

Medical Office System

Chapter 2 - Installation/Set up Information

GENERAL INSTALLATION INSTRUCTIONS

All installations will come on CD.

1. Make a BACKUP of your current system first. Verify that it made a good backup.
2. Make sure all users are currently out of the system. If you are not sure, reboot the computer at this point to insure that all users are disconnected. No windows or sessions are currently using the MOS® or any data in the MOS®. Allow enough time to rebuild all indexes on your system. That is done whenever the programs are updated.
3. Start at the beginning and install all the files indicated, in the order suggested. All installations allow for runtimes to be installed, separately from programs.
 DOS/Windows/NT starts on page 2-5
 Unix starts on page 2-15
4. Program will install next. Some updates do not require any changes in the runtime and can be done without installing both. A new installation should always install an entire system.
 DOS/Windows/NT starts on page 2-8
 Unix Starts on page 2-17
 1. Run any upgrade procedures, if required at this point.
 2. Convert all Insurance forms after installing a program set (page 15-11).
5. Now set up any system specific thing, such as ICON's for Windows (page 2-14) Batch Files (page 2-12) and/or printers (Chapter 21).

Detailed Instructions for each step follow this page. Find the instructions for your operating system and type of diskette and complete that step. Then return to the section for the next step and continue.

MOS Upgrade Checklist

	Make sure all users are out of the system to proceed properly. Turn off additional workstations to insure the upgrade will proceed correctly.
	Make a backup and verify the backup.
	Install the correct packages from the CD (Runtime/Programs/EDI)
	Complete each item on Upgrade Menu (This step will vary at each upgrade so follow the instructions provided.)
	Convert Insurance Forms (If not already done on upgrade menu)

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SOFTWARE: MOS 04.0.x System Install
VERSION: SCO Unix or Linux - FilePro Version 5.00¹
COMPUTER: UNIX/Linux - Intel
MEDIA: CD-ROM

The CD-ROM enclosed include the MOS runtime and MOS programs. Install the programs in the order listed in the steps below.

Linux version: Caldera Linux - Since Linux is not a standard language, some adjustments might be necessary for different flavors and versions.

For users doing a fresh install on SCO/Caldera OpenServer 5.0.6 or newer you will need to do the following step before continuing to the installation instructions.

Users installing the MOS for the first time on a system with OpenServer 5.0.6 or later installed, you must execute the following procedure:

As root, type in: **mkdev scoansi**
then select option 4 {Use old (pre 5.0.6) in-kernel scoansi emulator} <enter>
now press

The system will then ask a couple of questions about re-linking the kernel. Answer these questions with yes (y)

After the kernel re-links, shutdown and re-boot your system and you'll be ready to run the MOS and have the proper graphic representations on the screen.

MOS INSTALLATION PROCEDURES

MAKE BACKUPS FIRST & ALWAYS BEFORE ANY INSTALLATION

INSTALLING CD-ROM

1. Boot up the computer, if necessary and following the instructions in the system administration manual for your computer. Log on as root.
2. Determine the directory (file system) where the Medical Office System will be installed. For most customers it will be in the directory called "/" (root), but some might want the Medical Office System in a file system called "/u" or "/hd" (Please check with your system administrator or us first).

If you are doing a fresh install in a file system other than the root file system (i.e. /u, /hd, etc) Start by typing: cd \$DEV, where \$DEV would be either /u or /hd, otherwise type: cd / and press enter.

Please write in your command for future reference: cd / _____

You need to be in the filesystem directory where you want all the MOS files instal led. A folder called /md will be added to the directory that you are sitting in when you start this process. If this is an upgrade, then you need to see the md directory listed as one of the directories in the current directory. To check that,

ls -l | less (You need to type q to exit this listing.)

Look at the listing for md. If you do not see it, call us to help you locate it. It is important to get this step correct on a new installation, since you will require adequate space on this filesystem to add all your data, as you begin to use the MOS.

