdirectory are now used to determine what files to transfer to the staging drive. See the "CD-ROM Creation" section of the "Related IBM Offerings" chapter for more information. (Please note that this process has changed again with the 2.2.1.6 client - see notes in the "Third Edition" section below).

2. Second Edition (2.2.1.2 Client, September 1999)

- i. Added a step to the "Installation Checklist" section of the "Preparing for Installation of the OnDemand for OS/390 Client" chapter for preparing a PC that will run the adhoc cdrom process

3. Third Edition (2.2.1.2 Client, November 1999)

- i. The Windows 16-bit client is no longer distributed or supported. All references to the Windows 16-bit client have been removed from this guide.
- ii. Added "Updating" and "Removing" sections to the "Installing OS/2 Client Software" and "Installing Windows Client Software" chapters.

4. Fourth Edition (2.2.1.5 Client, February 2000 - customers should not use this client)

- i. Customers should not use this level due to a Windows NT compact install problem.
- ii. Beginning with OnDemand version 2.2.1.5, IBM no longer distributes the Windows 3.1, 16-bit client.
- iii. Beginning with OnDemand version 2.2.1.5, IBM no longer distributes the 16-bit versions of the Adobe software.
- iv. In the "CD-ROM Creation" section of the "Related IBM Offerings" chapter, with the 2.2.1.5 Windows 32-bit client the armstr.ini file should be placed in the \ars32 directory instead of the \windows directory. The reason for this is to be Windows 2000 compliant.

5. Fifth Edition (2.2.1.6 Client, April 2000)

- i. A [S390] section of the Setup.ini file has been added which will automatically set the client to run in 'short sockets' mode, and will add the required command-line parameters

to the Windows shortcut. A **Setup.ini File** section has been added to both the "Installing Windows Client Software" and the "Configuring OnDemand for OS/390" chapters.

- ii. The "OnDemand for OS/390 Client Requirements" chapter has been updated. The Win32 clients require a PC with an Intel Pentium 166 MHz (or faster) processor.
- iii. The "Configuring OnDemand for OS/390" chapter contains three new sections:
 - a. Setup.ini File
 - b. Connecting to Multiple Servers for the Same PC
 - c. Multiple Client Connections to the Same OS/390 Server
- iv. A clarification of the update process has been added to the "Updating the Windows 32-bit Client" section of the "Installing Windows Client Software" chapter. The update process changed with the 2.2.1.5 OnDemand Client.

6. Sixth Edition (2.2.1.6 Client, May 2000)

- i. Clarified the "Installing the Windows 32-bit Client" section of the "Installing Windows Client Software" chapter. The setup.exe routine does not place a folder or a shortcut icon on the desktop. Also clarified the procedure for placing an OnDemand shortcut icon on the screen with the command-line parameters.

7. Seventh Edition (2.2.1.9 Client, October 2000)

- i. The 2.2.1.9 client requires APAR PQ40537 (PTF UQ47633) for Server Version 2.1, and level 1.1.8 for Server Version 1.1. Without this server fix, annotations cannot be viewed or created with the 2.2.1.9 Client.
- ii. Removed the section 'The Document Sciences "CompuView Navigator" v 2.1 and above (Metacode support)' from the 'Customizing OnDemand for OS/390' chapter. This is no longer supported.

II. OnDemand for OS/390 Client Requirements

A. OS/2 Client Requirements

The OnDemand OS/2 client runs under IBM OS/2 Version 3.0 or later and IBM OS/2 Warp Connect. The OS/2 client requires the following hardware and software:

- w A physical connection to the network, such as a Token Ring or Ethernet network adapter.
- w A minimum of 16 MB of memory. More memory may be required to view more than one document at a time.
- w An 80486, 33 MHz or faster processor.
- w A super-VGA display and adapter with a minimum resolution of 800x600 is recommended.
- w A minimum of 50 megabytes of free hard disk space.
- w For OS/2 Version 3.0 or later, the IBM TCP/IP Version 2.0 Base kit is required.
- w For OS/2 Warp Connect, the standard Warp Connect TCP/IP support is required.

B. Windows Client Requirements

The OnDemand Windows client runs under Microsoft Windows 95, Windows 98, and Windows NT 4.0. The Windows client requires the following hardware and software:

- w A physical connection to the network, such as a Token Ring or Ethernet network adapter.
- w A minimum of 32 MB of memory.
- w An Intel Pentium 166 MHz or faster processor.
- w A super-VGA display and adapter with a minimum resolution of 800x600 is recommended.
- w A minimum of 50 megabytes of free hard disk space.
- w For Windows 95, Windows 98, and Windows NT 4.0, the standard TCP/IP support is required.

III. OnDemand for OS/390 Server Requirements

The 2.2.1.9 OnDemand Client requires one of the following OnDemand for OS/390 server levels:

- w OnDemand for OS/390 Server Version 1.1.8
- w IBM Content Manager OnDemand for OS/390 Version 2.1 with APAR# PQ40537 (PTF UQ47633)

IV. Preparing for Installation of the OnDemand for OS/390 Client

A. Obtaining the OnDemand Client - FTP Site Information

The OnDemand Client software is distributed from a secure ftp site. Customers who have purchased the OnDemand for OS/390 "Client Server Enablement" feature may download the latest supported client from the secure ftp site. The OnDemand Administrator may request the ip address, userid, and password for the ftp site in one of two ways:

- w Send a note to "od390@us.ibm.com" requesting the information, or
- w Open an incident by calling the IBM support center. Be sure the operator opens the incident to ODQA at call center 146. Please supply in the incident either an e-mail address or a physical address where the information can be mailed.

Please include the following information in the request:

Customer Name: _____

Customer Number: _____

Primary Customer Contact (OnDemand Administrator): _____

Primary Customer Contact Telephone: _____

Primary Customer Contact e-mail address _____

Secondary Customer Contact (optional): _____

Secondary Customer Contact Telephone (optional): _____

Secondary Customer Contact e-mail address (optional): _____

Mailing Address (if physical mailing of password information is preferred):

B. Installation Overview

The OnDemand Client software is distributed from the ondemand390 ftp site. Please see the readme.txt file on the ftp site for more information. The ftp site contains these zip files for the 2.2.1.x client:

ADOBE.ZIP	Adobe Acrobat Exchange - for viewing pdf documents
ATM40NT.ZIP	Adobe Type Manager 4.0 for Windows NT
ATM40W95.ZIP	Adobe Type Manager 4.0 for Windows 95/98
ODWIN32.ZIP	Windows 32-bit client
ODOS2LOC.ZIP	OS/2 client (standard, or local install)
ODOS2NET.ZIP	OS/2 client (node, or network install)

1. Prepare the Source Distribution Directories

FTP the desired zip files in binary format to a file server. Throughout this manual, the term **source distribution directory** may refer to a temporary source directory on the user's pc, the network file server source directory, or a user-created cdrom source directory, depending on the installation method used. The source distribution directories can be prepared in 3 ways:

- i. **Network File Server** - The source distribution directories can then be prepared on a network file server. Users with access to the file server can then install the OnDemand client and Adobe Products from this file server.
- ii. **Local PC** - The zip files could be transferred to a user's pc, placed in temporary directories on the user's pc, unzipped, and installed to the same pc. The temporary directories used for the install may then be deleted.
- iii. **Source cdrom** - A cdrom containing the distribution directories can be created to install OnDemand. This process is described later in this chapter.

When creating a source distribution directory tree, whether it be on a local pc, a file server, or for a user-created source distribution cdrom, it is suggested that the following source directory names be used to avoid confusion, as these directory names will be used throughout this manual:

<u>directory</u>	<u>zip file</u>
\adobe	adobe.zip
\atm40nt	atm40nt.zip - creates directory when unzipped (pkunzip atm40nt.zip -d)
\atm40w95	atm40w95.zip - creates directory when unzipped (pkunzip atm40w95.zip -d)
\win32	odwin32.zip
\os2loc	os2loc.zip
\os2net	os2net.zip

After the zip file(s) have been transferred to a directory on the file server or the local pc, unzip each file with Winzip, or with pkunzip and the -d parameter:

example: pkunzip odwin32.zip -d

Once the files have been unzipped, other users on the network can connect to the network file server and run the setup (Windows) or install (OS/2) program to install the client on their pc.

2. Edit Setup.ini if Necessary for the Win32 Client

The OnDemand Client for OS/390 has a [S390] section in the Setup.ini file with default settings. This may be edited if necessary. Please see the Setup.ini section of "Installing Windows Client Software" for more information.

3. Prepare a CD-ROM to distribute the OnDemand Client (optional)

You may want to create your own source distribution cdrom with one or more of the OnDemand Clients in order to install the client to local pc's from the cdrom. The cdrom must be created from a pc that is set up to support a cdrom writer and associated software.

Prepare the installation source directories as described in the previous step. Then use your cdrom software to copy all of the source distribution directories from the file server (see the above step), to the cdrom. The client can then be installed from this cdrom.

Note: Some cdrom writing software for Windows will create a cdrom in a format that can be read only by 32-bit Windows operating systems. If you will need to install the OS/2 client from this cdrom, be sure your cdrom mastering software will create the cdrom in a format that can be read by OS/2.

4. Install Adobe Software

If Adobe Type Manager (ATM) or Adobe Acrobat Exchange (Windows 32-bit client only) will be needed to view documents, these products should be installed **before** installing the OnDemand Client. Please see the "Installing OS/2 Client Software" or "Installing Windows Client Software" chapters for more information on installing Adobe products.

Note: ATM for OS/2 is part of the base OS/2 operating system and is not included with OnDemand. Also, the viewing of pdf documents is not supported for the OS/2 OnDemand client, so Adobe Acrobat Exchange for OS/2 is not included.

5. Install the OnDemand Client

Once the source distribution directories and files have been prepared, the OnDemand client software can be installed in several ways:

- i. **Standard (Local) Install** - Use this to install the full OnDemand client to a hard disk on your PC. To run a standard install, select the Typical option from the Setup program (Windows), or run the Install program from the os2loc directory (OS//2).
- ii. **Node (Network) Install** - Use this to configure your PC to run a copy of the OnDemand client from a shared location on a network file server. To run a node install, select the Compact options from the Setup program (Windows), or run the Install program from the os2net directory (OS/2).
- iii. **Custom Install** - Use this to select the components you want to install. You must use the custom install if you need to install:
 - a. The OnDemand client in a language other than the pc's default language.
 - b. The Sonoran Fonts on the PC.

To run a custom install, select the Custom option from the Setup program (Windows) or run the Install program from the os2loc directory (OS/2). Then select the components to install.

6. Distribution Install

This is simply the process of preparing the source distribution directories on a network file server or on a source distribution cdrom from which the OnDemand Client and Adobe Products can be installed. Please see the "Prepare the Source Distribution Directories" section earlier in this chapter for more information.

7. Multiple User Install

The OnDemand client can be set up to allow multiple users to run the client from a shared location on a network file server. To set this up, the OnDemand Client must be installed to a file server using a standard (local) install. Other users will then configure their pc's using a node (network) install. The node install will configure the user's pc with the minimum files

needed to connect and run the client from the file server. The actual connection to the OnDemand for OS/390 server is from the user's node pc. Please see the "Installing Clients on a Network" chapter of this guide for more information.

8. Automated Install

Automated install allows administrators to standardize the OnDemand installation for all users in an organization. It also allows administrators to install OnDemand clients without the presence of users at their PC's. For more information about automated install, see the "Automating the Installation" chapter of this guide.

9. User-Defined Files (Windows 32-bit Only)

For Windows 32-bit clients, administrators can store user-defined files in the OnDemand installation directory tree on a network file server. This directory can also be copied to the source distribution cdrom if desired. Any user-defined files stored there get copied to the PC when a user runs the Setup program from the server or the cdrom. For more information, please see the "Installing User Defined Files" section of the "Configuring OnDemand for OS/390" chapter.

10. Server Short Running Tasks (Short Sockets)

It is highly recommended that the client be configured to connect to the server in "short sockets" mode. This can be done for all clients, and can be automated with the Windows 32-bit client. With the 2.2.1.6 32-bit client, the Setup.ini file will automatically set up the client to connect to the server in short sockets mode. Please see the "Configuring OnDemand for OS/390" chapter for more details.

11. Mapping AFP Fonts

To view AFP documents, you may need to map the AFP fonts your documents were created with to fonts that can be displayed on the PC. This will allow OnDemand to display the documents and fonts correctly. Fonts should be defined in font definition files if your documents use:

- i. AFP fonts that are not defined to OnDemand
- ii. IBM AFP fonts that you or others in your organization have changed
- iii. AFP fonts that you or others in you organization have created

See the "Mapping AFP Fonts" section of the "Configuring OnDemand for OS/390" chapter for more information.

C. Disk Space Requirements

If the source and destination directories will be on one pc, you will need about 120 MB for the install process. After the client has been installed, the source directory and the zip file may be deleted. The client will then require about 30 MB if all files are installed. Additional free disk space will be required to store the temporary files for each document viewed by OnDemand. If installed from a file server or cdrom, the OnDemand client code will require about 30 MB.

D. Operating System

Installation of the operating system is the responsibility of the customer.

E. TCP/IP Communications Support

Installation and configuration of TCP/IP support is the responsibility of the customer.

F. Installation Checklist

The following list is intended to serve as a guide of the major installation tasks for the OnDemand for OS/390 client, and the recommended sequence of those tasks.

1. If installing the 2.2.1.8 or higher level of client, check the server requirements.
2. Request ftp site information needed to download client files.
3. Download the desired files (OnDemand Client, Adobe Acrobat Exchange, Adobe Type Manager) in binary format.
4. Create a source distribution directory for each file (Windows 32-bit Client, OS/2 Client, Adobe Acrobat Exchange) on the file server. Adobe Type Manager (ATM) zip files will create their own directory when unzipped with the -d parameter.
5. Place the zip file(s) into the source directory. Unzip the file using the -d parameter.
6. (Optional for Win32) Edit Setup.ini if the default settings need changing.
7. (Optional) Prepare to automate the client installation process (Response Files).
8. (Optional) Prepare the source distribution directory to automatically update the registry to configure the client for "short sockets" mode (Windows 32-bit only). See the "Configuring OnDemand for OS/390" chapter.
9. (Optional) Create an "installation cdrom" containing the source distribution files. This cdrom can then be used to install the OnDemand Client to a PC.
10. (Optional) Install Adobe Acrobat Exchange before installing OnDemand if pdf documents will be viewed (Windows only).
11. (Optional) Install Adobe Type Manager (ATM) before installing OnDemand if Adobe Type 1 Fonts are required to view documents (Windows only).
12. (For CD-ROM Creation offering only) Copy the arsmstr.ini file from the \win32\ars32 source distribution directory into the \ars32 directory AFTER running setup.exe to install the client. This is not automatically done during the installation process.
13. Install the desired client by running SETUP (Windows) or INSTALL (OS/2) from the distribution source directory.
14. **(REQUIRED)** Add the OD/390 command-line parameters. With the 2.2.1.6 and above level, the Setup.ini file should do this automatically. Verify that the shortcut properties target field has been updated with these parameters.
15. **(REQUIRED for OLE)** The SetFolderCloseMemoryRelease method must be used.
16. (Recommended) Configure the client to run in "short sockets" mode to improve server performance. With the 2.2.1.6 32-bit client, Setup.ini should do this automatically. If necessary, this process can also be done manually, or automated with the Windows 32-bit client shortsoc.reg file as described in this manual.
17. (Optional) If the OnDemand client will also connect to a non-OS/390 server (AIX, NT, AS/400), create a separate shortcut icon without the OD/390 command line parameters
18. Start the client and update the server information from the logon dialog.
19. Uncheck the "Attempt Unified Logon" checkbox (Windows 32-bit client) at the "update servers" dialog unless this option is needed for a specific purpose.

