THE NEAR-PAPERLESS OFFICE:
For DFM Area Directors?

When the DFM first appointed area directors nearly 20 years ago, the intent was to create an understanding and pastoral voice to speak on behalf of the missionary family to leadership in Springfield. In the two decades since, the administrative load on AD offices has grown to such proportions that today it threatens to swamp the pastoral side of AD ministry.

If this avalanche of electronic and paper documents could simply be deleted and forgotten, or tossed into a file cabinet never to be looked at again, the AD's job would be a lot easier. But, in fact, these documents constitute a valuable paper-trail that frequently needs to be accessed.

- Reports of meetings with missionaries and national leaders, what was agreed or promised in those meetings, what was held over for further research or preparation.

- AD approvals of missionary financial requests, and the DFM Finance Office response.

- Travel requests and approvals

- Telecons: who said exactly what and when

- Schooling approvals and exceptions – allowed or disapproved

- BGMC, LFTL, STL requests and approvals

- MA and missionary applications and biographical statements

Without these records, ADs are "flying blind", scrambling to remember the countless conversations held, promises made, and approvals given.

HOW THE AD'S WORKLOAD HAS CHANGED
There are several reasons for the shift of administrative responsibility down to the AD offices:

1. Some of this shift has occurred at the request of the ADs themselves. ADs do not want to be held responsible for personnel and policies over which they have no input or control in the first place.

2. The largest shift, by far, seems to have taken place as outside agencies (the IRS being the most promi-nent) have demanded a higher standard of record-keeping by administrative personnel on field-level fi-nances.

3. The greater "availability" of ADs to their missionaries, their regional directors, and to a host of supporting churches and pastors has generated a floodtide of email. More missionaries are writing more often, es-pecially the younger and newer appointees – the Gen-Xers – who view the AD as an "on-line mentor". Pastors more frequently ask for updates on field-level situations, descriptions of ministry taking place in this or that country, and opportunities available for their ministry.

Today DFM area directors are drowning in a sea of paper. In 1999, with only 38 missionary units and a dozen MAs to account for, the Middle East and North Africa Area Office (AGMENA) has handled more than 6000 pieces of correspondence. These include faxes in and out, emails in and out, prayer letters, standard letters (snail mail), and various individual pieces (college catalogs, etc) that need to be retained for reference.

It's not enough to file these items and never look at them again. An AD needs to be able to find a "paper trail" long after the topic has grown cold.

No AD has the personal memory to recall very many of these decisions, or why they were made that way in the first place. And many AD offices are run either by an AD wife who also travels frequently with her husband as part of their pastoral ministry, or by a short-term Missionary Associate who needs to be brought rapidly up-to-speed on a set of office procedures that must remain standard from one assistant to the next.

OPTION 1: THE FILE CABINET

Filing documents away in a cabinet is usually the easiest way to deal with the paperflow problem. Just slap a few colored labels on folders with each missionary family's name and start chucking the paper in. This method, however, quickly proves *too* simple for anything except the smallest AD office:

- All documents – email, letters, faxes, whatever – **MUST be printed out in hard copy**. The paper glut grows with each passing year, and the archiving of thousands of documents annually becomes more and more burdensome.

- For maximum accessiblity, many documents should be **cross-filed in several folders** – Smith, BGMC, and BURMA Field, etc – but each photocopy only increases paper glut.

- Archiving of documents requires **opening each file folder** to see whether it contains old documents.

- Searching for back documents is **difficult if the event isn't fairly recent** and memorable. Was that request for BGMC funds by Roger Rucker approved or not? Was it for a children's comic book or a reprint of college-level ICI courses?

- Searching a file folder still requires some memory of when the document was created. Get one document accidentally out of order by even a few days and you can **waste hours searching** the en-tire folder and related topics.

- The prospect of having to dig into the paper archives for a single document can be so discouraging that **the job gets put off**, forgotten, or decisions get made on the basis of "Well, I seem to remember this is what we talked about…"

- Filing depends on **time in the office**, a luxury many AD wives do not have.