3. Installing from the CD-ROM drive, type the following command exactly as it appears:

Unix: `mount -r -f HS,lower /dev/cd0 /mnt`

*Note: There are spaces after mount, -r, -f, lower, /dev/cd0
there are no spaces in HS,lower. ^=zero
 ^^=capital letters*

Linux: `mount -r /dev/cdrom -t iso9660 /mnt`

Device names can vary, you may need to find out what your CDROM drive is called and replace that in the mount commands. Since Linux versions abound, this command may require some tweaking to work on your machine. It must be mounted to /mnt for the installation to work correctly.

4. This step is to install the new filePro runtime.

`/mnt/finish.runtime`

When that process is complete go to step 5.

5. This will install all the MOS programming.

`/mnt/finish.cd`

You may need to press a few times during this process. If you have any questions please call MOS Support. When this process is complete go to step 6.

This script sets the ownerships and permissions, makes directories, and creates or updates each file, builds indexes and runs any routines for data upgrades.

6. When all the above steps are complete it is time to remove the CD and put it away.

`umount /mnt` Remove the cd from the drive.
 ^=space

7. Follow any upgrade instructions included with this upgrade.

8. Final step is to convert each of the insurance forms you commonly use, if it was not already done in the installation.

If you have any questions, please call us at our toll-free number: 1-888-593-8773

1. This runtime installation will install the filePro Plus as the engine for Medical Office System.
FilePro Plus, Version 5.00, Copyright 2001, fpTechnologies, Inc.
Medical Office System®, Version 3.02, Copyright 2002, Virtual Software Systems All Rights Reserved.

VERSION: Windows 98/XP/NT/2000/ME - FilePro Version 5.00²
COMPUTER: Windows Native32
MEDIA: CD-ROM

This installation will install on Windows NT, Windows 98, Windows ME, Windows XP, or Windows2000. It will start automatically when you insert the CD into your CD ROM. If it does not start automatically, then select:

START > RUN > X:setup - where X is your CD ROM Drive letter.

On this first installation from CD ROM it is important that you answer the questions correctly. Select the correct installation for your practice. You will need a VSSKEY to open the installation. You will not be able to install any package without the correct VSSKEY. Answer the questions and continue.

NETWORK - On a network installation, it is possible to install this in three ways.

- | | |
|----------|---|
| SERVER | This will install the programs and data on a selected drive and this drive will act as the source for all your computer stations. |
| CLIENT | This will only install programs on the local computer and will point to the server drive to get the data. |
| SHORTCUT | This will only install a shortcut on your desktop and will use the server drive for both the programs and the data. |

Special notes for CLIENT or SHORTCUT installation: This installation type will also need to know the drive letter for the server and the folder where MOS data can be found.

On today's faster networks, it is fine to install the SERVER setup on the computer designated as the place for all the programs and data. And then install just the SHORTCUT installation on each CLIENT computer. On the client you will need to map a drive letter to the SERVER drive so it can be referenced as a permanent part of the CLIENT's Neighborhood.

If your computer network is too slow in this configuration, installing the CLIENT installation on each CLIENT will put the programs on the local CLIENT drive and just pull the data from the SERVER to the CLIENT. This is faster, but requires that you install Runtime Upgrades on each CLIENT, when they occur.

The next choice is what package you want to install:

Complete MOS with EDI

This will install the filePro Runtime, MOS Programs, EDI and Documentation packages. This installs the ANSI FastEMC release and will erase any other version of EDI.

MOS without EDI

This will install the filePro Runtime, MOS Programs and will not install any EDI programs. If you are filing electronic claims this is the choice for you. We can always come back and install the MOS FastEMC EDI solution later.

Custom Installation /

Partial Upgrades

Select this to select what packages you want to install. Check the appropriate boxes.

- 1) Filepro Runtime Programs
- 2) Basic MOS Files
- 3) MOS EDI files
- 4) Documentation

Documentation ONLY

This option is available for installing just the documentation on a client.