V. Installing OS/2 Client Software

A. Overview

The client PC must be running OS/2 Version 3.0 or later or OS/2 WARP Connect to install the OnDemand client.

1. Disk Space Requirements

If the source and destination directories will be on one pc, you will need about 120 MB for the install process. After the client has been installed, the source directory and the zip file may be deleted. The client will then require about 30 MB if all files are installed. Additional free disk space will be required to store the temporary files for each document being viewed by OnDemand. If installed from a file server or cdrom, the OnDemand client code will require about 30 MB.

2. Installation Drives and Directories

The installation program lets you choose the target drive to install components. The default drive is C.

w The default installation directories for the OS/2 client are \ARSOS2 (for the client

The remainder of this chapter will describe a local OS/2 client install.

The client software may be installed from a temporary source directory on the local pc, from a source distribution directory on a network file server, or from a source distribution cdrom that an administrator created. Please see the earlier chapter "**Preparing for Installation of the OnDemand Client**" for details on setting up the source directories for the installation process.

For maximum performance, it is recommended that the client be set up to start the server as a short running task (short sockets). This must be done manually for the OS/2 client, as explained in the "Connecting to Server Short or Long Running Tasks" section of the "Configuring OnDemand for OS/390" chapter.

1. Install OnDemand software

- i. Make sure that TCP/IP is started on the PC if the installation will be from a file server on the network, and that you know the location of the INSTALL program (local pc, file server, or cdrom).
- ii. From an OS/2 Window or OS/2 Full Screen, type "**x:\os2loc\install**" where x is the letter assigned to the drive that contains the INSTALL program.
- iii. At the "OnDemand Installation Information" window, select Continue.
- iv. At the "Install" window, select OK.
- v. At the "Install - directories" window, select the following components:
 - a. Language for the Client component.
 - b. IBM Core Fonts.
 - c. Sonoran Metric Outline Fonts - if your reports require these fonts (8 MB).
- vi. Select the drive to which you wish to install OnDemand. It is recommended that you do not change the directory name (ARSOS2).
- vii. When complete, the installation program displays a message indicating successful installation.
- viii. Exit the installation program.

2. Add Command Line Parameters (Required)

Several command line parameters **MUST** be added to insure that the OnDemand Client for OS/390 works properly. Follow these steps:

- i. Single Click with the **right** mouse button on the OnDemand icon in the OnDemand for OS/2 folder to bring up the menu.
- ii. Left Click on "Settings" (Warp v.3) or "Properties" (Warp v.4).
- iii. At the **Settings or Properties** window, add the command line parameters to the end of the text in the **Parameters** entry field. **Important** - Do not delete the existing line. Make sure you add the following parameters to the end of the existing text:

/Q /O 1 /9

The **Parameters** entry field should now look like this, depending on the language you installed:

/1 C:\ARSOS2\LOCALE\ENU /Q /O 1 /9

- iv. Close the folder by double clicking on the system icon in the upper left hand corner of the folder.

- a. For **Warp Version 3** at the Program - Settings folder:
 - 1) At the "Program" tab, type the Path and File name:
C:\ARSOS2\FODWINVW.EXE
 - 2) At the "General" tab, type a title:
AFP Viewer
 - 3) Close the "Program - Settings" folder by double clicking on the system icon in the upper left hand corner of the folder. You should see the viewer icon displayed in the OnDemand for OS/2 folder.
- b. For **Warp Version 4** at the Program - Properties folder:
 - 1) At the "Program" tab, type the Path and File name:
C:\ARSOS2\FODWINVW.EXE
 - 2) At the "Icon" tab, type a title:
AFP Viewer
 - 3) Close the "Program - Properties" folder by double clicking on the system icon in the upper left hand corner of the folder. You should see the viewer icon displayed in the OnDemand for OS/2 folder

D. Updating the OS/2 Client

The OnDemand OS/2 install program may be used to update the OnDemand OS/2 client software on a pc. Follow these steps:

1. **Close any open OS/2 client document windows and exit the OS/2 client program if it is active.**
2. **Start the install program. To do this, from an OS/2 Window or OS/2 Full Screen, type "x:\os2loc\install" where x is the letter assigned to the drive that contains the INSTALL program. Then press Enter.**
3. **Select "Update the currently installed product" if it is not already selected.**
4. **Select "Continue." The installation program updates all currently installed OnDemand components.**
5. **Exit the installation program.**

E. Removing the OS/2 Client

The OnDemand OS/2 install program may be used to remove OnDemand OS/2 client software on a pc. Follow these steps:

1. **Close any open OS/2 client document windows and exit the OS/2 client program if it is active.**
2. **Start the install program. To do this, from an OS/2 Window or OS/2 Full Screen, type "x:\os2loc\install" where x is the letter assigned to the drive that contains the INSTALL program. Then press Enter.**

3. Select "Delete the installed product and re-install."
4. Click "Continue."
5. Select the component(s) you want to remove from the pc.
6. Click Delete. The installation program deletes the selected components.
7. Exit the installation program.

VI. Installing Windows Client Software

A. Overview

The OnDemand Client for OS/390 may be installed directly from a temporary source directory on the local pc, from a source distribution directory on a file server, or from a source distribution cdrom that you created. The setup program allows you to select the components that you want to install on the PC. Based on your installation selections, the installation program may create or modify program groups, icons, shortcuts, folders, and initialization files.

Windows NT Note: OnDemand requires that a user with administrator privileges install the client to a Windows NT system.

1. Operating Environments

OnDemand provides 32-bit Windows client software.

2. Adobe Software

OnDemand for OS/390 provides the following Adobe software on the ondemand390 secure ftp site:

- w ATM 4.0 for Windows 95 and Windows 98 (atm40w95.zip)
- w ATM 4.0 for Windows NT (atm40nt.zip)
- w Adobe Acrobat Exchange 3.0 for Windows 95 / 98 / NT (adobe.zip)

3. Disk Space Requirements

If the source and destination directories will be on the same pc, you will need about 120 MB for the install process. After the client has been installed, the source directory and the zip file may be deleted. The client will then require about 30 MB if all files are installed. Additional free disk space will be required to store the temporary files for each document being viewed by OnDemand. If installed from a file server or cdrom, the OnDemand client code will require about 30 MB, plus additional free space to store the temporary files (documents).

4. Installation Drives and Directories

The installation program lets you choose the target drive to install components. The default drive is C.

- w The default installation directories for the 32-bit client are \Program Files\IBM\OnDemand32 (for Windows client programs, temporary files, and AFP codepage maps, and \PSFONTS (for the outline font files).

- w Language DLL and help files are installed in the \Program Files\IBM\OnDemand32\LOCALE\&l (32-bit) directory. The **&l** part of the path name shows the locale, for example, **ENU** for the US English version of OnDemand.

B. Installing Adobe Type Manager (ATM) Software for Windows

1. Windows 95 or Windows 98

To install ATM for Windows 95 or Windows 98, follow these steps:

- i. Locate the "atm40w95" subdirectory where the ATM source files were unzipped.
- ii. From the Windows taskbar, click "Start," and then select "Run."
- iii. In the entry field, type **x:\mydir\atm40w95\install** where x is the letter of the drive where your installation source files are located, and mydir is the directory or directories where the atm40w95 source directory was placed.
- iv. Press "Enter."
- v. Follow the installation instructions on the screen.

2. Windows NT

To install ATM for Windows NT, follow these steps:

- i. Locate the "atm40nt" subdirectory where the ATM source files were unzipped.
- ii. From the Windows taskbar, click "Start," and then select "Run."
- iii. In the entry field, type **x:\mydir\atm40nt\setup** where x is the letter of the drive where your installation source files are located, and mydir is the directory or directories where the atm40nt source directory was placed.
- iv. Press "Enter."
- v. Follow the installation instructions on the screen.

C. Installing Adobe Acrobat Exchange for Windows

Adobe Acrobat Exchange 3.0 is included for the viewing of PDF documents (adobe.zip). Adobe Acrobat Exchange should be installed before installing the OnDemand Client. If not, there is one extra step that must be done to set up the client. See the following section.

Note: When the version of Adobe Acrobat Exchange 3.0 supplied with OnDemand is installed, the Acrobat Exchange plug_ins are automatically selected for installation by the Setup procedure by default. If you are installing a later version of Adobe Acrobat Exchange be sure to select the Acrobat Exchange plug-ins for installation, or OnDemand will not be able to display PDF documents.

To install Adobe Acrobat Exchange 3.0 for Windows:

1. **Locate the "adobe" subdirectory where the source files were unzipped.**
2. **Run the Setup program from **x:\mydir\adobe** where x is the letter of the network drive (or cdrom drive) where your source distribution files are located, and mydir is the directory or directories where the adobe source directory was placed.**
3. **Follow the installation instructions on the screen.**
4. **At the "Select Components" window, make sure the following are selected (they should appear checked by default):**
 - i. Acrobat Exchange Files

- ii. Acrobat Exchange Plug-ins

5. Restart Windows after Adobe Acrobat Exchange has been installed.

When OnDemand is installed after Adobe Acrobat Exchange, the **arspdf32.api** file will automatically be installed in the **lacrobat3\exchange\plug_ins** directory (or the directory you selected for the installation).

If the OnDemand was installed before Adobe Acrobat Exchange, Exchange can still be installed, but the last step must be done manually. After Exchange is installed, copy the **arspdf32.api** file from the **lars32\pdf** folder (or the folder into which you installed OnDemand) into the **lacrobat3\exchange\plug_ins** directory, and pdf viewing should be enabled.

D. Setup.ini File (2.2.1.6 level and above)

The Setup.ini file is used when running 'Setup' to install the OnDemand Client with certain options. Beginning with the 2.2.1.6 level of the OnDemand Client, the Setup.ini file contains a [S390] section which will set the client to connect using 'short sockets' mode, and will add the OD/390 required command line parameters to the OnDemand shortcut. The 2.2.1.6 odwin32.zip file from the OnDemand for OS/390 ftp site contains a Setup.ini file with the following settings:

```
[S390]
Sockets=User
Parameters=/Q /O 1 /9
```

Sockets=User will place the 'Disconnect=1' short sockets parameter in the Windows registry HKEY_CURRENT_USER registry key.

Sockets=Local will place the 'Disconnect=1' short sockets parameter in the Windows registry HKEY_LOCAL_MACHINE registry key.

Short sockets mode is recommended for performance reasons, and the command-line parameters are required when connected to an OS/390 server. Additional information on both can be found in the "Configuring OnDemand for OS/390" chapter in this manual. If for some reason these settings must be changed, edit Setup.ini before installing the OnDemand Client.

E. Installing the Windows 32-bit Client

It is recommended that all Adobe products (if needed) be installed before installing the OnDemand Client. Please see the previous steps for the installation of Adobe products.

The client software may be installed from a temporary source directory on the local pc, from a source directory on a file Server, or from a source distribution cdrom that you created. Please see the earlier chapter "**Preparing for Installation of the OnDemand Client**" for more details on setting up the source directories for the installation process.

For maximum performance, it is recommended that the client be configured to start the server as a short running task (short sockets). The Setup.ini file will do this automatically at installation time. This can also be done manually, as explained in the "Connecting to Server Short or Long Running Tasks" section of the "Configuring OnDemand for OS/390" chapter, or automatically with the shortsoc.reg file, as explained in the "Installing User Defined Files" section of that same chapter.

1. Install the Windows 32-bit Client Software

The Setup program transfers the OnDemand client files from the source distribution directory to the user's pc. All features of OnDemand can be installed at once, or individual features may be installed as needed.

i. Install OnDemand software.

When SETUP is run, the Setup screens will display the names of the default OnDemand directories and let you change the names if desired.

- a. Make sure that TCP/IP is started on the PC if the installation will be from a file server on the network, and that you know the location of the SETUP program if it resides on the file Server.
- b. From the Windows taskbar, click Start, and then select Run. Type **x:\win32\setup** (or use Browse) where **x** is the letter assigned to the drive that contains the SETUP program.
- c. Click OK. After the Setup program starts, click "Next" to continue.
- d. At the "Setup Type and Working Directory" dialog box, choose the type of installation:

- 1) **Typical** - to install a copy of the OnDemand client to the hard disk on the user's PC. If ATM is on the PC, the Setup program will copy the Outline Fonts to the PSFONTS directory on the PC. The Setup program runs a Typical install by default unless the Compact or Custom option is selected.
- 2) **Compact** - to configure the PC to run a copy of the OnDemand client from a shared location on a network file server. After selecting Compact, you must identify the full path of where the OnDemand client program files reside on the network file server. If ATM is on the PC, the Setup program will copy the Outline Fonts to the PSFONTS directory on the PC.
- 3) **Custom** - to select the components to install on the PC. You must select Custom:

If "Custom" is selected, clicking "Next" will display the "OnDemand Windows Client Installation Components" dialog. The following options are available:

- **Client** - Click on the "Change" button to install the OnDemand Client in a language other than the default language set on the PC, or to install multiple clients.
 - **Outline Fonts** - Click on the "Change" button to display the "Select Sub-components" dialog to install the optional unsupported Sonoran Fonts on the PC.
- e. The Destination Folder displays the installation drive and directory. Use the Browse command to install the files to a different hard disk or directory.
 - f. Follow the instructions on the screen to complete the installation.

ii. Add Command Line Parameters (**Required**) if not done by Setup.ini.

Several command line parameters **MUST** be added to insure that the OnDemand Client for OS/390 works properly. The OnDemand installation process will create an entry in the Windows Start Taskbar at the bottom of the screen. A shortcut icon may also be created for the user, or copied to the desktop from the Start / Settings / Taskbar.

Note: If the parameters are set for the Windows Start button, they are not automatically set for the Shortcut icon unless copied from the Taskbar as described below.

- a. To add command line parameters to the OnDemand shortcut from the Windows Start button:
 - 1) Select Start / Settings / Taskbar
 - 2) At the Taskbar Properties window, select the "Start Menu Programs" tab
 - 3) In the Customize Start Menu group, click on the "Advanced" button
 - 4) In the Start Menu folder, find the IBM OnDemand32 folder and open it. For **Windows NT** this may be in the WinNT/Profiles/All Users/Start Menu/Programs folder.
 - 5) Click on the OnDemand program shortcut icon with the right mouse button, and select "Properties"
 - 6) Select the **Shortcut** tab.
 - 7) Add the command line parameters to the end of the text in the **Target** entry field. **Important** - Do not delete the existing line. Make sure you add the following parameters to the end of the existing text:

/Q /O 1 /9

The Target box should now look like this, depending on the language you installed:

C:\Program Files\IBM\OnDemand32\ARSGUI32.EXE /1 C:\Program Files\IBM\OnDemand32\LOCALE\ENU /Q /O 1 /9

- 8) Click the OK button to save the changes.