- Correspondence between missionaries, or between the AD and the missionary, can become stressful, even angry at times. Many MA's are simply **too young and immature** to be given the task of reading such sensitive documents and filing them correctly.

OPTION 2: CUSTOM-WRITTEN SEARCH PROGRAMS

In an effort to control paperflow, the Middle East and North Africa Area Office has been using a custom-written DOS/dBaseIII+ program called "Retriever" for more than five years.

- In Retriever, the secretary gives each document or group of documents a title that is sufficiently descriptive to identify its contents – "Request to use BGMC funds for new swimming pool at youth camp – Maddux Thailand", for example.

- She then tells Retriver the document date: "99-1022" for October 22, 1999.

- Retriver checks its log of documents already entered for that date and returns the date "99-1022.16", meaning this is the 16th document logged for that date.

- Finally, the secretary writes the Retriever date of 99-1022.16 on the top of the document and files it in strict numerical order with all the other 1999 documents.

The advantages to this system are obvious:

- Retriever can search 1000s of document titles in less than 2 seconds and return the names of all entries with the words "swimming pool", for example. A quick look at the seach results tells the secretary exactly where the document is located in the file cabinet. It's in strict numerical order, right after document 99-1022.15 and just before 99-1022.17

- Archiving of old documents is simple. All the 1999 documents are already in one file drawer in exact date order. Just pull all the file folders for 1999. No need to look through each one.

But lightning-fast though it is in pointing to a paper document's location in the actual file drawer, Retriever has serious limitations:

- Paper copies are still necessary, resulting in **massive files and archives** in the AD office. A fire, break-in, flooding, police raid, etc. can wipe out many years' worth of records.

- Filing is very difficult for an AD wife who needs to travel with her husband. Carrying around **heavy stacks of paper** risks their being lost by the airlines or confiscated by police in sensitive countries. Sorting out documents needs a large room, not always available in foreign hotels. And it's very difficult to only do a little filing in a short time (all-or-nothing task).

- Although Retriever numbers documents in strict date order, the actual paper documents **can still get mis-filed**, making them very difficult to find again.

- Files are **not truly accessible until after logging** into Retriever has been done.

- A document can only be searched on the title you've assigned it, **not on the text** of the document itself.

- And the biggest limitation of all: the workload of the AD office only promises to get bigger and bigger, demanding **more and more secretarial time just to keep up** with the flow of documents.

OPTION 3: PROGRAMS FOR COMMERCIAL AND CORPORATE BUSINESS

A quick search of the Internet turns up a variety of programs and companies supposedly designed to help large business firms move to a true paperless office.

Specialized paperflow management companies will come to your offices, evaluate the volume and type of paperwork you are producing, and advise you on how to use their proprietary custom-written program to manage it all. The one thing they seem to have in common is their cost. They are designed for high-volume corporate customers, and they are expensive.

At the other end of the scale are a slew of commercially available programs. Once installed on your computer or office network, these monitor each new document you create. Whether done in Microsoft Word 2000, Eudora email, an Excel spreadsheet or Powerpoint presentation – these programs keep track of where each file is stored, and maintain an index of all the important words in each document. Pagis™, Trend™, OnBase™, DocNest™, The Paperless Office™, Cabinet NB™ and many other programs fall into this category, ranging in price up to $2500 and more.

In spite of the versatility of such programs in being able to read a wide variety of document formats, one serious limitation crops up when you try to exchange documents with your friend halfway around the world. For example:

- If the document is in Word 2000 format and your friend is still using Word 97, the document may not even be readable at the receiving end.

- If the document was created in a Windows program and the recipient uses Macintosh, the document almost certainly will not be readable.

- And if the text formatting is critical to the final look of the document – a layout for publication, for example – the lack of even one font file on the recipient's machine will destroy the alignment of text boxes and graphics, leaving your friend to wonder at your artistic sense.

OPTION 4: ADOBE ACROBAT™

Although the Adobe company is familiar to many computer users for its outstanding image processing program Photoshop™, a less-well-known Adobe product, Acrobat™, has potential that AD offices ought not to overlook.