Installation Folder - This is a critical question. It should default to the correct folder, but if you have used the MOS for some years, it may not be able to tell which folder has the correct version installed. This should be the Server Drive followed by \md. For example, on a simple, one user system, this might read: c:\md

EDI format to Install - This install will offer two choices. If you did not select an installation that includes Electronic filing, then this page is not displayed.

ANSI-837 - HIPPA Electronic Format

NONE - Submit all claims on paper

After selecting the ANSI 837 format, the license agreement for FastEMC is displayed and must be agreed before it will allow installation.

Shortcut Folder - The default should be ok.

A final option to start the installation requires that you press the button labeled INSTALL.

Then the installation should proceed without too much trouble. It will display a menu with special installation functions.

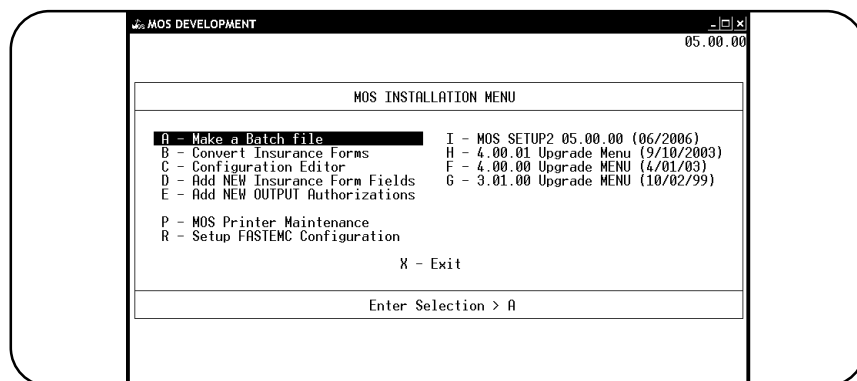


Figure 1-1: Installation Menu

Use the menu to complete your installation. The options shown are explained in detail in the MOS Manual pages.

- A - Select the Batch File option and complete that step.
- B - Then convert all your existing insurance forms. If this is a new installation that can be done later after you have reviewed the forms available and made whatever modifications are necessary.
- C - The configuration editor should be loaded and saved to insure that all variable have been added.
- D - Select this option and answer Y to the question to be sure all new Insurance Form Fields have been added to your data file.

- E - Select this option to be sure any new reports have been added to the OUTPUT Authorization Data base. If this is a new installation, select this just to be sure.
- P - Printer maintenance is listed for new installations to get their printers installed. If this is an upgrade, this is optional.

Options for each upgrade menu will be inserted at this point. Refer to the installations instructions for each upgrade and follow the correct steps for the most recent upgrade. If you need to do more than one upgrade, start with the oldest upgrade and do each in turn to the newest upgrade. Most customers will only need to complete the last or most recent upgrade listed.

Finishing the Install

New install of MOS

Proceed to the manual and define the system options in chapter 5 for the Practice Setup.

Convert Insurance Forms after every program upgrade

The final step is to convert the insurance forms to insure all programming changes have been applied. Press **U** **D** **2** and select each form in turn. Just press **ENTER** each time it stops.

Upgrade Installations from 3.0x to 4.0

Select the 4.00.00 Upgrade Menu from the Installation Menu. This contains the processes necessary to properly upgrade your data files with any changes required for this upgrade. Since these should only be run one time, subsequent upgrades for minor upgrade and fixes should skip this procedure. These steps should not take much time and will be necessary only once.

Choices 1-5 should be completed, in turn. Choice 1 is only for you to check for any new tunable options in the Practice Information. Choices 2-5 are data upgrades.

You can run this after completing the installation by selecting the mos40u menu on either Windows or Unix systems.