See the "Configure OnDemand for OS/390" section for a more detailed explanation of the parameters.
- b. To copy the OnDemand shortcut to the desktop from the Start / Settings / Taskbar with existing command line parameters:
 - 1) First add the command line parameters as described in the preceding step.
 - 2) Select Start / Settings / Taskbar
 - 3) At the Taskbar Properties window, select the "Start Menu Programs" tab
 - 4) In the Customize Start Menu group, click on the "Advanced" button
 - 5) In the Start Menu folder, find the IBM OnDemand32 folder and open it. For **Windows NT** this may be in the WinNT/Profiles/All Users/Start Menu/Programs folder.
 - 6) Click on the OnDemand shortcut icon in the right side of the screen with the right mouse button, drag the icon to the desktop, and release the button.
 - 7) Select "Copy Here" to copy the icon to the desktop, or to a folder on the desktop.

c. To add the command line parameters to an OnDemand **Shortcut** Icon that was created on the desktop and not copied from Start / Settings / Taskbar as described above, or to check the settings of an existing icon:

- 1) Click on the OnDemand shortcut icon with the right mouse button to open the menu.
- 2) Select **Properties**.
- 3) Select the **Shortcut** tab.
- 4) Add the command line parameters to the end of the text in the **Target** entry field if they are not already there. **Important** - Do not delete the existing line. Make sure you add the following parameters to the end of the existing text:

/Q /O 1 /9

The Target box should now look like this, depending on the language you

- e. Click on the right side of the screen with the right mouse button.
 - f. Select **New > String Value**
 - g. Enter the string **Disconnect**
 - h. Double click on Disconnect to bring up a window, then enter 1 for short sockets or 0 for long sockets.
 - i. Close REGEDIT.
- iv. Logon to a Server

To start OnDemand for the first time, you must add Server Information. You may want to use OnDemand on-line Help for a more detailed explanation.

- a. Double click on the OnDemand icon to start the program.
- b. At the **Logon to a Server** window, select the **Update Server** button.
- c. At the **Update Servers** window, update the following:

Server entry field: Type the name of the OnDemand Server.

Host Name entry field: Type the TCP/IP host name alias, fully-qualified host name, or IP address.

Protocol: Select TCP/IP

Port: Verify the TCP/IP port number. This is the TCP/IP port number that the server program monitors for client program requests. The default port for OnDemand for OS/390 is 3017. Consult your OnDemand Administrator.

- d. Uncheck the "Attempt Unified Logon" checkbox (22015 or higher Windows client) at the "update servers" dialog unless this option is needed for a specific purpose.
 - e. Click the Add button, then close the Update Servers window.
- v. Add Icon for the Stand-Alone AFP Viewer (Optional).
- a. Open the OnDemand folder.
 - b. Single click with the right mouse button on a blank part of the open folder to open the menu.
 - c. Select "New" then "Shortcut" to open the "Create Shortcut" window.
 - d. At the Command Line entry field, type "C:\ARS32\FTDWINVW.EXE" where C is the drive where OnDemand was installed. Then click on "Next" then "Finish."
 - e. The AFP Viewer will appear in the OnDemand folder.
 - f. To rename the icon, right click on the icon to bring up the menu, then select "Rename."
 - g. Rename the shortcut (AFP Viewer), then "Enter"

F. Updating the Windows 32-bit Client

OnDemand requires that a user with administrator privileges update the client software on a Windows NT system. Beginning with the 2.2.1.5 level of the OnDemand client, when a 2.2.1.2 or

earlier client is updated, InstallShield will present an initial install dialog which will allow the user to select several options prior to updating the client. If a 2.2.1.5 or later level of the client is already installed and is being updated, InstallShield will automatically update the previous OnDemand client without allowing the user to change any options. After the client has been updated, the user can run Setup again to modify or add components.

Complete the following steps to update the Windows 32-bit client software on a pc:

- 1. Close any open OnDemand document windows and exit the Windows client program if it is active.**
- 2. Run "Setup" for the new level of OnDemand Client.**
- 3. Verify the following installation options:**
 - i. The drives and directories where the installation program updates the software.
If you are updating the client on a pc that will run the software from a LAN server, first verify the drive and directory on the pc where the software installation program copies control files and then verify the drive and directory on the LAN server where the OnDemand Windows client software resides.
 - ii. OnDemand components that you want to update.
 - iii. Disk space required.
- 4. Click "Next." The installation program displays the progress of the installation.**
- 5. When complete, the installation program displays a message indicating successful installation. Click "OK" to continue.**

G. Removing the Windows 32-bit Client

OnDemand requires that a user with administrator privileges remove the client software on a Windows NT system. Complete the following steps to remove the Windows 32-bit client software from a pc.

- 1. Close any open OnDemand document windows and exit the Windows client program if it is active.**
- 2. Start the unInstallShield program. To do this:**
 - i. Click Start.
 - ii. Point to Programs.
 - iii. Point to OnDemand32 (or the folder where you installed OnDemand).
 - iv. Click unInstallShield.
- 3. On the "Confirm File Deletion dialog box, click "Yes." The unInstallShield program removes OnDemand program files, folder items, program folders, directories, and registry entries from the pc.**
- 4. When the unInstallShield program completes, click "OK" to exit the program.**

VII. Installing Clients on a Network

OnDemand software and fonts may be installed on a network file server, allowing other PC's on the network to run the software and access the fonts from the server. A copy of the OnDemand client must first be installed to the network file server (multiple user install). The user's PC is then configured to run the OnDemand client from a shared location on a network file server (node install). Setting up OnDemand in this way requires approximately 3 MB of disk space on the user's PC.

A. Multiple User Install

The first part of a multiple user install is to install the OnDemand client to the network file server. Use the standard install to install the OnDemand client to a shared location on a network file server. After installing the client on the server, other users on the network can run a node install to configure their PC to run the client from the network server..

1. Installing Adobe Software

If Adobe Type 1 Fonts are required for the viewing of your organization's documents, Adobe Type Manager (ATM) must be installed on each user's PC. The installation of ATM is described earlier in this manual. It is recommended that ATM be installed before the OnDemand client software is installed on a PC.

To view PDF documents stored in OnDemand (Windows clients only), users need Adobe Acrobat Exchange. Acrobat can be installed on a network file server at a shared location so user's can run the Acrobat software from the server. Otherwise, Acrobat could be installed on each user's pc. The installation of Adobe Acrobat Exchange is described earlier in this guide. It is recommended that Acrobat be installed before the OnDemand Client software is installed on a PC.

2. Installing the OnDemand Client on the Network File Server

To install the OnDemand client on a network file server:

- i. Log on to the server with a userid that has administrator permissions.
- ii. Run the OnDemand client installation program from either:
 - a. the network file server source distribution directory you created.
 - b. the source distribution directory cdrom created for installation of OnDemand.

Table: Network File Server Installation Program	
Client	Installation Program
OS/2	\\os2loc\install.exe
Windows 95, Windows 98, Windows NT	\\win32\setup.exe

iii. Follow the instructions on the screen.

w For Windows clients, select the "Typical" option

Note: If users need to run the client in a language other than the default language set on the server, or use the Sonoran Fonts, select the "Custom" option instead of "Typical." Then select the additional components you need to install on the server.

w For OS/2 clients, select the components you want to install on the server.

w Verify the drive assignment and directories. When installing OnDemand clients on a network file server, all directories typically reside on a disk on the server. The following table shows an example where "n" is the network drive to which you are installing the OnDemand client, and "APPS" is the directory on the file server into which you are installing the client:

Table: Drives and Directories on the Network File Server		
Client	Drive & Directory	Purpose
OS/2	n:\apps\ars2	Local Directory
	n:\apps\psfonts	Font Directory
	n:\apps\ars2\data	Data Directory
	n:\apps\ars2\res	Resource Directory
	n:\apps\ars2\print	Print Directory
Windows 95, 98, NT	n:\apps\ars32	Destination Folder
	n:\apps\ars32\psfonts	Outline Fonts Folder

After the OnDemand client is installed on the network file server, make the server directories (or folders) available to network users. This procedure differs for each network and operating system. However, users should generally be given read-only access to directories. If applicable for your network, share the folders by giving the folder location on the network file server a network name (share name).

After you install the client on the server and share the directories, users can run a node install to configure their PC to run the client from the server. The node install process is described in the "Node Install" section of this chapter.

3. Sharing User-Defined Files (Windows 32-bit Only)

An administrator can store user-defined files in the OnDemand client source distribution directory tree on a network file server. Any user-defined files stored there can be shared by the users that run the client from that location. User-defined files can be shared by Windows 95, Windows 98, and Windows NT clients. Please see the "Installing User Defined Files" section of the "Configuring OnDemand for OS/390" chapter for more information.

B. Node Install

A node install is used to configure a user's PC to run the OnDemand client from a shared location on a network file server.

The following procedure describes how to run a node install from the network server source distribution directory, or from the source distribution cdrom created by an administrator to distribute the client. This procedure assumes that the OnDemand client has already been installed to a shared location on a network file server, as described in the previous "Multiple User Install" section of this chapter.

1. Installing Adobe Software

If Adobe Type 1 Fonts are required for the viewing of your organization's documents, Adobe Type Manager (ATM) must be installed on each user's PC. The installation of ATM is described earlier in this manual. It is recommended that ATM be installed before the OnDemand client software is installed on a PC.

To view PDF documents stored in OnDemand (Windows clients only), users need Adobe Acrobat Exchange. Acrobat can be installed on a network file server at a shared location so user's can run the Acrobat software from the server. Otherwise, Acrobat could be installed on each user's pc. The installation of Adobe Acrobat Exchange is described earlier in this guide. It is recommended that Acrobat be installed before the OnDemand Client software is installed on a PC.

2. Installing the OnDemand Client (Node Install)

To configure a user's PC to run the OnDemand client from a shared location on a network file server:

- i. Run the OnDemand client installation program from either:
 - a. the network file server source distribution directory you created.
 - b. the source distribution directory cdrom created for installation of OnDemand.

Table: Network User Installation Program	
Client	Installation Program
OS/2	\\os2net\install.exe
Windows 95, Windows 98, Windows NT	\\win32\setup.exe

- ii. Follow the instructions on the screen.
- w For Windows clients, select the "Compact" option
- w Verify the drives and directories. Make sure the Network Code and Network Fonts directories correctly identify the drives and directories on the network file server where the OnDemand client was installed (see the "Multiple User Install" section of this chapter). The Local directory must identify a drive and directory on the user's PC. The Data, Resource, and Print directories typically identify a drive and directory on the user's

PC. The following table shows examples for each client, where "C" is the local directory, and "N" is the Network directory:

Table: Drives and Directories on the Network User's PC		
Client	Drive & Directory	Purpose
OS/2	C:\ars2	Local Directory
	N:\apps\ars2	Network Code Directory
	N:\apps\psfonts	Network Font Directory
	C:\ars2\data	Data Directory
	C:\ars2\res	Resource Directory
	C:\ars2\print	Print Directory
Windows 95, 98, NT	C:\apps\ars32	Destination Folder
	N:\apps\ars32	Network Program Folder
	N:\apps\ars32\psfonts	Network Fonts Folder

3. Add Command Line Parameters (Required)

Several command line parameters **MUST** be added to the user's PC after a Node Install to insure that the OnDemand Client for OS/390 works properly. This is the same process that must be done for a regular (local) client install. Please see the "Installing OS/2 Client Software" chapter or the "Installing Windows Client Software" chapter for details.

VIII. Automating the Installation Process - Using Response Files

This chapter provides an overview of using response files to install the OnDemand client software on PC's connected to the network. This procedure differs for each operating system, so this chapter is divided into three sections.

A response file is an ASCII file that supplies the client-specific configuration information required during redirected installation of a product on a PC. The response file contains predefined answers to the configuration questions that users are normally asked during a product installation, such as the installation drive and directory, and the components to install. An administrator can use a response file to automate the installation and configuration of the OnDemand client software over a network of PC's. The response file makes it unnecessary for the system administrator (or other user) to sit at each PC and manually enter an answer to each question that is displayed during installation.

A. Response Files for OS/2

1. Format of a Response File

Response files are product-specific ASCII files that contain sequences of keyword=value pairs that are interpreted by the product installation program. The response file can also contain comment lines.

2. Creating a Response File

Response files in OS/2 commonly have an extension of .CID and are found in the product installation directory.

OnDemand provides a model response file in the \os2loc directory. The name of the model response file is ARSOS2.CID. To begin configuring your own response file, make a copy of the file to a read/write location. Then use a standard text editor to view or make changes to the copy. The file contains comment lines that explain the keywords and their values and installation options.

3. Installing Software Using a Response File

A response file is not invoked directly. Instead, a response file is specified as a parameter value for the installation program. You can run the Install program and specify an action and a response file. For example, the command:

```
\os2loc\install /A:I /X /R:\arsos2.cid
```

runs the Install program to install the software on the PC using the instructions found in the ARSOS2.CID response file in the \OS2LOC directory on the current drive. By default, the Install program expects to find the response file in the directory where the install program resides.

The response file directs the processing of the installation for the OS/2 client program. When you run the Install program with a response file, no messages or dialog boxes are displayed. Instead, messages are written to a log file. You identify the directory where the Install program places the log file and name the log file by specifying the /L1 command line option. For example, the command:

```
\os2loc\install /A:I /X /R:\arsos2.cid /L1:c:\temp\arsos2.log
```


causes the install program to write the log file ARSOS2.LOG in the TEMP directory on the C drive.

4. Verifying Software Installation

To verify the installation of a product that you installed using a response file, open the log file and examine the return code. The return code should indicate that the software was successfully installed on the client PC.

5. Using a Response File to Install OnDemand Software

In general, complete the following steps to prepare the OnDemand OS/2 client software for installation using a response file, and then to install the software on other PC's connected to the network.

- i. Copy the model response file provided with the OnDemand client software.
- ii. Modify the copy of the model response file to meet your specific installation requirements.
- iii. Test the installation process and the response file by installing the software on a user's PC. Run the Install program from the os2loc directory. Specify the location and name of the response file you created in step 2.
- iv. After testing and validating the response file, install the software on other PC's. Run the Install program with the
 - w /A:l option to install the software
 - w /R: option to read the response file you created in step 2.
 - w /L:1 option to identify the log file.
- v. Examine the log files to verify the installation of the software.

B. Response Files for Windows 95, Windows 98, and Windows NT

1. Format of a Response File

The format of a response file is similar to that of an .INI file. A response file contains pairs of keywords and values organized into sections. The keywords and values are interpreted during software installation.

2. Creating a Response File

Response files for Windows commonly have an extension of .ISS and are found in the Windows directory.

You can create a response file by running the Setup program with the -r command line option. For example, the command:

```
\win32\setup -r
```

causes the Setup program to record all of your answers to the product installation questions in the SETUP.ISS response file. You can direct the Setup program to place the response file in a different directory and name a response file by specifying the -f1 command line option. For example, the command:

```
\win32\setup -r -f1 n:\client\win32\ars32in.iss
```

causes the Setup program to create the ARS32IN.ISS file in the \client\win32 directory on the N drive.