Adobe Acrobat™ has a number of strong features worthy of an AD's attention:

PRICE	Around $150-200 street price for the entire Acrobat suite of programs (Acrobat™, Reader™, Catalog™, and Distiller™). And for the general missionary family, Acrobat Reader is a free download from the Internet.
READABILITY	Any file created in Acrobat can be read in Windows, Macintosh and many other operating systems. You don't have to worry whether your Word 98 file can be read (it can't!) by missionaries who are still using Word 6. With Acrobat, it's unnecessary to have the very latest version of word processing, spreadsheet, and graphics programs.
EMAILABILITY	Many ISPs will reject files over a certain size. Acrobat files are usually much smaller than the originals from which they were made.
QUALITY	Using Acrobat Distiller™, Acrobat files can include hi-res graphics and text layouts, and print them at near-original quality. (See example included with this write-up.)
ARCHIVING	Using Acrobat PDFWriter™, Acrobat can quickly print an entire email directory, for example, into a single file of 1000s of pages. Any single page or series of pages can then be printed out, exported as individual Acrobat files for emailing, or imported to other Acrobat archive files.
SEARCHING	Using Acrobat Catalog™, an index can be created of all Acrobat files in a single archive directory or several directories at once. Searches for key words are lightning fast, even over 1000s of pages of documents. Boolian searches (...AND..., ...OR..., etc.) are permitted. If documents are not in date order or arranged by subject, they can still be found by searching on ANY word that might be in the document needed. Even words inside graphics can be located by Acrobat.
CONVENIENCE	Acrobat is ideal for the 85% of an AD's paperflow that consists of emails. With Acrobat on the AD notebook computer, an AD wife can deal with emails strictly as electronic documents, and do it on the road – in an airport waiting area, on the plane, in a hotel room, during a boring business meeting – all without the clutter of stacks of paper.
INTERACTIVITY	Acrobat can create interactive forms with user-entry fill-in blanks, making Acrobat ideal for a future DFM move to email-friendly forms. No more illegible faxed copies of the "Deputational Pre-Budget Form".
LONG-TERM STORAGE	Acrobat files can easily be stored and indexed on CD-ROMs, ZIP disks, tape, or a networked server. A year's worth of documents can be contained on a single inexpensive 100MB ZIP disk, eliminating the paper copies, file folders, storage cabinets and retrieval headaches that come with any other system. Decades of paper can be condensed to a handful of CD-ROMs.
SECURITY	Acrobat files can be secured with passwords or passphrases. And putting Acrobat files on CD-ROMs means that duplicate copies can be made easily and stored in several locations: the local AD office, the RD office in Spring-