Upgrade Installations from 4.0.0 to 4.0.1

Select the 4.00.01 Upgrade Menu from the Installation Menu. This contains the processes necessary to properly upgrade your data files with any changes required for this upgrade. Since these should only be run one time, subsequent upgrades for minor upgrade and fixes should skip this procedure. These steps should not take much time and will be necessary only once. Refer to the instructions included with the upgrade for the details.

You can run this after completing the installation by selecting the mos40u menu on either Windows or Unix systems.

EDI - Electronic Data Interchange

Submitting claims electronically is an important part of any medical billing system. Our system installs with a module that will submit claims in the NSF 3.01 format. A module that will submit in ANSI (X837), will be available also. Your choices for filing are as follows:

- Use our ANSI format and submit to your carriers, for whatever payors they will support. With HIPPA on everyone's mind and all the talk about this format, it is still the case that ANSI was mandated for Federal insurance programs, only. It has not been fully implemented for commercial claims and medicaid claims. It may be some time before submitting your claims directly to a medicare carrier, is trouble free and will allow you to submit blues and commercial carriers as before.
- Use the NSF format (currently available) and send your claims to a Clearinghouse. Let the clearinghouse change the claims to the appropriate format and forward your claims to the payors. This would offer a solution to allow you to submit all your claims electronically to one place, under one format. We can offer a few Clearinghouses that are cost effective and will take the difficulty out of filing electronically.

Windows 98/NT/XP/2000

Making a new Batch file for 4.00 Native32 Versions

The installation software script will stop at the SETUP menu to allow a batch file to be added or updated. This should be selected each time an installation is done. It can also be selected manually, at any time from the main menu by pressing **U** **Z** **Y** and supplying the TOOLS password for each menu.

A batch file is necessary for each practice installed on your system. To create a batch file for an additional practice, follow the batch option during installation.

An additional practice can be added to your system, at a small cost. This feature is used by a billing service and is purchased separately. Only supply a QUAL value if you have already added an additional practice to this system. This is done with a diskette available from Virtual Software Systems. Each practice added, has a unique registration and must be installed properly.

The screen shown in Figure 1-1 will be displayed.

Supply the answers to the following questions.

Installed on drive

This should already be filled with the correct drive letter and a colon.

When you press **ENTER** from this field, the other data will be filled with the default values. If installed on a network, this should indicate the network drive that will hold the shared data files.

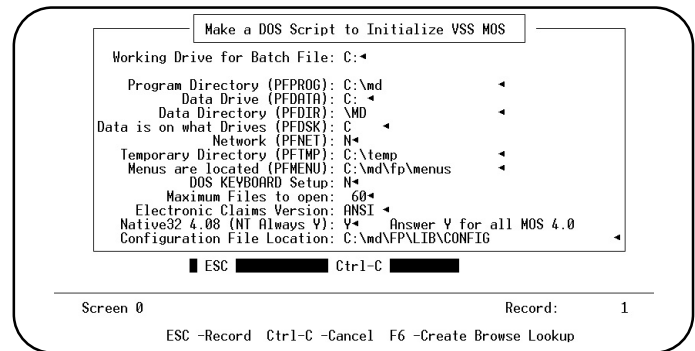


Figure 1-2: DOS Batch File Editor

Program Directory (PFPROG)

This must be the drive letter entered in the first field and \md as shown in the example above. This indicates the location of the directory \fp. On a network, this would be a local drive to increase performance. The runtime would be installed locally on the c: drive.

Data Drive (PFDATA)

This will drive where \md\filepro is installed. If installing on a network and sharing the data, this would be the network drive letter where the data will be installed.

Data Directory (PFDIR)

Enter directory on drive where MOS is installed. That will always be \md.

Data is on what Drive(s) (PFDSK)

Enter drive letters indicating the location of the data files. Usually this will be the same as "Installed on drive", but without the colon.

Network

Are you installing a network version of MOS? Answer "Y" to indicate a network version.