3. Installing Software Using a Response File

A response file is not invoked directly. Instead, a response file is specified as a parameter value for the Setup program. You can run the Setup program and specify a response file with the -s command line option. For example, the command:

```
\client\win32\setup -s
```

causes the Setup program to install the software using the instructions found in the SETUP.ISS response file in the \client\win32 directory on the current drive. By default, the Setup program expects to find the response file in the directory where the Setup program resides. Use the -f1 option to identify the location and name of the response file. For example, the command:

```
\client\win32\setup -s -f1 n:\client\win32\ars32in.iss
```

causes the Setup program to install the software using the ARS32IN.ISS response file located in the \client\win32 directory on the n drive.

The response file directs the processing of the installation for the Windows 32-bit client software. When you run the Setup program with the -s option, no messages or dialog boxes are displayed. Instead, messages are written to a log file. By default, the log file (SETUP.LOG) is written to the directory where the Setup program resides. You can direct the Setup program to place the log file in a different directory and name the log file by specifying the -f2 command line option. For example, the command:

```
\client\win32\setup -s -f1 n:\client\win32\ars32in.iss -f2 c:\temp\ars32in.log
```

causes the setup program to write the log file ARS32IN.LOG in the TEMP directory on the C drive.

4. Verifying Software Installation

To verify the installation of a product that you installed using a response file, open the log file and locate the ResponseResult section. Examine the value of the ResultCode parameter. The return code should be zero (0).

5. Using a Response File to Install OnDemand Software

In general, complete the following steps to prepare the OnDemand Windows 32-bit client software for installation using a response file, and then install the software on other PC's connected to the network.

- i. Install the software on a PC. Run the Setup program with the -r option to create the response file and the -f1 option to identify the location and name of the response file. When prompted by the Setup program, select the "Typical" option.
- ii. Test the installation process and the response file by installing the software on a user's PC. Specify the the name of the response file you created in step 1.
- iii. After testing and validating the response file, install the software on other PC's. Run the Setup program with the -s option to read the response file you created in step 1, the -f1

option to identify the response file, and the -f2 option to identify the directory where the Setup program writes the log file.

- iv. Examine the log files to verify the installation of the software.

IX. Configuring OnDemand for OS/390

A. Setup.ini File (2.2.1.6 level and above Win-32 client)

The Setup.ini file is used when running 'Setup' to install the OnDemand Client with certain options. Beginning with the 2.2.1.6 level of the OnDemand Client, the Setup.ini file contains a [S390] section which will set the client to connect using 'short sockets' mode, and will add the OD/390 required command line parameters to the OnDemand shortcut. The 2.2.1.6 odwin32.zip file from the OnDemand for OS/390 ftp site contains a Setup.ini file with the following settings:

```
[S390]
Sockets=User
Parameters=/Q /O 1 /9
```

Sockets=User will place the 'Disconnect=1' short sockets parameter in the Windows registry HKEY_CURRENT_USER registry key.

Sockets=Local will place the 'Disconnect=1' short sockets parameter in the Windows registry HKEY_LOCAL_MACHINE registry key.

Short sockets mode is recommended for performance reasons, and the command-line parameters are required when connected to an OS/390 server. Additional information on both can be found in this chapter. If for some reason these settings must be changed, edit Setup.ini before installing the OnDemand Client.

B. Command Line Parameters

This section contains a description of all the parameters recognized by the OnDemand client. A section explaining the required parameters for OnDemand for OS/390 is also included in this chapter.

1. Parameter Syntax

The following syntax rules apply to command line parameters:

- w At least one space character must follow the executable name.
- w A parameter is identified by a slash followed immediately by a single character.
- w The parameter character is not case sensitive.
- w The associated parameter value, if any, begins with the first non-space character following the parameter character and ends with the last non-space character preceding the next parameter or the end of the command line.
- w If a slash character is to be included in the parameter value, two consecutive slash characters must be specified.
- w Keyword parameter values are not case sensitive.
- w Unrecognized parameters are ignored.
- w If the same parameter appears more than once, the last occurrence is used.

2. Parameters

The following parameters are recognized by the OnDemand Client. All examples use c:\ARS32 as the path, although the current default install path for the 32-bit client is **c:\Program Files\IBM\OnDemand32**.

Product Title — /T name

If this parameter is specified, OnDemand replaces the default product title at the top of the main OnDemand window and on a number of menu items. This title takes precedence over a title supplied in a Product Information File.

Example: C:\ARS32\ARSGUI32 /T Joe's Windows Application

Logon Server Name — /S name

If this parameter is specified, OnDemand uses the value as the server name for the initial user logon. The name must be one of the server names defined in the ARS.INI file.

This parameter may be used in combination with the Logon User ID and Logon Password parameters to logon the user during initialization. If all three parameters are specified and are valid, the initial Logon dialog box is not displayed.

Example: C:\ARS32\ARSGUI32 /S pikes /U user1 /P pass1

Logon User ID — /U id

If this parameter is specified, OnDemand uses the value as the user id for the initial user logon.

This parameter may be used in combination with the Logon Server Name and Logon Password parameters to logon the user during initialization. If all three parameters are specified and are valid, the initial Logon dialog box is not displayed.

Example: C:\ARS32\ARSGUI32 /S pikes /U user1 /P pass1

Logon Password — /P password

If this parameter is specified, OnDemand uses the value as the password for the initial user logon.

This parameter may be used in combination with the Logon Server Name and Logon User ID parameters to logon the user during initialization. If all three parameters are specified and are valid, the initial Logon dialog box is not displayed.

Example: C:\ARS32\ARSGUI32 /S pikes /U user1 /P pass1

Change Password — /C new password

If this parameter is specified, OnDemand changes the password for the user after a successful logon. This parameter can only be specified if the /S, /U, and /P parameters have also been specified.

Example: C:\ARS32\ARSGUI32 /S pikes /U user1 /P pass1 /C newpass

Folder Name — /F name

If this parameter is specified, OnDemand uses the value as the folder name of the initial folder to be opened. If the value is a valid folder name, the initial Open a Folder dialog box is not displayed.

This parameter may be used in combination with the Logon Server Name, Logon User ID, Logon Password, Disable Logoff and Password Change, and Maximum Open Folders parameters to limit a user to operations with a single folder on a single server.

Example: C:\ARS32\ARSGUI32 /F Credit Card Statements

Maximum Open Folders — /O number (must be set to /O 1 for OD/390)

If this parameter is specified, OnDemand limits the number of open folders to no more than the indicated value. This parameter may be used in combination with the Free Memory When Folder Closed parameter to cause folder information to be refreshed from the server each time that a folder is opened.

Example: C:\ARS32\ARSGUI32 /O 1 /Q

Window Placement — /W placement

If this parameter is specified, OnDemand displays the main window as indicated by the placement. The placement must be one of the following:

- w **Z** to indicate that the main window is to be zoomed (maximized).
- w **I** to indicate that the main window is to be iconized (minimized).
- w **N** to indicate that the main window is not to be displayed (made invisible). This option should be specified only if OnDemand is to be manipulated with the DDE interface.
- w **x,y,w,h** to indicate the main window placement, where
 - **x** is the left origin in percent of the screen width.
 - **y** is the top origin in percent of the screen height.
 - **w** is the width in percent of the screen width.
 - **h** is the height in percent of the screen height.

If this parameter is not specified or if no placement value is specified, the main window appears as it did when OnDemand was last terminated.

Example: C:\ARS32\ARSGUI32 /W 5,10,90,80

Enable DDE Interface — /I number,path,resid

If this parameter is specified, OnDemand enables the Dynamic Data Exchange interface and prepares to accept commands from another application.

number, **path**, and **resid** are interpreted as follows:

- w **number** must be an integer between 1 and 5. It indicates the number of DDE-application switch menu items to be provided. The default value is 1.
- w **path** specifies the fully-qualified name of a resource DLL containing a bitmap for toolbar buttons to be associated with the DDE-application switch menu items. The size of the bitmap depends on the number of menu items. Each button requires a 16 X 15 pel image. If there is a single menu item, the bitmap should be 16 X 15; if two menu items, 16 X 30; and so forth.
- w **resid** specifies the bitmap resource identifier within the DLL. It must be an integer value.

Example C:\ARS\ARSGUI32 /I 3,C:\MYAPP\BITMAP.DLL,81

Client Exits DLL — /E path

If this parameter is specified, OnDemand enables Client Exits. The path is a fully-qualified name for a Windows DLL containing the Client Exits entry points.

Example: C:\ARS32\ARSGUI32 /E C:\CLIENT\CLIEXT.DLL

Disable Exit — /K

If this parameter is specified, OnDemand disables the Exit menu item.

Example: C:\ARS32\ARSGUI32 /K

Disable Logoff or Password Change — /X

Use the **X** parameter to indicate if OnDemand disables logoff or a change to the logon password as follows:

- w If **X** is specified with no options, OnDemand disables the Logoff and Change Logon Password menu items.
- w If **X** is specified with the **L** option, OnDemand disables the Logoff menu item.
- w If **X** is specified with the **P** option, OnDemand disables the Change Logon Password menu item.

Example: C:\ARS32\ARSGUI32 /X

Disable Update Servers — /Y

If this parameter is specified, OnDemand disables the Update Servers button on the Logon dialog box.

Example: C:\ARS32\ARSGUI32 /Y

Disable Close Folder — /Z

If this parameter is specified, OnDemand disables the Close Folder menu item, the Close Folder button on the Search Criteria and Document List dialog box, and the Close menu item on the system menu of the Search Criteria and Document List dialog box.

Example: C:\ARS32\ARSGUI32 /Z

Disable Anticipation — /V

If this parameter is specified, OnDemand does not attempt to anticipate the next user request, such as displaying the Logon dialog box after initialization or displaying the Open Folder dialog box after the current folder is closed.

Example: C:\ARS32\ARSGUI32 /V

Disable User Confirmation — /B

If this parameter is specified, OnDemand does not request confirmation of the user's action when there is an open document during folder close, logoff, or exit.

Example: C:\ARS32\ARSGUI32 /B

Free Memory When Folder Closed — /Q (Required for OD/390)

If this parameter is specified, OnDemand frees all memory associated with a folder when it is closed and refreshes the folder information from the server when it is reopened.

Example: C:\ARS32\ARSGUI32 /Q

Abort on Error — /A (2.2.0.15 and higher OS/2 Client only)

If this parameter is specified, the logon dialog will NEVER be shown. The correct server name, userid, and password must be supplied with command line options (/S, /U, /P).

- w If the login fails due to an invalid userid or password, the OS/2 client displays the message "The User ID or Password is not valid for the server". When the OK button is pressed, the client exits with a return code of 11.
- w If the host is not responding, the client displays the message "Connection cannot be established for the xyz server" where xyz is the server name. When the OK button is pressed, the client exits with a return code of 12.
- w If the password has expired and the "/X" option is not used, the password change dialog will be displayed. If the "/X" or "/X P" option is specified and the pass

C. OnDemand for OS/390 Client Required Command Line Parameters

Several command-line parameters are required for the OnDemand Client for OS/390. The following is a description of these parameters. See the "Add Command Line Parameters" section of "Installing Windows Client Software" or "Installing OS/2 Client Software" for the setup procedure.

Maximum Open Folders — /O 1

OnDemand for OS/390 limits the number of open folders to one.

Free Memory When Folder Closed — /Q

OnDemand for OS/390 frees all memory associated with a folder when it is closed and refreshes the folder information from the server when it is reopened.

Additional OnDemand for OS/390 Parameters — /9

Add a Note dialog box

The "Public Note" checkbox is checked and disabled. All notes in OnDemand for OS/390 are Public. The "Note can be copied to another server" checkbox is checked and disabled. This allows Notes to be saved with the ad-hoc cdrom feature.

Print

From the Document Hitlist, Server print is enabled, Local and LAN print are disabled. While viewing the document, Local, LAN, and Server print are all enabled.

D. The OnDemand OLE Control

Customers interested in implementing OLE Controls should see the **IBM OnDemand OLE Control and 32-Bit GUI Customization Guide and Reference**. If OLE Controls will be used, the **SetFolderCloseMemoryRelease** method **MUST** be used when a folder is closed for OnDemand for OS/390. This is the equivalent of the required **/Q Free Memory When Folder Closed** command line parameter described in the previous section. This method is available starting with the 2211 level of the OnDemand client.

E. Time Zone (OS/2 Client)

Add the time zone parameter to AUTOEXEC.BAT for Windows 3.1 and CONFIG.SYS for OS/2. The following line is an example for Eastern Savings Time and Eastern Daylight Time:

SET TZ=EST5EDT

* Note: Timestamps are always stored with respect to GMT. Your PC will default to PST (Microsoft is in Seattle) which is 8 hours different from GMT. The Time Zone (TZ) parameter will appear when viewing notes. It can be set to one of the following:

Atlantic: SET TZ=AST
Eastern: SET TZ=EST5EDT
Central: SET TZ=CST6CDT
Mountain: SET TZ=MST7MDT
Pacific: SET TZ=PST8PDT

F. Connecting to Server Short or Long Running Tasks (Short or Long Sockets)

When the OnDemand Client is installed, the client is set up to start the server as a long running task (long sockets). For maximum performance, it is recommended that the default setting be changed by following the procedure outlined below. "DISCONNECT = 1" is the parameter for short sockets and "DISCONNECT = 0" for long sockets (default). For an explanation on how to set up the source distribution directory and .REG file to automatically update the 32-bit Windows registry for short sockets at installation, see the "Configuring Short Sockets Mode Automatically" section of this chapter.

1. OS/2 Client

- i. Start the OS/2 Client and cancel out of the Logon screen without signing on to the server.
- ii. Press **ctr + alt + i** (NOT **ctr + alt + del**) to start the ini editor.
- iii. In the top section [Categories] select 'Servers.'
- iv. In the middle section 'Key Names =' enter 'DISCONNECT' in upper case with no quotes.
- v. In the bottom section '=Value' enter 1 for short sockets or 0 for long sockets
- vi. Select 'Add/Change' and then 'ok' for the various OS/2 messages to close the ini editor.

2. Windows 32-bit Client

To set up a Windows 95 or NT system for short sockets, you must edit the Windows System Registry (REGEDIT). This should be done with caution by someone familiar with editing the Windows Registry.

- i. The OnDemand client must first be installed on the PC.
- ii. Edit the Registry File by going to Start / Run / Browse / Windows and opening REGEDIT.
- iii. Open the following folders in regedit:
 - HKEY_CURRENT_USER or HKEY_LOCAL_MACHINE (2.2.1.6 client)
 - Software
 - IBM
 - OnDemand32
 - Common
 - Servers
- iv. Click on 'Servers' on the left side of the screen, and you should see entries for 'Default' and 'SERVERS' on the right of the screen.
- v. Click on the right side of the screen with the right mouse button.
- vi. Select **New > String Value**
- vii. Enter the string **Disconnect**
- viii. Double click on Disconnect to bring up a window, then enter 1 for short sockets or 0 for long sockets.
- ix. Close REGEDIT.

G. Installing User Defined Files (32-bit Client)

User defined files can be stored in the OnDemand 32-bit client source distribution directory tree on the file server, the local pc, or the user-created installation cdrom. Any files (and

subdirectories of files) stored in this directory are copied along with the OnDemand client files when the client is installed on a pc. The following types of user-defined files can be stored in the installation directory tree:

- w Adobe Type 1 Font files. These files are copied to the \psfonts directory tree on the user's pc.
- w Registry files. These files are imported into the Registry on the user's pc. A WinNT user must have the proper permissions set up to allow the registry to be updated in this manner.