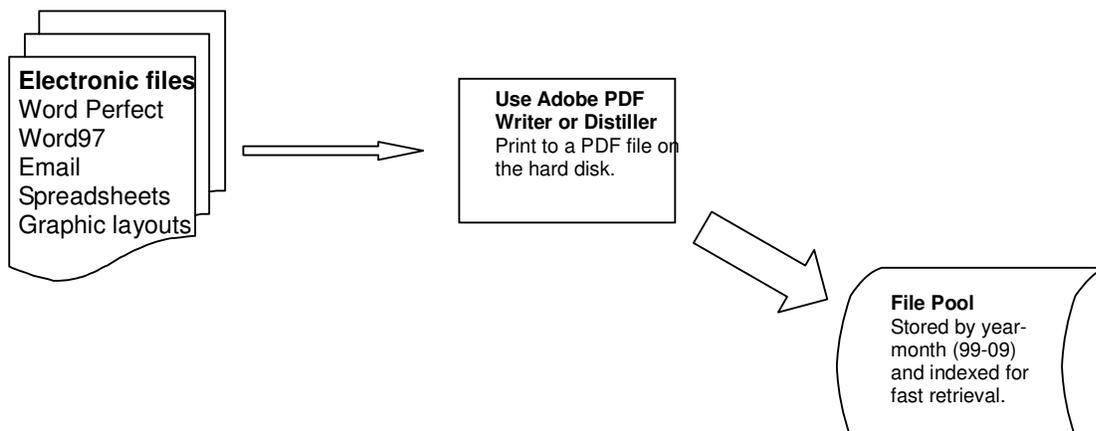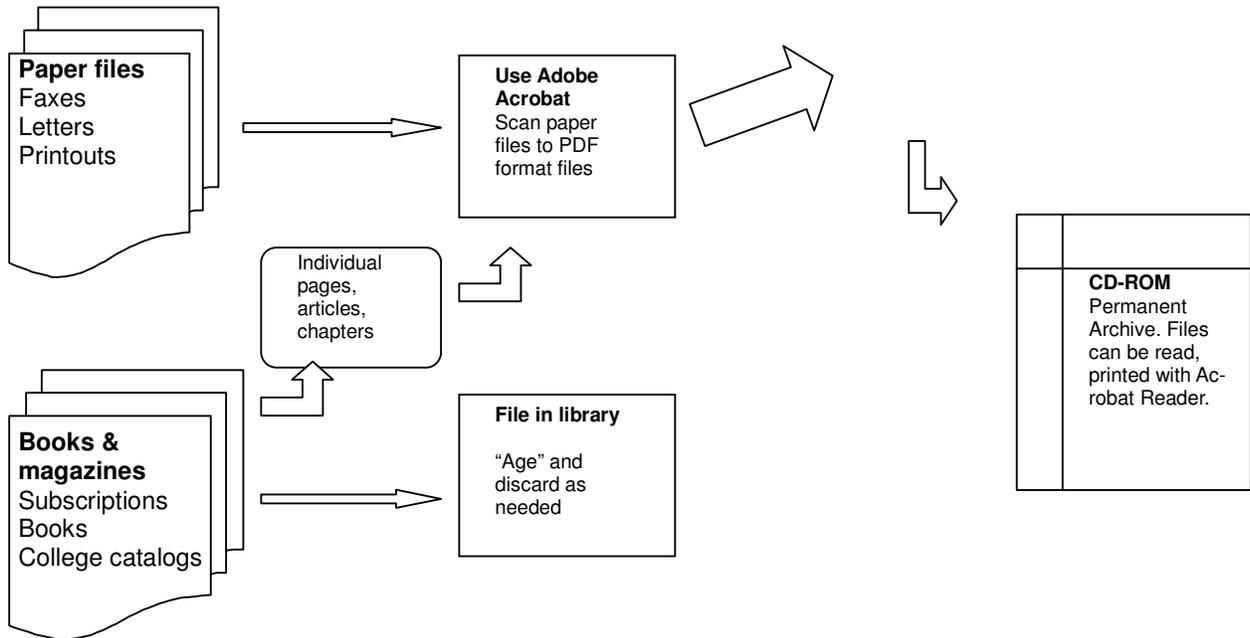|	field, a professional storage firm in the States, even a lock box in a U.S. or foreign bank.
WYSIWYG	With Acrobat, what you see is what you get. The same fonts, the exact same layout, the same detail in B/W or color – everytime, all the time, no matter what printer or computer or operating system you or the person receiving the file is using.
A WORLD-CLASS STANDARD	Adobe Acrobat is becoming a standard in the computer world. Nearly every new software program – including Windows 2000 – includes its documenta-tion files in Acrobat PDF (Portable Document Format) files instead of the tra-ditional printed user manuals. The USAF now requires that all project pro-posals from defense subcontractors be submitted in Acrobat format. Other U.S. government agencies are rapidly following suit, too, because Acrobat standardizes everything – text, photos, graphics, tables, spreadsheets – in a format that can be read by anyone anywhere.

IT STARTS IN THE MIND

To create a near-paperless office, several "givens" have to be accepted.

1. **Adequate and frequent backup of document files and directories.** Without this, the AD is playing with fire. It will only be a matter of time until a hard disk or floppy fails, and crucial data is irretrievably lost.

2. **Commitment to the near-paperless office.** All documents – email, faxes, scanned files, letters, layouts, spreadsheets, everything – need to be fed into the system. The object is to produce as little paper as possible that has to be recorded and filed in a conventional way. NINO – Nothing In, Nothing Out – holds true here.