Temporary Directory

Enter a directory location to be used for temporary files. This directory must exist and should be on the local hard drive. For example, C:\temp or C:\windows\temp
Erase the contents of this directory occasionally as part of your file maintenance to keep your system working at peak levels.

Menus are located (PFMENU)

Enter location of menus. On a single user system, this will usually be the Program directory followed by fp\menus. For example, F:\md\fp\menus would be correct for a single user installation in our example. On a network, the menus might be installed on the local drive with the programs, then it might read: c:\md\fp\menus.

DOS Keyboard Setup

This will change the keyboard to more consistently match DOS keystroke conventions. For example, would be SAVE, would be cancel, etc. If you are using other software and find it hard to remember the different keystrokes you might like this new option. If you have been using the MOS, this might prove confusing to switch.

Maximum files to open.

Start this with at least 60.

Then press then the batch file will be written. A prompt will ask if the batch file should be created. Press to write the batch file. It will create a file called: mos30.bat to be used to start the new MOS version 3.0. Then if it sees an earlier version the prompt will indicate that a second batch file has been created called "mos30u.bat".

Electronic Claims Version

This field allows variations for the different versions of Electronic Claims programming that can be used with the MOS. Press to display the versions available.

NONE - Not using an electronic package.

ANSI - ALL New Installations must use this option or NONE.

This must be assigned for the electronic claims to work correctly with the MOS.

Native32 4.8+ (NT is always Y)

Answer if this will be used on an NT operating system. If your installation set says Native32 answer Y, all other uses should answer or fill this in as required. This effects some settings in the batch file created. Additional logic has been added to have the programming look at the version installed, instead of relying on this for information.

Making a Windows Desktop ICON for MOS

After creating the new batch file, return to Windows desktop.

Select "My Computer" from the desktop and locate the BAT file that you created. Make sure the window is small enough for the desktop to be seen around it. Highlight the "mos30.bat" file in the \md directory and right click. Select "Create a Shortcut". A shortcut to your batch file will be added to the end of the directory list. The shortcut will still be selected. Drag it to the desktop. (Drag is done by selecting and holding the left mouse button and moving the shortcut to the desktop.)

Finishing the ICON Properties

Now you can right click the shortcut and select RENAME to edit the name of the icon.

You can also right click and select PROPERTIES to edit the current directory or program command. The current directory should always be the location of the batch file or p.exe program. These can be changed under the tab marked Programs.

Under PROPERTIES you can also select an ICON picture from the ones listed.

Under PROPERTIES, you can make the program return to your desktop when you exit the menu by selecting "Close on exit" on the PROGRAM Tab.

Under PROGRAM tab make sure the Working Directory is the C:\md directory and the Command is executing:
C:\md\mos30.bat

(In these examples the MOS is installed on the C drive.)

Windows98 - Properties

Check the SCREEN tab also. You may prefer to keep the MOS in a window instead of a full screen. Check the box accordingly on this screen.

Check the MEMORY tab. It might be helpful to just select the initial environment option and select 4096. The AUTO choice does not provide sufficient memory for some systems.

WindowsXP, ME, 2000 - Properties

It should not be necessary to set the Initial Environment or the Screen size. We recommend that all platforms use the WINDOW size screen and not full screen. Adjust the size of the screen by changing the FONT choices until it looks easy to read and fills the screen correctly.

Networks

Many users are now using or considering simple networks as a way for a small office to share data and hardware. I will offer a quick tutorial about the terms used in the manual and in general when referring to this type of system.