Important: It is easy to accidentally destroy important data and render a system completely unusable by importing Registry files. Be careful when using this function.

- w Windows files. These files are copied into the base Windows directory tree on the user's pc.
- w Miscellaneous client files. These files are copied into the \ars32 directory tree on the user's pc.

1. Adding Subdirectories to the Source Distribution Directory

All user-defined files must be stored in the **CUSTOM** subdirectory tree of the OnDemand 32-bit client installation directory tree. The custom subdirectory must be created by the user. The client zip files do not contain the custom subdirectory, or the psfonts, registry, windows, or files subdirectories that can be created in the custom subdirectory described later in this section. When creating a source installation directory tree, whether it be on a local pc, a file server, or for a user-created installation cd-rom, it is suggested that the following source directory names be used for the 32-bit client to avoid confusion:

<u>directory</u>	<u>zip file</u>
\adobe	adobe
\win32	odwin32.zip

Therefore, the subdirectory

the move data proces: -1". However, the installation process should still work correctly.

w custom\psfonts

To hold Adobe Type 1 Font files (file type PFB). If necessary, add a PFM subdirectory (custom\psfonts\pfm) to hold the PFM files. The OnDemand installation program copies these files and subdirectories to the \psfonts directory tree on the user's pc.

w custom\registry

To hold Registry files (file type REG). These files will be imported into the Registry on the user's PC. Registry files typically comprise a selected branch of the Registry exported using a Registry editor. A WinNT user must have the proper permissions set up to allow the registry to be updated in this manner.

Warning: It is easy to accidentally destroy important data and render a system completely unusable by importing Registry files. Be careful when using this function.

w custom\windows

To hold Windows files. Files in the custom\windows directory are copied to the base Windows directory on the user's PC. (The installation program detects the name of the base Windows directory on the user's pc.) If necessary, add subdirectories. For example, if you plan to distribute Windows 32-bit system files, add a SYSTEM32 (custom\windows\system32) subdirectory. Files in the custom\windows\system32 directory will be copied to the \windows\system32 directory on the user's pc.

w custom\files

To hold miscellaneous OnDemand client files. If necessary, add subdirectories. For example, if you plan to distribute AFP font files, add a FONT subdirectory (custom\files\font). Files in the custom\files\font directory will be copied to the \ars32\font\directory on the user's pc. The OnDemand installation program copies these files and subdirectories to the \ars32 directory tree on the user's pc.

- iii. After creating the custom directories, store files in the individual subdirectories. For example, store Adobe Type 1 Font files (PFB) that you want to be copied to a user's PC into the custom\psfonts directory. Store the PFM files in the custom\psfonts\pfm directory.

After the CUSTOM directory tree is set up, the next time the OnDemand 32-bit client installation program is run all of the files stored in the CUSTOM directory are copied to the user's PC. Any REG files will be automatically imported into the Registry.

H. Configuring Short Sockets Mode Automatically with Shortsoc.reg (Windows 32-bit)

For optimum performance, it is recommended that the client be set up to connect to the OnDemand for OS/390 server as a short running task (short sockets). With the 2.2.1.6 client, the Setup.ini file provided with the OD/390 version of the client will install the OnDemand client with the short sockets 'Disconnect =1' parameter. Optionally, the Shortsoc.reg file is provided which will place this parameter in the HKEY_CURRENT_USER section of the registry.

Warning: It is easy to accidentally destroy important data and render a system completely unusable by importing Registry files. Be careful when using this function. Make sure this process is thoroughly tested before proceeding.

There is a sample .REG file (**SHORTSOC.REG**) included with the OnDemand for OS/390 Client that can be used to update the registry to set the "DISCONNECT=1" parameter for short sockets. It can be found in the \sample\reg directory. To prepare the install process to automatically update the registry for short sockets, follow these steps:

1. **Create a custom\registry directory as described in the "Adding User-Defined Files to the \Custom directory" section above.**
2. **Copy the shortsoc.reg file from the \sample\reg directory and place it in the \custom\registry directory of the source distribution directory tree structure.**
3. **Test this process thoroughly with sample installations before using this process in your company's environment.**

If the source distribution directory tree structure is set up for the automatic registry update, the following message will be displayed during the installation process:

Registry Editor Dialog: Information in c:\Program Files\IBM\OnDemand32 (or the destination directory) \shortsoc.reg has been successfully entered into the registry.

Note: A WinNT user must have the proper permissions set up to allow the registry to be updated in this manner.

I. Connecting to Multiple Servers from the same PC

Multiple OnDemand Clients can be run from the same PC concurrently while connected to different OnDemand servers, such as OS/390, AIX, NT, or AS/400 OnDemand Servers. In this situation, it is recommended that separate OnDemand client shortcut icons (Windows) or Program icons (OS/2) be created on the desktop with names identifying the server (OS/390, AIX, etc.). The icon that will connect to the OS/390 server should then be set up with the required command-line parameters in the icon properties, and the icon(s) that will connect to a non-OS/390 server can be set up without the command-line parameters.

J. Multiple Client Connections to the same OS/390 Server

Multiple concurrent client connections can be made to an OnDemand OS/390 server as long as each client uses a unique ip address (separate pc's).

K. Mapping AFP Fonts

OnDemand needs to map the AFP fonts with which your document was created to fonts that can be displayed on your workstation. For OnDemand to map the best matching outline fonts to display your AFP document, it needs to know certain characteristics about the fonts that were used to create your document. Mapping AFP fonts to outline fonts is done with the IBM-supplied font definition files installed as part of OnDemand. These files are stored in the \ARS\FONT directory (ARS32\FONT for 32-bit Windows and ARSOS2\FONT for OS/2) you specified when you installed OnDemand. You may edit them using any workstation editor. The shipped version of the font definition files maps the IBM core Interchange (Latin only), compatibility, coordinated, Sonoran, and Data1 fonts for you.

If your document uses an AFP font whose family (familyname) isn't installed on your workstation, you can use the ALIAS.FNT file (one of the font definition files installed with OnDemand) to substitute that font familyname with a different one. The ALIAS.FNT file remaps several of the AFP fonts to IBM Core Interchange fonts. If you have any outline fonts installed on your workstation, you may want to remove or comment out the font familyname substitutions in the ALIAS.FNT file. The "Alias File" section of this chapter provides more information about using the ALIAS.FNT file.

The IBM Core Interchange fonts (shipped with OnDemand) are in Type 1 outline format. These fonts are delivered in three type families: Times New Roman, Helvetica, and Courier. Each type family is provided in these character set groups:

Latin The Latin group is available in 4 typefaces: roman medium, roman bold, italic medium, and italic bold.

Symbols The Symbols group is available in 2 typefaces: roman medium and roman bold.

Because the IBM Core Interchange fonts are also available for printing with PSF/2; version 2 of SF/MVS, PSF/VM, and PSF/VSE; and PSF/6000, they help standardize fonts across applications and installations.

If you created your documents with only the unmodified IBM fonts, you won't need to remap fonts to use OnDemand.

1. When You Need to Map Fonts

If you are using fonts that are not defined to OnDemand, if you have modified the IBM AFP fonts, or if you have created your own AFP fonts, you need to define those fonts in the font definition files in order for documents using those fonts to display correctly with OnDemand.

- w If you created a new coded font (or renamed one), you will need to define the coded font in the Coded Font file (ICODED.FNT or CODED.FNT).
- w If you created a new character set, you have to define it in the Character set definition file (CSDEF.FNT).
- w If you created a new code page, you have to define it in the Code Page Definition file (CPDEF.FNT).
- w If you have created a new code page, or modified a code page by moving characters, you have to create a new Code Page Map file (cp_id.CP).

If you only have modified an existing IBM font component, you may not need to perform any of the above steps. For example, if you have only deleted code points in the IBM code page, the font files supplied with OnDemand can be used.

2. Files Supplied for Mapping Fonts

The following types of files for font support are installed by default in the following subdirectories under the directory in which OnDemand was installed:

	CPDEF.FNT CPDEF.CHS ² CPDEF.CHT ³ CPDEF.JPN ⁴ CPDEF.KOR	\FONT	Maps each AFP code page to a Windows character set ⁶ and indicates which Code Page Map file for OnDemand to use.
Code Page Map file	cpgid.CP	\FONTMAPS	Defines character identifier mappings. It matches the IBM code page character identifiers and their hexadecimal code points with a corresponding character identifier and ASCII code point representing a Windows ANSI or SYMBOL character set. ⁶
Alias File	ALIAS.FNT	\FONT	Maps AFP font type families to Type 1 or TrueType outline font family names.

Note:

1. CODED.FNT is an optional file. A sample can be found in the SAMPLES subdirectory of the \ARS\FONT (ARS32\FONT) directory. The CODED.FNT file is meant to contain coded fonts you have created.
2. Code page and character set files for the Simplified Chinese client.
3. Code page and character set files for the Traditional Chinese client.
4. Code page and character set files for the Japanese client.
5. Code page and character set files for the Korean client.
6. The Windows term "character set" is roughly equivalent to the AFP term "code page."

- i. Gather the information needed to define the fonts in the font definition files. This information is described in the following sections of this chapter.
- ii. Make backup copies of any of the following font definition files that you plan to modify:
 - w CSDEF.FNT
 - w CPDEF.FNT
 - w ICODED.FNT
 - w ALIAS.FNT

Note: Backup copies of these files should be made so that you have an unmodified copy in the event something happens to your modified copy that makes in inoperable.

- iii. Install any other outline fonts you are planning to use with OnDemand. (The *Adobe Type Manager User Guide* provides information about installing fonts with ATM).
- iv. If you have created or modified a code page, use the BLDCPMAP REXX program to build the codepage map file:
 - a. Determine which Windows character set (ANSI or SYMBOL) is a suitable match for the AFP code page.
 - b. Substitute any non-matching characters in the code page map file or ALIAS.FNT file if necessary. (Refer to the "Code Page Map Files" topic and the "Code Page Map File REXX

- w All parameters are positional.
- w Blanks are allowed between parameter values.

4. Coded Font File

The IBM Coded Font file (ICODED.FNT) maps AFP coded fonts to their AFP character sets and AFP code pages. Two Coded Font files can be used with OnDemand:

ICODED.FNT This file contains definitions for approximately 2500 IBM-supplied coded fonts.

CODED.FNT You can create this optional file to define a list of any coded fonts you have created. If you create a CODED.FNT file, you must place it in the \ARS\FONT directory. A sample of this file can be found in the SAMPLES subdirectory of the \ARS\FONT directory.

If a CODED.FNT file exists in the \ARS\FONT subdirectory, it is searched first for the coded fonts used in an AFP file. If the coded font name is not found in CODED.FNT or if CODED.FNT does not exist, only the OnDemand-supplied ICODED.FNT file will be searched.

Example of CODED.FNT File
<pre>X?A155N2 = C?A155N1 ,T1DCDCFS X?AE10 = C?S0AE10 ,T1S0AE10 X?GT10 = C?D0GT10 ,T1D0BASE X?ST15 = C?D0ST15 ,T1D0BASE X?A0770C = C?A07700 ,T1DCDCFS X?A0770I = C?A07700 ,T1GI0361 X0T550C = C0T05500 ,T1DCDCFS</pre>

Coded Font File Rules

- w A question mark (?) can be used as the wild-card character only for the second character in the coded font name and the character set name. This allows all the character rotations of the coded fonts to be handled with one entry for searching.

Note: A sequential search is performed for the coded font, and the first match is used (including the wild-card character).

- w After the coded font name, the character set name must be listed first, followed by the code page name.
- w The character set and code page **must** be separated by a comma.

5. Character Set Definition File

The Character Set Definition file specifies the character set attributes and font global identifier of the font. It is split into 2 sections, one for character sets [CHARSET] and one for font global identifiers [FGID].

Example of [CHARSET] section in Character Set Definition File

```
[CHARSET]
;charset = fgid,height,width,strikeover,underline
C?A055A0 = 30711,110,73,0,0
C?A055B0 = 30712,120,80,0,0
C?A055D0 = 30714,140,93,0,0
C?A055F0 = 30716,160,107,0,0
C?A055H0 = 30718,180,120,0,0
C?A055J0 = 30720,200,133,0,0
C?A055N0 = 30724,240,160,0,0
C?A055T0 = 30730,300,200,0,0
C?A055Z0 = 30736,360,240,0,0
C?A05560 = 30706,60,40,0,0
DEFAULT  = 2308,80,0
```

The first section identified by the section header [CHARSET] lists each AFP font character set and its corresponding attributes:

- w Font global identifier (FGID)
- w Font height
- w Font width
- w Strikeover
- w Underline

Character Set Definition File Attribute Values for [CHARSET]			
Attribute	Possible Values	Shipped Default	Description
Fgid	IBM-defined FGID or your own defined FGID within this range: 3840 to 4095 or 65260 to 65534	2308	A unique value that identifies the type family, typeface, and sometimes the point size of the character set.
Height	1 to 980	80	The vertical size of the character set (minimal baseline-to-baseline value) expressed in tenths of a point. For example, a 9-point font would have a height of 90.
Width	0 to 99 (currently ignored)	0	The average horizontal size of the characters in 1440th of an inch. Currently, 0 is always used because Windows determines an appropriate font width based on the font height.
Strikeover	1 (means yes) 0 (means no)	0	A font whose characters all have a line, parallel to the character baseline, placed over the middle of the character.
Underline	1 (means yes) 0 (means no)	0	A font whose characters all have a line, parallel to the character baseline, placed under the character.

The second section, identified by the section header [FGID], lists each font global identifier and its corresponding attributes:

- w Font type families
- w Style
- w Weight
- w Italic

Example of [FGID] section in Character Set Definition File
<pre>[FGID] ;fgid = familyname, style, weight, italic 230=Gothic,MODERN,MED,0 416=Courier,MODERN,MED,0 2304=Helvetica,SWISS,MED,0 2308=TimesNewRoman,ROMAN,MED,0 4407=SonoranSerif,ROMAN,MED,0 4555=SonoranSerif,ROMAN,MED,0 33207,SonoranSansSerif,SWISS,MED,1 33207=SonoranSansSerif,SWISS,BOLD,1</pre>

Character Set Definition File Attribute Values for [FGID]			
Attribute	Description	Possible Values	Shipped Default
Familyname ¹	An outline font name or an AFP type family name. This name appears on the ATM Control Panel if you have the font installed on your workstation.	Any Adobe Type 1 font name or AFP type family name.	TimesNewRoman
Style ²	The same as a Windows "family." It is approximately equivalent to type family plus typeface style in AFP fonts.	SWISS ³ ROMAN ⁴ SCRIPT ⁵ MODERN ⁶ DISPLAY ⁷	ROMAN
Weight	The degree of boldness of a typeface caused by different thickness of the strokes that form a graphic character.	LIGHT MED BOLD	MED
Italic	A font whose characters slant to the right.	1 (means yes) 0 (means no)	0
<p>Note:</p> <ol style="list-style-type: none"> "Familyname" is the same as "type family" in AFP fonts and "typeface name" in Windows. "Style" is the same as Windows "family" and is roughly equivalent to "typeface style" and "type family" in AFP fonts. SWISS is a proportionally spaced font, without serifs. ROMAN is a proportionally spaced font, with serifs. SCRIPT is a fixed-pitch font designed to look like handwriting. MODERN is a fixed-pitch font, with or without serifs. DISPLAY is a decorative font. 			