3. **A central information pool.** There are three options for making sure all documents are preserved and filed for future reference.

   - The person maintaining the system – whether AD wife or personal secretary – must be a recipient (ei-ther CC: or BCC:) on every piece of correspondence received/sent from the AD's personal computer.

   - The office must be networked on a local area network (LAN) to allow joint access to a central file pool on the main server computer.   Very few email programs, however, are truly designed to share files with other users on a LAN. In programs other than Compuserve, email messages are usually stored, not as individual files but as part of a single contiguous text file with a matching index file to locate messages by sender, date and so on. These text files cannot simply be appended to an existing file on a second machine; the necessary index files would be missing or incorrectly matched. Combining of files must be done within the email program itself, and usually involves some juggling of direc-tory/folder names to avoid overwriting each other's files.

   - THE BEST SOLUTION: If they each have computers and each send and receive their own email, both the AD and his wife can have Acrobat loaded and use it to create archive PDF files of their indi-vidual email directories. Those separate archive files can be safely combined into a master archive file later on.

PAPER FLOW IN THE NEAR-PAPERLESS OFFICE

The following diagram shows how paperflow can be effectively handled in the near-paperless office by using Adobe Acrobat Distiller for graphics-intense layouts, Adobe PDFWriter for email directories, Adobe Acrobat to scan hardcopy documents, and Adobe Catalog to index files.

Electronic files
Word Perfect
Word97
Email
Spreadsheets
Graphic layouts

Use Adobe PDF Writer or Distiller
Print to a PDF file on the hard disk.

File Pool
Stored by year-month (99-09) and indexed for fast retrieval.

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┌──────────────┐                ┌──────────────────┐
│ Paper files  │                │ Use Adobe        │
│ Faxes        │  ────────▶     │ Acrobat          │
│ Letters      │                │ Scan paper       │
│ Printouts    │                │ files to PDF     │
│              │                │ format files     │
└──────────────┘                └──────────────────┘
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Paper files
Faxes
Letters
Printouts

Use Adobe Acrobat
Scan paper files to PDF format files

Individual pages, articles, chapters

Books & magazines
Subscriptions
Books
College catalogs

File in library

"Age" and discard as needed

CD-ROM
Permanent Archive. Files can be read, printed with Acrobat Reader.

STARTING WITH EMAIL

Since probably 85% or more of all AD correspondence is sent/received by email, let's start with that part of the paperless AD office.

In the AGMENA office, we have used Eudora as our email program for a very simple reason – it interfaces better than almost any other program with the PGP (Pretty Good Privacy) encryption program. But recently we've begun moving to Microsoft Outlook for its integrated calendar, task list and contact manager capabilities. Whichever email program you use, however, Adobe Acrobat will easily convert that email into a format that can be quickly searched, printed out, or emailed to any other recipient regardless of what email program they may be using.

Let's assume you're going to start using Acrobat on January 1, 2000.

- Create a new directory (sometimes called a "folder") named "2000-01", another named "2000-02", and so on for the twelve months of the year 2000.

- As you go through the year, just use the Windows drag-and-drop capability to move incoming and outgoing emails into the correct directory/folder according to date.

- When you're sure the January 2000 emails are complete, open that folder and index the file list by clicking on the **Sent** at the top of the list. Now hit **Edit** – **Select All** to highlight the entire list of files.

- Now click on the **Start** button, and select **Settings** – **Printers**. Put the cursor over the Acrobat PDFWriter icon, right-click the mouse, and click on "Set as Default". Close the Settings window.

- Back in your email program, select **File** – **Print**. The printer displayed should be the Acrobat PDFWriter. Give the file the same name as the directory: for example, "2000-01", "2000-02". Click the box "Print to File" **ON**.

- When you click on **OK**, PDFWriter will print the entire directory of emails to a single PDF file and drop it into the default directory C:\Your Documents. From there, you can move it to any other archive directory you may prefer.