Server -	For the MOS installation, this will refer to the computer that will store the data. Only one computer can keep the data, so each user will be looking at the same information when they load a patient's information. This computer might be the fastest, or have the largest storage capacity, but it will require a good backup system to archive and offer good security for the data stored on this computer. DO NOT cut corners on this machine or the backup system used for this computer. It is your most valuable asset, the data not the hardware.
Client -	Any computer designated as a client will access data on a server. It will not store the data on it's own hard drive. Usually the executables will be installed on a Client computer to avoid the necessity to drag them through the network connection each time the software is activated. If the Server is not working, the Client will not be able to use the software.
Peer to Peer	This type of network will incorporate computers with similar capabilities. One computer may be designated the Server for the MOS, but another may be the Server for the Word Processing Documents, and another may be the Server for the Internet access and research. All the users will have access to these resources, but by distributing them around the network, you are making use of all the computer power available.
Sharing	A computer has certain resources. A computer has hard drives, modems, printers, cd-roms, etc. The owner of this computer can elect to share those resources with others on the network. For any other computer to access that resource the owner must grant access by sharing. When you share you can indicate how much access is granted. You can give full access, read-only access or password access to others. For a Server to share the data in the MOS with the Clients the Drive must be shared with full access.
Local Printer	A local printer is connected to the back of the computer. You can print to this printer without capturing and can direct output directory to LPT1: Output sent to a local printer is usually not spooled. It is necessary to wait for all the printing to be completed before you can return to your application.
LPT1:	Usually the first parallel port connection on the back of the computer. Try not to use this to capture output directed to a network printer.
Network Printer	This is a printer attached to a different computer and shared with the other people on the network.
Spooled Printer	A spooled printer is usually also a network printer. The output on a spooled printer is captured to a file and then sent to the printer when the printer becomes available. A spooled printer will capture output more quickly, so you can return to the data entry, while the O/S is sending your output to the printer.
Windows	As you noticed, Windows are a multi-tasking aspect of your Operating System. You can start a session in a Window or a Full Screen. By pressing ALT TAB you can drop the window and open another at any time. The MOS will run faster in a full-screen that it will in a Window. However, a Window allows easier access to other applications such as word processors.

Exit Never use the box in the corner of the window to exit from the MOS, if at all possible. Also do not just shut down your machine or reset without first closing all open windows and sessions properly. This can corrupt data.

Networks with a Unix Server and Windows Clients

This type of configuration allows for the best of both operating systems to be available. A Unix MOS is installed on the Server. This is a very stable and reliable server platform. A network is set up with TCP/IP connections to Windows Computers instead of the traditional dumb terminals. In this model, a user with a Windows box has available Windows Software for other tasks such as word processing, spread sheet, internet access. With an appropriate type of software such as Anzio at the low end or FacetWin at the high end, you will be able to load the MOS and run it as if it was on your computer. The variations on this architecture are extraordinary and will need to be discussed with your hardware consultant.

Printers can be accessed that are attached to the Unix Server or to the Windows Computers and used to print from the MOS.

There is no part of the MOS that is installed on the Windows Clients. We recommend this type of system for any network that exceeds 5 users.

This architecture can be expanded easily into a Virtual Private Network (VPN) for the server to be accessible from a Windows box using the Internet. A secure way to allow offices in different cities to access the MOS via the Internet in a secure and inexpensive way. (No long distance fees for phones and much faster access than modems can offer. Appropriate setup for this system should be discussed with a professional. Technology is available and reasonable in cost.)

Network Installation and Configurations

This configuration will use the local computer for the executable programs and store the data on the server machine. It is often faster to use a different computer for the network printer or have a printer on each computer that can be used by the user as their printer. This reduces the bottleneck caused by making one computer do both the data management and the printing. We are pretending to install on Drive D, but it can be Drive C as required..