Character Set Definition File Rules

- w Parameters must be separated by a comma. The previous Character Set tables list the possible values, and shipped default values for each parameter.
- w In the [CHARSET] section of the file, only **fgid** and **height** (point size) are required.
- w In the [FGID] section of the file, only the type **familyname** and **style** are required.
- w A question mark (?) can be used as the wild-card character only for the second character in the character set name. This allows all the character rotations of the coded fonts to be handled with one entry while searching.
 - Note:** A sequential search is performed for the character set, and the first match is used (including the wild-card character).
- w The [CHARSET] section must come before the [FGID] section.
- w You can set a default character set. The default character set that is defined in the file must be the last entry in the [CHARSET] section.
- w If you add your own AFP font character set to the [CHARSET] section, you must assign it a font global identifier. Font global identifiers you create must be in the ranges of 3840 to 4095, or 65260 to 65534. If the new character set has the same familyname, style, weight, and italic attributes as an existing character set, you may

use the same font global identifier; otherwise, you must add a unique font global identifier to the [FGID] section.

6. Coded Page Definition File

The Code Page Definition file maps the IBM AFP code page name to its code page global identifier [CPGID] and to a Windows character set. The section header [CODEPG] is followed by a list of AFP code pages and their parameters. The first parameter in each line is the AFP code page global identifier that maps to a Code Page Map file. (The "Code Page Map Files" topic provides information about mapping code pages). The second parameter is the Windows character set that you decide is the best match for you AFP codepage. The last line gives the default parameter values to be used when a default is required.

Example of Code Page Definition File	
[CODEPG]	
;codepage =	cpig, wincp
T1DCDCFS =	1003,ANSI
T1DEBASE =	2058,ANSI
T1D0BASE =	2063,ANSI
T1D0GP12 =	2085,ANSI
T1GI0395 =	2079,ANSI
T1GPI363 =	2066,SYMBOL
T1V10037 =	37,ANSI
T1V10273 =	273,ANSI
T1000290 =	290,ANSI
T1000310 =	310,ANSI
T1000423 =	423,ANSI
T1000905 =	905,ANSI
DEFAULT =	361,ANSI

Code Page Definition File Attribute Values		
Attribute	Possible Values	Shipped Default
Code Page Global Identifier	IBM-defined CPGID or your own defined CPGID within this range: 65260 to 65534	361
Windows Character set	ANSI or SYMBOL	ANSI

Code Page Definition File Rules

- w Parameters must be separated by a comma. The "Code Page Definition File Attribute Values" table (above) lists the possible values and shipped default values for each parameter.
- w Only the first Parameter (code page identifier) is required.
- w If you create your own codepage, you must assign it a unique code page identifier. Leading zeros are not valid. (You may use an IBM code page global identifier, but only if the character-to-hexadecimal code mapping is the same for your code page).
- w You can set a default code page. The default codepage that is set within the file must be the last entry in the file.

7. Code Page Map Files

OnDemand provides one Code Page Map file for each AFP code page supplied with PSF and the Data1 and Sonoran licensed programs. These files are installed in their own subdirectory (MAPS) under the \ARS\FONT (\ARS32\FONT) directory. The file is named for its code page global identifier (CPGID) and has a file extension of .cp (for example, 2063.cp is the file name for the T1D0BASE code page map; its CPGID is 2063). Each file contains the character identifiers (and associated EBCDIC hexadecimal code points) for an IBM code page, and maps them to character identifiers (and associated ASCII code points) for a Windows ANSI or SYMBOL character set.

Example of Code Page Map File			
;T1000395 to ANSI			
SP010000	40	SP010000	20
LA150000	42	LA150000	E2
LA170000	43	LA170000	E4
LA130000	44	LA130000	E0
SP180000	8B	SP180000	BB
SM560000	8C	SM560000	89
SA000000	8D	SP100000	2D
LI510000	8E	NOMATCH	00
LF570000	87	NOMATCH	00
SM190000	90	SM190000	B0
LJ010000	91	LJ010000	6A
LF510000	A0	NOMATCH	00
;;;;;;;;;		SD150000	5E
;;;;;;;;;		SD130000	60
;;;;;;;;;		LT630000	FE

Code Page Map File Rules

- w Parameters must be separated by blanks.
- w "NOMATCH" means there is not a matching character in the Windows character set.
- w The "NOMATCH" hexadecimal code of 00 is mapped to the undefined code point. When a document contains a character that does not exist in the Windows character set, that character cannot be displayed on the screen. If the character has not been remapped in the code page Map file or the Alias file, the undefined code point character will be displayed as a blank character. (See the "Alias File" topic for information about remapping code points).
- w The string of semi-colons (;;;;;;;;;) means this line is ignored as a comment. It also indicates the Windows code page contains a character that does not exist in the IBM code page. The code point for a Windows character not found in the IBM code page can be used for replacing NOMATCH characters.

Code Page Map File REXX Program for Building a Code Page Map File

OnDemand supplies a sample Restructured Extended Executor Language (REXX) program (BLDCPMAP.REX) you can use to create Code Page Map files. This program executes in MVS, VM, or OS/2 REXX environments. The REXX program is in the SAMPLES subdirectory of the \ARS\FONT (\ARS32\FONT) directory. (The ARS or ARS32 directory is the directory in which you installed OnDemand).

The BLDCPMAP.REX program requires a host AFP code page and one of the Windows character set files: ANSI.WCP or SYMBOL.WCP. These files can also be found in the SAMPLES subdirectory. The program's output is a Code Page Map file that maps the characters in the host code page to matching characters in the Windows character set so it can be used with OnDemand. It also identifies how many unmatched characters there are in the code page so that you can determine which Windows character set (ANSI or SYMBOL) contains the most matching characters. Matching is done using graphic character identifiers.

If you are going to use the BLDCPMAP.REX EXEC on your MVS or VM system, ensure that you upload it as an ASCII file with carriage return and line feed (CR/LF) as specified in the BLDCPMAP.REX file prologue.

On a VM system, the BLDCPMAP.REX.EXEC must be run from the command line rather than from a file listing.

Setting up to Build a Code Page Map File

You can either transfer the BLDCPMAP REXX program and the Windows character set file to your host system and run the program there, or you can transfer your AFP code pages to your workstation and run the program under OS/2 (if you have REXX installed on your workstation). You can use any file transfer program that handles standard host record format files and ASCII CR/LF line endings, with or without ASCII EBCDIC translation. (We recommend using the Communication Manager File Transfer Program).

If you transfer the REXX program and the Windows character set files (these files have an extension of .WCP) to your MVS or VM host system, they must be translated from ASCII to EBCDIC and CR/LF must indicate a new line. All of the files transferred to the host system must be human-readable. If you transfer your AFP code pages to your OS/2

workstation, you **must** specify a **binary** format. If the file transfer is not correct, a REXX error occurs when you run the BLDCPMAP program.

On your OS/2 workstation, rename the BLDCPMAP.REX file to BLDCPMAP.CMD and ensure that REXX is installed. On your VM host system, the file type for the BLDCPMAP file must be EXEC. On your MVS system, the program may be run explicitly with the EXEC command or implicitly by member name if the partitioned data set containing the BLDCPMAP program was previously allocated to your system file that contains execs (usually SYSEXEC or SYSPROC). If the REXX program is named correctly, you can run the program without parameters to get the correct syntax of the command. You can also list the prologue for the EXEC for syntax.

When you run the BLDCPMAP program, and you have selected which Code Page Map file you want to use with OnDemand, place that Code Page Map file in the MAPS subdirectory of the \ARS\FONT (ARS32\FONT) directory of the directory in which you installed OnDemand. Update the CPDEF.FNT file in the \ARS\FONT directory. In order for OnDemand to find the Code Page Map file, it must be named as follows:

```
code-page-global-identifier.CP
```

For more information about using the Code Page Map file, refer to the "Code Page Map Files" topic. For more information about the BLDCPMAP program (for example, the syntax for running the program), refer to the prologue in the BLDCPMAP.REX file.

8. Alias File

The Alias File contains 2 sections: one section for font familyname aliases [FONT] and one section for character identifier aliases [CHARID].

The first section, identified by the section header [FONT], lists the font familyname aliases. Font familyname aliases allow you to change all of the requested instances of a font familyname (as defined in the Character Set Definition file) to another font familyname. For example, this file is used to change all requests for the SonoranSerif font (which may not exist on the workstation) to requests for the TimesNewRoman font (which is one of the core fonts shipped with OnDemand) as shown in the "Example of [FONT] section in Alias File" table.

ATM is the supported font program. However, TrueType fonts can be used with OnDemand, but fidelity and character mapping will likely be incorrect. As a backup, a second font (TrueType) can be specified after the Type 1 font name. If the Type 1 font is not found, the TrueType font will be used to display your document.

Note:

Be aware that font familyname remapping, especially to TrueType fonts, can cause some misalignment of text characters since the display font is not the same as the font used to create the AFP document. The font familyname can be found listed in the ATM Control Panel. Remapping of one font familyname to a different font familyname with very different characteristics (such as STYLE) may mean a matching font cannot be found. You will receive an error message if either font substitute cannot be found.

Example of [FONT] section in Alias File

```
; ***** Requested font = Type 1 font, TrueType font *****  
Book=TimesNewRoman,Times New Roman  
CourierOverstrike=Courier,Courier New  
SonoranSerif=TimesNewRoman,Times New Roman  
SonoranSansSerif=Helvetica,Arial  
Text=Courier,Courier New
```

The second section, identified by the section header [CHARID], lists the character identifier aliases. Character identifier aliases (also known as glyph identifiers) allow you to change all of the requested instances of a character to another character. For example, since the Windows ANSI character set does not contain the ff ligature (LF510000), it is not mapped to a character in the code page map files. Instead, it is mapped to NOMATCH 00. If you want to map all occurrences of LF510000 - NOMATCH pair to a lower case f, you could do this in the [CHARID] section of the ALIAS.FNT file with the following entry:

```
LF5100000=LG0100000
```

If you want to change one specific character for one specific code page, you may remap the character on that code page to another character as shown in the "Code Page Map File" example.

The Alias file is checked only when a NOMATCH 00 is found in a character mapping.

Note:

Using the Alias file for more than a few character substitutions is not recommended as program performance will be affected. If a lot of character substitutions are needed, it is better to make those changes directly to the mappings in the Code Page Map files you are using.

Example of [CHARID] section in Alias File

```
[CHARID]  
LF5100000=LF0100000  
SA000000=SP320000,SP100000
```

Alias File Rules

- w For family name aliases, all requests for the first family name in the Character Set Definition file have the second family name substituted for them. If the second family name is not found, the TrueType font (the third family name) is requested.
- w Only 2 family name substitutes per line are allowed (to the right of the equal sign), and they must be separated by a comma.

- w If multiple mappings are listed in the file for the same familyname, only the first match is used.
- w The Alias file is processed sequentially and is **not** chained. For example, if "Century Schoolbook" is set equal to "Times," and "Times" is set equal to "TimesNewRoman," "Century Schoolbook" will **not** be set to "TimesNewRoman."
- w Blanks in family names are treated as characters. For example, "Times New Roman" is not the same font as "TimesNewRoman."
- w The [CHARID] section of the Alias file is only used if the second character identifier is NOMATCH 00.
- w The character identifier that you want modified in the [CHARID] section must be followed by an equal sign and the character identifier to which it is to be changed. A character remap occurs when the modified character identifier (the character to the left of the equal sign in the [CHARID] section) matches the first character identifier of a non-matching pair in the Code Page Map file.
- w Several character identifiers (substitute char id) may be listed to the right of the equal sign separated by commas. The first substitute character identifier is substituted for the modified character identifier unless it doesn't exist in the Windows font. If it doesn't exist, the next substitute character identifier is used. If none of the substitute character identifiers exist, the undefined code point is used. If you want to examine the contents of the Windows character sets, list the .WCP files in the SAMPLES subdirectory of the \ARS\FONT (ARS32\FONT) directory.
- w A maximum of 4 substitute character identifiers are allowed.

9. Support for TrueType Fonts

OnDemand supports Type 1 fonts installed under Adobe Type Manager (ATM) for Windows Clients, and installed under the OS/2 Font Palette for OS/2. Type 1 outline fonts are supplied with OnDemand and provide better fidelity in general than mapping to TrueType fonts. These fonts are installed into the fonts directory you specify when you install OnDemand (the default directory is \PSFONTS). The installed OnDemand type 1 outline fonts and their PC file names are as follows:

FONT NAME	PC FILE NAME
TIMESNEWROMAN	tnr*.*
HELVETICA	helv*.*
COURIER	cou*.*
BOLDFACE	bfc*.*
COURIERAPL2	apl*.*
GOTHICTEXT	got*.*
LETTERGOTHIC	lgo*.*
OCR_A	ocr_a*.*
PRESTIGE	prs*.*

TrueType Fonts

OnDemand queries ATM when the OnDemand viewer is started. If ATM is not available, or the Type 1 font you requested cannot be found, OnDemand uses TrueType fonts. If you don't install and use ATM, you may use TrueType fonts to display your documents. To use TrueType fonts, you must do the following:

- a. If ATM is installed, it must be disabled, removed, or the Type 1 fonts installed with OnDemand must be removed (if they are not used by other applications on your workstation). You can use ATM to remove these fonts.
- b. To disable the check for ATM and the error message generated, you must edit the ARS.INI file in the Windows directory to add the following line in the [Misc] stanza:

```
TTONLY=TRUE
```

To request a specific TrueType font, use the second font substitution family name in the ALIAS.FNT file as described in the "Alias File" topic.

TrueType Font Substitution Problems

Make sure that the TrueType font you have requested is installed on your workstation. Font substitutions that occur when fonts are not available may cause unexpected results when displaying your files. For example, Courier New is requested in the ALIAS.FNT file and is available with Windows 3.1, but is not available on WIN-OS2 3.1, but can be installed.

X. Customizing OnDemand for OS/390

The OnDemand Client may be customized through the use of OLE (Object Linking and Embedding) Controls, DDE (Dynamic Data Exchange) interfaces, command line parameters, or by creating a Product Information File. This chapter will give a general description of External Applications and Dynamic Link Libraries, and then will explain topics that relate specifically to the OnDemand for OS/390 client. See one of the following OnDemand Customization Guides for more information:

S544-5466 IBM EDMSuite OnDemand: Win32 Client Customization Guide
 S544-5465 IBM EDMSuite OnDemand: OS/2 Client Customization Guide

These manuals are available at the following url:

<http://www.software.ibm.com/data/ondemand/library.html>

Please note that most other manuals on this site are for the UNIX and NT versions of OnDemand.

A. External Applications and Dynamic Link Libraries

For Windows 95/NT, OnDemand provides menu and toolbar extensions that allow an end user to invoke another Windows application, or execute a function in a Dynamic Link Library (DLL). This facility is activated by placing information into the Windows system registry. If, during initialization, OnDemand detects this information, it adds menu items and toolbar buttons. When the user chooses one of these menu items or clicks one of these toolbar buttons, OnDemand invokes the associated application or calls the associated entry point in a DLL.

Caution: You could accidentally destroy your Windows setup by modifying the wrong entries. This task should be performed by someone very familiar with a Windows 95/NT system.