INDEXING A PDF FILE

PDF files can be searched with either Acrobat or Acrobat Reader. But since the file is not indexed, the search is done one page at a time. When an index has been created with Acrobat Catalog™, however, the search instantly displays only those pages that have the requested key words on them.

- To create an index, launch Acrobat Catalog from the **START** button. Select **Index – New**. Enter a title for the index you are creating (e.g. EMAILS 2000). Select **Add** a directory.

- A window will open allowing you to "browse" to the directory where the PDF file you created is located. Double-click on C: drive. Highlight the directory name \My Documents. Click **OK** to return to the main program where you will see "C:\My Documents" in the "Include Directories" window.

- Click **Build**. Catalog will ask you where you want to store the index file itself. The default is the same directory where the PDF files are located: \My Documents. Type the same name for the index as you did in step 1 above. Select **Save** to start the indexing process.

- Catalog will display a running list of the index process. When the index is finished, Catalog will display the message "Index Build Successful". You can close Catalog at this point.

SEARCHING A PDF ARCHIVE FILE
To search an archive file:

- Start the main Acrobat program. Choose **Edit – Search**. If this is the first time you are searching, you must also select **Add** and double-click on the index name you've created in the \My Documents directory. Click **OK** to confirm your choice of indexes.

- Choose **Edit – Search – Query**. Type in the word or phrase you want to locate. If you wish, you can search for two or more words at once – for example, Maddux AND swimming pool – and Acrobat will find all occurances of those two phrases anywhere within three pages of one another.

USING ACROBAT TO PROCESS PAPER DOCUMENTS
Acrobat will scan and convert paper documents to PDF files that can be imported into a combined email-papermail master PDF file at a later time. The AGMENA office is not into this process yet, but we expect to be by mid-March 2000. The reason behind the delay is simple but important to any AD office preparing to take the same step.

There are two scanning protocols in use today, with important differences between them. The TWAIN protocol comes packaged with nearly every commercially-sold scanner today. It allows the user to make scans one at a time, and expects that the choices for B/W vs. color, slow vs. rapid scanning, and so on will be re-set for each new page. This type of scanner is excellent for the kind of work most often done in offices – photos, text selections, cartoons, etc that will be dropped into larger documents.

When it comes to scanning multi-page documents for archiving, however, the ISIS protocol is the standard. ISIS allows the user to set a single exposure for a multi-page document or batch of documents, and then processes all the pages under one filename without further user control.

Acrobat ships with a wide range of ISIS scanner drivers, including drivers for Hewlett-Packard scanners. What is not immediately obvious to the buyer of a new scanner is whether that scanner will allow multi-page ISIS scans without the addition of an automatic sheet-feeder. As AGMENA learned after making its purchase, HP scanners will not. So we must wait until we can bring a sheet-feeder back from the States before starting to process letters, faxes and other hardcopy documents through the Acrobat system.

CONCLUSION
While there may be AD offices somewhere in the world that are brimming with well-qualified secretarial help, the chat around coffee breaks at SOM is that most offices are run by the AD and either his wife or a single secretary. Most areas seem to have far more than the 38 units we have in the Middle East and North Africa. Surely their paperflow problem is no less daunting than ours!

What I am certain of is this: every piece of paper to be filed represents time my wife could spend in other ministry areas that would more personally bless our missionary families. Every minute spent searching for missing documents is a minute something more valuable isn't getting done. And every decision made on the basis of faulty memory rather than the documents themselves has the potential to sabotage the best of my intentions.

With more than 25 area directors around the world today handling more than 150,000 pieces of paper a year, perhaps it's time for the DFM to look at standardizing the way we deal with the paper that represents decisions that affect the lives of our missionaries and national churches, and often in very personal ways.

The DFM has moved its finances to a corporate-strength database system. It may also be time to move our paper handling to a corporate-strength paperflow manager like Adobe Acrobat, too. But even if that doesn't happen immediately, area directors around the world can prove Adobe Acrobat's value at field level on their own initiative and for only a modest investment of resources.

The returns in time gained to devote to more meaningful people-centered ministry alone should make a trial effort worthwhile.

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Nicosia, Cyprus
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