Server Computer: \\server

```
D:\md\filepro          - MOS DATA
D:\md\fp              - MOS EXECUTABLES
D:\md\fp\menus        - MOS MENUS
D:\md\fp\lib\config   - MOS Configuration
Share Drive D with full access to all Clients \\server\driveD

D:\md\mos30.bat       -MOS Start Program
D:\md                 - Working Directory

Network Printer: \\server\printer    Captured to LPT1:
This computer can send output to LPT1:
```

Client Computer:\\client1

```
Map Server Drive to M:\\server\driveD
Install MOS Runtime on Drive C:

M:\md\filepro          - MOS DATA
C:\md\fp              - MOS EXECUTABLES
M:\md\fp\menus        - MOS MENUS
C:\md\fp\lib\config   - MOS Configuration for Client1

C:\md\mos30.bat       - MOS Start Program
C:\md                 -Working Directory

Local Printer (Must be DOS compatible): LPT1:
Network Spooled Printer: WIN:\\server\printer
Capture LPT2 to \\server\printer then you could also use LPT2:
```

Client Computer:\\client2

```
Map Server Drive to M:\\server\driveD
Install MOS Runtime on Drive C:

M:\md\filepro          - MOS DATA
C:\md\fp              - MOS EXECUTABLES
M:\md\fp\menus        - MOS MENUS
C:\md\fp\lib\config   - MOS Configuration for Client2

C:\md\mos30.bat       - MOS Start Program
C:\md                 -Working Directory

Local Printer (Must be DOS compatible): LPT1:
Network Spooled Printer: WIN:\\server\printer
Capture LPT2 to \\server\printer then you could also use LPT2:
```

New Windows Batch File

Windows Batch File from one of the Clients in the above example, called \md\mos40.bat

REM File Created on 08/03/00

@echo off

set JUNK=

These clear Environment space for an NT version. Not necessary on a Windows 95/98/2000 version.

set JUNK1=

Ditto

set JUNK2=

Ditto

set OLDPATH=%path%

Remember PATH setup

set PFFILES=80

Set number of open files available to MOS

set FILES=100

Set number of open files available to WINDOWS

set PFPROG=C:\md

Set location of MOS executables to be used.

set PFCONFIG=

Set location of MOS Configuration file - This will look in C:\md\fp\lib\config - so each user can have a unique configuration for printers and colors. Default is %pfprog%\fp\lib\config

PATH=%pfprog%\fp;%path%

Add the MOS executables to the PATH

set PFDATA=M:

Drive where data is stored

set PFDIR=\md

Folder on the drive where \filepro folder is found

set PFDSK=M

Drives where data is found (NO COLON on this drive letter)

set PFTMP=C:\temp

Location of a Temporary directory to be used by filePro - A local folder that must exist

set PFMENU=M:\md\fp\menus

Location of Menus to be used by the MOS

set pfemc=MOS

Electronic Claims version used.

%pfprog%\fp\p mos

This starts the MOS main menu.

if exist fp\$\$*.bat del fp\$*.bat

This line should be here only if each user is using a different WORKING Directory as suggested.

path=%oldpath%

Put PATH back like we found it.

set oldpath=

Clear Variable

This batch file will be created automatically during the upgrade. All runtimes distributed with this upgrade are for Native 32 version of filePro.

UPGRADING A NETWORK SYSTEM

Step 1 - Upgrade the Server

Make a full backup

Install the CD - Runtime/MOS Programs/(EDI optional)

When it asks if you should make a batch file, say YES.

Set up the batch file as appropriate for the server drives. The batch file will be created in \md .

Change the icon you have on your desktop (or make a new one) that is a shortcut to D:\md\mos40.bat.

PROPERTIES of SHORTCUT - PROGRAMS: Cmd Line: D:\md\mos40.bat
PROGRAMS: Working Directory: D:\md
PROGRAMS: Close on Exit: Check this
MEMORY: Initial Environment: 4096

These properties are important for the system to run correctly.

Step 2 - Upgrade the Client(s) - one at a time update the client systems

Make a full backup

Insert the CD - Select the appropriate Client Installation,

Step 3 - Upgrade each Client in turn until all are upgraded. All that is commonly installed on a client is a Folder called: \md to store items needed for the MOS and then a batch file. In most current systems, it is unnecessary to install the runtime on each client. Only the temporary files, a batch file, shortcut and a folder are needed on a client.

2. This runtime installation will install the filePro Plus as the engine for Medical Office System.

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