OnDemand looks in the Windows system registry for the following Keys and string values:

<u>Key</u>	<u>Value Name</u>	<u>Value Data</u>
HKEY_CURRENT_USER or HKEY_CURRENT_LOCAL_MACHINE - Software - IBM - OnDemand32 - Client		
	ExternalApps Apps	a1[,a2][,a3][,a4][,a5]
	a1	Path MenuText BitmapDLL BitmapResid Folders ExcludeFolders Doc CopyDoc Parameter
		application path menu item text toolbar button bitmap DLL path toolbar button bitmap res id folder name[folder name]... folder name[folder name]... 1 0 ASIS ASCII parameter data
	ExternalDlls Dlls	d1[,d2][,d3][,d4][,d5]
	d1	Path Function MenuText BitmapDLL
		DLL path function name menu item text toolbar button bitmap DLL path

BitmapResid	toolbar button bitmap res id
Folders	folder name[folder name]...
ExcludeFolders	folder name[folder name]...
Doc	1 0
CopyDoc	ASIS ASCII
Parameter	parameter data

A maximum of five applications and five DLL's may be specified. They may be divided between the **HKEY_CURRENT_USER** and **HKEY_LOCAL_MACHINE** keys. The key names a1, ..., a5 and d1, ..., d5 may be any string. The values, which must be string values, are interpreted as follows:

- w **Path** specifies the path for the application or DLL. This value must be provided and should be fully-qualified or in the execution path.
- w **Function** specifies the name of an entry point in the DLL specified with **Path**. This value must be provided for a DLL. It is not relevant for an application.
- w **MenuText** specifies the text to appear on the associated menu item under the OnDemand Window menu. This value is optional. If not provided, the menu item is blank.
- w **BitmapDLL** specifies the path for a DLL containing a bitmap resource to be used for a toolbar button to be associated with the application or DLL. This DLL may be the same as or different from any DLL specified for a **Path** DLL or another **BitmapDLL** DLL.
- w **BitmapResid** specifies the resource id of the bitmap within the DLL specified for **BitmapDLL**. This value is ignored if **BitmapDLL** is not specified and optional if it is. If not provided, a value of 0 is assumed.
- w **Folders** specifies one or more names of OnDemand folders. If multiple names are provided, they must be separated by a backslash ("\") character. An asterisk (*) may be used as a wildcard character in the last position of the name. This is equivalent to listing all folder names beginning with the characters preceding the asterisk.

The associated menu item, and corresponding toolbar button, is enabled whenever: 1) a document is being viewed and the folder associated with the active document is one of the specified folders, or 2) a document is not being viewed and the current folder is one of the specified folders.

This value is optional. If the **ExcludeFolders** value is provided, this value is ignored. If neither is provided, a folder name test is not performed before enabling the menu item and toolbar button.

- w **ExcludeFolders** specifies one or more names of OnDemand folders. The syntax is the same as the **Folders** value.

The associated menu item, and corresponding toolbar button, is enabled whenever: 1) a document is being viewed and the folder associated with the active document is **not** one of the specified folders, or 2) a document is **not** being viewed and the current folder is **not** one of the specified folders.

This value is optional. If not provided, enablement is controlled by the **Folders** value.

- w **Doc** may be specified as **1** or **0**. If **1**, the associated menu item, and corresponding toolbar button, is enabled only when a document is being viewed. This value is optional. If not provided, a value of **0** is assumed.

- w **CopyDoc** indicates that a copy of one or more documents is to be provided to the external application or DLL and specifies the type of data to be provided. If the value is **ASIS**, the document data is in its native format. If the value is **ASCII**, the document data is converted to an ASCII file.

If the end user chooses the associated menu item or corresponding toolbar button when a document is being viewed, the data provided is for the active document. If the folder document list is being displayed, the data is a concatenation of all documents selected in the document list.

This value is optional. If not provided, no document is provided to the external application or DLL.

- w **Parameter** specifies a maximum of 255 characters to be passed as parameter data to the external application or DLL. This value is optional. If not provided, no parameter data is passed to the external application or DLL.

The following is an example of the **required** registry entries:

<u>Key</u>	<u>Value Name</u>	<u>Value Data</u>
HKEY_CURRENT_USER		
- Software		
- IBM		
- OnDemand32		
- Client		
ExternalApps	Apps	KensApp,Edith
	KensApp Path	C:\KENS DIR\KEN
	MenuText	Ken's Application
	BitmapDLL	C:\RES DLLS\RES DLL1.DLL
	BitmapResid	27
	Doc	1
	Edith Path	E:\EDITH\EDITH.EXE
	MenuText	Edith's Spreadsheet Stuff
	Folders	Edith Folder
ExternalDlls	Dlls	MyFunc
	MyFunc Path	D:\MUFUNC\MYFUNC.DLL
	Function	MyFuncEntyPoint
	MenuText	My Function
	BitmapDLL	D:\MYFUNC\MYFUNC.DLL
	BitmapResid	14
	CopyDoc	ASIS ASCII
	Parameter	Parameter Data

For an Application: If the user chooses a menu item or clicks a toolbar button associated with an application, OnDemand invokes the application with the command line:

application path /F folder /P page /T test /A attrvalue /D fields /N filename /R data

Where:

- w **application path** is the path specified with the **Path** value in the registry.
- w **folder** is the name of the active folder or, if a document is being displayed, the folder associated with that document. If no folder is open, the /F parameter is not provided.

- w **page** is the current page of the document being viewed. If no document is being viewed or if the active folder window is being displayed, the **/P** parameter is not provided.
- w **text** is the currently selected text in the document being viewed or the document list of the active folder. The format of the text is the same as that obtained by copying it to the clipboard. It may contain tab and newline characters. If no such text exists, the **/T** parameter is not provided.
- w **attrvalue** is the attribute/value pair associated with the current page of the document being viewed. The attribute and value are separated by a tab character. If no such attribute/value pair exists, the **/A** parameter is not provided.
- w **fields** is a set of folder field name/value pairs associated with the document being viewed. Each pair contains the name of a folder field and, separated by a tab character, the value of that field for the document. The pairs are separated by a newline character. If no such text exists, the **/T** parameter is not provided.
- w **filename** is the fully-qualified path and filename of document data as describe for the **CopyDoc** registry entry. If the **CopyDoc** entry is not specified or no data is available, the **/N** parameter is not provided.
- w **data** is the parameter data specified for the **Parameter** registry entry. If the **Parameter** entry is not specified, the **/R** parameter is not provided.

For a DLL: If the user chooses a menu item or clicks a toolbar button associated with a DLL, OnDemand calls the entry point (function) specified with the Function value in the registry. This function must be of the following type:

```
typedef void ( WINAPI * ArsExternalDllFunction )
    ( long page_number,
      char * pFolderName,
      char * pSelectedText,
      char * pAttributeAndValue,
      char * pFieldsAndValues,
      char * pFilename,
      char * pParameterData );
```

Where:

- w **page_number** is the current page of the document being viewed. If no document is being viewed or if the active folder window is being displayed, this value is 0.
- w **pFolderName** is a pointer to a null-terminated character string containing the name of the active folder or, if a document is being displayed, the folder associated with that document. If no folder is open, this value is NULL.
- w **pSelectedText** is a pointer to a null-terminated character string containing the currently selected text in the document being viewed or the document list of the active folder. The format of the text is the same as that obtained by copying it to the clipboard. It may contain tab and newline characters. If no such text exists, this value is NULL.
- w **pAttributeAndValue** is a pointer to a null-terminated character string containing the attribute/value pair associated with the current page of the document being viewed. The attribute and value are separated by a tab character. If no such attribute/value pair exists, this value is NULL.

- w ***pFieldsAndValues*** is a pointer to a null-terminated character string containing a set of folder field name/value pairs associated with the document being viewed. Each pair contains the name of a folder field and, separated by a tab character, the value of that field for the document. The pairs are separated by a newline character. If no such text exists, this value is NULL.
- w ***pFilename*** is a pointer to a null-terminated character string containing the fully-qualified path and filename of document data as described for the **CopyDoc** registry entry. If the **CopyDoc** entry is not specified or no data is available, this value is NULL.
- w ***pParameterData*** is a pointer to a null-terminated character string containing the parameter data specified for the **Parameter** registry entry. If the **Parameter** entry is not specified, this value may be NULL or point to an empty string.

B. Related Documents

For Windows 95/NT, OnDemand provides menu and toolbar extensions that allow an end user to retrieve and view a document related to the document currently being viewed. This facility is activated by placing information in the Windows system registry. If during initialization, OnDemand detects this information, it adds menu items and toolbar buttons. When the user chooses one of these menu items or clicks one of these toolbar buttons, OnDemand retrieves the related document and displays it along with the original document.

A typical application for Related Documents is a credit card folder containing monthly statements. The end user views a customer's statement which has a line for each credit card transaction. The user selects (highlights) a transaction number on one of these lines, then selects a menu pull-down item or clicks a toolbar button. OnDemand then searches the related document in the same folder for the customer's account number and selected transaction number, then displays the transaction documents alongside the statement. Related documents must be in the same folder.

OnDemand looks in the Windows system registry for the following keys and string values:

<u>Key</u>	<u>ValueName</u>	<u>Data</u>
+ HKEY_CURRENT_USER or - HKEY_LOCAL_MACHINE - Software - IBM - OnDemand32 - Client		
RelatedDocs	Related	r1[,r2][,r3][,r4][,r5][,r6][,r7][,r8][,r9][,r10]
r1	MenuText	menu item text
	BitmapDLL	toolbar button bitmap DLL path
	BitmapResid	BitmapResid
	Folders	folder name[folder name]...
	ExcludeFolders	folder name[folder name]...
	RelatedFolder	related folder name (must be same folder)
	Fields	field information
	Arrange	V H M C U
r2...		

A maximum of ten Related Documents may be specified. They may be divided between the HKEY_CURRENT_USER and HKEY_LOCAL_MACHINE keys. The key names r1, ..., r10 may be any string. The values, which must be string values, are interpreted as follows:

- w **MenuText** specifies the text to appear on the associated menu item under the OnDemand Window menu. This value is optional. If not provided, the menu item is blank.
- w **BitmapDLL** specifies the path for a DLL containing a bitmap resource to be used for a toolbar button to be associated with the Related Documents. This value is optional. If not provided, a toolbar button will not be created.
- w **BitmapResid** specifies the resource id of the bitmap within the DLL specified for **BitmapDLL**. This value is ignored if **BitmapDLL** is not specified and optional if it is. If not provided, a value of 0 is assumed.

- w **Folders** specifies the folder which contains the document to be viewed and the related document. Enter only one folder here, as OnDemand for OS/390 currently supports one open folder at a time.

The associated menu item and corresponding toolbar button are enabled whenever 1) a document is being viewed and the folder associated with the active document is one of the specified folders, or 2) a document is not being viewed and the current folder is one of the specified folders.

This value is optional. If the ExcludeFolders value is provided, this value is ignored. If neither is provided, a folder name test is not performed before enabling the menu item and toolbar button.

- w **ExcludeFolders** is optional and should **not** be included for OnDemand for OS/390.
- w **RelatedFolders** specifies the name of an OnDemand folder which contains a document related to the document being viewed. In OnDemand for OS/390 this must be the same name as the **Folders** name.
- w **Fields** specifies information describing the document to be retrieved from the related folder. This information is used to perform a search of the folder. The folder fields are first initialized to their default operator and values. The fields specified here are then set to the operator and values requested. The first document in the document list resulting from the search is considered to be the related document.

The information has the following format:

fieldname=operator\value1; ... ;fieldname=operator\value1

Where:

- w *fieldname* is the name of a field defined for the related folder.
- w *operator* is the search operator to be used for the field.

In OnDemand for OS/390 Server Version 1, the operator must be:

LK for like

In OnDemand for OS/390 Server Version 2, the operators can be one of the following IF the search operator is supported for this search field:

EQ for Equal
NE for Not Equal
GT for Greater Than
GE for Greater Than or Equal
LT for Less Than
LE for Less Than or Equal
BW for Between
LK for Like

- w *value1* is the first or only value to be used for the field. It may be any string, including an empty string, and may contain the following substitution character.
%s These characters are replaced by any text which the user has currently selected In the original document.

w **Arrange** specifies the arrangement of the document windows after the related document is brought into view. The value must be one of the following:

V for tiled vertically

H for tiled horizontally.

M for maximized with the related document overlaying the original.

C for cascaded.

U for left to the user's specification via the **Maintain Document Arrangement** menu item.

The following is an example of the required registry entries:

<u>Key</u>	<u>ValueName</u>	<u>Data</u>
+ HKEY_CURRENT_USER		
or		
- HKEY_LOCAL_MACHINE		
- Software		
- IBM		
- OnDemand32		
- Client		
RelatedDocs	Related	Credit,Students
Credit	MenuText	Transaction Detail
	BitmapDLL	C:\RESDLLS\RESDLL1.DLL
	BitmapResid	27
	Folders	Credit Card Statements
	RelatedFolder	Credit Card Statements
	Fields	Account=Ik\%;s;Transaction=Ik\%;s
	Arrange	v
Students	MenuText	Grades
	BitmapDLL	C:\RESDLLS\RESDLL1.DLL
	BitmapResid	56
	Folders	Student Information
	RelatedFolder	Student Information
	Fields	ID=Ik\%;s;Document Type=Ik\GRADES
	Arrange	h

XI. Related IBM Offerings

Related IBM offerings are separately-orderable and chargeable optional capabilities. These offerings can be fully-integrated with OnDemand for OS/390.

A. CD-ROM Creation

The adhoc cdrom mastering component may be implemented if this option has been ordered. The adhoc cdrom mastering component is supported with OnDemand for OS/390 for the 32-bit Windows Client only.

Note: If any version of OnDemand prior to 2.2.1.5 has ever been installed on the pc that will be used for cdrom mastering, remove any instance of "arstmst32.ini" or "arstmstr.ini" before installing the 2.2.1.5 client. With the 2.2.1.5 and above levels of the OnDemand client, the arstmstr.ini file **MUST** be copied into the \ars32 directory (or the directory into which OnDemand was installed) instead of the \windows directory. The arstmstr.ini file replaces the arstmst32.ini file that was used with the 2.2.0.15 and earlier levels of the client. See the "Installation and Setup" section of this chapter for more detailed information. These instructions should not be used with the 2.2.1.2 or earlier versions of the client. Please see an edition of this Installation Guide written for earlier versions of the OnDemand client if you are installing the 2.2.1.2, 2.2.0.15 or earlier OnDemand client.

1. Overview

The OnDemand for OS/390 adhoc cdrom mastering component is a workstation based process that can create a cdrom containing any data that has been stored in the OnDemand system and is available to the OnDemand Client. The cd-roms are built from a Windows 95 or NT client workstation using the standard OnDemand GUI client. The user opens a folder and does a normal query for documents. The user then selects the cdrom pull-down from the file menu to make a cdrom from all documents in the hitlist. The current limit of documents that can be placed into a single folder (from one hitlist) is about 20,000 to 40,000 depending on the size of the documents.

i. CDROM Mastering Process Steps

After selecting the cdrom mastering process, the following steps will occur:

- a. Clean
 - 1) All files on the staging area hard drive are erased.
- b. Setup
 - 1) Required directories (folders) are written to the staging area.
- c. Fetch
 - 1) A bulk retrieve call is made to the server to fetch all of the documents selected.
 - 2) All documents are retrieved and placed in the hard disk staging area.
 - 3) Annotations can be retrieved if that option is selected.
- d. Index
 - 1) The documents are then reindexed on the staging area.
- e. Stage

- 1) The required viewing and retrieval GUI software is copied to the staging area.

The resulting cdrom is completely stand alone and requires only a Windows 95 or Windows NT system in order to run.

- ii. Connecting to the CDROM Local Server

If the OnDemand Client has already been installed on the pc, all that must be done is to set up the cdrom as a local server. If the client has not been installed on the pc, the files needed to install the client are included on the cdrom that was created in the mastering process. The 32-bit Windows client can be installed to the pc from this cdrom by selecting "Setup" from the cdrom. See the "Setting Up the CD-ROM as a Local Server" section of this chapter for more information.

2. HW and SW Requirements

The OnDemand for OS/390 adhoc cdrom mastering process is supported for Windows 95 and Windows NT. The basic hardware and software requirements listed in the **OnDemand for OS/390 Client Requirements** chapter in this guide apply to the cdrom mastering process with the following additions:

- i. Hardware

- a. A 1 GB logical drive must be available on the workstation to stage the cdrom files. The mastering process will wipe the logical drive clean before starting the process. Double check the drive letter in the "Mastering Process Options" dialog pulldown before starting the process.
- b. Any cdrom writer that is Windows 95/NT compatible should work. All that is needed is to copy the files from the staging area to the cdrom.

- ii. Software

- a. Windows 95 or Windows NT
- b. OnDemand client level 2.2.1.0 or above. **Do not use this manual with the 2.2.1.2, 2.2.0.15 or 2.2.0.13 clients, as the set up process has changed with the 2.2.1.5 and higher levels of client.**
- c. Any cdrom creation software. Please note that some software will create a cdrom in a format readable by 32-bit Windows operating systems only. If you desire to connect to the client with an OS/2 or Windows 3.1 client, make sure the cdrom creation software will create the cdrom in standard PC CD-ROM (ISO 9660) format so the cdrom can be read by those operating systems.

3. Installation and Setup

- i. If the OnDemand Client has previously been installed to the pc, or if you are upgrading to a newer level of the OnDemand Client, first delete the old arsmstr.ini (or arsmst32.ini) file from the \windows directory. If this procedure is not followed, you may receive an "unable to open original file for staging" message during cdrom creation because of incompatible levels of Client code.
- ii. Install the OnDemand Client

Install the OnDemand for OS/390 Client to the workstation that will be performing the cdrom mastering process by running setup.exe from the source distribution directory.

Make sure the cdrom mastering workstation has at least a 1 GB logical drive free to serve as the staging area for the cdrom mastering process.

iii. CDROM Files

Copy the arsmstr.ini file from the win32\ars32 source distribution directory to the \ars32 directory (or the directory into which OnDemand was installed). This must be done by hand, it is not automatically copied in the OnDemand install process. Verify that the arsmst32.dll file is present in the \ars32 directory. Also, verify that the client.w32 file is present in the \ars32\master directory. This file is used to determine the client files to transfer to the staging drive.

4. Adhoc CDROM Mastering Function

When your OnDemand Client is setup to include the cdrom option, the File menu will contain 2 new items for cdrom mastering:

i. CD-ROM Mastering...

w The **CD-ROM Mastering...** command is used to display the CD-ROM Mastering dialog box that allows you to place customer accounts and reports on a CD-ROM.

ii. Set CD-ROM Mastering Options...

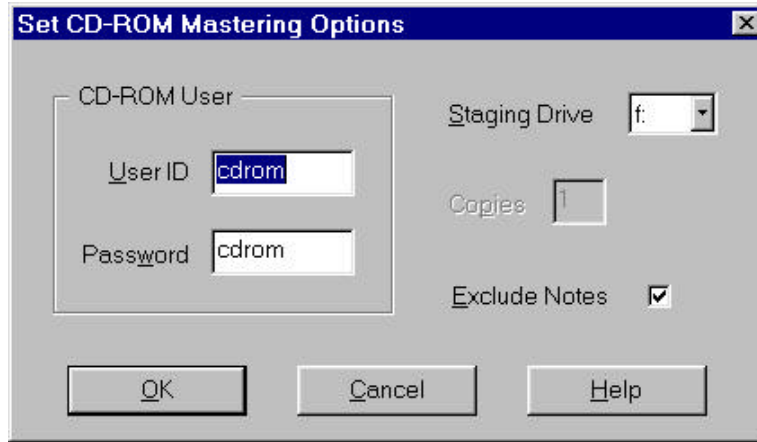
w The **Set CD-ROM Mastering Options...** command is used to display the Set CD-ROM Mastering Options dialog box that allows you to select options for CD-ROMS where you will place customer accounts and reports.

Caution: Be sure to check and double-check the staging drive field in the Set CD-ROM Mastering Options dialog box before you start to ensure that this points to the blank logical drive (staging area) where you wish to build the cdrom. This drive will be erased and you will lose any data that is on this drive.

Note: Double check the **Set CD-ROM Mastering Options** after selecting the staging drive to make sure the correct drive letter was saved. If the new drive letter is not saved, verify that the arsmstr.ini file (not the arsmst32.ini file that was used with earlier versions of the client) is present in the \ars32 directory, and that no instance of arsmstr.ini or arsmst32.ini is in the \windows directory.

5. Building a CDROM with OnDemand

- i. Set CD-ROM Mastering Options
 - a. Select the "Set CD-ROM Mastering Options" pull down from the File menu to display the Set CD-ROM Mastering Options dialog box.



- b. CD-ROM User

Enter a userid and password for the cdrom you are building. You will use this userid and password to logon to the cdrom local server when you open it.

- 1) User ID - Enter a userid that is up to 8 characters long. This is a required field.
- 2) Password - Enter up to a 64-character password. This is an optional field.

- c. Staging Drive

Enter the drive where you will store the information that will be placed on the CD-ROM. **You must ensure that the drive is empty because OnDemand will erase any files on the drive before it retrieves the documents you have selected to place on the CD-ROM.** You must also ensure that the drive is large enough (1 GB recommended) to contain all of the information that will be placed on the cdrom (a maximum of 650 MB).

Caution: Be sure to check and double-check the staging drive field in the Set CD-ROM Mastering Options dialog box before you start creating a cdrom to insure that the staging drive field points to the blank logical drive (staging area) where you wish to build the cdrom. This drive will be erased and you will lose any data that is on this drive.

Note: Double check the **Set CD-ROM Mastering Options** after selecting the staging drive to make sure the correct drive letter was saved. If the new drive letter is not saved, verify that the arsmstr.ini file (not the arsmst32.ini file that was used with earlier versions of the client) is present in the \ars32 directory, and that no instance of arsmstr.ini or arsmst32.ini is in the \windows directory.

d. Copies

This option is disabled and set to 1. It is recommended that you burn the cdrom (by copying the files from the staging area) with your own cdrom writing software after all files are copied to the staging area and you have exited from the OnDemand client. Therefore, do not set the number of copies from OnDemand, but rather from your own cdrom mastering software.

e. Exclude Notes

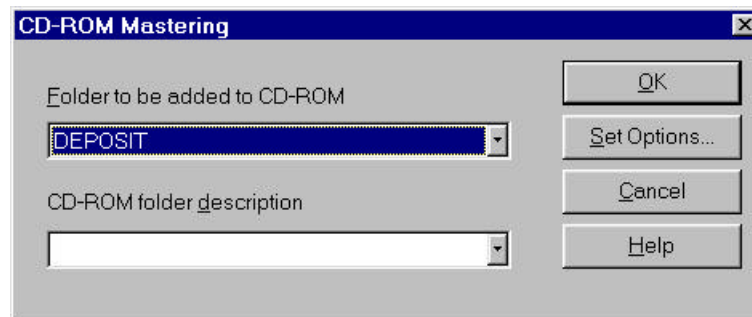
Check this box if you do not want to include the notes associated with the information when the CD-ROM is built. Leave this box blank if you want to include the notes associated with the documents when the CD-ROM is built.

ii. Retrieve the Documents to the Staging Drive

a. Build a document hitlist on the search screen which contains all desired documents for the folder you are creating.

- 1) **Wildcard character** - When connected to the OD/390 server (version 2 only), the "%" character can be used as a wildcard in order to get a list of all documents for the folder. There is no wildcard character in OD/390 version 1.
- 2) **Append checkbox** - It may be necessary to check the "Append" checkbox and to perform several searches in order to build the desired document list.
- 3) The default maximum number of hits for a single search is 210 when connected to the OD/390 server. This value can be increased through the administration system (RADM) for the purpose of creating the cdrom. Since 40,000 hits is the practical limit for building a cdrom, this should be the maximum value set. Your OnDemand Administrator can set this value for you. It should be set back to the default value for your location after the cdrom has been built.

b. After the desired document list has been created, select the "CD-ROM Mastering" pull down on the File menu. The CD-ROM Mastering dialog box will appear.



Note: OnDemand places the documents on the CD-ROM in the order that the documents appear in the document list. You can use the **Sort** Document List... command button on the Search Criteria and Document List dialog box to rearrange the sequence of the documents before you build the CD-ROM.

c. The "Folder to be added to CD-ROM" entry field will default to the name of the open folder.

d. Enter a unique name in the "Name to be assigned to CD-ROM" entry field for every folder that is added to the CD-ROM. After the current document list is built for the

current folder, you will have the option of adding another folder of documents to the staging drive.

- e. Select the OK button to start the CD-ROM Mastering process. OnDemand will issue status messages as the CD-ROM is built.
- f. After the documents from the first folder have been copied to the staging drive, you will be presented with a series of options. The following dialog boxes will appear:
 - 1) Proceed with the mastering of volume AOD00000000?.
 - i) **Yes** - This will end the mastering process that copies data to the staging area. You can then start the process of burning the cdrom (see section C). No other dialog boxes will appear if "Yes" is selected.
 - ii) **No** - Select No if you wish to add one or more additional folders to the staging area. After selecting No, the next dialog (ii) will appear.
 - iii) **Cancel** - This is the same as Yes.
 - 2) Do you wish to add another folder?
 - i) **Yes** - Yes will allow you to add additional folders and documents to the staging area. After selecting "YES", exit the Search Criteria dialog and open the next folder you wish to copy to the staging area. Repeat steps 1 - 6 until all desired folders and documents have been copied to the staging area. The third dialog will not appear if "Yes" is selected.
 - ii) **No** - Selecting "No" will bring up the next dialog.
 - 3) Cancel the mastering process?
 - i) **Yes** - Select "Yes" if all desired folders and documents have been retrieved to the staging area. Proceed with step "C".
 - ii) **No** - This will take the user back to the first dialog (i).
- iii. Build the CD-ROM

The final step is to copy all files from the staging area disk to the cdrom. Any cdrom writer (recorder) with cdrom writing software should work.

Note - Some software will create a cdrom in a format readable by 32-bit Windows operating systems only. If you desire to connect to the client with an OS/2 or Windows 3.1 client, make sure the cdrom creation software will create the cdrom in a format that can be read by those operating systems.

6. Installing the OnDemand Client to the pc from the adhoc cdrom

If the user will require the ability to connect to the OD/390 server in addition to the cdrom, the complete OnDemand client should be installed as described earlier in this manual. The cd-rom can then be set up as a local server from the "Logon to a Server dialog." See the following section on "Setting Up the CD-ROM as a Local Server."

If the user will only require the ability to connect to the cdrom to view documents and will not need to connect to the OD/390 server, the necessary client install files are contained on the cdrom that was mastered by the adhoc cdrom process. Simply run the setup.exe located in the \install directory of the cdrom. Running setup will setup an OnDemand shortcut in an OnDemand CD-ROM folder that points to the cdrom, install several DLL's, and set up the

registry. Once the client is started, enter the User ID and Password that were entered in the "Set CD-ROM Mastering Options" dialog when the cdrom was created. The "Update Servers" button is disabled because the cdrom client cannot connect to the OS/390 server if the client installation is done from this cdrom.

Note: Only the 32-bit Windows client is available from the mastered cdrom.

7. Setting Up the CD-ROM as a Local Server

- i. Add the CD-ROM to the list of OnDemand Servers.
 - a. Start the OnDemand client to open the "Logon to a Server" dialog box.
 - b. Choose the "Update Servers" button on the "Logon to a Server" dialog box. The "Update Servers" dialog box appears.
 - c. Type a name into the server entry field that will be used to select the CD-ROM drive. For example: if the drive letter of your workstation's CD-ROM is f:, the name for your server could be CD-ROM-F. When you have more than one CD-ROM drive, make sure you distinguish between the drives.
 - d. Select "Local" from the "Protocol" pull-down list.
 - e. Enter the drive letter associated with your CD-ROM drive (ex: f:) in the "Directory" entry field. Be sure to include the ":" after the drive letter.
 - f. Select the "Add" button to include the server in your list of server choices.

If you do not want to add the server, choose the "Close" button before you use the "Add" button to return to the "Logon to a Server" dialog box.
 - g. Select the "Close" button to close the "Update Servers" dialog box and return to the "Logon to a Server" dialog box.
- ii. Connect to the CD-ROM as a Local Server
 - a. Start the OnDemand client to open the "Logon to a Server" dialog box.
 - b. At the "Logon to a Server" dialog box, select the name of your cdrom server.
 - c. Enter the User ID and Password that were entered in the "Set CD-ROM Mastering Options" dialog when the cdrom was created.
 - d. OnDemand should run as if connected to the OS/390 Server with minor exceptions. Please see the "Considerations for OnDemand for OS/390" section below.

8. Additional Considerations

- i. OnDemand for OS/390 Considerations

The following items apply to the OnDemand for OS/390 CD-ROM Implementation.

- a. Wild Cards - When connected to the OD/390 server (Version 2 only) the "%" can be used as a wild card character. When connected to the cdrom as a local server, the user may enter a "*" to retrieve all documents for the folder. The "*" wild card character can also be used at the end of one or more characters for a search (ex: "Smi*") to get a list of all hits with values starting with "smi". A blank search field will also act like a wild card, and will retrieve all hits for that folder.
- b. "Like" search operator - When connected to the OS/390 server, entering a "123" will behave the same as entering a "123*" when connected to the CD-ROM local server.

- c. The OnDemand for OS/390 default value for number of documents to retrieve to the document hitlist is 210. This value can be increase for the cdrom process by the OnDemand for OS/390 Administrator.
- d. NODX and PAGE report types - To retrieve these report types, enter either the fully qualified search key value to retrieve a specific document, or leave the field blank to retrieve all hits. The "Like" search operator does not behave the same for these report types when connected to the cdrom as when connected to the OS/390 server.
- e. Logical Views - To retrieve Public (Global) logical views to the cdrom, the user building the staging area should be signed on as a "Not Authorized" user. Please see your OnDemand for OS/390 Administrator to update your UPT (User Profile Table) through the OnDemand Administration system (RADM).

ii. CD-ROM Local Server Considerations

The following items apply to all OnDemand CD-ROM Local Server implementations (not OS/390 specific).

- a. The Help Buttons do not presently work in the "**Set CD-ROM Mastering Options**" and "CD-ROM Mastering dialogs".
- b. The "Logical And / Or" group box does not appear when connected to the CD-ROM local server.